



24 VDC Pulse Motor

RCP2 & RCP3

with dedicated controllers PCON and PSEL

Catalogue Extract 4th revised Edition B







	Coupled Type	Aluminum Base	22mm width	RCP3-SA2AC	3
	Coupied Type	Adminum Base	28mm width	RCP3-SA2BC	5
			32mm width	RCP3-SA3C	7
RCP3			40mm width	RCP3-SA4C	9
series			50mm width	RCP3-SA5C	11
series			60mm width	RCP3-SA6C	13
	Side-Mounted Motor Typ	pe Aluminum Base	22mm width	RCP3-SA2AR	15
Slider			28mm width	RCP3-SA2BR	17
			32mm width	RCP3-SA3R	19
			40mm width 50mm width	RCP3-SA4R RCP3-SA5R	21
			60mm width	RCP3-SA6R	25
	Coupled Type	Aluminum Base	52mm width	RCP2-SA5C	27
			58mm width	RCP2-SA6C	29
			73mm width	RCP2-SA7C	31
DCDO		Steel Base	60mm width	RCP2-SS7C	33
RCP2		High-Speed Type	80mm width 80mm width	RCP2-SS8C RCP2-HS8C	35 37
series	Side-Mounted Motor Typ		52mm width	RCP2-SA5R	39
	**		58mm width	RCP2-SA6R	41
Slider			73mm width	RCP2-SA7R	43
		Steel Base	60mm width 80mm width	RCP2-SS7R RCP2-SS8R	45
		High-Speed Type	80mm width	RCP2-HS8R	47 49
	Belt Type	9	58mm width	RCP2-BA6/BA6U	
			68mm width	RCP2-BA7/BA7U	
RCP3	Mini Rod Type	Coupling Type	22mm width	RCP3-RA2AC	131
		Olds Man 1 114 : =	28mm width	RCP3-RA2BC	133
Series Rod		Side-Mounted Motor Type	22mm width 28mm width	RCP3-RA2AR RCP3-RA2BR	135
riod			Zomini widdi	. 101 0-HAZDA	
	Standard Type	Coupling Type	25mm width	RCP2-RA2C	139
	,,,,,	17PO	35mm width	RCP2-RA3C	141
			45mm width	RCP2-RA4C	143
			64mm width	RCP2-RA6C	145
			85mm width	RCP2-RA8C	146-1
RCP2		Sido-Mounted Mater Ton	100mm width 85mm width	RCP2-RA10C	147
series		Side-Mounted Motor Type	45mm width	RCP2-RA8R RCP2-SRA4R	148-1
	Single-Guide Type	Coupling Type	45mm width	RCP2-RGS4C	151
Rod	3 ,, .		64mm width	RCP2-RGS6C	153
Hoa		Side-Mounted Motor Type	45mm width	RCP2-SRGS4R	155
	Double-Guide Type	Coupling Type	35mm width	RCP2-RGD3C	157
			45mm width 64mm width	RCP2-RGD4C RCP2-RGD6C	159 161
		Side-Mounted Motor Type	45mm width	RCP2-SRGD4R	163
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	Table Type	Inline Motor	36mm width	RCP3-TA3C	269
			40mm width	RCP3-TA4C	271
			55mm width	RCP3-TA5C	273
			JJIIIII WIUIII		
RCP3					
series			65mm width	RCP3-TA6C	275
		Side Mounted Motor	65mm width 75mm width	RCP3-TA6C RCP3-TA7C	275 277
series		Side-Mounted Motor	65mm width 75mm width 36mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R	275 277 279
		Side-Mounted Motor	65mm width 75mm width 36mm width 40mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R	275 277 279 281
series		Side-Mounted Motor	65mm width 75mm width 36mm width 40mm width 55mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R	275 277 279 281 283
series		Side-Mounted Motor	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R	275 277 279 281 283 285
series		Side-Mounted Motor	65mm width 75mm width 36mm width 40mm width 55mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R	275 277 279 281 283
series			65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA6R	275 277 279 281 283 285 287
series	2-Finger-Gripper	Mini Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA6R RCP3-TA7R	275 277 279 281 283 285
series	2-Finger-Gripper		65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA6R	275 277 279 281 283 285 287
series	2-Finger-Gripper	Mini Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA6R RCP3-TA7R	275 277 279 281 283 285 287
series	2-Finger-Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 47 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRLS RCP2-GRS	275 277 279 281 283 285 287 333 335 337 339
Series Table	2-Finger-Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 416 mm width 416 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRM	275 277 279 281 283 285 287 333 335 337 339 340-1
Table	2-Finger-Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 41 mm width 116 mm width 131 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRLS RCP2-GRS	275 277 279 281 283 285 287 333 335 337 339
Series Table	2-Finger-Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 65mm width 42 mm width 42 mm width 42 mm width 43 mm width 43 mm width 131 mm width 130 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRM	275 277 279 281 283 285 287 333 335 337 339 340-1
Table	2-Finger-Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 41 mm width 116 mm width 131 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRM	275 277 279 281 283 285 287 333 335 337 339 340-1
series Table RCP2 series		Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 75mm width 75mm width 42 mm width 42 mm width 42 mm width 41 mm width 116 mm width 113 mm width 130 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRLS RCP2-GRL RCP2-GRM RCP2-GRM RCP2-GRHM RCP2-GRHM	275 277 279 281 283 285 287 333 335 337 339 340-1 340-3
series Table RCP2 series	2-Finger-Gripper 3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 43 mm width 131 mm width 130 mm width 130 mm width 190 mm width 62 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA7R RCP2-GRS RCP2-GRLS RCP2-GRLS RCP2-GRM RCP2-GRHM RCP2-GRHB	275 277 279 281 283 285 287 333 335 337 339 340-1 340-3
series Table RCP2 series		Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 65mm width 42 mm width 42 mm width 42 mm width 43 mm width 43 mm width 131 mm width 130 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA7R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRHM RCP2-GRHM RCP2-GRHB RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST	275 277 279 281 283 285 287 333 335 337 339 340-1 340-3 341 343 345
series Table RCP2 series		Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 41 mm width 116 mm width 116 mm width 130 mm width 130 mm width 62 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA4R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRHM RCP2-GRHM RCP2-GRHB RCP2-GRHM RCP2-GRHM RCP2-GRHM RCP2-GRHM RCP2-GRHM RCP2-GRHM RCP2-GRHM RCP2-GRHM	275 277 279 281 283 285 287 333 335 337 339 340-1 340-3 341 343 345 347
series Table RCP2 series		Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 65mm width 42 mm width 42 mm width 42 mm width 43 mm width 43 mm width 131 mm width 130 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA7R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRHM RCP2-GRHM RCP2-GRHB RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST	275 277 279 281 283 285 287 333 335 337 339 340-1 340-3 341 343 345
series Table RCP2 series	3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 41 mm width 42 mm width 42 mm width 42 mm width 131 mm width 131 mm width 130 mm width 62 mm width 62 mm width 62 mm width 62 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-GRST RCP2-GRST RCP2-GRSSS RCP2-GR3LS RCP2-GR3LS RCP2-GR3LS	275 277 279 281 283 285 287 333 335 337 339 340-1 340-3 341 343 345 347
series Table RCP2 series		Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-lorce Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type Small Vertical Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 55mm width 75mm width 42 mm width 42 mm width 42 mm width 41 mm width 116 mm width 131 mm width 130 mm width 62 mm width 62 mm width 80 mm width 80 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-GRST RCP2-GRSS RCP2-GRSSM	275 277 279 281 283 285 287 333 335 337 340-1 340-3 341 343 345 347 349
series Table RCP2 Series Gripper	3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Long Stroke Slider Type Long Type Lever Type Slider Type Small Vertical Type Small Flat Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 55mm width 75mm width 75mm width 42 mm width 42 mm width 42 mm width 41 mm width 116 mm width 131 mm width 130 mm width 62 mm width 62 mm width 62 mm width 63 mm width 64 mm width 65 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA5R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRLS RCP2-GRM RCP2-GRHM RCP2-GRHM RCP2-GRHM RCP2-GRST RCP2-GRSLS	275 277 279 281 283 285 287 333 335 337 340-1 340-3 343 345 347 349
RCP2 Series Gripper	3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium Slider-Typ Medium High-force Slider Type Long Stroke Slider Type Long Stroke Slider Type Slider Type Small Vertical Type Medium Vertical Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 65mm width 42 mm width 42 mm width 42 mm width 43 mm width 131 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width 62 mm width 63 mm width 64 mm width 65 mm width 65 mm width 67 mm width 68 mm width 69 mm width 69 mm width 60 mm width 60 mm width 61 mm width 61 mm width 62 mm width 63 mm width	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-RRS/RTGS/RTGS/RTGS/RTGS/RTGS/RTGS/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/RTB	275 277 279 281 283 285 287 333 335 337 340-1 340-3 341 343 345 347 349
series Table RCP2 Series Gripper	3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type Small Vertical Type Medium Vertical Type Medium Flat Type Medium Flat Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 14 mm width 116 mm width 113 mm width 130 mm width 130 mm width 62 mm width 80 mm width 80 mm width 45 mm width 50 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-RTGS/RTGSI	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 357 359
RCP2 Series Gripper	3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Vertical Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 14 mm width 116 mm width 131 mm width 130 mm width 62 mm width 62 mm width 62 mm width 62 mm width 63 mm width 65 mm width 65 mm width 75 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRM RCP2-GRHM RCP2-RTB/RTBS/RCP2-RTB/RTBS/RTBS/RTBS/RCP2-RTG/RTCS/RCP2-RTB/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/R	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 355 357 359 361
RCP2 Series Gripper RCP2 Series	3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Silder Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Vertical Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 14 mm width 116 mm width 113 mm width 130 mm width 130 mm width 62 mm width 80 mm width 80 mm width 45 mm width 50 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-RTGS/RTGSI	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 355 357 359 361
RCP2 Series Gripper RCP2 Series	3-Finger Gripper	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Vertical Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 14 mm width 116 mm width 131 mm width 130 mm width 62 mm width 62 mm width 62 mm width 62 mm width 63 mm width 65 mm width 65 mm width 75 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRM RCP2-GRHM RCP2-RTB/RTBS/RCP2-RTB/RTBS/RTBS/RTBS/RCP2-RTG/RTCS/RCP2-RTB/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/R	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 355 357 359 361
RCP2 Series Gripper RCP2 Series	3-Finger Gripper Rotary	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Vertical Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 14 mm width 116 mm width 131 mm width 130 mm width 62 mm width 62 mm width 62 mm width 62 mm width 63 mm width 65 mm width 65 mm width 75 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRM RCP2-GRHM RCP2-RTB/RTBS/RCP2-RTB/RTBS/RTBS/RTBS/RCP2-RTG/RTCS/RCP2-RTB/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/RTBS/R	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 355 357 359 361
RCP2 Series Gripper RCP2 Series	3-Finger Gripper Rotary	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-lorce Slider Type Long Stroke Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 55mm width 75mm width 75mm width 42 mm width 42 mm width 69 mm width 116 mm width 131 mm width 130 mm width 62 mm width 62 mm width 80 mm width 80 mm width 80 mm width 50 mm width 80 mm width 80 mm width 72 mm width 73 mm width 74 mm width 75 mm width 76 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRM RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-RTS/RTSI RCP2-RTS/RTSI RCP2-RTCS/RTCSI RCP2-RTC / RTCI RCP2-RTC / RTCI RCP2-RTCS / RTCBI	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363
RCP2 Series Gripper RCP2 Series	3-Finger Gripper Rotary	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-lorce Slider Type Long Stroke Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 55mm width 75mm width 75mm width 75mm width 42 mm width 42 mm width 42 mm width 43 mm width 116 mm width 130 mm width 62 mm width 63 mm width 64 mm width 65 mm width 67 mm width 68 mm width 69 mm width 69 mm width 60 mm width 61 mm width	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-GRHM RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GR3LS RCP2-RTS/RTGS RCP2-RTS/RTGS RCP2-RTG/RTGS	275 277 279 281 283 285 287 333 335 337 339 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363
RCP2 Series Gripper RCP2 Series RCP2 Series Rotary	3-Finger Gripper Rotary Slider Coupling Type A	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-lorce Slider Type Long Stroke Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 42 mm width 116 mm width 116 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width 45 mm width 50 mm width 45 mm width 74 mm width 75 mm width 75 mm width 75 mm width 75 mm width 76 mm width 76 mm width 76 mm width 76 mm width	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-RTGS/RTGSI RCP2-RTGS/RTGSI RCP2-RTGS/RTGSI RCP2-RTGS/RTGSI RCP2-RTGS/RTGSI RCP2-RTGS/RTGSI	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 357 359 363 399 401
RCP2 Series Gripper RCP2 RCP2 RCP2 RCP2 ROTATION RCP2 ROTATION RCP2 RCP3 ROTATI	3-Finger Gripper Rotary Slider Coupling Type A	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type Large Flat Type Large Flat Type Luminum Base	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 142 mm width 116 mm width 113 mm width 130 mm width 130 mm width 62 mm width 62 mm width 62 mm width 62 mm width 63 mm width 64 mm width 74 mm width 75 mm width 76 mm width 76 mm width 77 mm width 78 mm width 78 mm width 79 mm width	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRSS RCP2-GRSM RCP2-GRSM RCP2-GRHM RCP2-RTS/RTSI RCP2-RTS/RTSI RCP2-RTS/RTSI RCP2-RTG/RTSI	275 277 279 281 283 285 287 333 340-1 340-3 341 345 347 349 353 355 357 359 361 361 361 361 361 361 361 361
RCP2 Series Gripper RCP2 RCP2 RCP2 RCP2 ROTATION RCP2 ROTATION RCP2 RCP3 ROTATI	3-Finger Gripper Rotary Slider Coupling Type A	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Slider Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type Large Flat Type Large Flat Type Luminum Base	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 42 mm width 131 mm width 131 mm width 130 mm width 62 mm width 62 mm width 62 mm width 80 mm width 50 mm width 45 mm width 45 mm width 45 mm width 72 mm width 85 mm width 58 mm width 76 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRSS RCP2-GRS RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GR3LS	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363 399 401 403 405
RCP2 Series Gripper RCP2 RCP2 Series Rotary RCP2CR Series	3-Finger Gripper Rotary Slider Coupling Type A	Mini Slider Type Mini Lever Type Small Slider Type Medium High-lorce Slider Type Large High-lorce Slider Type Long Stroke Slider Type Long Stroke Slider Type Lever Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Vertical Type Large Flat Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 42 mm width 43 mm width 116 mm width 131 mm width 130 mm width 62 mm width 72 mm width 80 mm width 45 mm width 72 mm width 73 mm width 73 mm width 88 mm width 76 mm width 76 mm width 76 mm width 77 mm width 77 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRSS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GRST RCP2-GR3LS RCP2-RTS/RTSR	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363 399 401 403 405 407
RCP2 Series Gripper RCP2 RCP2 Series Rotary RCP2CR Series	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type M	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type Large Flat Type Large Flat Type	65mm width 75mm width 36mm width 40mm width 55mm width 55mm width 65mm width 75mm width 75mm width 75mm width 42 mm width 69 mm width 69 mm width 116 mm width 131 mm width 130 mm width 62 mm width 80 mm width 80 mm width 80 mm width 72 mm width 74 mm width 75 mm width 75 mm width 76 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRSS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRS RCP2-GRST RCP2-GRSS RCP2-GRS RCP2-GRSS RCP2-GRSS RCP2-GRSS RCP2-GRSS RCP2-GRSS RCP2-GRSS RC	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363 401 405 407 409
RCP2 Series Gripper RCP2 RCP2 Series Rotary RCP2CR Series	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type M	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 116 mm width 116 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width 80 mm width 45 mm width 150 mm width 174 mm width 185 mm width 186 mm width 197 mm width 198 m	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-RTGS/RTGSI RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 357 359 401 403 405 407 409 411
RCP2 Series Gripper RCP2 RCP2 Series Rotary RCP2CR Series	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type M	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 116 mm width 116 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width 80 mm width 45 mm width 150 mm width 174 mm width 185 mm width 186 mm width 197 mm width 198 m	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-RTGS/RTGSI RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC RCP2-RTSSRC	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 357 359 401 403 403 405 407 409 411
RCP2 Series Gripper RCP2 Series Rotary RCP2CR Series Rotary	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type N N Slider Type	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Vertical Type Large Flat Type Large Flat Type Large Flat Type Linginum Base teel Base teel Base ligh-Speed Type Lini Slider Type Lini Lever Type Coupled	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 116 mm width 116 mm width 130 mm width 130 mm width 62 mm width 50 mm width 61 mm width 62 mm width 63 mm width 64 mm width 65 mm width 65 mm width 66 mm width 67 mm width 68 mm width 69 mm width 60 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRSS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-GRM RCP2-GRS RCP2-RTG-/RTG	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 355 355 361 363 399 401 403 405 407 409 409 401 403 405 407 409 401 403 404 405 407 409 401 403 404 405 407 409 401 403 404 405 407 409 401 403 404 405 407 409 409 401 403 404 405 407 409 409 401 403 404 405 407 407 409 409 409 409 409 409 409 409
RCP2 Series Gripper RCP2 Series Rotary RCP2CR Series Cleanroom	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type M N	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Lever Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type Liminum Base teel Base ligh-Speed Type lini Slider Type	65mm width 75mm width 36mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 42 mm width 131 mm width 131 mm width 130 mm width 62 mm width 62 mm width 62 mm width 80 mm width 55 mm width 45 mm width 45 mm width 45 mm width 72 mm width 73 mm width 74 mm width 75 mm width 80 mm width 75 mm width 76 mm width 77 mm width 78 mm width 79 mm width 80 mm width 41 mm width 81 mm width 82 mm width 84 mm width 85 mm width 85 mm width 86 mm width 87 mm width 88 mm width 89 mm width 80 mm width	RCP3-TA6C RCP3-TA7C RCP3-TA7C RCP3-TA3R RCP3-TA4R RCP3-TA6R RCP3-TA6R RCP3-TA6R RCP3-TA7R RCP2-GRSS RCP2-GRLS RCP2-GRS RCP2-GRS RCP2-GRM RCP2-GRST RCP2-GRSS RCP2-GRSS-GRS-GRS-GRS-GRS-GRS-GRS-GRS-GRS-GR	275 277 279 281 283 285 287 333 335 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363 401 403 405 407 409 411 413 443 444
RCP2 Series Gripper RCP2 Series Rotary RCP2CR Series Rotary	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type N N Slider Type	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Type Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Vertical Type Large Flat Type Large Flat Type Long Stroke Slider Type Large Flat Type Large Flat Type Long Stroke Slider Type Long Small Flat Type Large Flat Type Long Stroke Slider Type Long Stroke Slider Type Long Stroke Slider Type Long	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 116 mm width 116 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width 80 mm width 45 mm width 150 mm width 72 mm width 150 mm width 150 mm width 50 mm width 6124 mm width 62 mm width 63 mm width 64 mm width 65 mm width 65 mm width 66 mm width 6124 mm width 6124 mm width 6125 mm width 6136 mm width	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRS RCP2-GRS RCP2-GRM RCP2-GRHB RCP2-GRHB RCP2-GRHB RCP2-GRHB RCP2-GRHB RCP2-GRHBR RCP2-GRHBR RCP2-GRHBR RCP2-GRHBR RCP2-GR3LS RCP2-RTG/RTCS/RTCS/RTCS/RTCS/RTCS/RTCS/RTCS/RTCS	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363 399 401 403 405 407 409 411 413 443 444 444 444
RCP2 Series Gripper RCP2 RCP2 Series Gripper RCP2CR Series Rotary RCP2CR Series Rotary	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type M W Slider Type Rod Type	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Typ Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Small Vertical Type Small Vertical Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Flat Type Large Flat Type luminum Base teel Base teel Base tigh-Speed Type Lini Slider Type Coupled Coupled High-thrust Type	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 42 mm width 116 mm width 113 mm width 130 mm width 62 mm width 62 mm width 80 mm width 80 mm width 45 mm width 150 mm width 150 mm width 50 mm width 6124 mm width 62 mm width 63 mm width 64 mm width 65 mm width 65 mm width 65 mm width 65 mm width 66 mm width 67 mm width 67 mm width 68 mm width 69 mm width 60 mm width	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRS RCP2-GRS RCP2-GRM RCP2-GRHM RCP2-RTGS/RTGSI RCP2-RTGS/RTGS/RTGSI RCP2-RTGS/RTGS/RTG	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 355 357 359 401 403 405 407 409 411 413 444 444 444 444 444 444
RCP2 Series Gripper RCP2 Series Rotary RCP2CR Series Cleanroom	3-Finger Gripper Rotary Slider Coupling Type A Gripper Type N N Slider Type	Mini Slider Type Mini Lever Type Small Slider Type Medium Slider-Type Medium High-force Slider Type Large High-force Slider Type Long Stroke Slider Type Long Stroke Slider Type Small Vertical Type Small Flat Type Medium Vertical Type Medium Flat Type Large Vertical Type Large Vertical Type Large Flat Type Large Flat Type Long Stroke Slider Type Large Flat Type Large Flat Type Long Stroke Slider Type Long Small Flat Type Large Flat Type Long Stroke Slider Type Long Stroke Slider Type Long Stroke Slider Type Long	65mm width 75mm width 36mm width 40mm width 40mm width 55mm width 65mm width 65mm width 75mm width 42 mm width 42 mm width 42 mm width 116 mm width 116 mm width 130 mm width 130 mm width 62 mm width 62 mm width 80 mm width 80 mm width 45 mm width 150 mm width 72 mm width 150 mm width 150 mm width 50 mm width 6124 mm width 62 mm width 63 mm width 64 mm width 65 mm width 65 mm width 66 mm width 6124 mm width 6124 mm width 6125 mm width 6136 mm width	RCP3-TAGC RCP3-TAGC RCP3-TAGC RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP3-TAGR RCP2-GRSS RCP2-GRS RCP2-GRS RCP2-GRM RCP2-GRHB RCP2-GRHB RCP2-GRHB RCP2-GRHB RCP2-GRHB RCP2-GRHBR RCP2-GRHBR RCP2-GRHBR RCP2-GRHBR RCP2-GR3LS RCP2-RTG/RTCS/RTCS/RTCS/RTCS/RTCS/RTCS/RTCS/RTCS	275 277 279 281 283 285 287 333 340-1 340-3 341 343 345 347 349 353 355 357 359 361 363 399 401 403 405 407 409 411 413 443 444 444 444

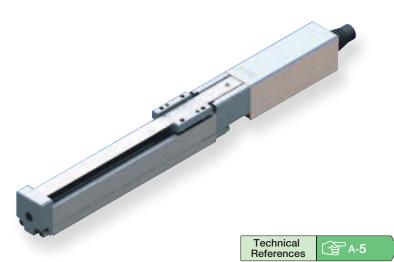
CP3-SA2AC Lead Screw ■ Configuration: RCP3 — SA2AC **20P** Encoder Lead Compatible Controllers Cable Length Option Type Stroke P1: PCON N : None P : 1m I: Incremental 20P: Pulse motor 4S: 4mm lead screw 25: 25mm NM: Reversed-home The Simple absolute encoder is also considered 20 🗌 size 2S: 2mm lead screw RPCON S : 3m M : 5m 1S:1mm lead screw 100: 100mm PSEL

(25mm pitch

increments)

P3: PMEC

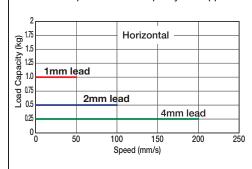
PSEP



type "I".
* See page Pre-35 for explanation of each code that make up the configuration name.

Speed vs. Load Capacity Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X $\square\square$: Custom Length



(1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration.

- (2) The actuator cannot be used on its side or in a vertical orientation.
- (3) If used in a dusty environment, the service life will decrease significantly.
- (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

Actuator opecinications				
Lead and Load Capacity				
Model	Feed	Lead	Max. Load Capacity	Positionin Repeatabil

Model	Feed Screw	Lead (mm)	Max. Load		Repeatability	Stroke (mm)
RCP3-SA2AC-I-20P-4S-①-②-③-④	OCICW	_ ,	0.25	vertical (kg)	(mm)	(11111)
NCP3-3AZAC-1-20P-45-101-121-131-141		4	0.25			25~100
RCP3-SA2AC-I-20P-2S-①-②-③-④	Lead screw	2	0.5	-	±0.05	(25 increments)
RCP3-SA2AC-I-20P-1S-①-②-③-④		1	1	-		increments)
Legend ①Stroke ②Compatible Controller ③Cable Length ④Options						

■ Stroke and Maximum Speed

Lead	Stroke	25 (mm)	50 ~ 100 (mm)
we	4	180	200
d screw	2	10	00
Lead	1	5	0

(Unit: mm/s)

Actuator	Specificat

Item	Description
Drive System	Lead screw (Ø4mm, C10 grade)
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles

* The standard cable for	the RCP3 is the robot cable.
--------------------------	------------------------------

X16 (16m) ~ X20 (20m)

Cable Symbol

X10 (10m)

X15 (15m)

P (1m)

S (3m)

M (5m) **X06** (6m) ~

Special Lengths X11 (11m) ~

Cable List

Type

Standard

(Robot Cables)

Option List			
Name	Option Code	See Page	
Poversed-home	NIM	→ A 22	

^{*} See page A-39 for cables for maintenance.

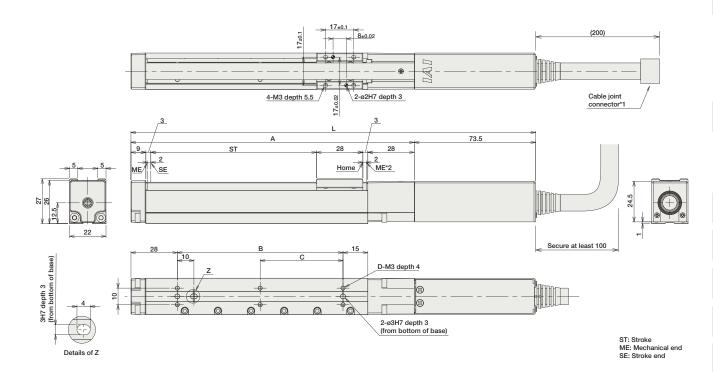
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





- $^{\star}1:$ A motor-encoder cable is connected here. See page A-39 for details on cables.
- *2: During the homing operation, the slider moves to actuator's mechanical end, and then reverses. Therefore, watch for any interference with its surroundings.



■ Dimensions/Weight by Stroke

Dimensions/weight by Stroke						
Stroke	25	50	75	100		
L	169.5	194.5	219.5	244.5		
Α	96	121	146	171		
В	25	50	75	100		
С	0	0	0	50		
D	4	4	4	6		
Weight (kg)	0.25	0.27	0.29	0.3		

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P47
Solenoid valve type		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double	3 points			
Splash-Proof Solenoid Valve Type	B.	PSEP-CW-20PI-NP-2-0	solenoid types. No homing necessary with simple absolute type.			→ P48	
Positioner Type	PCON-C-20PI-I	PCON-C-20PI-NP-2-0	Positioning is possible for up				
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	to 512 points	to 512 points 512 points			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P52
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(=)			
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P50
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			→ P55

Slider Type

Mini
tandard
ttrollers
egrated

Rod
Type

Mini
Standard
ntrollers
tegrated

Table/Arm

P3-SA2BC Lead Screw ■ Configuration: RCP3 — SA2BC **20P** Encoder Lead Compatible Controllers Cable Length Option Type Stroke P1: PCON N : None P : 1m I: Incremental 20P: Pulse motor 6S: 6mm lead screw 25: 25mm NM: Reversed-home The Simple absolute encoder 4S: 4mm lead screw RPCON 20 🗌 size S : 3m M : 5m 2S: 2mm lead screw 150: 150mm PSEL is also considered

(25mm pitch

increments)

P3: PMEC

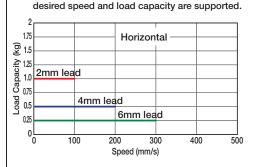
PSEP

Technical [全 A-5 References

type "I".
* See page Pre-35 for explanation of each code that make up the configuration name.

Speed vs. Load Capacity $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your

X 🗆 : Custom Length



(1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration.

- (2) The actuator cannot be used on its side or in a vertical orientation.
- (3) If used in a dusty environment, the service life will decrease significantly.
- (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

■ Stroke and Maximum Speed

Lead and Load Capacity Feed Max. Load Capacity Stroke Lead Model ntal (kg) Vertical (kg) Screw (mm) RCP3-SA2BC-I-20P-6S-1 - 2 - 3 - 4 6 25~150 RCP3-SA2BC-I-20P-4S- 1 - 2 - 3 - 4 0.5 ±0.05 Lead screv 4 _ (25 RCP3-SA2BC-I-20P-2S-1 - 2 - 3 - 4 1 Legend ① Stroke ② Compatible Controller ③ Cable Length ④ Options

Lead	Stroke	25 (mm)	50 (mm)	75~150 (mm)
ew	6	180	280	300
ad screw	4	180	20	00
Lead	2		100	

(Unit: mm/s)

Cable List				
Cable Symbol				
P (1m)				
S (3m)				
M (5m)				
X06 (6m) ~ X10 (10m)				
X11 (11m) ~ X15 (15m)				
X16 (16m) ~ X20 (20m)				
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m)			

* The standard cable for	the RCP3 is the robot cable.
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^{*} See page A-39 for cables for maintenance.

Actuator Specifications

Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	

Actuator Specifications	
Item	Description
Drive System	Lead screw Ø6mm C10 grade
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles

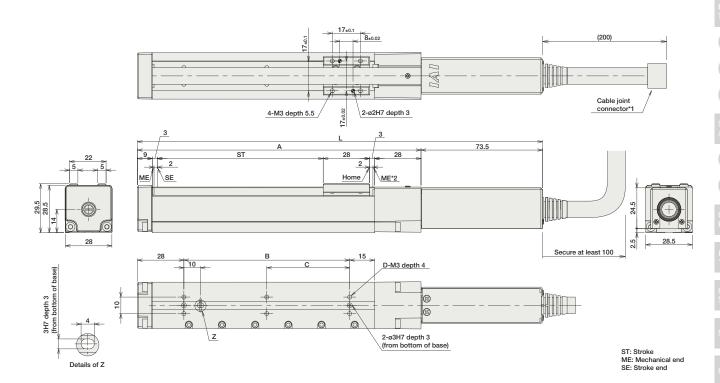
_{bsite.} www.robocylinder.de

For Special Orders





- *1: A motor-encoder cable is connected here. See page A-39 for details on cables.
- *2: During the homing operation, the slider moves to actuator's mechanical end, and then reverses. Therefore, watch for any interference with its surroundings.



■ Dimensions/Weight by Stroke

Differsions/ Weight by Stroke							
Stroke	25	50	75	100	125	150	
L	169.5	194.5	219.5	244.5	269.5	294.5	
Α	96	121	146	171	196	221	
В	25	50	75	100	125	150	
С	0	0	0	50	62.5	75	
D	4	4	4	6	6	6	
Weight (kg)	0.3	0.32	0.35	0.37	0.4	0.42	

Compatible Cont	rollers
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The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page									
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477									
Solelloid valve Type		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double	3 points	s 3 points											
Splash-Proof Solenoid Valve Type	1	PSEP-CW-20PI-NP-2-0	solenoid types. No homing necessary with simple absolute type.												→ P487	
Positioner Type	Í	PCON-C-20PI-NP-2-0	Positioning is possible for up	512 points	512 points	DC24V 2A max.										
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	to 512 points		DC24V											
Pulse Train Input Type Differential Line Driver)	el .	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)			DC24V	DC24V		2A max.	→ P525					
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(=)	(=)											
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points												
Field Network Type		RPCON-20P	Dedicated to field network	768 points			 → P503									
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			→ P557									

PMEC (AMEC PSEP (ASEP ROBO NET ERC2 PCON ACON PSEL ASEL SSEL

Slider Type

Mini
Standard
ntrollers
tegrated

Rod
Type

Mini
Standard
ntrollers
tegrated

RCP3-SA3C RoboCylinder Slider Type 32mm Width Pulse Motor Coupled

■ Configuration: RCP3 — SA3C **28P** Encoder Type 28P: Pulse motor I: Incremental 28 🗌 size

The Simple absolute encoder models are labeled as "I". * See page Pre-35 for explanation of each code that make up the configuration name.

Lead 6:6mm 4:4mm 2:2mm

Stroke 50: 50mm 300: 300mm (50mm pitch

P3: PMEC increments) PSEP

Compatible Controllers P1: PCON **RPCON** PSEL

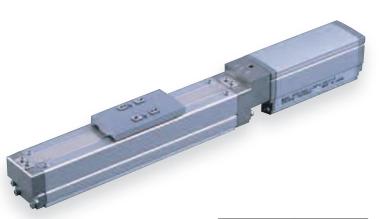
Cable Length

N: None P:1m S:3m M:5m

X 🗆 : Custom Length

Option

See Options below



Technical References

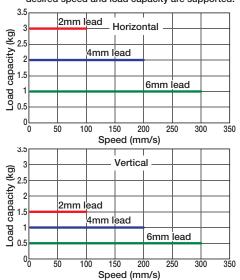




- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for 2mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load		Maximum Push Force (N)	Stroke (mm)
RCP3-SA3C-I-28P-6-①-②-③-④	6	1	0.5	15	
RCP3-SA3C-I-28P-4-①-②-③-④	4	2	1	22	50~300 (50mm increments)
RCP3-SA3C-I-28P-2-①-②-③-④	2	3	1.5	44	increments
Legend ①Stroke ②Compatible controller ③Cable length	4 Option	ıs			

■ Stroke and Maximum Speed

Stroke Lead	$50 \sim 300$ (50mm increments)				
6	300				
4	200				
2	100				

(Unit: mm/s)

Cable List

Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
		Ŭ	
Brake-Equipped	В	\rightarrow A-25	
Cable Exit Direction (Top)	CJT	→ A-25	
	3	, A-20	
Cable Exit Direction (Right)	CJR	\rightarrow A-25	
0 11 5 11 51 11 (1 (1)			
Cable Exit Direction (Left)	CJL	→ A-25	
Cable Exit Direction (Bottom)	CJB	→ A-25	
` '			
No Cover	NCO	→ A-33	
D 11	N18.4		
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description		
Drive System	Ball screw Ø6mm C10 grade		
Positioning Repeatability	±0.02mm		
Lost Motion	0.1mm or less		
Base	Material: Aluminum (special alumite treated)		
Allowable Static Moment	Ma: 5.0N·m Mb: 7.1N·m Mc: 7.9 N·m		
Allowable Dynamic Moment(*)	Ma: 1.96N·m Mb: 2.84N·m Mc: 3.14N·m		
Overhang Load Length	100mm or less		
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)		

(*) Based on 5,000km travel life.

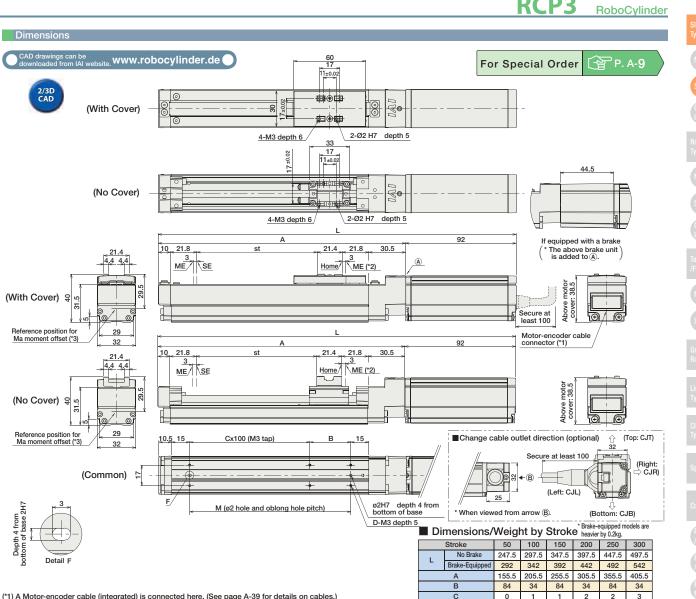
Directions of Allowable Load Moment











(*1) A Motor-encoder cable (integrated) is connected here. (See page A-39 for details on cables.)

(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

ME: Mechanical end

SE: Stroke end

(*3) Reference position for calculating the moment Ma

Comp	oatible	Control	lers
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The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page				
Solenoid Valve Type		PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V		See P481	→ P477			
Soleliold valve Type		PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487				
Splash-Proof Solenoid Valve Type	1	PSEP-CW-28PI-NP-2-0	No homing necessary with simple absolute type.				→ F407				
Positioner Type	É	PCON-C-28PI-NP-2-0	Positioning is possible for up to	512 points	E10 points						
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0	512 points	orz politio	orz pomie						
Pulse Train Input Type (Differential Line Driver)	Ö	PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525				
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support								
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points							
Field Network Type		RPCON-28P	Dedicated to field network	768 points			→ P503				
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			→ P557				

10

334

0.8 0.9

8

4 6 6

84

0.7

0.6 0.7 0.7 0.8

Weight With Cover (kg) No Cover

134

0.7

184 234

8.0 0.9 0.9

Slider Type

Mini
Standard
ntrollers
tegrated

Rod
Type

Mini
Standard
ntrollers
tegrated

3-SA4C RoboCylinder Slider Type 40mm Width Pulse Motor Coupled

 \blacksquare Configuration: RCP3 — SA4C 35P Encoder Lead Compatible Controllers Cable Length Option Type Stroke 10:10mm P1: PCON N : None P : 1m I: Incremental 35P: Pulse motor 50: 50mm See Options below The Simple absolute encoder models are 5 : 5mm RPCON 35 🗌 size S : 3m M : 5m 2.5 : 2.5mm 500: 500mm PSEL labeled as "I" (50mm pitch P3: PMEC X 🗆 🗆 : Custom Length * See page Pre-35 for explanation of each code that make up the configuration name. increments) PSEP



Technical References



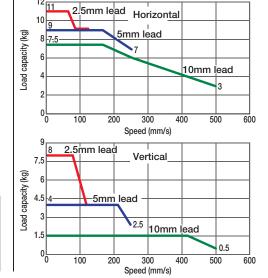
(1) Since the RCP3 series use a pulse motor, a load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for 2.5 mm-lead model, or when used vertically).

The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-50.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported. 12 11



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA4C-I-35P-10-①-②-③-④	10	~ 7.5	∼ 1.5	34	
RCP3-SA4C-I-35P-5-①-②-③-④	5	~ 9	~ 4	68	50~500 (50mm increments)
RCP3-SA4C-I-35P-2.5-①-②-③-④	2.5	~ 11	~ 8	136	inoromenta)

■ Stroke and Maximum Speed

Stroke Lead	$50 \sim 500$ (50mm increments)
10	500
5	250
2.5	125

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

Cable List			
Туре	Cable Symbol		
Standard	P (1m)		
(Robot Cables)	S (3m)		
(Robot Cables)	M (5m)		
	X06 (6m) ~ X10 (10m)		
Special Lengths	X11 (11m) ~ X15 (15m)		
	X16 (16m) ~ X20 (20m)		

* See page A-39 for cables for maintenance.

Option List

O p tion =iot			
Name	Option Code	See Page	
Brake-Equipped	В	→ A-25	
Cable Exit Direction (Top)	CJT	→ A-25	
Cable Exit Direction (Right)	CJR	→ A-25	
Cable Exit Direction (Left)	CJL	→ A-25	
Cable Exit Direction (Bottom)	CJB	→ A-25	
No Cover	NCO	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description			
Drive System	Ball screw Ø8mm C10 grade			
Positioning Repeatability	±0.02mm			
Lost Motion	0.1mm or less			
Base	Material: Aluminum (special alumite treated)			
Allowable Static Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3 N·m			
Allowable Dynamic Moment(*)	Ma: 3.04N·m Mb: 4.31N·m Mc: 5.00N·m			
Overhang Load Length	120mm or less			
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)			

(*) Based on 5,000km travel life.

Directions of Allowable Load Moment



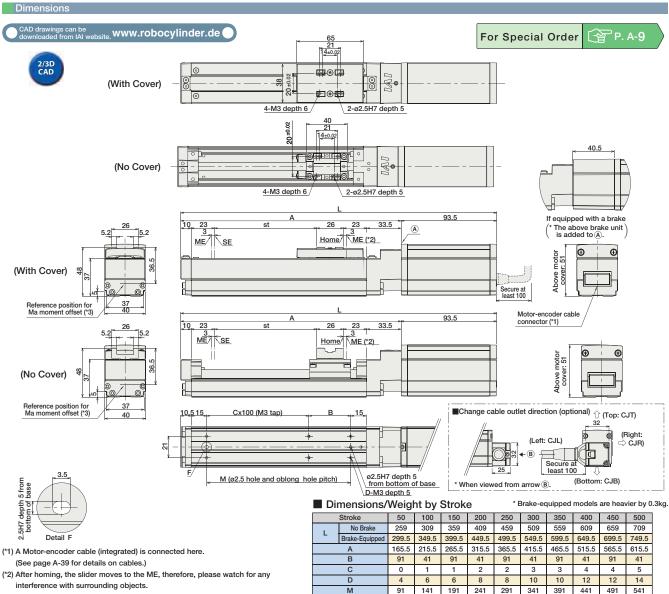


(Unit: mm/s)



1.8

1.5



(*2) After homing, the slider moves to the ME, therefore, please watch for any

ME: Mechanical end

(*3) Reference position for calculating the moment Ma.

Compatible Controllers

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page	
Solenoid Valve Type	drei	PMEC-C-35PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477	
Soletiola valve Type	1	PSEP-C-35PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487	
Splash-Proof Solenoid Valve Type	I	PSEP-CW-35PI-NP-2-0-H	No homing necessary with simple absolute type.				71407		
Positioner Type	É	PCON-C-35PI-NP-2-0-H	Positioning is possible for up to 512 512 points						
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0-H	points		DC24V	DC24V			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0-H	Pulse train input type with differential line driver support	()			2A max.		→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0-H	Pulse train input type with open collector support	(-)	(-)				
Serial Communication Type		PCON-SE-35PI-N-0-0-H	Dedicated to serial communication	64 points					
Field Network Type		RPCON-35P-H	Dedicated to field network	768 points					→ P503
Program Control Type		PSEL-C-1-35PI-NP-2-0-H	Programmed operation is possible. Can operate up to 2 axes	1500 points				→ P557	
							* This is for the single-a	axis PS	

Weight With Cover

(kg) No Cover

0.9

0.9

0.9

1.2 1.3

1.1 1.2

1.1

1.4 1.5 1.6 1.7

1.2

* See page Pre-35 for explanation of each code that make up the configuration name.

Standard
ntrollers
tegrated

Rod
Type

Mini
Standard
ntrollers
tegrated

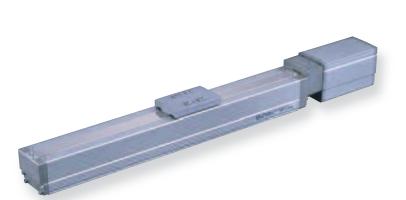
And
Type

Mini
Standard
ntrollers
tegrated

RCP3-SA5C RoboCylinder Slider Type 50mm Width Pulse Motor Coupled

■ Configuration: RCP3 - SA5C**42P** Encoder Motor Lead Compatible Controllers Cable Length Type Stroke P1: PCON N: None P:1m I: Incremental 42P: Pulse motor 20 : 20mm 50: 50mm See Options below The Simple absolute encoder RPCON 42 🗌 size 12:12mm S : 3m M : 5m 800: 800mm PSEL 6:6mm models are labeled 3 : 3mm (50mm pitch P3: PMEC X $\square\square$: Custom Length

increments)



Technical References



Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported. The load capacity is based on operation at an acceleration of 0.3G (0.2G for 3mm-lead

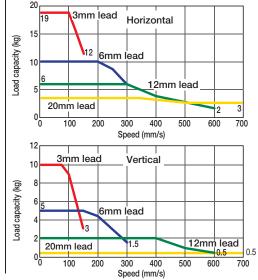
model, or when used vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-50.

Speed vs. Load Capacity

PSEP

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

Option



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Loa Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA5C-I-42P-20-①-②-③-④	20	~4	~0,5	28	
RCP3-SA5C-I-42P-12-①-②-③-④	12	~6	~2	47	50 ~ 800
RCP3-SA5C-I-42P-6- ①-②-③-④	6	~10	~5	95	(50-mm increments)
RCP3-SA5C-I-42P-3- ①-②-③-④	3	~19	~10	189	

Stroke and Maximum Speed

Lead	troke	50 ~ 550 (50 mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
2	0	1000	1000	910	790	690	610
1.	2	600	570	490	425	370	330
6	6	300	285	245	210	185	165
3	3	150	140	120	105	90	80

(Unit: mm/s)

Cable List

Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m)	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

* See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake-Equipped	В	→ A-25	
Cable Exit Direction (Top)	CJT	→ A-25	
Cable Exit Direction (Right)	CJR	→ A-25	
Cable Exit Direction (Left)	CJL	→ A-25	
Cable Exit Direction (Bottom)	CJB	→ A-25	
No Cover	NCO	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description				
Drive System	Ball screw Ø10mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Aluminum (special alumite treated)				
Allowable Static Moment	Ma: 10.2N·m Mb: 14.6N·m Mc: 22.4N·m				
Allowable Dynamic Moment(*)	Ma: 3.92N·m Mb: 5.58N·m Mc: 8.53N·m				
Overhang Load Length	130mm or less				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

(*) Based on 5.000km travel life.

Directions of Allowable Load Moment







8

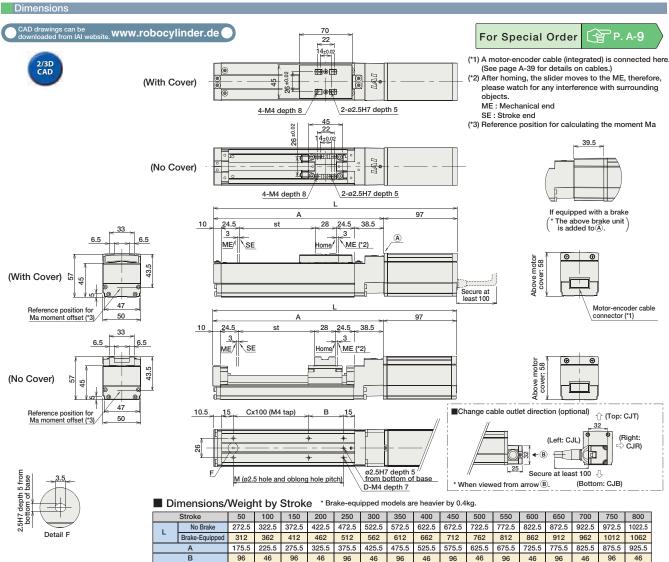
20

796 846

3.3 3.4

2.9 3.0

2.8



Compatible Controllers	
------------------------	--

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Weight With Cover

(kg) No Cover

0

4 96

1.4

1.3

6 6

146 196

1.5 1.6

1.4 1.5

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477		
Soletiold valve type	1	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.		3 points			→ P487	
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.				→ F407		
Positioner Type	Ĺ	PCON-C-42PI-NP-2-0-H	Positioning is possible for up to						
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0-H	512 points	312 points					
Pulse Train Input Type (Differential Line Driver)	ũ	PCON-PL-42PI-NP-2-0-H	Pulse train input type with differential line driver support	(-)			DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support				(-)	(-)	(-)
Serial Communication Type		PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points					
Field Network Type	CERR	RPCON-42P-H	Dedicated to field network	768 points			 → P503		
Program Control Type		PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible. Can operate up to 2 axes	1500 points			→ P557		

2 2 3 3

8 8

246 296

1.8 1.9

1.6 1.7 4

12

12

446 496

2.3 2.5

2.1

10 10

346 396

1.8

5 5

14 14

546 596

2.6

2.3

6 6

16 16 18 18

646 696 746

2.9 3.0 3.2

2.5

Standard
Introllers
tegrated

Rod
Type

Mini
Standard

Rod
Type

Mini
Standard
Introllers
tegrated

CP3-SA6C RoboCylinder Slider Type 60mm Width Pulse Motor Coupled ■ Configuration: RCP3 - SA6C**42P** Encoder Motor Compatible Controllers Cable Length Option Type Lead Stroke P1: PCON N: None P:1m I: Incremental 42P: Pulse motor 50: 50mm See Options below 20:20mm The Simple absolute encoder RPCON 42 🗌 size 12:12mm S : 3m M : 5m 800: 800mm PSEL 6:6mm models are 3:3mm (50mm pitch P3: PMEC X 🗆 🗆 : Custom Length labeled as "I" * See page Pre-35 for explanation of each code that make up the configuration name increments) PSEP



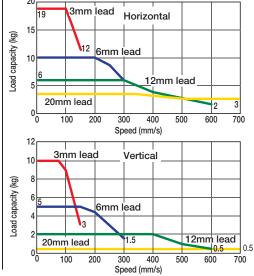
Technical References



- (1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
- (2) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for 3mm lead model and when using vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-50.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Loa Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA6C-I-42P-20-①-②-③-④	20	~4	~0,5	28	
RCP3-SA6C-I-42P-12-①-②-③-④	12	~6	~2	47	50 ~ 800
RCP3-SA6C-I-42P-6- ①-②-③-④	6	~10	~5	95	(50-mm increments)
RCP3-SA6C-I-42P-3- ①-②-③-④	3	~19	~10	189	

Stroke and Maximum Speed

Stroke Lead	50 ~ 550 (50 mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
20	1000	1000	910	790	690	610
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80

(Unit: mm/s)

Cable	List	

Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m)	
	M (5m) X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

Ontion List

Option List								
Name	Option Code	See Page						
Brake-Equipped	В	→ A-25						
Cable Exit Direction (Top)	CJT	→ A-25						
Cable Exit Direction (Right)	CJR	→ A-25						
Cable Exit Direction (Left)	CJL	→ A-25						
Cable Exit Direction (Bottom)	CJB	→ A-25						
No Cover	NCO	→ A-33						
Reversed-home	NM	→ A-33						

Actuator Specifications Description Drive System Ball screw Ø10mm C10 grade Positioning Repeatability ±0.02mm Lost Motion 0.1mm or less Material: Aluminum (special alumite treated) Base Allowable Static Moment Ma: 17.6N·m Mb: 25.2N·m Mc: 44.5N·m Allowable Dynamic Moment(*) Ma: 4.31N·m Mb: 6.17N·m Mc: 10.98N·m Overhang Load Length 150mm or less Ambient Operating Temp./Humidity 0 ~ 40°C, 85% RH or less (non-condensing)

(*) Based on 5,000km travel life.

Directions of Allowable Load Moment







^{*} See page A-39 for cables for maintenance.



PMEC (AMEC PSEP (ASEP PCON ACON PSEL ASEL XSEL XSEL

Dimensions																	
CAD drawings can be downloaded from IAI website. WWW.ro	bocylinder.de			×	75 25 15±0.0	+ 2					Fo	r Spe	ecial	Orde	er 🕃	⋛ P.	A-9
2/3D CAD (W	/ith Cover)		¥	31±0.02			181				(*2) A p o	See pag fter hom lease wa bjects.	e A-39 the atch for	for detai slider r any inte	ls on ca	bles.) the ME	nnected here t, therefore, irrounding
		4	I-M5 de	oth 10 /	< 50 25	\ 2-ø3l	17 depti	1 <u>5</u>			S	IE : Mec E : Strok	ce end				
					15±0.0	2		,			(*3) R	eference	e positio	on for ca	alculatin _ 39.5	g the mo	ment Ma
(No Cover)	- —		33.00		• • • • • • • • • • • • • • • • • • •	180				-						
	l==		4-M5 de	epth 10	/ 	2-ø3	H7 dept	h 5						A-T		<u> </u>	
	10 2	5	st	Α	32	_25	38.5	<	97	->			(If equippoint of the control of the	oed with bove bra added t	ke unit)
8.5	7 85	315			Home	3		<u>(A)</u>					,	(is	added t	о(д).	/
(With Cover)	0.74 MI	\ <u>SE</u>			Home	/ (ME (2)				Secure at	<u>ل</u> ا	Above motor cover: 60.5		•		
Reference position for 57 Ma moment offset (*3) 60	_			Α		L			97	->	ieast 100	-> l			Mo	tor-enco	der cable 1)
8.5	3 10 2 8.5 3		st		32	25	38.5									,	<u>, </u>
(No Cover)	0.774				Home	7 6	2)						Above motor cover: 60.5	©	8		
Reference position for Ma moment offset (*3) 60	10.5	Cx	100 (M5	tap) >	<u> В</u>	<u>15</u>			,	, □CI	nange c	able out	let direc	tion (op	tional) 4		o: CJT)
< 00	ommon) &	- +		- -		+	<u> </u>				E	25	8 ← ®	(Left: CJ			ight: CJR)
E 9 4	<u>F</u> /	M (ø3	nole and	oblong	hole pit			epth 5 for of base	rom	 * W	// hen view	ed from	Sec	ure at le		n: CJB)	i
SH7 depth 5 from bottom of base bottom of base by the base	■ Dimensions/	Weial	nt by	Strok	e * Bra		D-M5 d		e heavie	r by 0.4	сg.						
tg mg tg	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
He Detail F	L No Brake Brake-Equipped	277.5 317	327.5 367	377.5 417	427.5 467	477.5 517	527.5 567	577.5 617	627.5 667	677.5 717	727.5 767	777.5 817	827.5 867	877.5 917	927.5 967	977.5 1017	1027.5
	Α	180.5	230.5	280.5	330.5	380.5	430.5	480.5	530.5	580.5	630.5	680.5	730.5	780.5	830.5	880.5	930.5
	B C	101	51 1	101	51 2	101	51 3	101	51 4	101	51 5	101 5	51 6	101	51 7	101 7	51 8
	D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
	M Weight With Cover	101	151	201	251	301	351	401	451	501	551	601	651	701	751 3.9	801	851

Compatible	Controllers
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 $\label{thm:controllers} The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.$

(kg) No Cover 1.5 1.7 1.8

1.6 1.8 2

Weight With Cover

Name)	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page					
Solenoid Valv	vo Tvrno		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477					
Solelloid Valv	ve type	1	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487					
Splash-Pr Solenoid Valv		1	PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.				→ P407					
Positioner	Positioner Type	É	PCON-C-42PI-NP-2-0-H	Positioning is possible for up to 512	512 points	512 points							
Safety-Com Positioner			PCON-CG-42PI-NP-2-0-H	points									
Pulse Train Inp (Differential Lin		ē	PCON-PL-42PI-NP-2-0-H	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525					
Pulse Train Inp (Open Colle			PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support	(=)	(-)	(-)						
Serial Communication			PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points								
Field Networ	rk Type	2000	RPCON-42P-H	Dedicated to field network	768 points			→ P503					
Program Co Type			PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible. Can operate up to 2 axes	1500 points			 → P557					

2.1 2.3 2.5 2.7 2.8

2.1 2.3 2.4 2.6 2.7 2.8

3

3.2 3.3 3.7 3.9

3.1

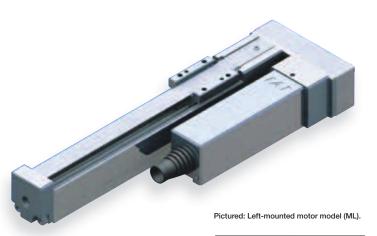
4.0

* See page Pre-35 for explanation of each code that make up the configuration name.

RCP3-SA2AR RoboCylinder Mini Slider Type Side-Mounted Motor Unit 22mm Width Pulse Motor Lead Screw

 \blacksquare Configuration: RCP3 - SA2AR -**20P** Туре Encoder Motor Lead Compatible Controllers Cable Length Option Stroke I: Incremental 20P: Pulse motor 4S: 4mm lead screw P1: PCON N : None P : 1m See Options below 25: 25mm * The Simple absolute encoder * Be sure to specify which side the motor 20 size 2S: 2mm lead screw RPCON S : 3m M : 5m 1S:1mm lead screw 100: 100mm PSEL models are labeled as "I". is to be mounted (25mm pitch P3: PMEC

increments)



Technical References



(1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration.

- (2) The actuator cannot be used on its side or in a vertical orientation.
- (3) If used in a dusty environment, the service life will decrease significantly.
- (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

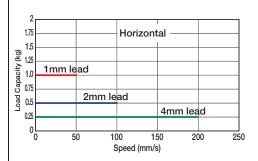
Speed vs. Load Capacity

PSEP

 $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X $\square\square$: Custom Length

(ML/MR).



Actuator Specifications

■ Lead and Load Capacity

Model	Feed	Lead	Max. Load	. ,	Positioning Repeatability	Stroke	
Wiodel	Screw	(mm)	Horizontal (kg)	Vertical (kg)	(mm)	(mm)	
RCP3-SA2AR-I-20P-4S-①-②-③-④		4	0.25	-		25~100	
RCP3-SA2AR-I-20P-2S-①-②-③-④	Lead screw	2	0.5	-	±0.05	(25mm increments)	
RCP3-SA2AR-I-20P-1S-①-②-③-④		1	1	-		increments)	
Legend ① Stroke ② Compatible controller ③ Cable length ④ Options							

■ Stroke and Maximum Speed

Lead	Stroke	25 (mm)	50 ~ 100 (mm)
ew	4	180	200
ad screw	2	10	00
Lead	1	5	0

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m)	
,	M (5m) X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

- * The standard cable for the RCP3 is the robot cable.
- * See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Left-mounted motor (Standard)	ML	→ A-33	
Right-mounted motor	MR	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description
Drive System	Lead screw Ø4mm C10 grade
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles

Dimensions

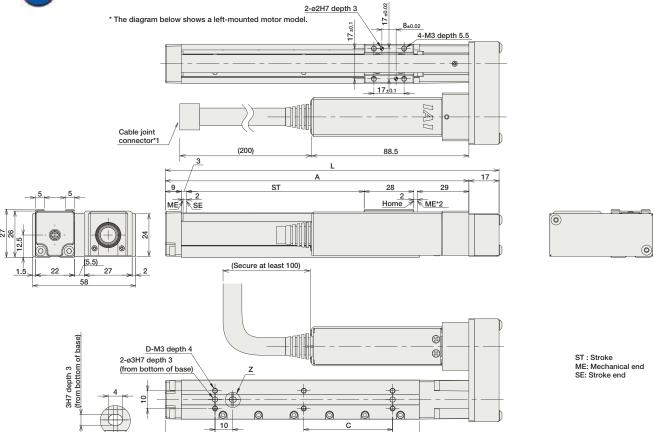
_{ebsite.} www.robocylinder.de

For Special Orders



2/3D CAD

- *1 A motor-encoder cable is connected here. See page A-39 for details on cables.
 *2 During the homing operation, the slider moves to actuator's mechanical end; therefore, please watch for any interference with the surrounding objects.



■ Dimensions/Weight by Stroke						
Stroke	25	50	75	100		
L	113	138	163	188		
Α	96	121	146	171		
В	25	50	75	100		
С	0	0	0	50		
D	4	4	4	6		
Weight (kg)	0.28	0.3	0.32	0.33		

Com	patible	Control	lers
-----	---------	---------	------

Details of Z

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type	110	PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Solelloid valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ D497	
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.					→ P487
Positioner Type	Í	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512	512 points				
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	points	312 points				
Pulse Train Input Type (Differential Line Driver)	1	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)				
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P503	
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points			→ P557	

* This is for the single-axis PSEL.

Controllers

PMEC
AMEC

PSEP
ASEP
ROBO
NET

ERC2

PCON

ACON

SCON

PSEL

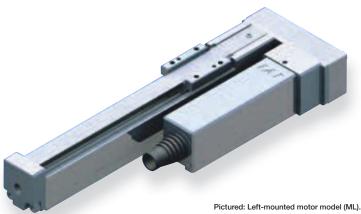
ASEL

SSEL

RCP3-SA2BR RoboCylinder Mini Slider Type Side-Mounted Motor Unit 28mm Width Pulse Motor Lead Screw

 \blacksquare Configuration: RCP3 - SA2BR -**20P** Encoder Motor Lead Compatible Controllers Cable Length Option Type Stroke N: None P:1m S:3m M:5m I: Incremental 20P: Pulse motor 6S: 4mm lead screw P1: PCON See Options below 25: 25mm * The Simple absolute encoder * Be sure to specify which side the motor 20 size 4S: 4mm lead screw RPCON 2S: 2mm lead screw 150: 150mm PSEL models are labeled as "I". is to be mounted (25mm pitch P3: PMEC X $\square\square$: Custom Length (ML/MR). * See page Pre-35 for explanation of each code that make up the configuration name

increments)



Technical

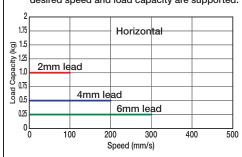
译 A-5 References

- (1) The load capacity is based on operation at an acceleration of 0.2G. This the upper limit for the acceleration.
- (2) The actuator cannot be used on its side or in a vertical orientation.
- (3) If used in a dusty environment, the service life will decrease significantly.
- (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page Pre-42.)

Speed vs. Load Capacity

PSEP

 $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Feed Screw	Lead (mm)		Capacity Vertical (kg)	Positioning Repeatability (mm)	Stroke (mm)
RCP3-SA2BR-I-20P-6S-①-②-③-④		6	0.25	-		05 450
RCP3-SA2BR-I-20P-4S-1 - 2 - 3 - 4		4	0.5	-	±0.05	25~150 (25mm
RCP3-SA2BR-I-20P-2S-①-②-③-④		2	1	-		increments)
egend ①Stroke ②Compatible controller ③Cable leng	ıth 4 Op	otions				

■ Stroke and Maximum Speed

Lead	Stroke	25 (mm)	50 (mm)	75~150 (mm)
ew	6	180	280	300
ad screw	4	180	20	00
Lead	2		100	

(Unit: mm/s)

Cable List

Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

- * The standard cable for the RCP3 is the robot cable.
- * See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description
Drive System	Lead screw ø6mm C10 grade
Lost Motion	0.3mm or less (initial value)
Base	Material: Aluminum (white alumite treated)
Guide	Slide guide
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	10 million cycles



Mini

Standard

Rod

Mini

Standard

Controllers Integrated

/Flat Type

Standard

Gripper/ Rotary Type

Linear Motor Type

PMEC

PSEP /ASEP

REI ERC2

PCON

PSEL

ASEL

YOF.

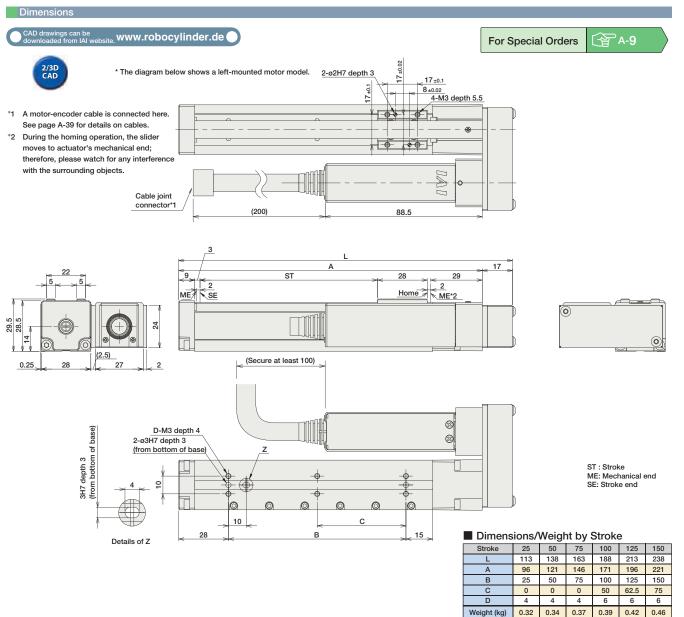
ulse Motor

Servo Moto

Servo Moto

Linear Mot

RCP3-SA2BR 18



Compatible Controllers

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page	
Solenoid Valve Type	100	PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477	
Solenoid valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487	
Splash-Proof Solenoid Valve Type	I	PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.						→ P487
Positioner Type		PCON-C-20PI-NP-2-0	Positioning is possible for up to 512	512 points					
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	points		orz pomio				
Pulse Train Input Type (Differential Line Driver)	e e	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.		→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)				
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-20P	Dedicated to field network	768 points				→ P503	
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible. Can operate up to 2 axes	1500 points				→ P557	
							* This is for the single-	axis PSEL	

Slider Type

Mini
Standard

ntrollers
tegrated

Mini
Standard

Antrollers
tegrated

Mini
Standard

ntrollers

CP3-SA3R RoboCylinder Slider Type 32mm Width Pulse Motor Side-Mounted Motor \blacksquare Configuration: RCP3 — SA3R **28P** П Encoder Motor Lead Compatible Controllers Cable Length Option Type Stroke P1: PCON N : None P : 1m See Options below I: Incremental 28P: Pulse motor 6:4mm 50: 50mm The Simple absolute encoder * Be sure to specify which side the motor 28 🗌 size 4:4mm RPCON S : 3m M : 5m 2 : 2mm 300: 300mm PSEL models are labeled as "I". is to be mounted (50mm pitch P3: PMEC X $\square\square$: Custom Length (ML/MR). * See page Pre-35 for explanation of each code that make up the configuration name. increments) PSEP



Technical References



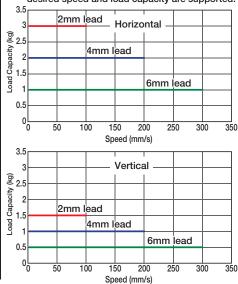


- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- 2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2mm-lead model, or when used vertically).

These values are the upper limits for the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load Capacity Horizontal (kg) Vertical (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA3R-I-28P-6-①-②-③-④	6	1	0.5	15	50000
RCP3-SA3R-I-28P-4-①-②-③-④	4	2	1	22	50~300 (50mm
RCP3-SA3R-I-28P-2-①-②-③-④	2	3	1.5	44	increments)

■ Stroke and Maximum Speed

Stroke Lead	$50\sim300$ (50mm increments)
6	300
4	200
2	100

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m)	
,	M (5m) X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Name	Option Code	See Page	
Brake-Equipped	В	\rightarrow A-25	
Cable Exit Direction (Top)	CJT	→ A-25	
Cable Exit Direction (Outside)	CJO	\rightarrow A-25	
Cable Exit Direction (Bottom)	CJB	→ A-25	
Left-Mounted Motor (Standard)	ML	\rightarrow A-33	
Right-Mounted Motor	MR	→ A-33	
No Cover	NCO	→ A-33	
Reversed-home	NM	\rightarrow A-33	

Actuator Specifications

Item	Description
Item	Description
Drive System	Ball screw Ø6mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Load Moment	Ma: 5.0N·m Mb: 7.1N·m Mc: 7.9N·m
Allowable Dynamic Load Moment	Ma: 1.96N·m Mb: 2.84N·m Mc: 3.14N·m
Overhang Load Length	100mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

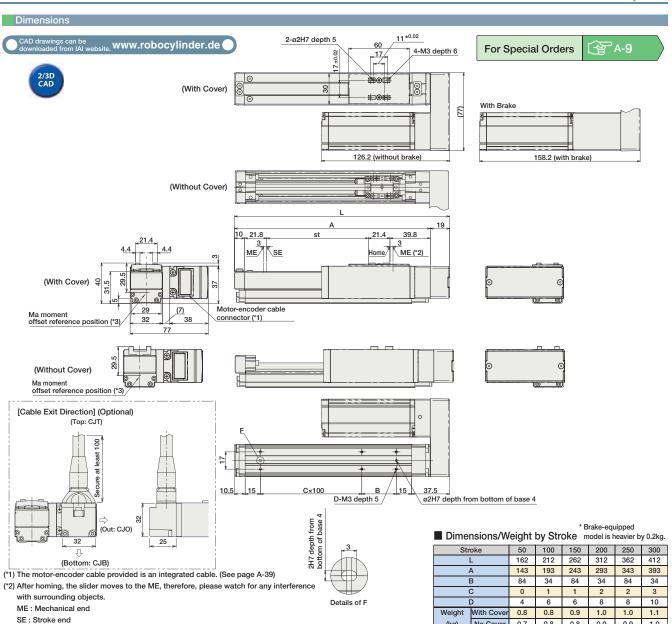
Directions of Allowable Load Moment







5,000 km service life



Compatible Controllers

(*3) Reference position for calculating the moment Ma

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page		
Solenoid Valve Type		PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477		
Solehold valve Type	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487		
Splash-Proof Solenoid Valve Type	B	PSEP-CW-28PI-NP-2-0	No homing necessary with simple absolute type.	with simple		No homing necessary with simple				7 1 407
Positioner Type	Pcon-PL-28PI-NP-2-0 Positioning is possible for up to 512 points PCON-CG-28PI-NP-2-0 Pluse train input type with differential line driver support DC24V	PCON-C-28PI-NP-2-0		512 points						
Safety-Compliant Positioner Type										
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-NP-2-0		()	DC24V	2A max.		→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support			train input type with open				
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points						
Field Network Type		RPCON-28P	Dedicated to field network	768 points				→ P503		
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P557		
* This is for the single-axis PSEL.										

No Cover 0.7 0.8 0.8

0.9 0.9

1.0

(kg)

Slider Type

Mini
Standard

ntrollers
tegrated

Rod
Type

Mini
Standard

ntrollers
tegrated

Table/Arm
/Flat Type

P3-SA4R RoboCylinder Slider Type 40mm Width Pulse Motor Side-Mounted Motor

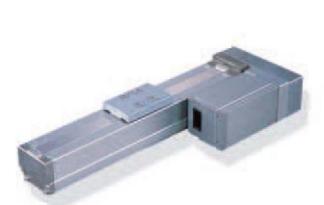
 \blacksquare Configuration: RCP3 - SA4R 35P П Encoder Motor Lead Stroke Compatible Controllers Cable Length Option Type 10:10mm P1: PCON N : None P : 1m See Options below I: Incremental 35P: Pulse motor 50: 50mm The Simple absolute encoder * Be sure to specify which side the motor 5 : 5mm RPCON 35 ☐ size S : 3m M : 5m 2.5 : 2.5mm 500: 500mm PSEL

(50mm pitch

increments)

P3: PMEC

PSEP

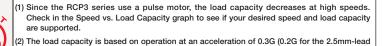


models are labeled as "I".

* See page Pre-35 for explanation of each code that make up the configuration name.

Technical References





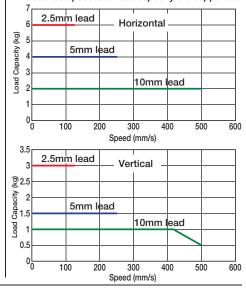
Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X $\square\square$: Custom Length

is to be mounted

(ML/MR).



Actuator Specifications

■ Lead and Load Capacity

Model		Max. Load	I Capacity	Maximum	Stroke
		Horizontal (kg)	Vertical (kg)	Push Force (N)	(mm)
RCP3-SA4R-I-35P-10-①-②-③-④	10	2	~ 1	34	F0. F00
RCP3-SA4R-I-35P-5-①-②-③-④	5	4	1.5	68	50~500 (50mm increments)
RCP3-SA4R-I-35P-2.5-①-②-③-④	2.5	6	3	136	increments)
Legend ① Stroke ② Compatible controller ③ Cable length	4 Option	ıs			

■ Stroke and Maximum Speed

Stroke	$50\sim 500$ (50mm increments)
10	500
5	250
2.5	125

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m)	
,	M (5m) X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

model, or when used vertically).

These values are the upper limits for the acceleration.

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

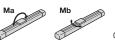
Option List

o paron Erot			
Name	Option Code	See Page	
Brake-Equipped	В	→ A-25	
Cable Exit Direction (Top)	CJT	→ A-25	
Cable Exit Direction (Outside)	CJO	→ A-25	
Cable Exit Direction (Bottom)	CJB	→ A-25	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
No Cover	NCO	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description			
Drive System	Ball screw Ø8mm C10 grade			
Positioning Repeatability	±0.02mm			
Lost Motion	0.1mm or less			
Base	Material: Aluminum (special alumite treated)			
Allowable Static Load Moment	Ma: 6.8N·m Mb: 9.7N·m Mc: 13.3N·m			
Allowable Dynamic Load Moment	Ma: 3.04N·m Mb: 4.31N·m Mc: 5.00N·m			
Overhang Load Length	120mm or less			
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)			

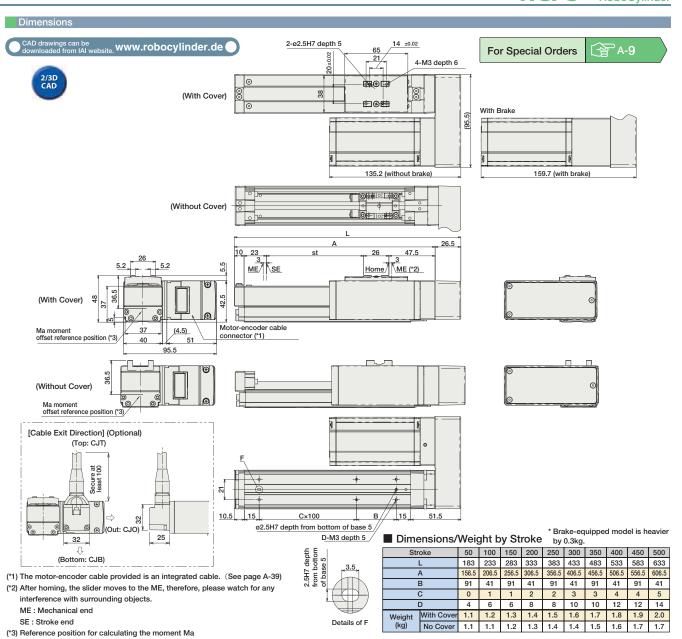
Directions of Allowable Load Moment







5,000 km service life



Com	patible	Control	lers

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page		
Solenoid Valve Type		PMEC-C-35PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477		
	PSEP-C-35PI-NP-2-0 Operable with same signal as solenoid valve.						3 points	3 points		→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-35PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.			→ P467				
Positioner Type	Í	PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points						
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0	r contorning to possible for up to 512 points	012 politis						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0	Pulse train input type with differential line driver support	DC24V		2A max.	2A max.	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support	(-)						
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points						
Field Network Type		RPCON-35P	Dedicated to field network	768 points				→ P503		
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes 1500 points					→ P557		
							* This is for the single	e-axis PSEL		

RCP3-SA4R **22** IAI

PMEC (AMEC PSEP / ASEP | ROBO NET | ERC2 PCON ACON PSEL ASEL SSEL

Slider Type

Mini
Standard
Introllers tegrated

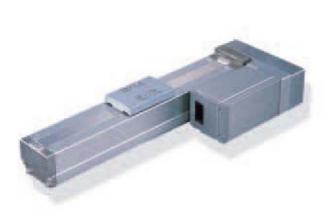
Rod
Type

Mini
Standard
Introllers tegrated

Mini
Table/Arm
/Flat Type

RCP3-SA5R RoboCylinder Slider Type 50mm Width Pulse Motor Side-Mounted Motor \blacksquare Configuration: RCP3 - SA5R **42P** Encoder Motor Lead Compatible Controllers Cable Length Option Type Stroke I: Incremental N : None P : 1m See Options below 42P: Pulse motor 12:12mm 50: 50mm P1: PCON The Simple absolute encoder * Be sure to specify which side the motor 6: 6mm RPCON 42 🗌 size S : 3m M : 5m 3: 3mm 800: 800mm PSEL models are is to be mounted (50mm pitch P3: PMEC

increments)



labeled as "I".

* See page Pre-35 for explanation of each code that make up the configuration name.

Technical References



(1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically).

These values are the upper limits for the acceleration.

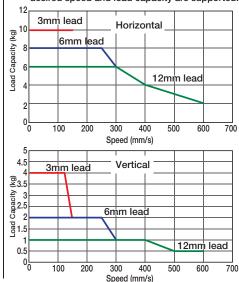
Speed vs. Load Capacity

PSEP

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X $\square\square$: Custom Length

(ML/MR).



Actuator Specifications

■ Lead and Load Capacity

· · ·					
Model	Lead (mm)	Max. Load Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA5R-I-42P-12-①-②-③-④	12	~ 6	~ 1	47	F0 000
RCP3-SA5R-I-42P-6-①-②-③-④	6	~ 8	\sim 2	95	50~800 (50mm increments)
RCP3-SA5R-I-42P-3-①-②-③-④	3	10	~ 4	189	increments)

■ Stroke and Maximum Speed

ı	_Stroke _ead	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
	12	600	570	490	425	370	330
Ī	6	300	285	245	210	185	165
	3	150	140	120	105	90	80

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard	P (1m)	
	S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Ontion List

Option List			
Name	Option Code	See Page	
Brake-Equipped	В	→ A-25	
Cable Exit Direction (Top)	CJT	→ A-25	
Cable Exit Direction (Outside)	CJO	→ A-25	
Cable Exit Direction (Bottom)	CJB	→ A-25	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
No Cover	NCO	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description				
Drive System	Ball screw Ø10mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Aluminum (special alumite treated)				
Allowable Static Load Moment	Ma: 10.2N·m Mb: 14.6N·m Mc: 8.53N·m				
Allowable Dynamic Load Moment	Ma: 3.92N·m Mb: 5.58N·m Mc: 8.53N·m				
Overhang Load Length	130mm or less				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

Directions of Allowable Load Moment







5,000 km service life

163 213 263 313 363 413 463 513 563 613 683 713 783 813 883 913

4 6 6 8 8 10 10 12 12 14 14 16 16 18 18 20

3 3 4 4 5

96 46 96 46 96 46 96 46 96 46 96 46

Weight (kg) With Cover 1.7 1.8 1.9 2.1 2.2 2.3 2.5 2.6 2.8 2.9 3.0 3.2 3.3 3.4 3.6 3.7 No Cover 1.6 1.7 1.8 1.9 2.0 2.1 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.1 3.2 3.3

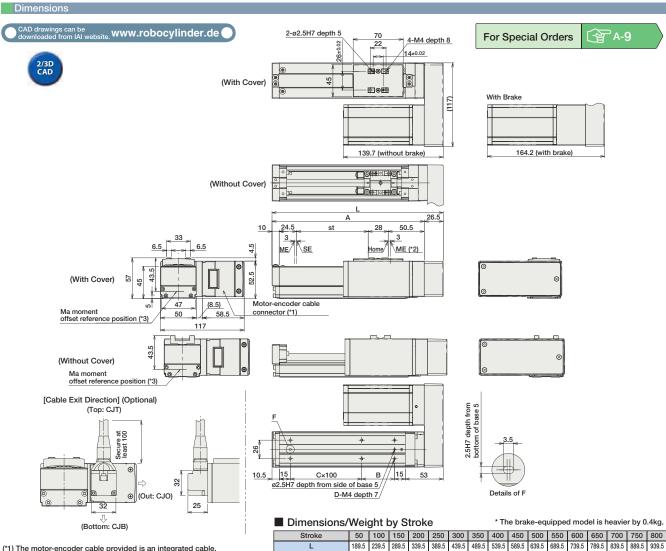


PMEC (AMEC PSEP / ASEP ROBO NET ERC2 PCON ACON SCON PSEL SSEL SSEL

96 46 96 46

6 7

5 6



(*1) The motor-encoder cable provided is an integrated cable. (See page A-39.)

(*2) After homing, the slider moves to the ME; therefore, please watch for any interference with surrounding objects.

SE : Stroke end

(*3) Reference position for calculating the moment Ma

Compatible Controllers

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477
Soleliold valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.					→ F407
Positioner Type	Î	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points				
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	residening is possible for up to 612 points	312 points				
Pulse Train Input Type (Differential Line Driver)	PCON-PL-42F	PCON-PL-42PI-NP-2-0	driver support	DC24V	2A max.		→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)				
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-42P	Dedicated to field network	768 points				→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P557
							* This is for the single-a	axis PSEL

0

1 1

2 2

Slider Type

Mini
Standard

ntrollers
tegrated

Rod
Type

Mini
Standard

ntrollers
tegrated

Table/Arm
/Flat Type

RCP3-SA6R RoboCylinder Slider Type 60mm Width Pulse Motor Side-Mounted Motor \blacksquare Configuration: RCP3 — SA6R **42P** Encoder Motor Lead Compatible Controllers Cable Length Option Type Stroke N : None P : 1m See Options below I: Incremental 42P: Pulse motor 12:12mm 50: 50mm P1: PCON The Simple absolute encoder * Be sure to specify which side the motor 6: 6mm RPCON 42 🗌 size S : 3m M : 5m 3: 3mm 800: 800mm PSEL models are is to be mounted (50mm pitch P3: PMEC labeled as "I". * See page Pre-35 for explanation of each code that make up the configuration name. X $\square\square$: Custom Length (ML/MR).

increments)

PSEP



Technical References

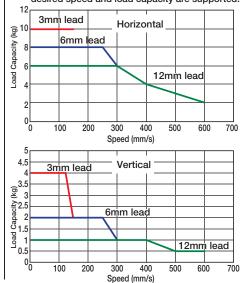


(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.

- Use the actuator specification table below to check the maximum speed at the stroke you desire. (2) Since the RCP3 series use the pulse motor, the load capacity decreases at high speeds.
- Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load Horizontal (kg)		Maximum Push Force (N)	Stroke (mm)
RCP3-SA6R-I-42P-12-①-②-③-④	12	~ 6	~ 1	47	50 000
RCP3-SA6R-I-42P-6-①-②-③-④	6	~ 8	~ 2	95	50~800 (50mm
RCP3-SA6R-I-42P-3-①-②-③-④	3	10	~ 4	189	increments)
Legend ①Stroke ②Compatible controller ③Cable length	4 Option	ns			

■ Stroke and Maximum Speed

Stroke Lead	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	570	490	425	370	330
6	300	285	245	210	185	165
3	150	140	120	105	90	80

Cable List		
Туре	Cable Symbol	
Standard	P (1m) S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths		
	X16 (16m) ~ X20 (20m)	

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

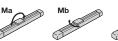
Option List

Option List			
Name	Option Code	See Page	
Brake-Equipped	В	→ A-25	
Cable Exit Direction (Top)	CJT	→ A-25	
Cable Exit Direction (Outside)	CJO	→ A-25	
Cable Exit Direction (Bottom)	CJB	→ A-25	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
No Cover	NCO	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description			
Drive System	Ball screw Ø10mm C10 grade			
Positioning Repeatability	±0.02mm			
Lost Motion	0.1mm or less			
Base	Material: Aluminum (special alumite treated)			
Allowable Static Load Moment	Ma: 17.6N·m Mb: 25.2N·m Mc: 44.5N·m			
Allowable Dynamic Load Moment	Ma: 4.31N·m Mb: 6.17N·m Mc: 10.98N·m			
Overhang Load Length	150mm or less			
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)			

Directions of Allowable Load Moment





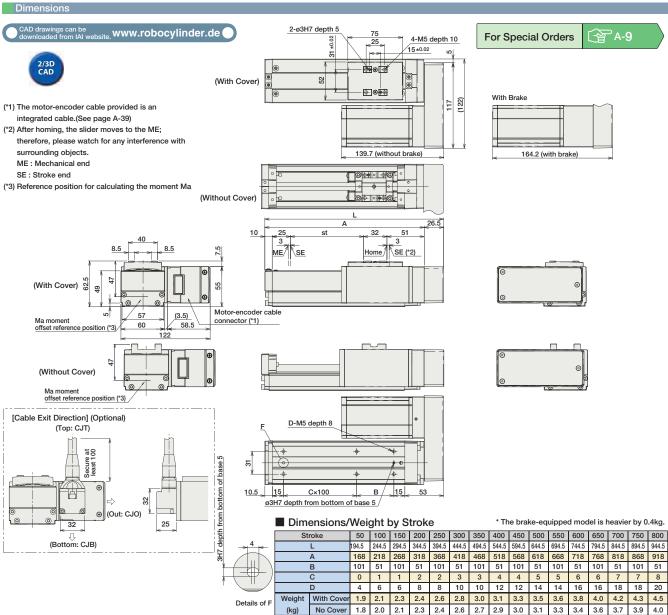


(Unit: mm/s)

5,000 km service life



PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL



	The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.							
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Pa
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P4
Soleliolu valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.					7 F40
Positioner Type	Ü	PCON-C-42PI-NP-2-0 PCON-CG-42PI-NP-2-0 Positioning is possible for up to 512 points 512 points			2A max.			
Safety-Compliant Positioner Type			312 points					
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support			DC24V		→ P5:
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)				
Serial Communication Type	Ī	PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-42P	Dedicated to field network	768 points				→ P5
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P55

Slider Type

Mini
Standard

ntrollers
tegrated

Rod
Type

Mini
Standard

ntrollers
tegrated

Table/Arm
/Flat Type

RCP2-SA5C RoboCylinder Slider Type 52mm Width Pulse Motor Straight Type Coupled

increments)

PSEP

■ Configuration: RCP2 — SA5C — **42P** Encoder Stroke Compatible Controllers I: Incremental
* The Simple
absolute encoder
models are
labeled as "I". 42P: Pulse motor P1:PCON BE : Brake (Cable exiting end) 20:20mm N: None 50: 50mm P : 1m S : 3m M : 5m BL: Brake (Cable exiting left)
BR: Brake (Cable exiting right) 12:12mm RPCON 42 🗌 size 800:800mm PSEL 6:6mm NM: Reversed-home 3:3mm (50mm pitch P3:PMEC X : Custom Length R : Robot cable SR : Slider Roller

Link

Technical References



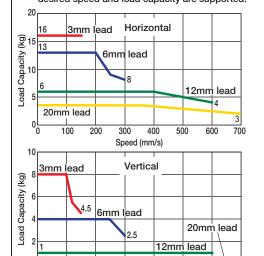
(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire. (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

3)The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-53.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	(mm)	Horizontal (kg)	Vertical (kg)	(mm)			
RCP2-SA5C-I-42P-20- ①-②-③-④	20	~ 4	~ 0,5				
RCP2-SA5C-I-42P-12- ①-②-③-④	12	~ 6	~ 1	50-800			
RCP2-SA5C-I-42P-6- ①-②-③-④	6	~ 13	~ 4	(50mm increments)			
RCP2-SA5C-I-42P-3- ①-②-③-④	3	~16	~ 8				
Legend ① Stroke ② Compatible controller ③ Cable length ④ Options							

Stroke and Maximum Speed

300

400

Speed (mm/s)

500

600

700

100

200

				•		
Stroke Lead	50 ~ 550 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
20	1000	980	850	740	650	580
12	600	540	460	400	360	300
6	300	270	230	200	180	150
3	150	135	115	100	90	75
(Unit: mm/s)						

Cable List

Odbie List						
Туре	Cable Symbol					
	P (1m)					
Standard	S (3m)					
	M (5m)					
	X06 (6m) ~ X10 (10m)					
Special Lengths	X11 (11m) ~ X15 (15m)					
	X16 (16m) ~ X20 (20m)					
	R01 (1m) ~ R03 (3m)					
	R04 (4m) ~ R05 (5m)					
Robot Cable	R06 (6m) ~ R10 (10m)					
	R11 (11m) ~ R15 (15m)					
	R16 (16m) ~ R20 (20m)					

^{*} See page A-39 for cables for maintenance.

Name	Option Code	See Page	
Brake (Cable-exit end)	BE	→ A-25	
Brake (Cable exiting left)	BL	→ A-25	
Brake (Cable exiting right)	BR	→ A-25	
Reversed-home	NM	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 18.6 N·m Mb: 26.6 N·m Mc: 47.5 N·m
Allowable Dynamic Moment (*)	Ma: 4.9 N·m Mb: 6.8 N·m Mc: 11.7 N·m
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life. **Directions of Allowable Load Moments**









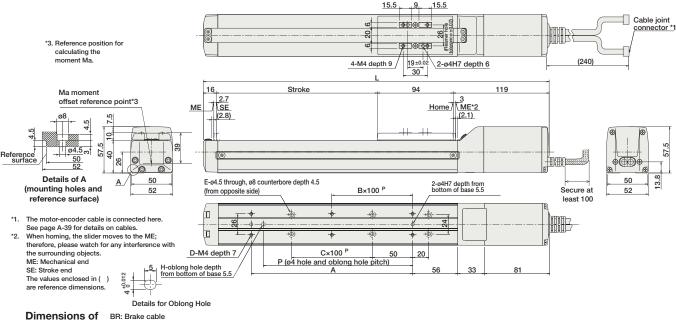
_{ebsite.} www.robocylinder.de

For Special Orders





*For the Reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.



■ Dimensions/Weight by Stroke

279 329

the brake section exiting from right BE: Brake cable **⊕**⊕⊕ exiting from rear : Brake cable ∯ 5.1 ⊕ ⊚ ⊕ BL: Brake cable 13,3 41.5 14.5 ME 7 SE (2.8) 46.5 43 16.5

Α 73 100 100 200 200 300 300 400 400 500 500 600 600 700 700 В 0 0 0 1 2 3 3 4 5 5 С 0 0 2 2 3 4 5 5 6 6 D 4 4 4 6 6 8 8 10 10 12 12 14 14 16 E 0 4 6 6 8 8 10 10 12 12 14 14 16 16 18 1 1 1 1 1 1 1 1 1 1 0 85 85 185 185 285 285 385 385 585 585 685 685 485 485 1.5 1.7 1.8 1.9 2.1 2.2 2.3 2.4 2.5 2.6 2.9 3.0 3.1 Weight (kg) 1.6 2.8

379 429 479 529 579 629 679 729

50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500

Adding a brake increases the actuator's overall length by 40mm (53.3mm with the cable coming out its end), and its weight by 0.4kg

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P47
Solenoid valve Type	1	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P48
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.				- 7F40
Positioner Type	Ē	PCON-C-42PI-NP-2-0-H	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0-H	To state ming is possible for up to 012 points	512 points			
Pulse Train Input Type Differential Line Driver)		unver support	DC24V	2A max.	→ P5		
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support	(-)	(7)		
Serial Communication Type		PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P-H	Dedicated to field network	768 points			→ P5
Program Control Type		PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P5

RCP2-SA5C 28

550 600 650 700 750 800

779 829 879 929 979 1029

6 6

> 16 18

1 1

800

7

18

785

IAI

Slider Type

Mini
Standard
Introllers tegrated

Rod
Type

Mini
Standard
Introllers tegrated

Mini
Table/Arm
/Flat Type

RCP2-SA6C RoboCylinder Slider Type 58mm Width Pulse Motor Straight Type Coupled

■ Configuration: RCP2 — SA6C — **42P** Encoder Motor Stroke — Compatible Controllers Cable Length Option

42P: Pulse motor I: Incremental The Simple absolute encoder 42 🗌 size models are labeled as "I".

20:20mm 50: 50mm 12:12mm 6:6mm 800:800mm 3 : 3mm (50mm pitch increments)

P1:PCON RPCON PSEL P3:PMEC

N: None P:1m S:3m M:5m

BE : Brake (Cable exiting end) BL: Brake (Cable exiting left)
BR: Brake (Cable exiting right) NM : Reversed-home

X : Custom Length SR : Slider Roller R : Robot cable PSEP



* See page Pre-35 for explanation of each code that makes up the configuration name.

Technical References





(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.

Use the actuator specification table below to check the maximum speed at the stroke you desire. Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

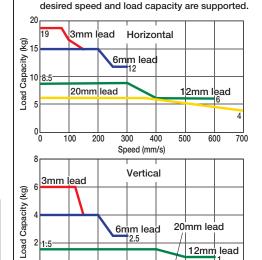
Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used

The load capacity is based on operation at an acceleration of 0.3G (0.2G for the shifth-lead model, or when vertically).

The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreat high accelerations. For more information, see the table of load capacity by acceleration, on page A-53.

■ Speed vs. Load Capacity $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your



Actuator Specifications

Lead and Load Capacity

Model	Lead (mm)	Max. LoadCa Horizontal (kg)	Vertical (kg)	Stroke (mm)
RCP2-SA6C-I-42P-20- ①-②-③-④	20	~ 6	~ 0,5	
RCP2-SA6C-I-42P-12- ①-②-③-④	12	~ 8.5	~ 1.5	50-800
RCP2-SA6C-I-42P-6- ①-②-③-④	6	~ 15	~ 4	(50mm increments)
RCP2-SA6C-I-42P-3- ①-②-③-④	3	~19	~ 6	
egend ①Stroke ②Compatible controller ③Cable length	4 Option	ıs		

Stroke and Maximum Speed

300

Speed (mm/s)

400

500

600

100

200

				•		
Stroke Lead	50 ~ 550 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
20	1000	980	850	740	650	580
12	600	540	460	400	360	300
6	300	270	230	200	180	150
3	150	135	115	100	90	75
(Unit: mm/s)						

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

^{*} See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake (Cable-exit end)	BE	→ A-25	
Brake (Cable exiting left)	BL	→ A-25	
Brake (Cable exiting right)	BR	→ A-25	
Reversed-home	NM	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 38.3 N·m Mb: 54.7 N·m Mc: 81.0 N·m
Allowable Dynamic Moment (*)	Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m
Overhang Load Length	Ma direction: 220mm or less; Mb·Mc direction: 220mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life. Directions of Allowable Load Moments











0.5

700

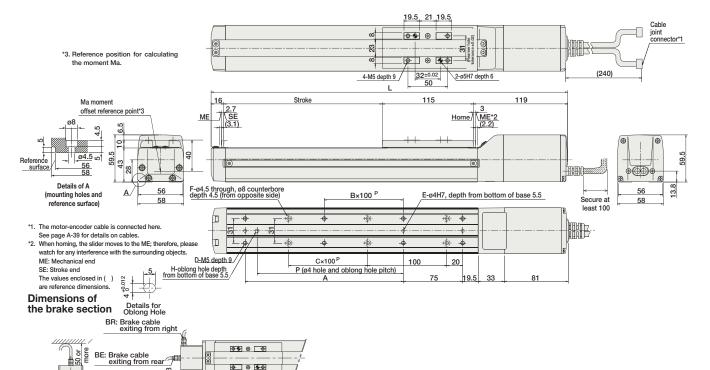
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





*For the Reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.



BL: Brake cable 5.1 13.3 41.714.3 2.7 ME SE (3.1)

 Adding a brake increases the actuator's overall length by 40mm (53.3mm with the cable coming out its end), and its weight by 0.4kg.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
П	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
O	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
Е	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
F	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	1.8	2.0	2.1	2.2	2.4	2.5	2.7	2.8	2.9	3.1	3.2	3.4	3.5	3.6	3.8	3.9

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

					Power Supply Capacity		See Page	
	PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477	
	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve.	3 points				→ P487	
	PSEP-CW-42PI-NP-2-0-H	Supports both single and double solenoid types. No homing necessary with simple absolute type.					→ F407	
É	PCON-C-42PI-NP-2-0-H	. Positioning is possible for up to 512 points	512 points		nts			
	PCON-CG-42PI-NP-2-0-H	Tostatoring is possible for up to 012 points	512 points	orz polito				
e	PCON-PL-42PI-NP-2-0-H	Pulse train input type with differential line driver support	(-)	DC24V	2A max.		→ P525	
	PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support		(-)	(-)			
	PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points					
11111	RPCON-42P-H	Dedicated to field network	768 points				→ P503	
-	PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P557	
		PSEP-CW-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-CG-42PI-NP-2-0-H PCON-PL-42PI-NP-2-0-H PCON-P0-42PI-NP-2-0-H RPCON-SE-42PI-N-0-0-H	PSEP-CW-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-SE-42PI-N-0-0-H Dedicated to serial communication RPCON-42PI-NP-2-DH PCON-SE-42PI-N-0-0-H P	PSEP-CW-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-CG-42PI-NP-2-0-H PCON-CG-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PUlse train input type with differential line driver support PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H Pulse train input type with open collector support PCON-PC-42PI-N-0-0-H Dedicated to serial communication RPCON-42P-H Dedicated to field network 768 points	PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-	PSEP-CW-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H Positioning is possible for up to 512 points PCON-CG-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H PUlse train input type with differential line driver support PCON-PC-42PI-NP-2-0-H PCON-PC-42PI-NP-2-0-H Pulse train input type with open collector support PCON-PC-42PI-NP-2-0-H Dedicated to serial communication RPCON-42PI-N-0-0-H Dedicated to field network PCON-SE-42PI-N-0-0-H Dedicated to field network PCON-SE-61 (ADI ND 0.0 H) Programmed operation is possible	PCON-C-42PI-NP-2-0-H PCON-C-42PI-NP-2-0-H Positioning is possible for up to 512 points PCON-C-42PI-NP-2-0-H Positioning is possible for up to 512 points PCON-PC-42PI-NP-2-0-H Positioning is possible for up to 512 points PCON-PC-42PI-NP-2-0-H Pulse train input type with differential line driver support PCON-PC-42PI-NP-2-0-H P	

RCP2-SA6C **30**

IAI

Туре

Mini

Controller

Rod Type

Mini

Controllers

able/Arm Flat Type

Standard

Gripper/ Rotary Type

Linear Motor

Cleanroom Type

Splash-Proof

Controllers

PSEP /ASEP

ROBO NET

ERG2

PSEL

ASEL

SSEL

Pulse Moto

Servo Moto (24V)

Servo Moto (230V)

Linear Moto

P2-SA7C RoboCylinder Slider Type 73mm Width Pulse Motor Straight Type Coupled

■ Configuration: RCP2 — SA7C — **56P** Cable Length Motor Stroke - Compatible Controllers Option

> 56P: Pulse motor I: Incremental The Simple absolute encoder 56 🗌 size models are labeled as "I".

16:16mm 8: 8mm 4: 4mm

50: 50mm 800:800mm (50mm pitch increments)

P1:PCON RPCON PSEL P3:PMEC PSEP

BE: Brake (Cable exiting end) N: None P:1m S:3m M:5m

BL : Brake (Cable exiting left)
BR : Brake (Cable exiting right) NM : Reversed-home X : Custom Length SR : Slider Roller R : Robot cable



Technical References





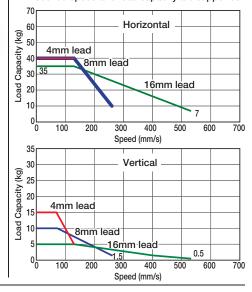


(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 4mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity Due to the characteristics of the pulse motor,

the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead (mm)	Max. Load Car Horizontal (kg)	, ,	Stroke (mm)
RCP2-SA7C-I-56P-16-①-②-③-④	16	~ 35	~ 5	
RCP2-SA7C-I-56P-8-①-②-③-④	8	~ 40	~ 10	50 ~ 800 (50mm increments)
RCP2-SA7C-I-56P-4-①-②-③-④	4	40	∼ 1 5	increments)
Legend ① Stroke ② Compatible controller ③ Cable length	4 Options			

■ Stroke and Maximum Speed							
Stroke Lead	$50 \sim 700 \\ \text{(50mm increments)}$	~ 800 (mm)					
- 10							

Lead	(50mm increments)	(mm)
16	533	480
8	266	240
4	133	120

Cable List						
Туре	Cable Symbol					
	P (1m)					
Standard	S (3m)					
	M (5m)					
	X06 (6m) ~ X10 (10m)					
Special Lengths	X11 (11m) ~ X15 (15m)					
	X16 (16m) ~ X20 (20m)					
	R01 (1m) ~ R03 (3m)					
	R04 (4m) ~ R05 (5m)					
Robot Cable	R06 (6m) ~ R10 (10m)					
	R11 (11m) ~ R15 (15m)					
	R16 (16m) ~ R20 (20m)	_				

^{*} See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Brake (Cable-exit end)	BE	→ A-25	
Brake (Cable exiting left)	BL	→ A-25	
Brake (Cable exiting right)	BR	→ A-25	
Reversed-home	NM	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item	Description
Drive System	Ball screw ø12mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 50.4 N·m Mb: 71.9 N·m Mc: 138.0 N·m
Allowable Dynamic Moment (*)	Ma: 13.9 N·m Mb: 19.9 N·m Mc: 38.3 N·m
Overhang Load Length	Ma direction: 230mm or less; Mb·Mc direction: 230mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life Directions of Allowable Load Moments









(Unit: mm/s)





Standard

Rod Type

Mini

Standard

Integrated

Mini

Gripper/

Rotary Type

Туре

Splash-Proof

Controllers

PSEP /ASEP

NET

PCON

785

6.5

SCON

PSEL

SSEL

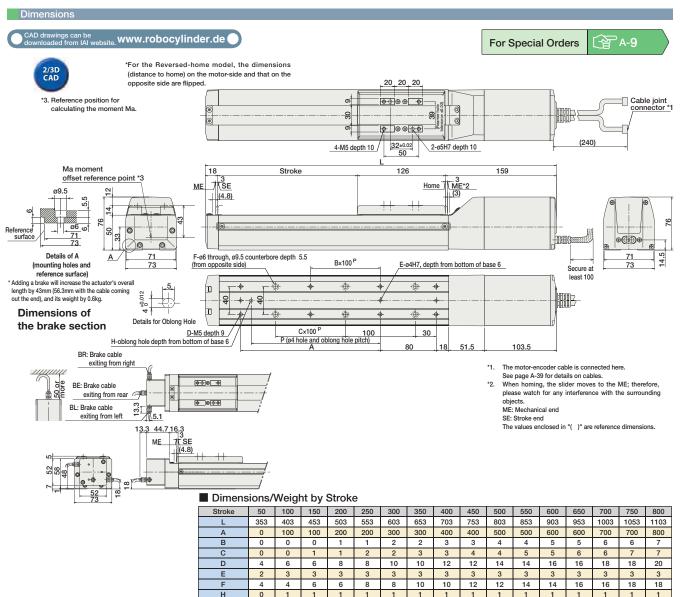
. . . .

Servo Motor

Servo Moto

Linear Mo

RCP2-SA7C **32**



Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Р

Weight (kg)

0 85 85

3.1

3.3 3.6

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page									
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477									
Solellold valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487									
Splash-Proof Solenoid Valve Type		PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.													→ F40/
Positioner Type		PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points												
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	residently to possible to the			·		C24V 2A max.								
Pulse Train Input Type (Differential Line Driver)	e	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	2A max.		→ P525							
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)	(-)	(-)									
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points												
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P503									
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557									

185 185 285 285 385

3.8 4.0

4.2 4.5 4.7 4.9

385 485 485 585 585 685 685

5.1 5.4

5.6 5.8

6.0 6.3

Slider Type

Mini
Standard
Introllers tegrated

Rod
Type

Mini
Standard

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON SCON SSEL

RoboCylinder Slider Type 60mm Width Pulse Motor Straight Type Coupled \blacksquare Configuration: RCP2 - SS7C -**42P** Encoder Option I: Incremental
* The Simple
absolute encoder
models are
labeled as "I". 42P: Pulse motor P1:PCON B : Brake 12:12mm N: None 50: 50mm P : 1m S : 3m M : 5m NM : Reversed-home RPCON 42 🗌 size 6: 6mm PSEL SR: Slider Roller 3: 3mm 600:600mm (50mm pitch P3:PMEC Custom Length

increments)

PSEP



* See page Pre-35 for explanation of each code that makes up the configuration name.

Technical References



(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.

Use the actuator specification table below to check the maximum speed at the stroke you desire.

(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

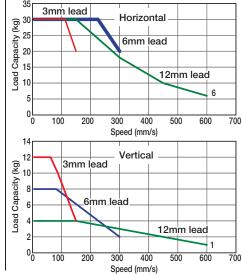
(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used

vertically).

These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications	
Lead and Load Capacity	(Note 1) Plea

se note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	Stroke	
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SS7C-I-42P-12-①-②-③-④	12	~ 30	~ 4	
RCP2-SS7C-I-42P-6-①-②-③-④	6	~ 30	~ 8	50 ~ 600 (50mm increments)
RCP2-SS7C-I-42P-3-①-②-③-④	3	~ 30	\sim 12	incremental
Legend ①Stroke ②Compatible controller ③Cable length	4 Options			

■ Stroke and Maximum Speed

Stroke Lead	$50 \sim 500 \\ \text{(50mm increments)}$	~ 600 (mm)
12	600	470
6	300	230
3	150	115
		(Unit: mm/s)

Cabla List

Cable List				
Cable Symbol				
P (1m)				
S (3m)				
M (5m)				
X06 (6m) ~ X10 (10m)				
X11 (11m) ~ X15 (15m)				
X16 (16m) ~ X20 (20m)				
R01 (1m) ~ R03 (3m)				
R04 (4m) ~ R05 (5m)				
R06 (6m) ~ R10 (10m)				
R11 (11m) ~ R15 (15m)				
R16 (16m) ~ R20 (20m)				
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m) R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)			

* See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item	Description		
Drive System	Ball screw Ø10mm C10 grade		
Positioning Repeatability	±0.02mm		
Lost Motion	0.1mm or less		
Base	Material: Special alloy steel		
Allowable Static Moment	Ma: 79.4 N·m Mb: 79.4 N·m Mc: 172.9 N·m		
Allowable Dynamic Moment (*)	Ma: 14.7 N·m Mb: 14.7 N·m Mc: 33.3 N·m		
Overhang Load Length	Ma direction: 300mm or less; Mb·Mc direction: 300mm or less		
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)		

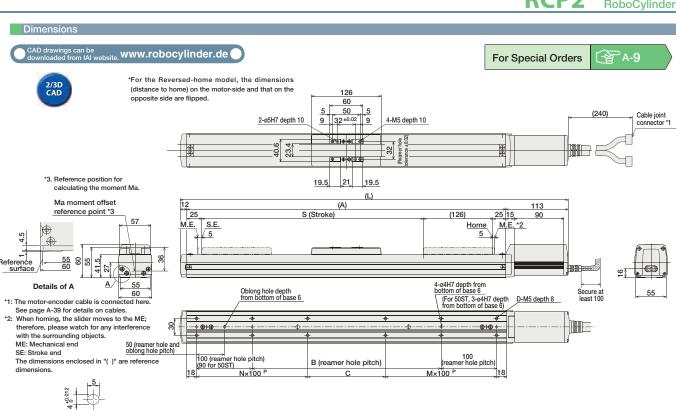
(*) Based on 10,000km travel life. **Directions of Allowable Load Moments**











■ Dimensions/Weight by Stroke

Brake cable is passed through the actuator body and connected to the motor cable.

Details for Oblong Hole

36.5

60

Dimensions of the brake section * Adding a brake will increase the actuator's overall length by 24.5mm, and its weight by 0.3kg.

53

			,									
Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	351	401	451	501	551	601	651	701	751	801	851	901
Α	226	276	326	376	426	476	526	576	626	676	726	776
В	0	40	90	140	190	240	290	340	390	440	490	540
С	90	40	90	140	190	40	90	140	190	40	90	140
D	6	8	8	8	8	12	12	12	12	16	16	16
M	1	1	1	1	1	2	2	2	2	3	3	3
N	0	1	1	1	1	2	2	2	2	3	3	3
Weight (kg)	3.1	3.4	3.7	4.0	4.3	4.7	5.0	5.4	5.7	6.1	6.4	6.7
•												

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.							
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag
Solenoid Valve Type	110	PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P47
Soleliola valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				→ P40
Positioner Type	É	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	ts 512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Positioning is possible for up to 512 points				
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P52
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P50
Program Control Type	Í	PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P55

Slider Type

Mini
Standard
Introllers tegrated

Rod
Type

Mini
Standard

RoboCylinder Slider Type 80mm Width Pulse Motor Straight Type Steel Base

 \blacksquare Configuration: RCP2 - SS8C -**56P** Motor Encoder B : Brake

I: Incremental
* The Simple
absolute encoder 56P: Pulse motor P1:PCON 20:20mm N: None 50: 50mm RPCON 56 🗌 size 10:10mm 1000:1000mm PSEL 5: 5mm models are labeled as "I".

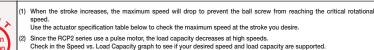
* See page Pre-35 for explanation of each code that makes up the configuration name.

P:1m S:3m M:5m SR: Slider Roller (50mm pitch P3:PMEC X : Custom Length R : Robot cable increments) PSEP



Technical References

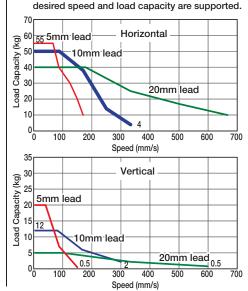




(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 5mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your

NM : Reversed-home



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	pacity (Note 1)	Stroke
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SS8C-I-56P-20-①-②-③-④	20	~ 40	\sim 5	
RCP2-SS8C-I-56P-10-①-②-③-④	10	~ 50	\sim 12	50 ~ 1000 (50mm increments)
RCP2-SS8C-I-56P-5-①-②-③-④	5	~ 55	\sim 20	morements
Legend ①Stroke ②Compatible controller ③Cable length	4 Options			

Stroke Lead	$50 \sim 800$ (50mm increments)	~ 900 (mm)	~ 1000 (mm)
20	666 〈600〉	625 〈600〉	515
10	333 3 (300) (3		255
5	165 〈150〉	155 〈150〉	125

* The values enclosed in < > apply to (Unit: mm/s) vertical setting.

Cable List				
Туре	Cable Symbol			
	P (1m)			
Standard	S (3m)			
	M (5m)			
	X06 (6m) ~ X10 (10m)			
Special Lengths	X11 (11m) ~ X15 (15m)			
	X16 (16m) ~ X20 (20m)			
	R01 (1m) ~ R03 (3m)			
	R04 (4m) ~ R05 (5m)			
Robot Cable	R06 (6m) \sim R10 (10m)			
	R11 (11m) ~ R15 (15m)			

R16 (16m) ~ R20 (20m)

* See page A-39 for cables for maintenance.

Option Code	See Page	
В	→ A-25	
NM	→ A-33	
SR	→ A-36	
	B NM	$\begin{array}{c c} B & \rightarrow \text{A-25} \\ \hline \text{NM} & \rightarrow \text{A-33} \end{array}$

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 10,000km travel life. Directions of Allowable Load Moments









138

30 14 M.E. *2

D-M8 depth 10



For Special Orders



(240)



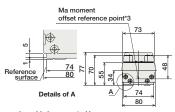
*For the reversed-home model, the dimensions

(distance to home) on the motor-side and that on the opposite side are flipped.

30 M.E.

S.E. 5

*3. Reference position for calculating the moment Ma.



- *1: The motor-encoder cable is connected here.
- See page A-39 for details on cables.

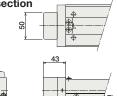
 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
 ME: Mechanical end
 SE: Stroke end

The dimensions enclosed in "()" are reference

Dimensions of the brake section

* Adding a brake will increase the actuator's overall length by 26mm, and its weight by 0.5kg.

70



Details for Oblong Hole

N×100 P

100 (reamer hole pitch)
50 (reamer and oblong hole pitch)

brake cable is passed through the actuator body and connected to the motor cable.

90 75 15 45 ±0.02 15

35 20 35

S (Stroke)

Oblong hole depth from bottom of base 6

(A)

B (reamer hole pitch)

4-M8 depth 10

2-ø8H7 depth 10

(170)

N×100 P 100 (reame

Home

15

45 earner h

(L)

■ Dimensions/Weight by Stroke

	.00,		~,	0	_															
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385
Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	6.6	7.1	7.6	8.1	8.6	9.2	9.7	10.2	10.7	11.3	11.7	12.3	12.8	13.4	13.9	14.5	15.0	15.5	16.1	16.6

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
,,,,		PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve.	3 points			
Splash-Proof Solenoid Valve Type	Ţ	PSEP-CW-56PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				→ P487
Positioner Type	Î	PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points		2A max.	
Safety-Compliant Positioner Type	8	PCON-CG-56PI-NP-2-0					
Pulse Train Input Type (Differential Line Driver)	É	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	()	DC24V		→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

Slider Type

Mini

Standard

ntrollers
tegrated

Rod
Type

Mini

Standard

ntrollers
tegrated

2-HS8C RoboCylinder High-Speed Slider Type 80mm Width Pulse Motor Straight Type Steel Base Coupled

RCP2 - HS8C -86P ■ Configuration: Туре I: Incremental

* See page Pre-35 for explanation of each code that makes up the configuration name.

86P: Pulse motor 30:30mm 56 🗌 high

output

50: 50mm 1000:1000mm (50mm pitch increments)

P2:PCON-CF

P2

Compatible Controllers -

B : Brake N: None NM: Reversed-home SR: Slider Roller M:5m X .: Custom Length R .: Robot cable



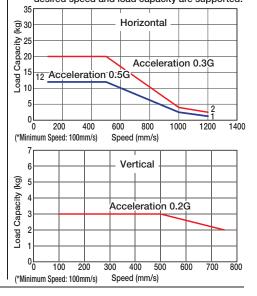
Technical References



Cable List

- (1) Due the large lead of the ball screw in high-speed actuators, operating at low speeds may cause vibration and/or noise. Therefore, use the actuator at speeds over 100mm/s.
- (2) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.
- Use the actuator specification table below to check the maximum speed at the stroke you desire. (3) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are
- (4) The load capacity is based on operation at an acceleration of 0.3G (0.2G when used vertically). The upper limit for the acceleration is 0.5G for horizontal use and 0.2G for vertical use

■ Speed vs. Load Capacity Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

supported.

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead (mm)	Max. Load Ca Horizontal (kg)	vertical (kg)	Stroke (mm)
RCP2-HS8C-I-86P-30-①-P2-②-③	30	~ 20	~ 3	50 ~ 1000 (50mm increments)
Legend ① Stroke ② Cable length ③ Options				

Stroke Lead	$50 \sim 800$ (50mm increments)	~ 900 (mm)	~ 1000 (mm)	
30	1200 〈750〉	1000 〈750〉	800 〈750〉	

* The values enclosed in < > apply to (Unit: mm/s)

Туре	Cable Symbol
	P (1m)
Standard	S (3m)
	M (5m)
	X06 (6m) ~ X10 (10m)
Special Lengths	X11 (11m) ~ X15 (15m)
	X16 (16m) ~ X20 (20m)
	R01 (1m) ~ R03 (3m)
	R04 (4m) ~ R05 (5m)
Robot Cable	R06 (6m) ~ R10 (10m)
	R11 (11m) ~ R15 (15m)
	R16 (16m) ~ R20 (20m)

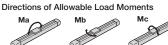
See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item	Description				
Drive System	Ball screw ø16mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Special alloy steel				
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m				
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m				
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)				

(*) Based on 10,000km travel life.





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For Special Orders

Home

⊕⊧**⊕** - ∳

D-M8 depth 10

N×100 P 100 (reamer hole pitch)

-Φ--Φ



(240)

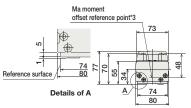
Secure at

least 100



(distance to home) on the motor-side and that on the opposite side are flipped.

*3. Reference position for calculating the moment Ma.



*1: The motor-encoder cable is connected here

See page A-39 for details on cables.

*2: When homing, the slider moves to the ME; therefor please watch for any interference with the surrounding objects ME: Mechanical end SE: Stroke end

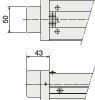
The dimensions enclosed in "()" are reference dimensions

Dimensions of

the brake section

* Adding a brake will increase the actuator's overall length by 26mm, and its weight by 0.5kg.







The brake cable is passed through the actuator body and connected to the motor cable.

Oblong hole depth from bottom of base 6

75

35 20 35

S (Stroke)

(A)

B (reamer hole pitch)

34

S.E. 5

N×100^P 100 (reamer hole pitch)

50 (reamer and oblong hole pitch)

4-M8 depth 10

2-ø8H7 depth 10

(L)

■ Dimensions/Weight by Stroke

	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
	L	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385
	Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
Г	В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
	D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
	F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
	N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
	Weight (kg)	6.6	7.1	7.6	8.1	8.6	9.2	9.7	10.2	10.7	11.3	11.7	12.3	12.8	13.4	13.9	14.5	15.0	15.5	16.1	16.6

Compatible Controllers

The controller for the RCP2-HS8C type is a dedicated controller.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Positioner Type		PCON-CF-86PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.	→ P525

• Please note that the encoder cable is a dedicated CF-type cable that is different from the PCON-C/CG/CY/PL/PO/SE controllers.

• Note that a simple absolute unit cannot be used.

■ Configuration:

Slider Type

Mini
Standard

ntrollers
tegrated

Rod
Type

Mini
Standard

ntrollers
tegrated

P2-SA5R RoboCylinder Slider Type 52mm Width Pulse Motor Side-Mounted Motor

RCP2 - SA5R -**42P** Туре Encoder

* See page Pre-35 for explanation of each code that makes up the configuration name.

I: Incremental
* The Simple
absolute encoder 42P: Pulse motor 42 🗌 size models are labeled as "I".

12:12mm 6: 6mm 3: 3mm

50: 50mm 800:800mm (50mm pitch increments)

P1:PCON RPCON PSEL P3:PMEC PSEP

N: None P:1m S:3m M:5m

See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

Custom Length



Technical References

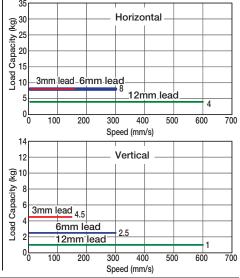
(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.

Use the actuator specification table below to check the maximum speed at the stroke you desire.

- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
- Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at

high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications ■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	Stroke	
Iwiodei	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SA5R-I-42P-12-①-②-③-④	12	4	1	
RCP2-SA5R-I-42P-6-①-②-③-④	6	8	2.5	50 ~ 800 (50mm increments)
RCP2-SA5R-I-42P-3-①-②-③-④	3	8	4.5	indicinents)
Legend ①Stroke ②Compatible controller ③Cable length	4 Options			

	Stro	oke and M	laxım	ium t	Spee	d	
	Stroke Lead	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
	12	600	540	460	400	360	300
	6	300	270	230	200	180	150
	3	150	135	115	100	90	75
						(Unit:	mm/s)

Cable List	
Туре	Cable Symbol
	P (1m)
Standard	S (3m)
	M (5m)
	X06 (6m) ~ X10 (10m)
Special Lengths	X11 (11m) ~ X15 (15m)
	X16 (16m) ~ X20 (20m)
	R01 (1m) ~ R03 (3m)
	R04 (4m) ~ R05 (5m)
Robot Cable	R06 (6m) ~ R10 (10m)
	R11 (11m) ~ R15 (15m)
	R16 (16m) ~ R20 (20m)

^{*} See page A-39 for cables for maintenance.

Option List

<u> </u>			
Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Static Moment	Ma: 18.6 N·m Mb: 26.6 N·m Mc: 47.5 N·m
Allowable Dynamic Moment (*)	Ma: 4.9 N·m Mb: 6.8 N·m Mc: 11.7 N·m
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 5,000km travel life.

Directions of Allowable Load Moments









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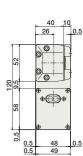


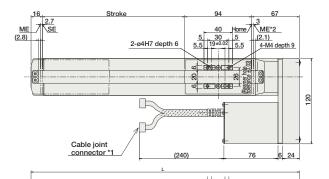
*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

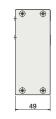
- *1. The motor-encoder cable is connected here
- See page A-39 for details on cables.
 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
 ME: Mechanical end

SE: Stroke end
The values enclosed in "()" are reference dimensions.

* The offset reference position for the moment Ma is the same as the SA5 type. (See P28)

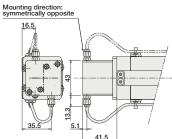






Dimensions of the brake section

* Adding a brake will increase the actuator's overall length by 40mm, and its weight by 0.4kg



2-ø4H7, depth from bottom of base 5.5 B×100 P C-M4 depth 7 P (ø4 hole and oblong hole pitch) 32 H-oblong hole, depth from bottom of base 5.5

Details for Oblong Hole

■ Dimensions/Weight by Stroke

		_	•													
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	227	277	327	377	427	477	527	577	627	677	727	777	827	877	927	977
Α	73	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	4	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	2.0	2.1	2.2	2.3	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7

Compatible Controllers

* For brake cable exiting from the side, it can only exit from the motor side.

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Soleliola valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve.	3 points			→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				→ F407
Positioner Type	Í	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Toolius iii g s possible for up to 012 points	,			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	()	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type	244	PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557

Slider Type

Mini
Standard

ntrollers
tegrated

Rod
Type

Mini
Standard

ntrollers
tegrated

Table/Arm
/Flat Type

P2-SA6R RoboCylinder Slider Type 58mm Width Pulse Motor Side-Mounted Motor

RCP2 - SA6R -**42P** ■ Configuration: Туре Encode

* See page Pre-35 for explanation of each code that makes up the configuration name.

I: Incremental 42P: Pulse motor 12:12mm The Simple absolute encoder 42 🗌 size models are labeled as "I".

6: 6mm 3: 3mm

50: 50mm 800:800mm (50mm pitch increments)

P1:PCON RPCON PSEL P3:PMEC PSEP

N: None P:1m S:3m M:5m

See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

Custom Length



Technical References



(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.

Use the actuator specification table below to check the maximum speed at the stroke you desire.

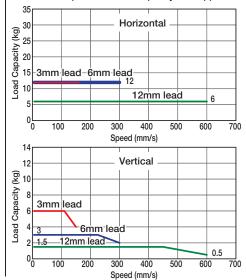
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used

vertically).
These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead (mm)	Max. Load Cap Horizontal (kg)	, ,	Stroke (mm)
RCP2-SA6R-I-42P-12-①-②-③-④	12	6	~ 1.5	
RCP2-SA6R-I-42P-6- ① - ② - ③ - ④	6	12	~ 3	50 ~ 800 (50mm increments)
RCP2-SA6R-I-42P-3-①-②-③-④	3	12	~ 6	increments)
Legend ①Stroke ②Compatible controller ③Cable length	4 Options			

■ Stroke and Maximum Speed

Stroke Lead	$50\sim550$ (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)
12	600	540	460	400	360	300
6	300	270	230	200	180	150
3	150	135	115	100	90	75

(Unit: mm/s)

Cable Symbol
P (1m)
S (3m)
M (5m)
X06 (6m) ~ X10 (10m)
X11 (11m) ~ X15 (15m)
X16 (16m) ~ X20 (20m)
R01 (1m) ~ R03 (3m)
R04 (4m) ~ R05 (5m)
R06 (6m) ~ R10 (10m)
R11 (11m) ~ R15 (15m)
R16 (16m) ~ R20 (20m)

^{*} See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item Description					
Drive System	Ball screw Ø10mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Aluminum (white alumite treated)				
Allowable Static Moment	Ma: 38.3 N·m Mb: 54.7 N·m Mc: 81.0 N·m				
Allowable Dynamic Moment (*)	Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m				
Overhang Load Length	Ma direction: 220mm or less; Mb·Mc direction: 220mm or less				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)				

(*) Based on 5,000km travel life.

Directions of Allowable Load Moments









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For Special Orders





*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

- The motor-encoder cable is connected here. See page A-39 for details on cables. When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.

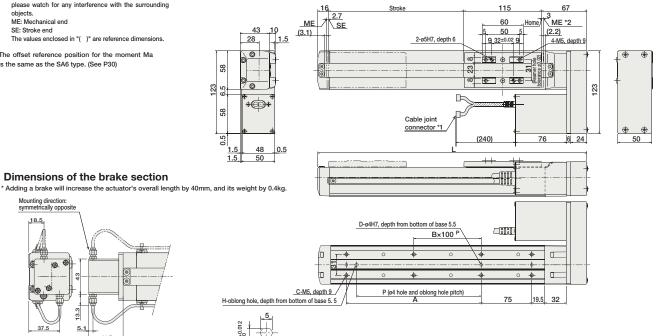
ME: Mechanical end

Mounting direction: symmetrically opposite 18.5

SE: Stroke end
The values enclosed in "()" are reference dimensions.

Dimensions of the brake section

*The offset reference position for the moment Ma is the same as the SA6 type. (See P30)



 $^{^{\}star}$ For brake cable exiting from the side, it can only exit from the motor side.

■ Dimensions/Weight by Stroke

Details for Oblong Hole

		_	•													
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	248	298	348	398	448	498	548	598	648	698	748	798	848	898	948	998
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
D	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	2.3	2.5	2.6	2.7	2.9	3.0	3.2	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.3	4.4

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solenoid valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				→ P407
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	. Collicinity to processe for up to 0.12 points	orz pomico			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type	200	PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

■ Configuration:

2-SA7R RoboCylinder Slider Type 73mm Width Pulse Motor Side-Mounted Motor

RCP2 - SA7R -**56P** Туре Encoder

* See page Pre-35 for explanation of each code that makes up the configuration name.

I: Incremental
* The Simple
absolute encoder 56P: Pulse motor 16:16mm 56 🗌 size models are labeled as "I".

8: 8mm 4: 4mm

50: 50mm 800:800mm (50mm pitch increments)

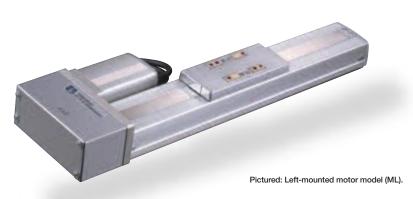
P1:PCON RPCON PSEL P3:PMEC PSEP

60

N: None P:1m S:3m M:5m

See Options below Be sure to specify which side the motor is to be mounted (ML/MR).

Custom Length



Technical References



(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical

Use the actuator specification table below to check the maximum speed at the stroke you desire. (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

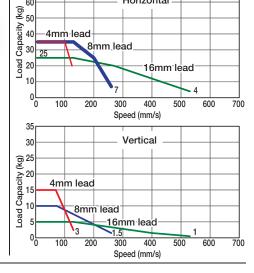
(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 4mm-lead model, or when used

These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at

high speeds. In the table below, check if your desired speed and load capacity are supported.

Horizontal



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	pacity (Note 1)	Stroke
Model	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SA7R-I-56P-16-①-②-③-④	16	∼ 25	\sim 5	
RCP2-SA7R-I-56P-8-①-②-③-④	8	~ 35	~ 10	50 ~ 800 (50mm increments)
RCP2-SA7R-I-56P-4-①-②-③-④	4	~ 35	\sim 15	morements
Legend ① Stroke ② Compatible controller ③ Cable leng	th 4 Options			

■ Stroke and Maximum Speed

Stroke Lead	$50 \sim 700 \\ \text{(50mm increments)}$	~ 800 (mm)
16	533 〈400〉	480 〈400〉
8	266	240
4	133	120

^{*} The values enclosed in < > apply to vertical setting. (Unit: mm/s)

Description

Ma direction: 230mm or less; Mb·Mc direction: 230mm or less

Cabla List

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	
* 0	11 6 11	

^{*} See page A-39 for cables for maintenance.

Directions of Allowable Load Moments

Drive System Positioning Repeatability

Lost Motion

Base



Actuator Specifications

Item

Allowable Static Moment

Overhang Load Length

Allowable Dynamic Moment (*)

Ambient Operating Temp./Humidity

(*) Based on 5,000km travel life



Ball screw ø12mm C10 grade

Material: Aluminum (white alumite treated)

Ma: 50.4 N·m Mb: 71.9 N·m Mc: 138.0 N·m

Ma: 13.9 N·m Mb: 19.9 N·m Mc: 38.3 N·m

0~40°C, 85% RH or less (Non-condensing)

±0.02mm

0.1mm or less



Option List

N	0 11 0 1	0 0	
Name	Option Code	See Page	
Brake	В	\rightarrow A-25	
Reversed-home	NM	→ A-33	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Slider Roller	SR	→ A-36	

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*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

- *1. The motor-encoder cable is connected here
- See page A-39 for details on cables.
 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical end

SE: Stroke end
The values enclosed in "()" are reference dimensions.
*The offset reference position for the moment Ma

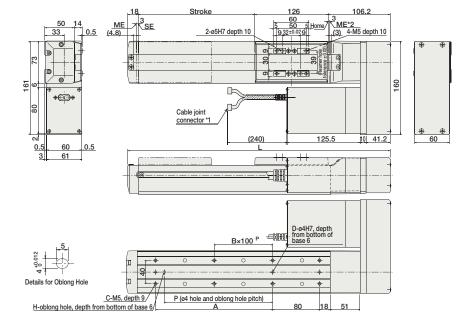
Dimensions of the brake section Adding a brake will increase the actuator's overall length by 43mm, and its weight by 0.6kg.

> 5.3 5.

Compatible Controllers

Mounting direction: symmetrically opposite

is the same as the SA7 type. (See P32)



•

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	300.2	350.2	400.2	450.2	500.2	550.2	600.2	650.2	700.2	750.2	800.2	850.2	900.2	950.2	1000.2	1050.2
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
D	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	4.5	4.7	5.0	5.2	5.4	5.6	5.9	6.1	6.3	6.5	6.8	7.0	7.2	7.4	7.7	7.9

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Solellold valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P48	
Splash-Proof Solenoid Valve Type	I	PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.				→ F40	
Positioner Type	Í	PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points				
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	r consuming to pocusion to tap to 0.12 points	o i z politic				
Pulse Train Input Type (Differential Line Driver)	Ĉ.	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P52	
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)			
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P50	
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P5	

* This is for the single-axis PSEL.

^{*} For brake cable exiting from the side, it can only exit from the motor side.

PMEC //AMEC PSEP //ASEP ROBO NET ERC2 PCON ACON SCON SSEL

RCP2 - SS7R -**42P** ■ Configuration: Encode . Compatible Controllers ____ Type

> 42P: Pulse motor 12:12mm I: Incremental The Simple absolute encoder 42 🗌 size models are labeled as "I".

6: 6mm 3: 3mm * See page Pre-35 for explanation of each code that makes up the configuration name.

50: 50mm 600:600mm (50mm pitch increments)

P1:PCON RPCON PSEL P3:PMEC PSEP

N: None P:1m S:3m M:5m

See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

Option

Custom Length



Technical References



(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.
Use the actuator specification table below to check the maximum speed at the stroke you desire.

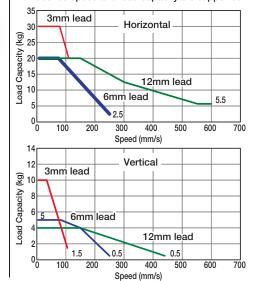
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used

vertically).
These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	Max. Load Capacity (Note 1)		
Wiodei	(mm)	Horizontal (kg)	Vertical (kg)	(mm)	
RCP2-SS7R-I-42P-12-①-②-③-④	12	~ 20	\sim 4		
RCP2-SS7R-I-42P-6-①-②-③-④	6	~ 20	\sim 5	50 ~ 600 (50mm increments)	
RCP2-SS7R-I-42P-3-①-②-③-④	3	~ 30	\sim 10	inorements)	
Legend ①Stroke ②Compatible controller ③Cable length	4 Options		•		

■ Stroke and Maximum Speed

Stroke Lead	$50 \sim 500$ (50mm increments)	~ 600 (mm)
12	600 〈440〉	470 〈440〉
6	250	230
3	105	105

^{*} The values enclosed in < > apply to vertical setting. (Unit: mm/s)

Cable List

Cable List			
Туре	Cable Symbol		
	P (1m)		
Standard	S (3m)		
	M (5m)		
	X06 (6m) ~ X10 (10m)		
Special Lengths	X11 (11m) ~ X15 (15m)		
	X16 (16m) ~ X20 (20m)		
	R01 (1m) ~ R03 (3m)		
	R04 (4m) ~ R05 (5m)		
Robot Cable	R06 (6m) ~ R10 (10m)		
	R11 (11m) ~ R15 (15m)		
	R16 (16m) ~ R20 (20m)		

See page A-39 for cables for maintenance.

Option List

Option List	Option List				
Name	Option Code	See Page			
Brake	В	→ A-25			
Reversed-home	NM	→ A-33			
Left-Mounted Motor (Standard)	ML	→ A-33			
Right-Mounted Motor	MR	→ A-33			
Slider Roller	SR	→ A-36			

Actuator Specifications

Item	Description		
Drive System	Ball screw Ø10mm C10 grade		
Positioning Repeatability	±0.02mm		
Lost Motion	0.1mm or less		
Base	Material: Special alloy steel		
Allowable Static Moment	Ma: 79.4 N·m Mb: 79.4 N·m Mc: 172.9 N·m		
Allowable Dynamic Moment (*)	Ma: 14.7 N·m Mb: 14.7 N·m Mc: 33.3 N·m		
Overhang Load Length	Ma direction: 300mm or less; Mb·Mc direction: 300mm or less		
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)		

(*) Based on 10,000km travel life.

Directions of Allowable Load Moments









CAD drawings can be downloaded from IAI website. www.robocylinder.de

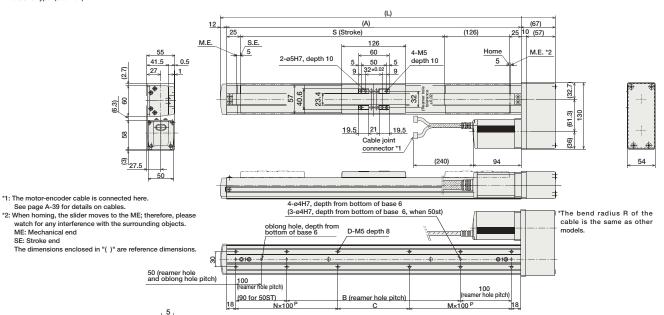
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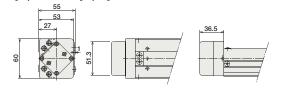
*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

- * The reference surface is the same as the SS7C type. (See P34)
- * The offset reference position for the moment Ma is the same as the SS7C type. (See P34)



Dimensions of the brake section

Adding a brake increases the actuator's overall length by 24.5mm and its weight by 0.3kg.



* The brake cable is passed through the actuator body and connected to the motor cable.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	305	355	405	455	505	555	605	655	705	755	805	855
Α	226	276	326	376	426	476	526	576	626	676	726	776
В	0	40	90	140	190	240	290	340	390	440	490	540
С	90	40	90	140	190	40	90	140	190	40	90	140
D	6	8	8	8	8	12	12	12	12	16	16	16
M	1	1	1	1	1	2	2	2	2	3	3	3
N	0	1	1	1	1	2	2	2	2	3	3	3
Weight (kg)	3.8	4.1	4.4	4.7	5.1	5.4	5.8	6.1	6.4	6.7	7.1	7.4

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477		
Solenold valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487		
Splash-Proof Solenoid Valve Type	T T	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.					→ F407	
Positioner Type	Í	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	. containing to possible for up to 0.12 points	orz pomio					
Pulse Train Input Type (Differential Line Driver)	Ĉ.	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)					
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points		nts			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503		
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557		

* This is for the single-axis PSEL.

RCP2-SS7R

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Controllers

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ACON

SCON

DCEI

AGEL

SSEL

XSEL

ulaa Mata

Servo Moto

Servo Moto

Linear Mot

RoboCylinder Slider Type 80mm Width Pulse Motor Side-Mounted Motor Steel Base

RCP2 - SS8R -**56P** ■ Configuration: Туре Encoder

> I: Incremental
> * The Simple
> absolute encoder 56P: Pulse motor 20:20mm 56 🗌 size models are labeled as "I".

10:10mm 5: 5mm

50: 50mm 1000:1000mm (50mm pitch increments)

P1:PCON RPCON PSEL P3:PMEC PSEP

N: None P:1m S:3m M:5m

See Options below Be sure to specify which side the motor is to be mounted (ML/MR).

Custom Length



Technical References

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.
Use the actuator specification table below to check the maximum speed at the stroke you desire.

(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 5mm-lead model, or when

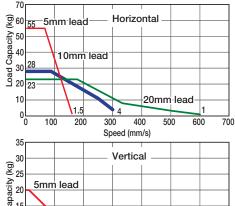
These values are the upper limits for the acceleration.

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

* See page Pre-35 for explanation of each code that makes up the configuration name.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Capacity 20 or gd 10mm lead 20mm lead _{0.5} 250 Speed (mm/s)

Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Cap	Stroke	
Wiodei	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-SS8R-I-56P-20-①-②-③-④	20	~ 23	\sim 3	
RCP2-SS8R-I-56P-10-①-②-③-④	10	~ 28	~ 9	50 ~ 1000 (50mm increments)
RCP2-SS8R-I-56P-5-①-②-③-④	5	∼ 5 5	∼ 20	morements)

Stroke Lead	$50 \sim 800$ (50mm increments)	~ 900 (mm)	~ 1000 (mm)
20	600	600	515
20	〈333〉	⟨333⟩	⟨333⟩
10	300	300	255
10	<250 >	<250 >	⟨250⟩
5	160	155	125
5	〈140 〉	<140>	<140>

^{*} The values enclosed in < > apply to vertical setting. (Unit: mm/s)

Cable List				
Туре	Cable Symbol			
	P (1m)			
Standard	S (3m)			
	M (5m)			
	X06 (6m) ~ X10 (10m)			
Special Lengths	X11 (11m) ~ X15 (15m)			
	X16 (16m) ~ X20 (20m)			
	R01 (1m) ~ R03 (3m)			
	R04 (4m) ~ R05 (5m)			
Robot Cable	R06 (6m) ~ R10 (10m)			
	R11 (11m) ~ R15 (15m)			
	R16 (16m) ~ R20 (20m)			
* O A 00 f				

^{*} See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

7 totaator opoomoatic	3110
Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less
Ambient Operating Temp /Humidity	0~40°C 85% PH or loss (Non-condensing)

Ambient Operating Temp./Humidity

(*) Based on 10,000km travel life. **Directions of Allowable Load Moments**









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(67)

30 10 (57)

(170)

Home





*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

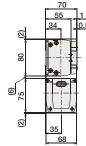
30

<u>S.E.</u>

* The reference surface is the same as the SS8C type. (See P36)

* The reference surface is the same as

* The offset reference position for the moment Ma is the same as



0.5

*1: The motor-encoder cable is connected here.

See page A-39 for details on cables.

*2: When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.

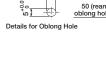
ME: Mechanical end

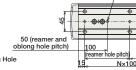
SE: Stroke end

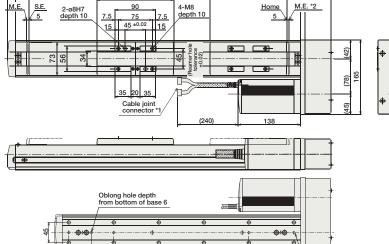
The dimensions enclosed in "()" are reference dimensions.

Dimensions of the brake section

* Adding a brake will increase the actuator's length by 26mm and its weight by 0.5kg.







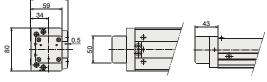
(L) (A)

S (Stroke)

170

90

100 (reamer hole pitch) 4-ø5H7 depth from bottom of base 6 D-M8 depth 10 N×100F N×100P



*The brake cable is passed through the actuator body and connected to the motor cable.

■ Dimensions/Weight by Stroke

	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
[L	364	414	464	514	564	614	664	714	764	814	864	914	964	1014	1064	1114	1164	1214	1264	1314
	Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
I	В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Ī	D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
Ī	F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
[N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
	Weight (kg)	7.4	7.9	8.5	9.0	9.5	10	10.5	11.1	11.6	12.1	12.7	13.2	13.7	14.3	14.8	15.3	15.8	16.4	16.9	17.4

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solellold valve Type		PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points	DC24V		→ P487
Splash-Proof Solenoid Valve Type	T T	PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.				→ F407
Positioner Type	Í	PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	. Containing to possible to tap to 0.2 points	orz pomio			
Pulse Train Input Type (Differential Line Driver)	É.	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	· (-)		2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support				
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

RCP2-SS8R

■ Configuration:

Slider Type

Mini
Standard

ntrollers
tegrated

Rod
Type

Mini
Standard

ntrollers
tegrated

Table/Arm
/Flat Type

2-HS8R RoboCylinder High-Speed Slider Type 80mm Width Pulse Motor Side-Mounted Motor Steel Base

* See page Pre-35 for explanation of each code that makes up the configuration name.

RCP2 - HS8R -**86P** Туре Encoder

> I: Incremental
> * The Simple
> absolute encoder 86P: Pulse motor 30:30mm 56 Inhigh output models are labeled as "I".

50: 50mm 1000:1000mm (50mm pitch increments)

Compatible Controllers -P2:PCON-CF

P2

BE : Brake (Cable exiting end) N: None BL : Brake (Cable exiting left)
BR : Brake (Cable exiting right) M:5m X : Custom Length SR : Slider Roller R : Robot cable

NM : Reversed-home



Technical References





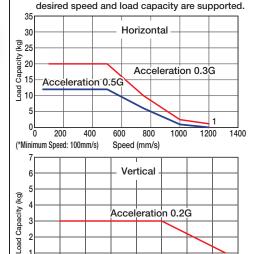
(1) Due the large lead of the ball screw in high-speed actuators, operating at low speeds may cause vibration and/or noise. Therefore, use the actuator at speeds over 100mm/s.

(2) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.

(3) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(4) The load capacity is based on operation at an acceleration of 0.3G (0.2G when used vertically). The upper limit for the acceleration is 0.5G for horizontal use and 0.2G for vertical use.

■ Speed vs. Load Capacity $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your



Actuator Specifications

Cable List

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Cap	, , ,	Stroke
	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2-HS8R-I-86P-30-1 -P2-2 -3	30	~ 20	~ 3	50 ~ 1000 (50mm increments)
Legend ① Stroke ② Cable length ③ Options				

200 300 400

(*Minimum Speed: 100mm/s)

Stroke Lead	$50 \sim 800$ (50mm increments)	\sim 900 (mm)	\sim 1000 (mm)
30	1200 〈750〉	1000 〈750〉	800 〈750〉

Speed (mm/s)

Туре	Cable Symbol	
	P (1m)	
Standard	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Slider Roller	SR	→ A-36	

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m
Allowable Dynamic Moment (*)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m
Overhang Load Length	Ma direction: 450mm or less; Mb·Mc direction: 450mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(*) Based on 10,000km travel life.

Directions of Allowable Load Moments









^{*} The values enclosed in < > apply to vertical setting. (Unit: mm/s)

4-ø5H7 depth from bottom of base 6

D-M8 depth 10

100 eamer hole pitch)



For Special Orders

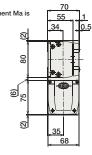




*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

* The reference surface is the same as the HS8C type. (See P38)

The offset reference position for the moment Ma is the same as the HS8C type. (See P38)



(A) (67)S (Stroke) (170) 30 10 (57) 170 4-M8 2-ø8H7 M.E. *2 <u>S.E.</u> 90 Home depth 10 depth 10 75 15 4 45 ±0.02 (78) Cable joint (240)138

*1: The motor-encoder cable is connected here.

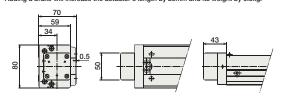
See page A-39 for details on cables.
*2 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end

SE: Stroke end

The dimensions enclosed in () are reference dimensions.



Details for Oblong Hole the brake section
Adding a brake will increase the actuator's length by 26mm and its weight by 0.5kg.



The brake cable is passed through the actuator body and connected to the motor cable.

■ Dimensions/Weight by Stroke

	Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
	L	364	414	464	514	564	614	664	714	764	814	864	914	964	1014	1064	1114	1164	1214	1264	1314
	Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
	В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
	D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
	F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
	N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
We	eight (kg)	7.4	7.9	8.5	9.0	9.5	10	10.5	11.1	11.6	12.1	12.7	13.2	13.7	14.3	14.8	15.3	15.8	16.4	16.9	17.4

Oblong hole depth from bottom of base 6

+--

50 (reamer and

oblong hole pitch)

Compatible Controllers

The controller for the RCP2-HS8R type is a dedicated controller.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Positioner Type		PCON-CF-86PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.	→ P 525

• Please note that the encoder cable is a dedicated CF-type cable that is different from the PCON-C/CG/CY/PL/PO/SE controllers.

• Note that a simple absolute unit cannot be used.

■ Configuration:

2-BA6/BA6U

Top-Mounted Motor / Bottom-Mounted Motor

BA6 :Belt type Top-mounted motor Top-moul BA6U:Belt type Botom-m motor

RCP2-

I: Incremental
* The Simple
absolute encoder
models are
labeled as "I". 42 🗌 size * See page Pre-35 for explanation of each code that makes up the configuration name.

Encoder

42P

42P: Pulse motor 54:54mm equivalent

54

Compatible Controllers 500: 500mm 1000:1000mm (50mm pitch increments)

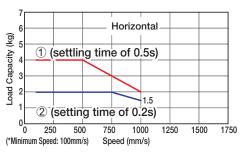
P1: PCON N: None RPCON PSEL P3: PMEC **PSEP**

P:1m S:3m M:5m X : : Custom Length Robot cable

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

NM: Reversed-home



Note:

Graph ① is for standard specifications, with settling time of 0.5s for calculating the positioning time.

 $\label{eq:Graph of Graph on the controller} \textbf{Graph } @ \text{ reflects some changes in the controller}$ settings. The load capacity is lower, however the settling time is decreased to 0.2s.

If the load capacity is lower than graph $\ensuremath{\mathfrak{D}}$, and you want to shorten the positioning time, change the controller settings. (See the manual for details.)

(Vertical operation is not possible.)



Technical References





- (1) Operating the belt type actuator at low speeds may cause vibration and/or resonance. Therefore, please set the speed at 100mm/s or faster.
- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are
- (3) The load capacity is based on operation at an acceleration of 0.5G. 0.5G is the upper limit for the acceleration.

Actuator Specifications							
■ Lead and Load Capacity (Note 1) Please	note that the maxi	mum load capacity	decreases as the	speed increases.		■ Stroke and N	laximum Speed
Model	Motor Mounting Direction		Max. Load Ca Horizontal (kg)	pacity (Note 1)	Stroke (mm)	Stroke	500 ~ 1000 (50mm increments)
RCP2-BA6-I-42P-54-①-②-③-④	Тор	()	rionzontai (kg)	Vortiour (kg)	500 ~ 1000		(,
RCP2-BA6U-I-42P-54-①-②-③-④	Bottom	54 equivalent	~ 4	Not Allowed	(50mm increments)	54 equivalent	1000
Legend (1) Stroke (2) Compatible controller (3) Cable length					•		(Unit: mm/s)

Cable Symbol
P (1m)
S (3m)
M (5m)
X06 (6m) ~ X10 (10m)
X11 (11m) ~ X15 (15m)
X16 (16m) ~ X20 (20m)
R01 (1m) ~ R03 (3m)
R04 (4m) ~ R05 (5m)
R06 (6m) ~ R10 (10m)
R11 (11m) ~ R15 (15m)
R16 (16m) ~ R20 (20m)

Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	

Item	Description
Drive System	Timing Belt
Positioning Repeatability	±0.1mm
Lost Motion	0.1mm or less
Allowable Dynamic Moment (*)	Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)
(*) Based on 5,000km travel life.	

Directions of Allowable Load Moments





CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





39 8 23 8

63.5

55 53

Reference surface 1.5 6

Details of A (mounting hole and reference surface)

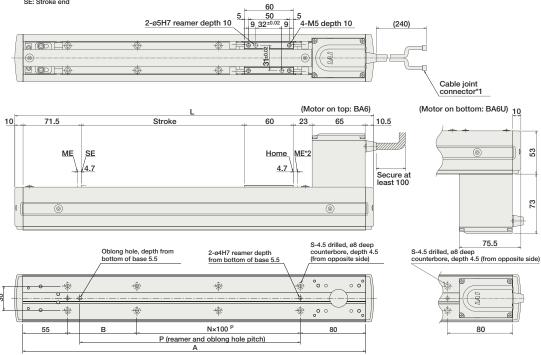
55

58

118.5

- *1 The motor-encoder cable is connected here. See page A-39 for details on cables.
- *2 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical end SE: Stroke end



■ Dimensions/Weight by Stroke

- Difficits	Billiensions, weight by otroke											
Stroke	500	550	600	650	700	750	800	850	900	950	1000	
L	740	790	840	890	940	990	1040	1090	1140	1190	1240	
Α	720	770	820	870	920	970	1020	1070	1120	1170	1220	
В	85	35	85	35	85	35	85	35	85	35	85	
N	5	6	6	7	7	8	8	9	9	10	10	
Р	570	620	670	720	770	820	870	920	970	1020	1070	
S	14	16	16	18	18	20	20	22	22	24	24	
Weight (kg)	2.8	2.9	3.0	3.2	3.3	3.4	3.5	3.7	3.8	3.9	4.1	

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Details for Oblong Hole

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type	110	PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Soleliold valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.			→ P487	
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				→ F407
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	r containing is possible for up to 012 points	orz politic			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

Standard

Rod

Mini

Standard

Controllers Integrated

Flat Type

Standard

Gripper/ Rotary Type

Linear Motor

.,,,,,

Splash-Proof

Controllers

/AMEC

ROBO NET

ERC2

PSEI

ASFI

SSEL

XSEL

Pulse Motor

Servo Moto (24V)

Servo Mot (230V)

Linear Mot

■ Configuration:

P2-BA7/BA7U

RoboCylinder Belt Type 68mm Width Pulse Motor Top-Mounted Motor / Bottom-Mounted Motor

BA7 : Belt type Top-mounted motor BA7U: Belt type

RCP2-

I: Incremental
* The Simple
absolute encoder
models are
labeled as "I". 42P: Pulse motor 54:54mm 42 🗌 size motor labeled as "I".

* See page Pre-35 for explanation of each code that makes up the configuration name.

42P

54

Compatible Controllers 600: 600mm 1200:1200mm (50mm pitch increments)

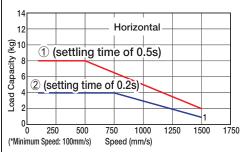
P1: PCON RPCON PSEL P3: PMEC **PSEP**

N:None NN
P:1m
S:3m
M:5m
X: : Custom Length
R: : Robot cable

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

NM: Reversed-home



Note:

Graph ① is for standard specifications, with settling time of 0.5s for calculating the positioning time.

Graph 2 reflects some changes in the controller settings. The load capacity is lower, however the settling time is decreased to 0.2s.

If the load capacity is lower than graph $\ensuremath{\mathfrak{D}}$, and you want to shorten the positioning time, change the controller settings. (See the manual for details.)

(Vertical operation is not possible.)



Technical References



- (1) Operating the belt type actuator at low speeds may cause vibration and/or resonance. Therefore, please set the speed at 100mm/s or faster.
- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are
- (3) The load capacity is based on operation at an acceleration of 0.5G. 0.5G is the upper limit for the acceleration.

Actuator Specifications							
■ Lead and Load Capacity	(Note 1) Please r	note that the maxir	mum load capacity	decreases as the	speed increases.	■ Stroke and	Maximum Speed
Model	Motor Mounting Direction		Max. Load Ca Horizontal (kg)	vertical (kg)	Stroke (mm)	Stroke Lead	$600 \sim$ 1200 (50mm increments)
RCP2-BA7-I-42P-54-①-②-③-④	Тор	54 equivalent	~ 8	Not Allowed	600 ~ 1200 (50mm	54	1500
RCP2-BA7U-I-42P-54-①-②-③-④	Bottom	54 equivalent	~ 8	Not Allowed	increments)	equivalent	1500
Legend ①Stroke ②Compatible controller ③Cable length	4 Options	•	•				(Unit: mm/s)

Cable List								
Туре	Cable Symbol							
	P (1m)							
Standard	S (3m)							
	M (5m)							
	X06 (6m) ~ X10 (10m)							
Special Lengths	X11 (11m) ~ X15 (15m)							
	X16 (16m) ~ X20 (20m)							
	R01 (1m) ~ R03 (3m)							
	R04 (4m) ~ R05 (5m)							
Robot Cable	R06 (6m) ~ R10 (10m)							
	R11 (11m) ~ R15 (15m)							
	R16 (16m) ~ R20 (20m)							

*	See	page	A-39	for	cables	for	maintenance.	

Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	
neverseu-nome	IAIAI	→ A-33	

Actuator Specifications

Item	Description					
Drive System	Timing Belt					
Positioning Repeatability	±0.1mm					
Lost Motion	0.1mm or less					
Allowable Dynamic Moment (*)	Ma: 13.8 N·m Mb: 19.7 N·m Mc: 29.0 N·m					
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less					
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)					

(*) Based on 5,000km travel life. **Directions of Allowable Load Moments**







Dimensions

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders



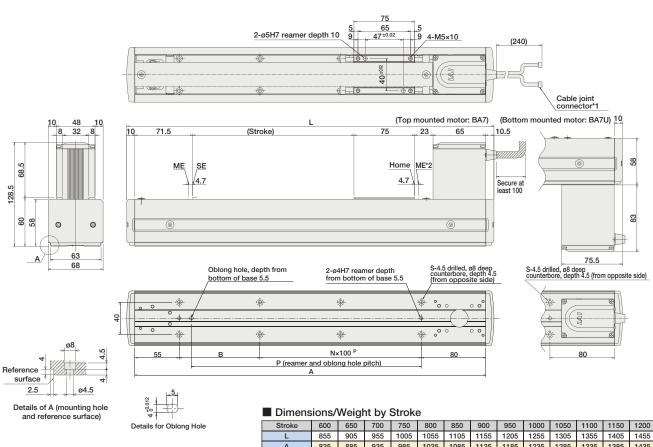


- *1 The motor-encoder cable is connected here.
- See page A-39 for details on cables.

 2 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.

 ME: Mechanical end

 SE: Stroke end



Α 835 885 935 985 1035 1085 1135 1185 1235 1285 1335 1385 1435 100 50 50 100 50 100 100 50 100 50 100 50 100 В 6 8 9 9 10 10 11 12 12 11 Р 685 735 785 835 885 935 985 1035 1085 1135 1185 1235 1285 S 16 18 18 20 20 22 22 24 24 26 26 28 28 Weight (kg) 3.6 3.7 3.9 4.0 4.2 4.3 4.4 4.6 4.7 4.9 5.0 5.2 5.3

Com	patible	Control	lers
-----	---------	---------	------

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Sciencia valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type	T .	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				→ F407
Positioner Type	Í	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	reducing a possible to ap to 0.2 points	012 pointe			
Pulse Train Input Type (Differential Line Driver)	É	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

Mini

Standard

Integrated

Rod Type

Mini

Standard

Controllers Integrated

able/Arm Flat Type

Gripper/ Rotary Type

Linear Motor Type

туре

PMEC

/ASEP

ERC2

POON

ACON

SCON

PSE

ASEL

SSEL

XSEL

ulse Moto

Servo Motor (24V)

Servo Moto (230V)

Linear Mot

* See page Pre-35 for details on the model descriptions

Configuration

P3-RA2AC

RoboCylinder Mini Rod Type Motor Unit Coupling Type 22mm Width Pulse Motor Ball Screw/Lead Screw

RCP3 - RA2AC -

I: Incremental specification Model number is "I" when used with simple absolute unit.

20P: Pulse Motor 20 size
Standard type
P: Pulse Motor
20 size
High-load type

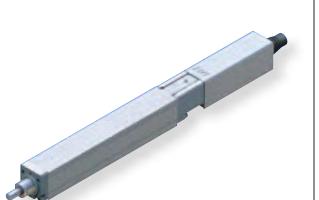
4: Ball screw 4mm 4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm

25: 25mm 100: 100mm (every 25mm) P1: PCON RPCON PSEL P3: PMEC PSEP

Compatible Controllers

N: None P: 1m NM: S: 3m M: 5m X : Custom Length

NM: Reversed-home specification



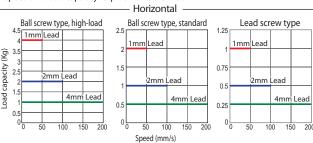
Technical References

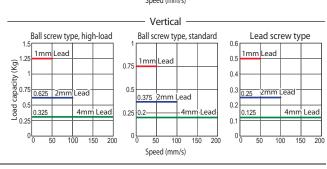


- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above.
- (2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
- (3) The maximum pushing force is the value when the actuator is operated at a speed of
- (4) Service life decreases significantly if used in a dusty environment.

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.





Actuator Specifications

■ Lead and Load Capacity

		-		Maximun	n payload	Maximum	Positioning	C. 1
Model	Motor type	Feed screw	Lead (mm)	Horizontal (kg)	Vertical (kg)	pushing force (N)	Repeatability (mm)	Stroke (mm)
RCP3-RA2AC-I-20SP-4- ① - ② - ③ - ④			4	1	0.325			
RCP3-RA2AC-I-20SP-2- ① - ② - ③ - ④	High- load		2	2	0.625			
RCP3-RA2AC-I-20SP-1-①-②-③-④		Ball	1	4	1.25		±0.02	
RCP3-RA2AC-I-20P-4- ① - ② - ③ - ④		screw	4	0.5	0.2		10.02	25 to 100
RCP3-RA2AC-I-20P-2- ① - ② - ③ - ④	Standard		2	1	0.375	See page A-68		(every
RCP3-RA2AC-I-20P-1- ① - ② - ③ - ④			1	2	0.75	A-00		25mm)
RCP3-RA2AC-I-20P-4S- ① - ② - ③ - ④			4	0.25	0.125			
RCP3-RA2AC-I-20P-2S- ① - ② - ③ - ④	Standard	Lead screw	2	0.5	0.25		±0.05	
RCP3-RA2AC-I-20P-1S- ① - ② - ③ - ④			1	1	0.5			

■ Stroke and Maximum Speed

Stroke Lead		25 (mm)	50 to 100 (mm)				
W	4	180	200				
Ball screw	2	10	100				
B	1	50					
W	4	180	200				
Lead screw		100					
Le	1	5	0				

(Unit = mm/s)

Cable List

Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

Legend 1 Stroke 2 Compatible Controllers 3 Cable length 4 Option

- * The RCP3 comes standard with a robot cable.
- See page A-39 for cables for maintenance

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	

Actuator Specifications

lt.	em	Description		
Drive Syster	m	Ball screw/Lead screw, Ø4 mm, rolled C10		
Lost motion	1	Ball screw: 0.1 mm or less/Lead screw: 0.3 mm or less (default value)		
Base		Material: Aluminum, white alumite treated		
Guide Slide guide		Slide guide		
Ambient op temperatur		0 to 40 °C, 85% RH or less (Non-condensing)		
Service life Lead screw specification		Horizontal: 10 million cycles Vertical: 5 million cycles		
Ball screw specification		5000 km		

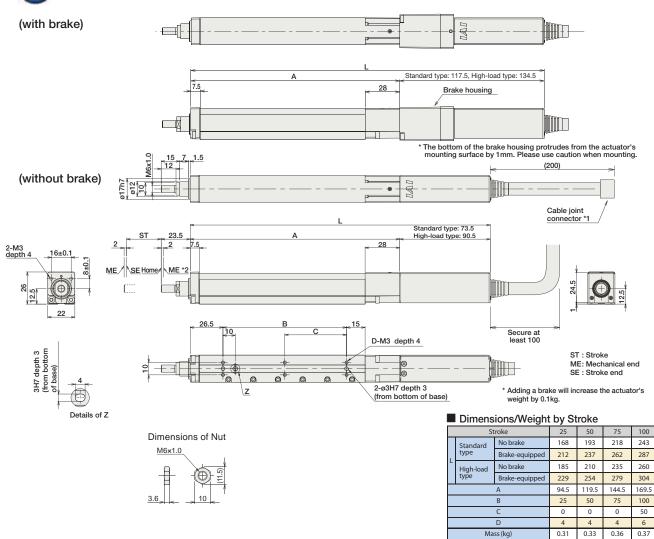
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





- *1 A motor-encoder cable is connected here. See page A-39 for details on cables.
- *2 When homing, the slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.



Compati	ble Cor	ntrollers
---------	---------	-----------

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solellold valve type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type	B	PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				→ F407
Positioner Type	Í	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	. containing to possible for up to 012 points	one points			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

RCP3-RA2AC

132

Mini

Standard

Rod Type

Mini

Controllers

Table/Arm Flat Type

Mini

Gripper/

Rotary Type

Linear Motor Type

Туре

Controllers

PMEC /AMEC

/ASEP

FRC2

PCON

ACUN

SSEL

XSEL

Pulse Moto

Servo Mot

Servo Moto 230V)

Linear Mot

*See page Pre-35 for details on the model descriptions

Standard
Introllers
tegrated

Rod
Type

Mini
Standard
Introllers
tegrated

P3-RA2B RoboCylinder Mini Rod type Motor Unit Coupling type 28mm Width Pulse Motor Ball Screw/Lead Screw **■**Configuration RCP3 - RA2BC -Cable Length Compatible Туре I: Incremental 20P: Pulse Motor 6: Ball screw 6mm 25: 25 mm P1: PCON N: None B: Brake 4: Ball screw 6mm 4: Ball screw 2mm 2: Ball screw 2mm 1: Ball screw 1mm 6S: Lead screw 6mm 4S: Lead screw 4mm P: 1m S: 3m M: 5m X : Custom Length specification 20∏ size RPCON NM: Reversed-home Standard type P: Pulse Motor 20 size High-load type PSEL P3: PMEC PSEP Model number 150:150 mm (every 25mm) is "I" when used with simple absolute unit.

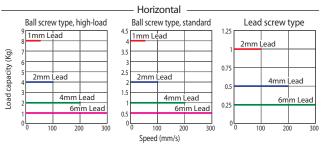
2S: Lead screw 2mm

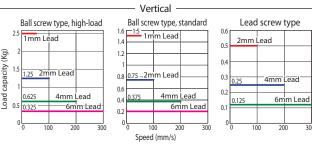
Technical References

- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above. (2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
 - (3) The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s
 - (4) Service life decreases significantly if used in a dusty environment.

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.





Actuator Specifications

■Lead and Load Capacity

	Motor	otor Feed		Maximum payload		Maximum	Positioning	Stroke										
Model	type	screw	Lead (mm)	Horizontal (kg)	Vertical (kg)	pushing force (N)	Repeatability (mm)	(mm)										
RCP3-RA2BC-I-20SP-6- ① - ② - ③ - ④			6	1	0.325													
RCP3-RA2BC-I-20SP-4- ① - ② - ③ - ④	High-		4	2	0.625													
RCP3-RA2BC-I-20SP-2- ① - ② - ③ - ④	load		2	4	1.25													
RCP3-RA2BC-I-20SP-1- ① - ② - ③ - ④			Ball	1	8	2.5	104	+0.02										
RCP3-RA2BC-I-20P- 6 - ① - ② - ③ - ④		screw	6	0.5	0.2		±0.02	25 to 150										
RCP3-RA2BC-I-20P- 4 - ① - ② - ③ - ④	Charada ad		4	1	0.375	See page A-68		(every										
RCP3-RA2BC-I-20P- 2 - ① - ② - ③ - ④	Standard	Standard	Standard	Stanuaru	Stanuaru	Statiuatu	Standard	Standard	Stanuaru	Standard	Standard	Standard	2	2	0.75	A-00		25mm)
RCP3-RA2BC-I-20P- 1 - ① - ② - ③ - ④			1	4	1.5													
RCP3-RA2BC-I-20P-6S- ① - ② - ③ - ④			6	0.25	0.125													
RCP3-RA2BC-I-20P-4S- ① - ② - ③ - ④	Standard	Lead	4	0.5	0.25		±0.05											
RCP3-RA2BC-I-20P-2S-① - ② - ③ - ④]		2	1	0.5													

Stroke and Maximum Speed

■Stroke and Maximum Speed						
Stroke		25 50 (mm)				
	6	180	280	300		
rew	4	180	20	00		
Ball screw	2		100			
	1		50			
Mi	6	180	280	300		
Lead screw	4	180	20	00		
Les	2		100			
			(Unit = mm/s		

egend	1 Stroke	2 Compatible Controllers 3 Cable length	4 Option

Cable list		
Туре	Cable symbol	
Standard type	P (1m)	
,,	S (3m)	
(Robot cable)	M (5m)	
	X06 (6m) to X10 (10m)	
Special length	X11 (11m) to X15 (15m)	
	X16 (16m) to X20 (20m)	

- * The RCP3 comes standard with a robot cable.
- * See page A-39 for cables for maintenance.

Option List Title Brake Reversed - home specification NM → A-33

Actuator Specifications

lt.	em	Description		
Drive Syster	m	Ball screw/Lead screw, Ø6 mm, rolled C10		
Lost motion	1	Ball screw: 0.1 mm or less/Lead screw: 0.3 mm or less (default value)		
Base		Material: Aluminum, white alumite treated		
Guide Slide guide		Slide guide		
Ambient operating temperature, humidity		0 to 40 °C, 85% RH or less (Non-condensing)		
Lead screw specification		Horizontal: 10 million cycles Vertical: 5 million cycles		
Ball screw specification		5000 km		



For Special Orders



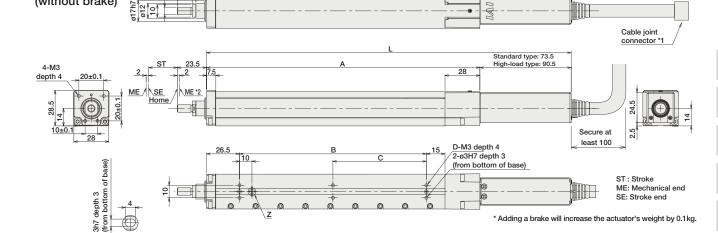
2/3D CAD

- *1 A motor-encoder cable is connected here. See page A-39 for details on cables.
 *2 When homing, the slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

(with brake)







* Adding a brake will increase the actuator's weight by 0.1kg.

Dimensions of Nut M6×1.0

	■ Dimensions and Weight by Stroke							
	St	troke	25	50	75	100	125	150
	Standard	No brake	168	193	218	243	268	293
L	type	Brake-equipped	212	237	262	287	312	337
ľ	High-load	No brake	185	210	235	260	285	310
	type	Brake-equipped	229	254	279	304	329	354
	A		94.5	119.5	144.5	169.5	194.5	219.5
	В		25	50	75	100	125	150
	С		0	0	0	50	62.5	75
	D		4	4	4	6	6	6
	Mass (kg)			0.39	0.42	0.45	0.48	0.51

Compatible	Controllers
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Details of Z

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Solelloid valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487	
Splash-Proof Solenoid Valve Type	I	PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				→ F407	
Positioner Type	Í	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512	512 points DC24V				
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	points					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support			DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P503	
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557	

Controllers

PMEC
AMEC

PSEP
ASEP

ROBO
NET

ERC2

PCON

ACON

SCON

PSEL

ASEL

SSEL

■Configuration

Rod Type
Mini
Standard
ntrollers
tegrated
Table/Arm
/Flat Type

P3-RA2AR

RoboCylinder Mini Rod type Side-Mounted Motor Type 22mm Width Pulse Motor Ball Screw/Lead Screw

RCP3 - RA2AR -

I: Incremental specification * Model number is "I" when used with simple absolute unit. 20P: Pulse Motor 20∏ size Standard type Pulse Motor 20 size High-load type

4: Ball screw 4mm 4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 4S: Lead screw 4mm 2S: Lead screw 2mm 1S: Lead screw 1mm

25: 25 mm 100:100 mm (every 25mm)

Compatible P1: PCON RPCON PSEL P3: PMEC PSEP

N: None M: 5m
X : Custom Length

Cable Length

See options table below. Be sure to specify which side the motor is to be mounted (ML/MR)

Technical [P. A-5 References

*See page Pre-35 for details on the model descriptions

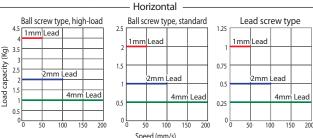


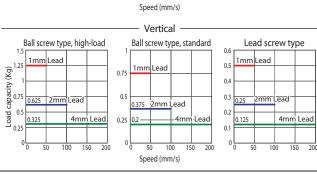
Photo above shows specification with motor reversing to the left (ML Option).

- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above.
- (2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
- 3) The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s.
- (4) Service life decreases significantly if used in a dusty environment

■ Correlation Diagrams of Speed and Load Capacity

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.





Actuator Specifications

■Lead and Load Capacity

Model	Motor type	Feed	Lead (mm)	Maximun Horizontal	Vertical	Maximum pushing force	Positioning Repeatability	Stroke (mm)				
	type	JCICW	(,	(kg)	(kg)	(N)	(mm)	()				
RCP3-RA2AR-I-20SP-4- ① - ② - ③ - ④	High- load Standard		4	1	0.325							
RCP3-RA2AR-I-20SP-2- ① - ② - ③ - ④			2	2	0.625							
RCP3-RA2AR-I-20SP-1- ① - ② - ③ - ④		scre	Ball	1	4	1.25		±0.02				
RCP3-RA2AR-I-20P-4- ① - ② - ③ - ④			screw	4	0.5	0.2		±0.02	25 to 100			
RCP3-RA2AR-I-20P-2- ① - ② - ③ - ④			Standard	Standard	Standard	Standard	Standard	Standard	2	1	0.375	See page A-68
RCP3-RA2AR-I-20P-1- ① - ② - ③ - ④			1	2	0.75	A-00		25mm)				
RCP3-RA2AR-I-20P-4S- ① - ② - ③ - ④			4	0.25	0.125							
RCP3-RA2AR-I-20P-2S-①-②-③-④	Standard	Lead screw	2	0.5	0.25		±0.05					
RCP3-RA2AR-I-20P-1S-①-②-③-④			1	1	0.5							

■Stroke and Maximum Speed

Lead	Stroke 25 (mm)		50 to 100 (mm)
W	4	180	200
Ball screw	2	10	00
- A	1	5	0
Ņ	4	180	200
Lead screw	2	10	00
Le	1	5	60

(Unit = mm/s)

Odbie List			
		i	
Туре	Cable Symbol		
Standard	P (1m)		
	S (3m)		
(Robot Cables)	M (5m)		
Special Lengths	X06 (6m) ~ X10 (10m)		
	X11 (11m) ~ X15 (15m)		
	X16 (16m) ~ X20 (20m)		

Legend 1 Stroke 2 Compatible Controllers 3 Cable length 4 Option

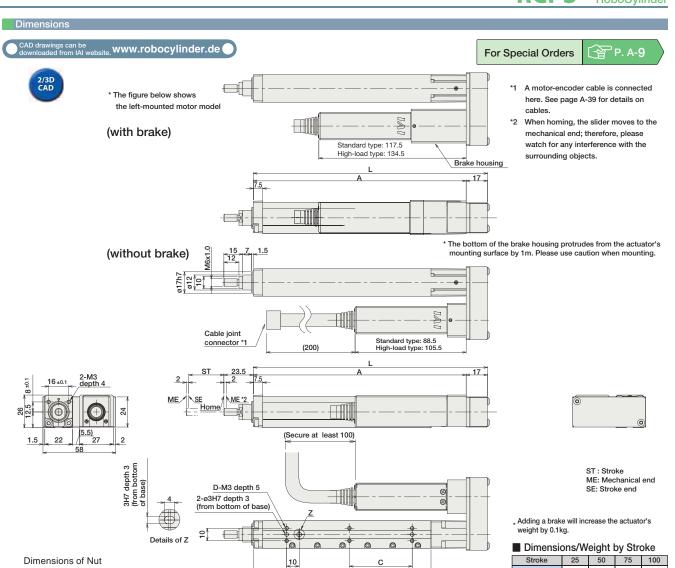
- The RCP3 comes standard with a robot cable.
- See page A-39 for cables for maintenance.

Option List

Title	Option code	See page	
Brake	В	→ A-25	
Side-mounted motor to the left (standard)	ML	→ A-33	
Side-mounted motor to the right	MR	→ A-33	
Reversed-home specification	NM	→ A-33	

Actuator Specifications

Item		Description		
Drive Syste	m	Ball screw/Lead screw, Ø4 mm, rolled C10		
Lost motion	1	Ball screw: 0.1 mm or less/Lead screw: 0.3 mm or less (default value)		
Base		Material: Aluminum, white alumite treated		
Guide		Slide guide		
Ambient operating temperature, humidity		0 to 40 °C, 85% RH or less (Non-condensing)		
Service life	Lead screw specification	Horizontal: 10 million cycles Vertical: 5 million cycles		
Service life	Ball screw specification	5000 km		



15

■ Dimensions/Weight by Stroke				
Stroke	25	50	75	100
L	111.5	136.5	161.5	186.5
Α	94.5	119.5	144.5	169.5
В	25	50	75	100
С	0	0	0	50
D	4	4	4	6
Weight (kg)	0.34	0.36	0.39	0.4

Compatible Controllers The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage. AC115V PMEC-C-20PI-NP-2-2 Easy-to-use controller, even for beginners See P481 → P477 AC230V Solenoid Valve Type 1 PSEP-C-20PI-NP-2-0 3 points Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. → P487 Splash-Proof Solenoid Valve Type PSEP-CW-20PI-NP-2-0 PCON-C-20PI-NP-2-0 Positioner Type Positioning is possible for up to 512 points 512 points Safety-Compliant Positioner Type PCON-CG-20PI-NP-2-0 Pulse Train Input Type (Differential Line Driver) PCON-PL-20PI-NP-2-0 DC24V → P525 (-) Pulse Train Input Type (Open Collector) Pulse train input type with open collector support PCON-PO-20PI-NP-2-0 Serial Communication Type PCON-SE-20PI-N-0-0 Dedicated to serial communication 64 points RPCON-20P Field Network Type Dedicated to field network 768 points → P503 Programmed operation is possible Operation is possible on up to 2 axes Program Control Type PSEL-C-1-20PI-NP-2-0 1500 points → P557 * This is for the single-axis PSEL.

26.5

M6×1.0

Slider

Mini

Controllers

Rod

Mini

Mini

Controllers

Table/Arm

Mini

Standard

Gripper/ Rotary Type

Type

Туре

Splash Proof

AIVILO

/ASEP

ROB0

FRC2

 \equiv

SCON

PSEL

ASEL

SSEL

XSEL

Servo Moto

(24V)

Servo Moto 230V)

Linear Moto

*See page Pre-35 for details on the model descriptions.

P. A-5

Configuration

Technical

References

tandard

htrollers
egrated

Rod
Type

Mini
tandard
htrollers
egrated

Table/Arm
/Flat Type

P3-RA2BR

RoboCylinder Mini Rod type Side-Mounted Motor Type 28mm Width Pulse Motor Ball Screw/Lead Screw

RCP3 - RA2BR -

I: Incremental specification * Model number is "I" when used with simple

20P: Pulse Motor 20

☐ size Standard type
20SP: Pulse Motor
20 Size
High-load type

I

absolute unit.

6: Ball screw 6mm 4: Ball screw 4mm 2: Ball screw 2mm 1: Ball screw 1mm 6S: Lead screw 6mm 4S: Lead screw 4mm 2S: Lead screw 2mm

25: 25 mm 150:150 mm (every 25mm)

Stroke

Compatible Controllers P1: PCON **RPCON** PSEL P3: PMEC

N: None P: 1m X :: Custom Length

Cable Length

See options table Be sure to specify which side the motor is to be mounted (ML/MR)

PSEP ■ Correlation Diagrams of Speed and Load Capacity



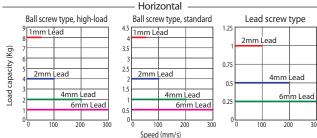
Photo above shows specification with motor reversing

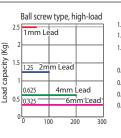
- (1) The payload is the value when the actuator is operated at an acceleration of 0.3 G (0.2 G for the lead screw specification, if used vertically). The acceleration limit is the value indicated above.
- (2) The horizontal payload is the value when used in combination with an external guide. Please note that if an external force is applied to the rod in a direction other than the proper direction the rod travels, the detent may get damaged.
- 3) The maximum pushing force is the value when the actuator is operated at a speed of 5 mm/s.

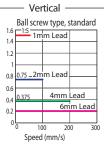
(4) Service life decreases significantly if used in a dusty environment.

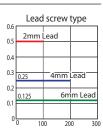
to the left (ML Option).

With the RCP3 series, due to the characteristics of the pulse motor, load capacity decreases as the speed increases. Use the chart below to confirm that the desired speed and load capacity requirements are met.









Actuator Specifications

■ Lead and Load Capacity

		Feed	Lead	Maximun	n payload	Maximum	Positioning	Stroke									
Model	Motor type	screw	(mm)	Horizontal (kg)	Vertical (kg)	pushing force (N)	Repeatability (mm)	(mm)									
RCP3-RA2BR-I-20SP-6- ① - ② - ③ - ④			6	1	0.325												
RCP3-RA2BR-I-20SP-4- ① - ② - ③ - ④	High- load		4	2	0.625												
RCP3-RA2BR-I-20SP-2- ① - ② - ③ - ④				2	4	1.25											
RCP3-RA2BR-I-20SP-1- ① - ② - ③ - ④		Ball screw	1	8	2.5		±0.02	25 to 150									
RCP3-RA2BR-I-20P- 6 - ① - ② - ③ - ④	Standard		6	0.5	0.2												
RCP3-RA2BR-I-20P- 4 - ① - ② - ③ - ④		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Character of	Chan dand	Chan dand	4	1	0.375	See page A-68		(every
RCP3-RA2BR-I-20P- 2 - ① - ② - ③ - ④									Standard	Standard	2	2	0.75	A-00		25mm)	
RCP3-RA2BR-I-20P- 1 - ① - ② - ③ - ④			1	4	1.5												
RCP3-RA2BR-I-20P-6S- ① - ② - ③ - ④			6	0.25	0.125												
RCP3-RA2BR-I-20P-4S- ① - ② - ③ - ④	Standard	Lead screw	4	0.5	0.25		±0.05										
RCP3-RA2BR-I-20P-2S-① - ② - ③ - ④]	SCIEW	2	1	0.5												

■Stroke and Maximum Speed

Lead	Stroke	25 (mm)	50 (mm)	75 to 150 (mm)		
	6	180	280	300		
crew	4	180	180 200			
Ball screw	2	100				
	1					
W	6	180	280	300		
ead screw	4	180	20	00		
Leš	2		100			

(Unit = mm/s)

Cable List

Туре	Cable Symbol	
Standard	P (1m)	
	S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

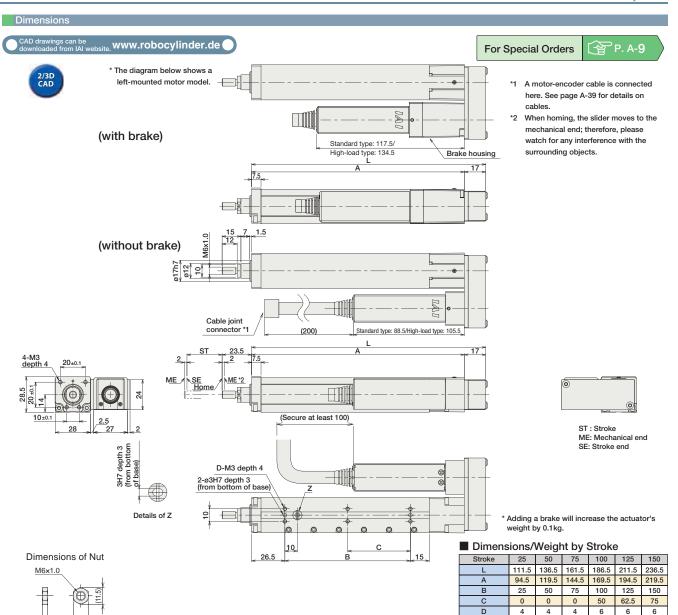
- The RCP3 comes standard with a robot cable.
- * See page A-39 for cables for maintenance.

Option List

•			
Name	Option Code	See Page	
Brake	В	→ A-25	
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item		Description		
Drive Syster	n	Ball screw/Lead screw, Ø6 mm, rolled C10		
Lost motion	1	Ball screw: 0.1 mm or less/Lead screw: 0.3 mm or less (default value)		
Base		Material: Aluminum, white alumite treated		
Guide		Slide guide		
Ambient operating temperature, humidity		0 to 40 °C, 85% RH or less (Non-condensing)		
Service life	Lead screw specification	Horizontal: 10 million cycles Vertical: 5 million cycles		
service life	Ball screw specification	5000 km		



Compatible	Controllers
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The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page		
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller,even for beginners		AC115V AC230V	See P481		→ P477		
Soleliold valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. 3 points							
Splash-Proof Solenoid Valve Type	P	PSEP-CW-20PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.							→ P487
Positioner Type	É.	PCON-C-20PI-NP-2-0								
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points		2A max.				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V			→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	()	()					
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points						
Field Network Type		RPCON-20P	Dedicated to field network	768 points				→ P503		
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557		
							* This is for the single-	axis PSEL		

IAI

138 RCP3-RA2BR

Weight (kg) 0.38

0.41 0.44

0.47 0.50

0.53

Standard
Introllers
Integrated
Rod
Type
Mini
Standard
Controllers
Integrated
Table/Arn
/Flat Type

RCP2-RA2C RoboCylinder Rod Type 25mm Width Pulse Motor Straight Type ■ Configuration: RCP2 — RA2C **20P**

20P: Pulse motor

20 🗌 size

Lead

1:1mm

Stroke

25: 25mm

100: 100mm

(25mm pitch

increments)

Encoder

The Simple absolute encoder is also considered

I: Incremental

type "I".

Type

Technical ´字 P. A-5 References

(1) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.05G.

0.05G is the upper limit of the acceleration.
In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod from a direction other than the motion of the rod, the detent may become damaged.

Speed vs. Load Capacity

Compatible Controllers

P1: PCON

P3: PMEC

PSEP

RPCON

PSEL

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

Cable Length

X .: Custom Length

R .: Robot cable

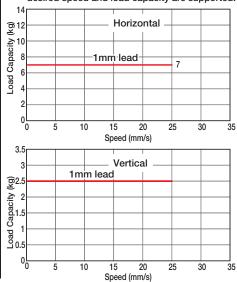
N : None P : 1m

S : 3m M : 5m

Option

FT:Foot bracket

FL:Flange



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)		Capacity Vertical (kg)	Maximum Push Force (N)(Note 1)	Stroke (mm)
RCP2-RA2C-I-20P-1-①-②-③-④	1	7	2.5	100	$\begin{array}{c} 25 \sim 100 \\ \text{(25mm} \\ \text{increments)} \end{array}$

Legend: 1 Stroke 2 Compatible controller 3 Cable length 4 Options (Note 1) See page A-69 for the pushing force graphs.

■ Stroke and Maximum Speed

Stroke	$25 \sim 100$ (25mm increments)
1	25

(Unit: mm/s)

Oubic List		
Туре	Cable Symbol	
	P (1m)	
Standard	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) \sim R20 (20m)	

See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Flange	FL	→ A-27	
Foot bracket	FT	→ A-29	

Actuator Specifications

Item	Description
Drive System	Ball screw ø6mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø12mm
Non-rotating accuracy of rod	±2.1 deg
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

For Special Orders

Dimensions

_{osite.} www.robocylinder.de

The motor-encoder cable is connected here.



2/3D CAD

Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or

rotational direction, the detent may become damaged.

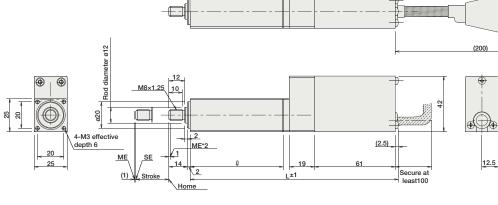
Note:

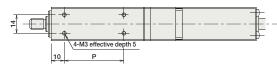
* The RA2C is not available in reversed-home configuration, due to its construction.

See page A-39 for details on cables.

When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end SE: Stroke end

Cable joint connector *1





■ Dimensions/Weight by Stroke

Stroke	25	50	75	100
R	70	95	120	145
L	157.5	182.5	207.5	232.5
P	45	70	95	120
Weight (kg)	0.4	0.5	0.6	0.7

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477		
Solellold valve Type	1	PSEP-C-20PI-NP-2-0 Operable with same signal as solenoid valve. 3 points			→ D497				
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.						→ P487
Positioner Type	Ĺ	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V				
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	r contorning to possible for up to 012 points	orz ponito					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	()		2A max.	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(–)	(-)	()			
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P503		
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557		

* This is for the single-axis PSEL.

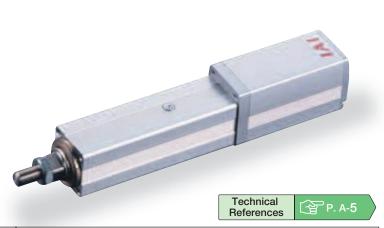
PMEC (AMEC PSEP (ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL

Standard
Introllers
Integrated
Rod
Type
Mini
Standard
Controllers
Integrated
Table/Arm
//Flat Type

RCP2-RA3C RoboCylinder Rod Type 35mm Width Pulse Motor Straight Type ■ Configuration: RCP2 — RA3C **28P** Encoder Lead Compatible Controllers Cable Length Option Type Stroke N : None P : 1m FL: Flange FT: Foot bracket NM: Reversed-home I: Incremental 28P: Pulse motor 5 : 5mm 50: 50mm P1: PCON The Simple absolute encoder 28 🗌 size 2.5 : 2.5mm RPCON S : 3m M : 5m 200: 200mm PSEL is also considered (50mm pitch P3: PMEC type "I". X .: Custom

increments)

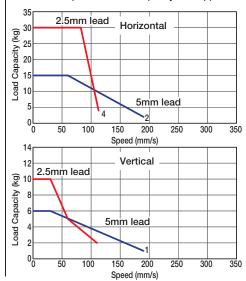
PSEP



Speed vs. Load Capacity

 $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

R .: Robot cable



When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.2G.

0.2G is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod

from a direction other than the motion of the rod, the detent may become damaged.

Lead and Load Capacity (Note 1) Pleas	e note that the n	naximum load o	apacity decre	ases as the sp	eed increases.
Model	Lead	Max. Load Ca	pacity (Note 1)	Maximum Push	Stroke
Wodei	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP2-RA3C-I-28P-5-①-②-③-④	5	~ 15	~ 6	73.5	50 ~ 200
RCP2-RA3C-I-28P-2.5-1 - 2 - 3 - 4	2.5	~ 30	~ 10	156.8	increments)

Legend: ① Stroke ② Compatible controller ③ Cable length ④ Options

■ Stroke and Maximum Speed

Stroke Lead	$50 \sim 200$ (50mm increments)
5	187
2.5	114

(Note 2) See page A-69 for the pushing force graphs.

(Unit: mm/s)

Cable List

Actuator Specifications

Cable List				
Cable Symbol				
P (1m)				
S (3m)				
M (5m)				
X06 (6m) ~ X10 (10m)				
X11 (11m) ~ X15 (15m)				
X16 (16m) ~ X20 (20m)				
R01 (1m) ~ R03 (3m)				
R04 (4m) ~ R05 (5m)				
R06 (6m) ~ R10 (10m)				
R11 (11m) ~ R15 (15m)				
R16 (16m) ~ R20 (20m)				
	N (5m) N			

* See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Flange	FL	→ A-27	
Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	

Actuator Specification

Actuator Specifications					
Item	Description				
Drive System	Ball screw ø8mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Rod Diameter	ø22mm				
Non-rotating accuracy of rod	±1.5 deg				
Ambient Operating Temp./Humidity	$0\sim40^{\circ}\text{C}$, 85% RH or less (non-condensing)				

Dimensions

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders

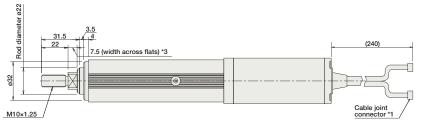


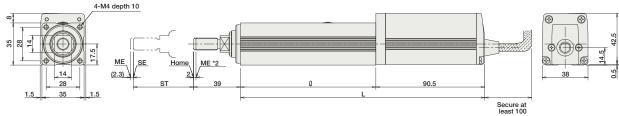
2/3D CAD

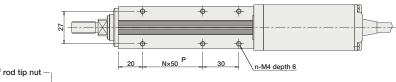
Note: Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged. *1. The motor-encoder cable is connected here. See page A-39 for details on cables.

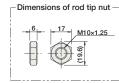
When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end SE: Stroke end

*3. The orientation of the bolt will vary depending on the product.









■ Dimensions/Weight by Stroke

Differsions/ Weight by Stroke								
Stroke	50	100	150	200				
R	112.5	162.5	212.5	262.5				
L	203	253	303	353				
N	1	2	3	4				
n	6	8	10	12				
Weight (kg)	0.8	0.95	1.1	1.25				

Compatible Controllers

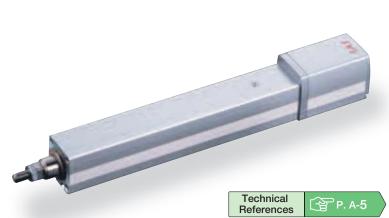
The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page	
Salanaid Valva Typa		PMEC-C-28SPI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477	
Solellold valve Type		PSEP-C-28SPI-NP-2-0	Operable with same signal as solenoid valve.	3 points				→ D407	
Splash-Proof Solenoid Valve Type	1	PSEP-CW-28SPI-NP-2-0	No homing necessary with simple absolute type.					→ P487	
Positioner Type	Ĭ.	PCON-C-28SPI-NP-2-0 Positioning is possible for up to 512		512 points (-) 64 points 768 points 1500 points	DC24V				
Safety-Compliant Positioner Type		PCON-CG-28SPI-NP-2-0	points						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28SPI-NP-2-0	Pulse train input type with differential line driver support			2A max.		→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-28SPI-NP-2-0	Pulse train input type with open collector support		(-)				
Serial Communication Type		PCON-SE-28SPI-N-0-0	Dedicated to serial communication						
Field Network Type		RPCON-28SP	Dedicated to field network					→ P503	
Program Control Type	Die.	PSEL-C-1-28SPI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes					→ P557	
	Solenoid Valve Type Splash-Proof Solenoid Valve Type Positioner Type Safety-Compliant Positioner Type Pulse Train Input Type (Differential Line Driver) Pulse Train Input Type (Open Collector) Serial Communication Type Field Network Type	Solenoid Valve Type Splash-Proof Solenoid Valve Type Positioner Type Safety-Compliant Positioner Type Pulse Train Input Type (Differential Line Driver) Pulse Train Input Type (Open Collector) Serial Communication Type Field Network Type	Solenoid Valve Type PSEP-C-28SPI-NP-2-0 Splash-Proof Solenoid Valve Type Positioner Type PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-SE-28SPI-N-0-0	Solenoid Valve Type PSEP-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. Positioner Type PCON-C-28SPI-NP-2-0 Positioner Type PCON-C-28SPI-NP-2-0 Positioning is possible for up to 512 points PCON-PL-28SPI-NP-2-0 Pulse Train Input Type (Differential Line Driver) PLUSE Train Input Type (Open Collector) PCON-PO-28SPI-NP-2-0 PUSE train input Type with differential line driver support PCON-PO-28SPI-NP-2-0 Pcon-Po-28SPI-NP-2-0 Pulse train input type with open collector support PCON-SE-28SPI-N-0-0 Dedicated to serial communication Type PRECUCAL SEPI-ND-2-0 Programmed operation is possible	Solenoid Valve Type PSEP-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 Positioner Type PCON-C-28SPI-NP-2-0 Positioning is possible for up to 512 points PCON-PL-28SPI-NP-2-0 Pulse Train Input Type (Differential Line Driver) PCON-PO-28SPI-NP-2-0 PCON-PO-28SPI-NP-2-0 PCON-PO-28SPI-NP-2-0 PCON-PO-28SPI-NP-2-0 Podicated to serial communication Type PCON-SE-28SPI-N-0-0 Pedicated to field network PCON-28SPI-NP-2-0 Programmed operation is possible Programmed operation is possible Programmed operation is possible	Solenoid Valve Type PSEP-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 Splash-Proof Solenoid Valve Type Positioner Type PCON-C-28SPI-NP-2-0 Positioner Type PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 Pcon-PC-28S	Solenoid Valve Type PSEP-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. Positioner Type Positioner Type PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 Pulse Train Input Type (Open Collector) PCON-PO-28SPI-NP-2-0 Pulse train input type with differential line driver support PCON-PO-28SPI-NP-2-0 PCON-SE-28SPI-NP-2-0 Pcon-Po-28SPI-NP-2-0 Pcon-Po-28SPI-N	Solenoid Valve Type PSEP-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 Positioner Type Positioner Ty	

This is for the single-axis PSEL

PMEC //AMEC PSEP //ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL

2-RA4C RoboCylinder Rod Type 45mm Width Pulse Motor Straight Type ■ Configuration: RCP2 — RA4C **42P** I Encoder Motor Lead Compatible Controllers Cable Length Option Type Stroke B : Brake FL : Flange FT : Foot bracket 10:10mm P1: PCON N : None P : 1m I: Incremental 42P: Pulse motor 50: 50mm The Simple absolute encoder is also considered 5 : 5mm RPCON 42 🗌 size S : 3m M : 5m 2.5 : 2.5mm 300: 300mm PSEL (50mm pitch P3: PMEC type "I". : Custom increments) PSEP R .: Robot cable



When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire. Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

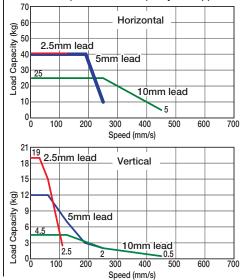
The load capacity is based on operation at an acceleration of 0.2G.

0.2G is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod from a direction other than the motion of the rod, the detent may become damaged.

Speed vs. Load Capacity

 $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Capacity (Note 1)		Maximum Push	Stroke
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP2-RA4C-I-42P-10-①-②-③-④	10	~ 25	~ 4.5	150	
RCP2-RA4C-I-42P-5-①-②-③-④	5	~ 40	~ 12	284	50 ~ 300 (50mm increments)
RCP2-RA4C-I-42P-2.5-①-②-③-④	2.5	40	~ 19	358	morementaj

(Note 2) See page A-69 for the pushing force graphs. * The values enclosed in < > apply for vertical usage. (Unit: mm/s)

Lead	(50mm increments)	(mm)	(mm)
10	458	458	350
5	250	237	175
2.5	125 <114>	118 <114>	87

■ Stroke and Maximum Speed Stroke 50 ~ 200 250

Cable List					
Туре	Cable Symbol				
Standard	P (1m)				
	S (3m)				
	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16 (16m) ~ X20 (20m)				
	R01 (1m) ~ R03 (3m)				
	R04 (4m) ~ R05 (5m)				
Robot Cable	R06 (6m) ~ R10 (10m)				
	R11 (11m) ~ R15 (15m)				
	R16 (16m) ~ R20 (20m)				

Legend: ① Stroke ② Compatible controller ③ Cable length ④ Options

* See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Flange	FL	→ A-27	
Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	

Actuator Specifications	
Item	Description
Drive System	Ball screw ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø22mm
Non-rotating accuracy of rod	±1.5 deg
Ambient Operating Temp /Humidity	0 ~ 40°C 85% BH or less (non-condensing)

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





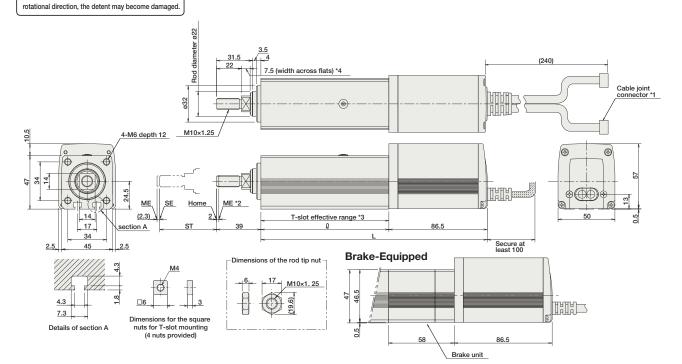
Note: Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or

- The motor-encoder cable is connected here. See page A-39 for details on cables.
- When homing, the rod moves to the M.E.; therefore, please watch for any interference with the surrounding objects.

 ME: Mechanical end SE: Stroke end

The values enclosed in "()" are reference dimensions.

- *3. Please note that there is no T-slot on the base of the brake unit.
- *4. The orientation of the bolt will vary depending on the product.



* Compared to the standard model, the brake-equinodel is longer by 58mm and heavier by 0.4kg.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300
R	112.5	162.5	212.5	262.5	312.5	362.5
L	199	249	299	349	399	449
Weight (kg)	1.35	1.6	1.85	2.1	2.35	2.6

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477
Solellold valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.					→ P487
Positioner Type	Í	PCON-C-42PI-NP-2-0 Positioning is possible for up to 512 points 512 points						
Safety-Compliant Positioner Type	PCON-CG-42P	PCON-CG-42PI-NP-2-0	. containing a pecasise of up to 612 points	o.e points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.		→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)				
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-42P	Dedicated to field network	768 points				→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557

* This is for the single-axis PSEL.

PMEC / AMEC PSEP / ASEP ROBO NET ERC2 PCON ACON SCON ASEL SSEL

■ Configuration: RCP2 — RA6C

Type

RCP2-RA6C RoboCylinder Rod Type 64mm Width Pulse Motor Straight Type

56P

Encoder Motor I: Incremental 56P: Pulse motor The Simple absolute encoder is also considered 56 ☐ size type "I".

I

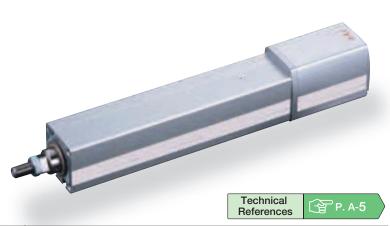
Lead 16:16mm 8:8mm 4:4mm

Stroke 50: 50mm 300: 300mm (50mm pitch increments)

Compatible Controllers P1: PCON RPCON PSEL P3: PMEC PSEP

Cable Length Option N : None P : 1m B : Brake FL : Flange FT : Foot bracket S : 3m M : 5m : Custom R .: Robot cable

Speed vs. Load Capacity Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your





- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.
- Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
 Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- The load capacity is based on operation at an acceleration of 0.2G.
 0.2G is the upper limit of the acceleration.
 In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod from a direction other than the motion of the rod, the detent may become damaged.

desired speed and load capacity are supported. 60 554mm lead Horizontal 8mm lead 50 Capacity (35 pg 20 16mm lead 10 ٥Ĺ 100 200 300 400 500 600 700 Speed (mm/s) 28 26 4mm lead 24 Vertical <u>ම</u> 20 Capacity 21 8mm lead 8 Load

Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Capacity (Note 1)		Maximum Push	Stroke	
Model	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)	
RCP2-RA6C-I-56P-16-①-②-③-④	16	~ 40	~ 5	240		
RCP2-RA6C-I-56P-8-①-②-③-④	8	~ 50	∼ 17.5	470	50 ~ 300 (50mm increments)	
RCP2-RA6C-I-56P-4-①-②-③-④	4	~ 55	~ 26	800	inorcincina)	
Legend: Stroke Compatible controller Cable length Options (Note 2) See page A-69 for the pushing force graphs.						

(Note 2) See page A-69 for the pushing force graphs. * The values enclosed in < > apply for vertical usage. (Unit: mm/s)

Stroke Lead	$50\sim300$ (50mm increments)
16	450 <400>
8	210
4	130

16mm lead

400

Speed (mm/s)

600

Cable List

Cable List					
Туре	Cable Symbol				
	P (1m)				
Standard	S (3m)				
	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16 (16m) \sim X20 (20m)				
	R01 (1m) ~ R03 (3m)				
	R04 (4m) ~ R05 (5m)				
Robot Cable	R06 (6m) ~ R10 (10m)				
	R11 (11m) ~ R15 (15m)				
	R16 (16m) ~ R20 (20m)				
+0 +001 +1 1					

* See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Flange	FL	→ A-27	
Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description
Drive System	Ball screw ø12mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø30mm
Non-rotating accuracy of rod	±1.0 deg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

1.5

٥L

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





Note: Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.

) (A)

Dimensions for the square

nuts for T-slot mounting (4 nuts provided)

19

25

ME

section A (4.8)

The motor-encoder cable is connected here. See page A-39 for details on cables.

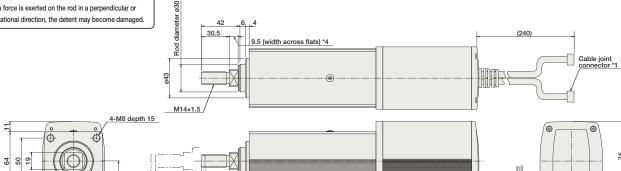
When homing, the rod moves to the M.E.; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical end

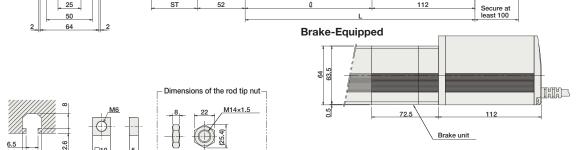
SE: Stroke end

The values enclosed in "()" are reference dimensions.

- *3. Please note that there is no T-slot on the base of the brake unit.
- *4. The orientation of the bolt will vary depending on the product.



T-slot effective range *3



* Compared to the standard model, the brake-equipped model is longer by 72.5mm and heavier by 0.9kg.

112

■ Dimensions/Weight by Stroke

Differisions/ Weight by Stroke						
Stroke	50	100	150	200	250	300
٤	138	188	238	288	338	388
L	250	300	350	400	450	500
Weight (kg)	3.1	3.6	4.1	4.6	5.1	5.6

⊕∰6

13

Compatible Controllers

10.5

Details of section A

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Soletold valve type	Solenoid Valve Type PSEP-C-		Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type	I	PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.				→ F401
Positioner Type		PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points	512 points	2A max.	
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	realisming to peccession for up to one period				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V		→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON ASEL SSEL

2-RASC RoboCylinder Rod Type 85mm Width Pulse Motor Straight Type ■ Configuration: RCP2 — RA8C **60P P2** Encoder Compatible Controllers Cable Length Option Type Lead Stroke N : None P : 1m I: Incremental 60P: Pulse motor 50: 50mm See Options below 10:10mm P2: PCON-CF The Simple absolute encoder 60 □ size 5:5mm S : 3m M : 5m 300: 300mm is also considered (50mm pitch type "I". X .: Custom increments) R .: Robot cable



Technical References

When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.2G for 10mm-lead and 0.1G for 5mm-lead.

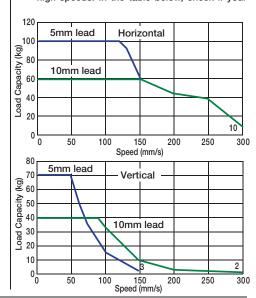
This is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod

from a direction other than the motion of the rod, the detent may become damaged.

Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Capacity (Note 1)		Maximum Push	Stroke
Model	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP2-RA8C-I-60P-10- 1 - P2 - 2 - 3	10	60	40	857	50 ~ 300
RCP2-RA8C-I-60P-5- ① - P2-③ - ③	5	100	70	1714	increments)
Legend: 1 Stroke 2 Compatible controller 3 Cable length 4 Options (Note 2) See page A-70 for the pushing force graphs					

Stroke Lead	$50 \sim 300$ (50mm increments)
10	300
5	150

■ Stroke and Maximum Speed

(Unit: mm/s)

Cable List					
Cable Symbol					
P (1m)					
S (3m)					
M (5m)					
X06 (6m) ~ X10 (10m)					
X11 (11m) ~ X15 (15m)					
X16 (16m) ~ X20 (20m)					
R01 (1m) ~ R03 (3m)					
R04 (4m) ~ R05 (5m)					
R06 (6m) ~ R10 (10m)					
R11 (11m) ~ R15 (15m)					
R16 (16m) ~ R20 (20m)					
	N (5m) N				

* See page A-39 for cables for maintenance.

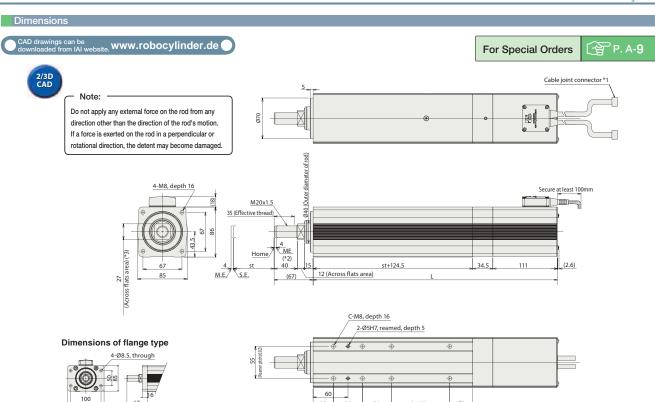
Ontion List

Option List					
Name	Option Code	See Page			
Brake	В	→ A-25			
Flange	FL	→ A-27			
Foot bracket	FT	→ A-29			
Reversed-home	NM	→ A-33			
Cable exit direction	A1 ~ A3	→ A-25			

Actuator Specifications

7 totalion opocimoditorio			
Item	Description		
Drive System	Ball screw ø16mm C10 grade		
Positioning Repeatability	±0.02mm		
Lost Motion	0.1mm or less		
Rod Diameter	ø40mm		
Non-rotating accuracy of rod	±1.0 deg		
Ambient Operating Temp./Humidity	$0 \sim$ 40°C, 85% RH or less (non-condensing)		
Service Life	5000km (*1)		

(*1) See page 146-2 for vertical payload graphs.



Dimensions of foot bracket type 4-Ø8.5, through

The motor-encoder cable is connected here. Please note that although the motor cable is the same as RCP2 series, the encoder cable is series-specific. See page A-39 for details on cables

*2. When homing, the rod moves to the ME; therefore, please watch for any interference with the

surrounding objects.
ME: Mechanical end SE: Stroke end

The values enclosed in "()" are reference dimensions.

The direction of two sides defining the across flat area varies depending on the product.

Dimensions/Weight by Stroke

_ billionolono, weight by otroite							
	Stroke	50	100	150	200	250	300
	L	320	370	420	470	520	570
	Α	0	0	1	1	2	2
В		39.5	89.5	39.5	89.5	39.5	89.5
С		6	6	8	8	10	10
	D	100	100	200	200	300	300
Weight	No brake	6.5	7.4	8.2	9.1	9.9	10.7
(kg)	Brake- equipped	7.5	8.4	9.2	10.1	10.9	11.7

Vertical Payload and Service Life

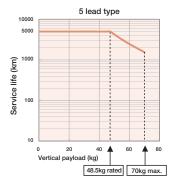
Dimensions of brake type

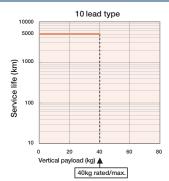
Rod-type RoboCylinder actuators have a service life of 5000km, but the RCP2-RA8C/RA8R types with a lead of 5 may have a shorter service life depending on the

transferring mass because the applicable thrust is higher. Check the relationship of load capacity and service life for your actuator on the graph shown to the right.

Note: The rated value is the maximum value that car meet a service life of 5000km. The maximum value is the value at which it is still operable. Please note that operation with values exceeding the rated value will result in a decrease in the service life, as shown in the

34.5 50 st+320 (Brake)





The contoller for the RCP2-RA8C type is the following dedicated controller.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Positioner Type		PCON-CF-60PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.	→ P525

• Please note that the encoder cable is a dedicated cable for the CF model, which is different from the PCON-C/CG/CY/PL/PO/SE controllers. Note:

• The simple absolute unit cannot be used.

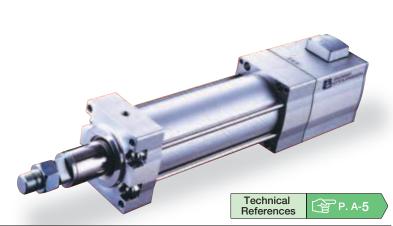
IAI

146-2

Standard
Introllers
Integrated
Rod
Type
Mini
Standard
Controllers
Integrated
Table/Arn
/Flat Type

RCP2-RA10C RoboCylinder Rod Type 100mm Width Pulse Motor Straight Type ■ Configuration: RCP2 — RA10C — - 86P **P2** Encoder Stroke Compatible Controllers Cable Length Type N : None 10:10mm P2: PCON-CF I: Incremental 86P: Pulse motor 50: 50mm A1-A3: Connector cable exit direction : Brake : Flange : Foot bracket P:1m 86 🗌 size 5 : 5mm S : 3m M : 5m 2.5 : 2.5mm 300: 300mm (50mm pitch

increments)



(1) Minimum speed is set per each lead. (10mm-lead: 10mm/s, 5mm-lead: 5mm/s, 2.5-lead: 1mm/s) Please note that if the actuator is operated below the minimum speed, vibration may occur.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.04G for 10mm-lead, 0.02G for 5mm-lead, and 0.01G for 2.5mm-lead.

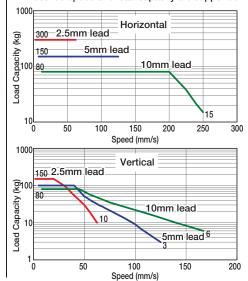
This is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod from a direction other than the motion of the rod, the detent may become damaged.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

R .: Robot cable



Actuator Specifications ■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model		wax. Load Capacity (Note 1)		iviaximum Push	Stroke
Wiodei	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP2-RA10C-I-86P-10-1 -P2-2-3	10	~ 80	~ 80	1500	
RCP2-RA10C-I-86P-5-①-P2-②-③	5	150	~ 100	3000	50 ~ 300 (50mm increments)
RCP2-RA10C-I-86P-2.5-①-P2-②-③	2.5	300	\sim 150	6000	incrementaj

(Note 2) See page A-70 for the pushing force graphs. * The values enclosed in < > apply for vertical usage. (Unit: mm/s)

Actuator Specifications

Lead	(50mm increments)
10	250 <167>
5	125
2.5	63

■ Stroke and Maximum Speed

Cable List

Cable List				
Cable Symbol				
P (1m)				
S (3m)				
M (5m)				
X06 (6m) ~ X10 (10m)				
X11 (11m) ~ X15 (15m)				
X16 (16m) ~ X20 (20m)				
R01 (1m) ~ R03 (3m)				
R04 (4m) ~ R05 (5m)				
R06 (6m) ~ R10 (10m)				
R11 (11m) ~ R15 (15m)				
R16 (16m) ~ R20 (20m)				
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m) R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)			

Legend ① Stroke ② Cable length ③ Options

* See page A-39 for cables for maintenance.

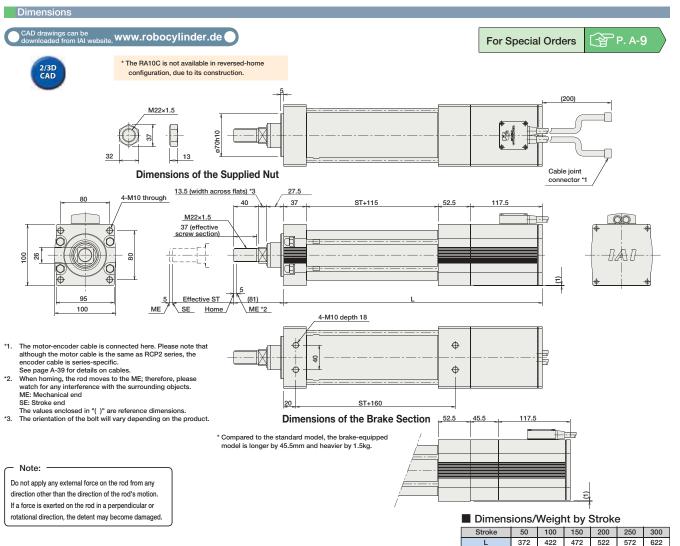
Option List

Name	Option Code	See Page	
Connector cable exit direction	A1 \sim A3	→ A-25	
Brake	В	→ A-25	
Flange	FL	→ A-27	
Foot bracket	FT	→ A-29	

Stroke

Lead	(50mm increments)
10	250 <167>
5	125
2.5	63

Item	Description		
Drive System	Ball screw C10 grade		
Positioning Repeatability	±0.02mm		
Lost Motion	0.1mm or less		
Rod Diameter	ø40mm		
Non-rotating accuracy of rod	±1.0 deg		
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)		

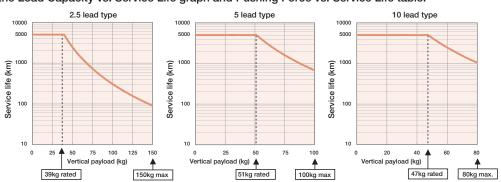


Vertical Payload and Service Life

• The service life of a rod-type RoboCylinder is 5000km. However, since the RCP2-RA10C has a larger maximum thrust compared to other types, its service life will largely depend on the load capacity and pushing force used.
Therefore, when selecting your product using the Speed vs. Load Capacity and Pushing Force vs. Current Limit graphs, check the service life using the Load Capacity vs. Service Life graph and Pushing Force vs. Service Life table.

Note:
The rated value is the maximum value that can meet a service life of 5000km. The maximum value is the value at which it is still operable. Please note that operation with values exceeding the rated value will result in a decrease in the service life, as shown in the graphs.

Compatible Controllers



Weight (kg)

9 9.5 10 10.5

The controller for the RCP2-RA10C type is the following dedicated controller.								
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page
Positioner Type		PCON-CF-86PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.		→ P525
Note: • Places note that the anged a capilla is a dedicated capilla fay the CE model, which is different from the PCON C/CC/CV/DI /DO/CE controllars								

Note: • Please note that the encoder cable is a dedicated cable for the CF model, which is different from the PCON-C/CG/CY/PL/PO/SE controllers.

• The simple absolute unit cannot be used.

RCP2-RA10C 148

IAI

Туре

Mini

Controller

Rod Type

Mini

Chandard

Controllers

Table/Arm Flat Type

Mini

Gripper/

Rotary Type

Linear Motor Type

Cleanroom Type

Splash Proof

Controllers

/AMEC

/ASEP

NET

ERU2

SCON

PSEL

ASEL

SSEL

Pulse Moto

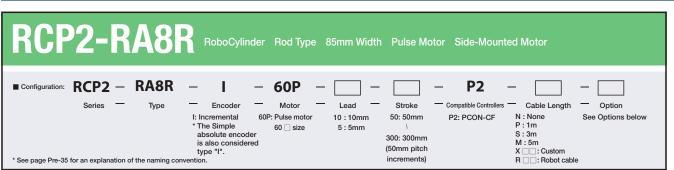
Servo Mot (24V)

> Servo Moto (230V)

> Linear Mot

Standard
Introllers
Integrated
Rod
Type
Mini
Standard
Controllers
Integrated
Table/Arm
//Flat Type

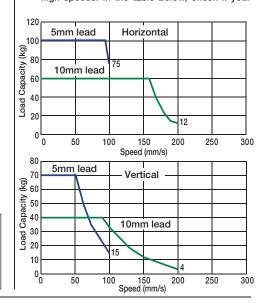
PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL XSEL XSEL





Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your



When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.2G for 10mm-lead and 0.1G for 5mm-lead.

This is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod

from a direction other than the motion of the rod, the detent may become damaged.

Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Capacity (Note 1)		Maximum Push	Stroke
	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP2-RA8R-I-60P-10- ① - P2 - ② - ③	10	60	40	857	50 ~ 300
RCP2-RA8R-I-60P-5- ① - P2-③ - ③	5	100	70	1714	increments)
Legend: ① Stroke ② Compatible controller ③ Cable length ④	Options	(Note 2) S	See page A-70	for the pushing	force graphs.

Stroke (50mm increments) 10 200

■ Stroke and Maximum Speed

(Unit: mm/s)

100

Cable List		
Cable List		
Cable List		

Cable List					
Туре	Cable Symbol				
	P (1m)				
Standard	S (3m)				
	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16 (16m) ~ X20 (20m)				
	R01 (1m) ~ R03 (3m)				
	R04 (4m) ~ R05 (5m)				
Robot Cable	R06 (6m) ~ R10 (10m)				
	R11 (11m) ~ R15 (15m)				
	R16 (16m) ~ R20 (20m)				

* See page A-39 for cables for maintenance.

Option List							
Name	Option Code	See Page					
Brake	В	→ A-25					
Top-mounted motor	MT1/MT2/MT3	→ 148-2					
Right-mounted motor	MR1/MR2	→ 148-2					
Left-mounted motor	ML1/ML3	→ 148-2					
Flange	FL	ightarrow A-27					
Foot bracket	FT	→ A-29					
Reversed-home	NM	→ A-33					
Cable exit direction	A1 ~ A3	→ A-25					

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø40mm
Non-rotating accuracy of rod	±1.0 deg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)
Service Life	5000km (*1)

5

(*1) See page 146-2 for vertical payload graphs.

Dimensions

_{bsite.} www.robocylinder.de

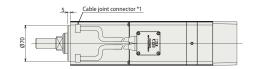
For Special Orders

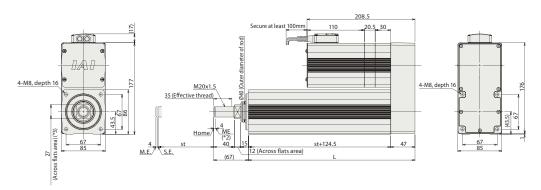




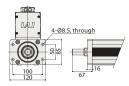
Note:

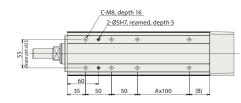
Do not apply any external force on the rod from any direction other than the direction of the rod's motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.



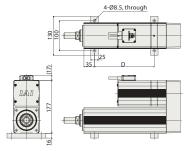


Dimensions of flange type

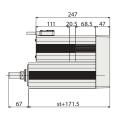




Dimensions of foot bracket type



Dimensions of brake type



The motor-encoder cable is connected here. Please note that although the motor cable is the same as RCP2 series, the encoder cable is series-specific. See page A-39 for details on cables.

*2. When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects ME: Mechanical end SE: Stroke end

The values enclosed in "()" are reference dimensions.

The direction of two sides defining the across flat area varies depending on the product.

Dimensions/Weight by Stroke

	Stroke	50	100	150	200	250	300	
	L	221.5	271.5	321.5	371.5	421.5	471.5	
	Α	0	0	1	1	2	2	
	В	39.5	89.5	39.5	89.5	39.5	89.5	
	С	6	6	8	8	10	10	
	D	100	100	200	200	300	300	
Weight	No brake	7.7	8.6	9.4	10.3	11.1	12	
(kg)	Brake- equipped	8.6	9.5	10.3	11.2	12	12.9	

Motor-mounting direction / Cable exit direction (Options

Note:

Please be sure to specify one of the codes for the motor mounting direction and the cable exit direction.













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Option Code	MT1	MT2	МТЗ	MR1	ML1	MR2	ML3
Motor-mounting direction	Top (standard)	Тор	Тор	Right	Left	Right	Left
Cable exit direction	Top (standard)	Right	Left	Тор	Тор	Right	Left

The contoller for the RCP2-RA8R type is the following dedicated controller.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Positioner Type		PCON-CF-60PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.	→ P525

Note: • Please note that the encoder cable is a dedicated cable for the CF model, which is different from the PCON-C/CG/CY/PL/PO/SE controllers.

• The simple absolute unit cannot be used.

Controllers

PMEC
/AMEC
PSEP
/ASEP
ROBO
NET
ERC2

PCON
ACON
SCON

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL

2-SRA4R RoboCylinder Short-Length Rod Type 45mm Width Pulse Motor Side-Mounted Motor ■ Configuration: RCP2 — SRA4R 35P Encoder Motor Lead Cable Length Option Type Stroke 5 : 5mm P1: PCON N : None P : 1m I: Incremental 35P: Pulse motor 20: 20mm See Options below The Simple absolute encoder 35 □ size 2.5 : 2.5mm **RPCON** S : 3m M : 5m 200: 200mm PSEL is also considered (10mm pitch increments) P3: PMEC

* 50mm increments



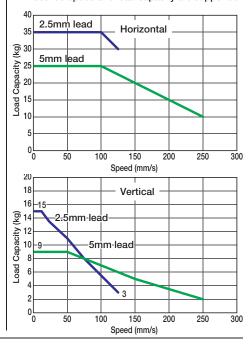
type "I".

■ Speed vs. Load Capacity

PSEP

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X .: Custom



(1) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically). This is the upper limit of the acceleration.

(3) The horizontal load capacity is based on the use of an external guide. If an external force is exerted

on the rod from a direction other than the motion of the rod, the detent may become damaged.

Actuator Specifications Lead and Load Capacity ■ Stroke and Maximum Speed (Note 1) Please note that the maximum load capacity decreases as the speed increases Lead Max. Load Capacity (Note 1) Maximum Push Stroke Horizontal (kg) Vertical (kg) Force (N) (Note 2) 20 ~ 200 RCP2-SRA4R-I-35P-5-1-2-3-3-4 5 ~ 25 \sim 9 (10mm increments) RCP2-SRA4R-I-35P-2.5-2.5 \sim 35 \sim 15 170 (Note 3) Legend: Stroke Compatible controller Cable length Options

(Note 2) See page A-69 for the pushing force graphs. (Note 3) 50mm increments over 100mm.

Drive System

Rod Diameter

Positioning Repeatability Lost Motion

Non-rotating accuracy of rod

Actuator Specifications Item

[全 P. A-5

Stroke Lead	$20 \sim 200$ (10mm increments)
5	250
2.5	125
	(Unit: mm/s

Description

Ball screw ø8mm C10 grade

±0.02mm

ø22mm

Ambient Operating Temp./Humidity 0 ~ 40°C, 85% RH or less (non-condensing)

0.1mm or less

Туре	Cable Symbol	
Standard	P (1m)	
	S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

- * The cable is a motor-encoder integrated cable, and is provided as a robot cable.
- See page A-39 for cables for maintenance.

Cable List

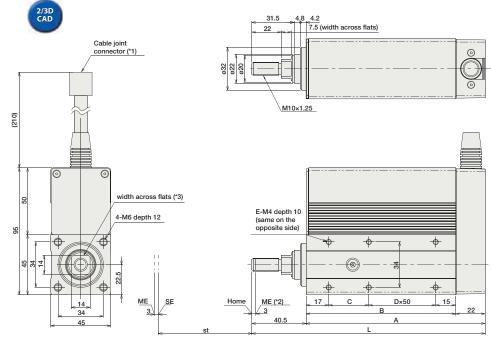
Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Flange bracket (front)	FL	→ A-27	
Flange bracket (back)	FLR	→ A-28	
Foot bracket 1 (base mounting)	FT	→ A-29	
Foot bracket 2 (right/left side mounting)	FT2/FT4	→ A-31	
Reversed-home	NM	→ A-33	

* The brake is available for strokes of 70mm or more.

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





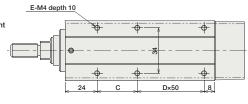
001 tseel is annows

4-M6 depth 12

* The exterior dimensions for the brake-equipped model is no different than the standard model.

However, 70mm is the minimum stroke of the brake-equipped models.

(i.e. The brake is not compatible at 60mm strokes and under.)



Dimensions of the Supplied Nut

M10×1.25

ST : Stroke SE : Stroke end ME: Mechanical end

- (*1) The motor-encoder cable is connected here. See page A-39 for details on cables.
- (*2) When homing, the rod moves to the mechanical end position; therefore, please watch for any interference with the surrounding objects.
- (*3) The orientation of the bolt will vary depending on the product.

■ Dimensions/Weight by Stroke (Add 0.2kg for brake equipped)

Stroke	20	30	40	50	60	70	80	90	100	150	200
L	124.5	134.5	144.5	154.5	164.5	174.5	184.5	194.5	204.5	254.5	304.5
Α	84	94	104	114	124	134	144	154	164	214	264
В	62	72	82	92	102	112	122	132	142	192	242
С	30	40	50	60	70	30	40	50	60	60	60
D	0	0	0	0	0	1	1	1	1	2	3
E	4	4	4	4	4	6	6	6	6	8	10
Weight (kg)	0.83	0.89	0.96	1.02	1.08	1.14	1.21	1.27	1.33	1.64	1.95

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-35PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Solelloid valve Type		PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487	
Splash-Proof Sole- noid Valve Type	I	PSEP-CW-35PI-NP-2-0	No homing necessary with simple absolute type.				→ P407	
Positioner Type		PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points				
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0	1 contouring to possible for up to 612 points	OTZ points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support	(-)		(-)		
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-35P	Dedicated to field network	768 points			→ P503	
Program Control Type	249	PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557	

* This is for the single-axis PSEL.

урс

Mini

Standard

Rod

Туре

Mini

Standard

Controllers Integrated

Table/Arm /Flat Type

Mini

Rotary Type

Linear Moto Type

Туре

Opidon i rooi

Controllers

AMEC

/ASEP

ERC2

ACON

 \equiv

COFI

XSEL

ulse Moto

Servo Motoi

. ...

RCP2-RGS4C RoboCylinder Rod Type with Single Guide 45mm Width Pulse Motor Straight Type ■ Configuration: RCP2 — RGS4C — 42P Encoder Compatible Controllers Cable Length Option Type Stroke N : None P : 1m I: Incremental 42P: Pulse motor 10:10mm 50: 50mm P1: PCON : Brake The Simple absolute encoder FT : Foot bracket NM: Reversed-home 5 : 5mm RPCON 42 🗌 size S : 3m M : 5m 2.5 : 2.5mm 300: 300mm PSEL is also considered (50mm pitch P3: PMEC



type "I".

increments)

When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.
Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.2G.

0.2G is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. See the technical resources (page A-82) for the allowable weight using the supplied guide alone

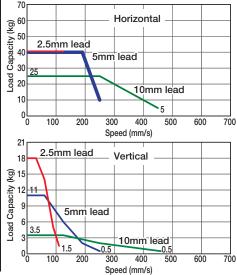
Speed vs. Load Capacity

PSEP

X .: Custom

R .: Robot cable

 $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model		Lead Max. Load Capacity		acity (Note 1) Maximum Push	
Widdel	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP2-RGS4C-I-42P-10-①-②-③-④	10	~ 25	~ 3.5	150	
RCP2-RGS4C-I-42P-5-①-②-③-④	5	~ 40	~ 11	284	50 ~ 300 (50mm increments)
RCP2-RGS4C-I-42P-2.5-①-②-③-④	2.5	40	~ 18	358	inoromenta)

Lead	(50mm increments)	250 (mm)	300 (mm)
10	458	458	350
5	250	237	175
2.5	125	118	87

■ Stroke and Maximum Speed

(Note 2) See page A-69 for the pushing force graphs. * The values enclosed in < > apply for vertical usage. (Unit: mm/s)

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

Legend: 1 Stroke 2 Compatible controller 3 Cable length 4 Options

* See page A-39 for cables for main	tenance.
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Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	

Actuator Specifications	
Item	Description
Drive System	Ball screw ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Guide	Single guide Guide rod diameter ø10mm Ball bush type
Rod Diameter	ø22mm
Non-rotating accuracy of rod	±0.05 deg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

Dimensions

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders

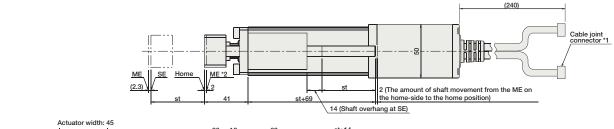


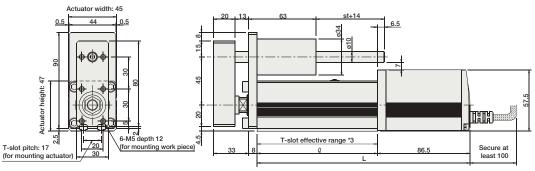
2/3D CAD

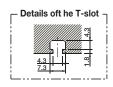
- *1. The motor-encoder cable is connected here. See page A-39 for details on cables.
- When homing, the rod moves to the M.E.; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end SF: Stroke end

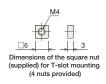
The values enclosed in "()" are reference dimensions.

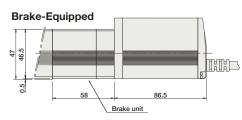
Please note that there is no T-slot on the bottom of the brake unit.











 * Compared to the standard model, the brake-equipped model is longer by 58mm and heavier by 0.4kg.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300
Ł	112.5	162.5	212.5	262.5	312.5	362.5
L	199	249	299	349	399	449
Weight (kg)	1.8	2.1	2.4	2.7	2.9	3.2

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solelloid valve Type	PSEP-C-42PI-NP-2-0	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type	I	PSEP-CW-42PI-NP-2-0	Supports born single and double scientific types. No homing necessary with simple absolute type.				→ F407
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Toolitoning is possible for up to 012 points	OTZ politics			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0 Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

RCP2-RGS4C

Slider Type

Mini

Standard

Controllers Integrated

Rod
Type

Mini

Standard

Controllers Integrated

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON PSEL SSEL SSEL

ontrollers
integrated

Rod
Type

Mini

Standard

Controllers
integrated

Table/Arm
/Flat Type

RCP2-RGS6C RoboCylinder Rod Type with Single Guide 64mm Width Pulse Motor Straight Type \blacksquare Configuration: RCP2 - RGS6C -- 56P Encoder Compatible Controllers Cable Length Motor Lead Option Type Stroke B : Brake FT : Foot bracket NM: Reversed-home N : None P1: PCON I: Incremental 56P: Pulse motor 16:16mm 50: 50mm The Simple absolute encoder P:1m S:3m M:5m **RPCON** 56 🗌 size 8:8mm

300: 300mm

(50mm pitch

increments)

PSEL

P3: PMEC

PSEP



is also considered

type "I".

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.2G. 0.2G is the upper limit of the acceleration

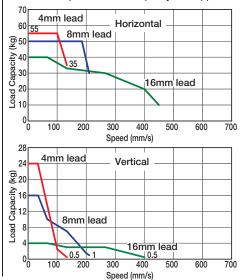
In addition, the horizontal load capacity is based on the use of an external guide. See the technical resources (page A-82) for the allowable weight using the supplied guide alone

Speed vs. Load Capacity

X : Custom

R .: Robot cable

 $\overset{\cdot}{\text{Due}}$ to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	pacity (Note 1)	Maximum Push	Stroke
WOUG	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm
RCP2-RGS6C-I-56P-16-①-②-③-④	16	~ 40	~ 4	240	
RCP2-RGS6C-I-56P-8-①-②-③-④	8	~ 50	~ 16	470	50 ~ 300 (50mm increments)
RCP2-RGS6C-I-56P-4-①-②-③-④	4	~ 55	~ 24	800	incrementaj
Legend: ① Stroke ② Compatible controller ③ Cable length ④	Options	(Note 2) S	ee page A-69	for the pushing	force graphs.

Stroke (50mm increments) 450 <400> 16 8 210 4 130

Stroke and Maximum Speed

(Note 2) See page A-69 for the pushing force graphs. * The values enclosed in < > apply for vertical usage. (Unit: mm/s)

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

* See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	
	•	•	•

Actuator Specifications							
Item	Description						
Drive System	Ball screw ø12mm C10 grade						
Positioning Repeatability	±0.02mm						
Lost Motion	0.1mm or less						
Guide	Single guide Guide rod diameter ø12mm Ball bush type						
Rod Diameter	ø30mm						
Non-rotating accuracy of rod	±0.05 deg						
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)						

Dimensions

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders

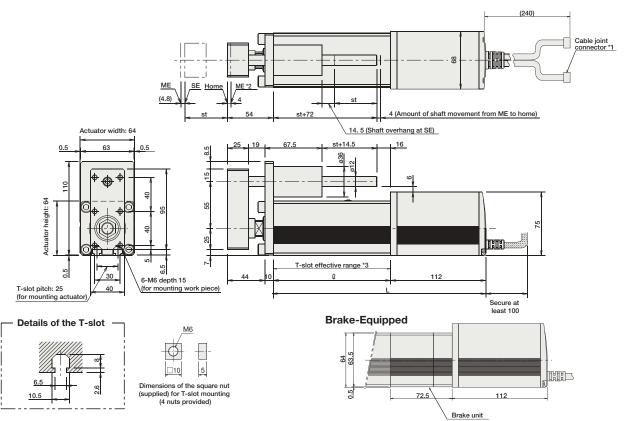


2/3D CAD

- The motor-encoder cable is connected here. See page A-39 for details on cables.
- *2 When homing, the rod moves to the M.E.; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end SE: Stroke end

The values enclosed in "()" are reference dimensions.

*3. Please note that there is no T-slot on the bottom of the brake unit.



* Compared to the standard model, the brake-equipped model is longer by 72.5mm and heavier by 0.9kg.

■ Dimensions/Weight by Stroke

Difficitational Weight by Ottoke								
Stroke	50	100	150	200	250	300		
R	138	188	238	288	338	388		
L	250	300	350	400	450	500		
Weight (kg)	3.6	4.4	5.0	5.5	6.1	6.6		

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners	AC115V AC230V		See P481	→ P477		
Soleliola valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types			→ P487			
Splash-Proof Solenoid Valve Type		PSEP-CW-56PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				→ P467		
Positioner Type	É	PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	Positioning is possible for up to 512 points 512 points						
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)	.,			
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type	ERRE	RPCON-56P	Dedicated to field network	768 points			→ P503		
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes				→ P557		

IAI

RCP2-RGS6C

Mini
Standard
Controllers
Integrated

Rod
Type

Mini
Standard
Controllers
Integrated

PMEC (AMEC PSEP / ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL

CP2-SRGS4R RoboCylinder Short Rod Type with Single Guide 45mm Width Pulse Motor Side-Mounted Motor

■ Configuration: RCP2 — SRGS4R — 35P Encoder Motor Lead Compatible Controllers Cable Length Option Type Stroke 5 : 5mm P1: PCON N : None P : 1m I: Incremental 35P: Pulse motor 20: 20mm See options below The Simple absolute encoder 2.5 : 2.5mm **RPCON** 35 🗌 size S : 3m M : 5m 200: 200mm PSEL is also considered (10mm pitch increments) P3: PMEC
* Set in 50mm increments type "I". X .: Custom PSEP



Technical References

P. A-5

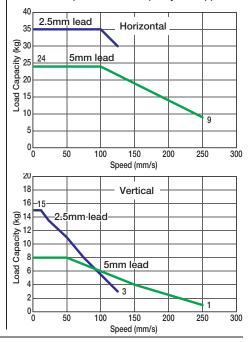
(1) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported. (2) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically).

This is the upper limit of the acceleration.

(3) The horizontal load capacity is based on the use of an external guide. See the technical resources (page A-82) for the allowable weight using the supplied guide alone.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases

Model	Lead	Max. Load C	apacity (Note 1)	Maximum Push	Stroke
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	Force (N) (Note 2)	(mm)
RCP2-SRGS4R-I-35P-5-①-②-③-④	5	~ 24	~ 8	90	20 ~ 200 (10mm
RCP2-SRGS4R-I-35P-2.5-①-②-③-④	2.5	~ 35	∼ 1 5	170	increments) (Note 3)
agand: A Strake Compatible controller Coble length	Ontio	ne (Note	e 2) See page A-6	9 for the pushing fo	rce graphs.

(Note 3) 50mm increments over 100mm.

■ Stroke and Maximum Speed

Stroke Lead	$20 \sim 200$ (10mm increments)
5	250
2.5	125

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard	P (1m)	
	S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

- * The cable is a motor-encoder integrated cable, and is
- provided as a robot cable.
- * See page A-39 for cables for maintenance.

Name	Option Code	See Page	
Brake	В	→ A-25	
Flange bracket (back)	FLR	→ A-28	
Foot bracket 1 (base mounting)	FT	→ A-29	
Foot bracket 2 (right/left side mounting)	FT2/FT4	→ A-31	
Guide mounting direction	GS2 \sim GS4	→ A-156	
Reversed-home	NM	→ A-33	

- The brake is available for strokes of 70mm or more.
- * Please be sure that the mounting direction of the guide is specified in the
- product name.
 * The guide and the foot bracket cannot be mounted in the same direction.

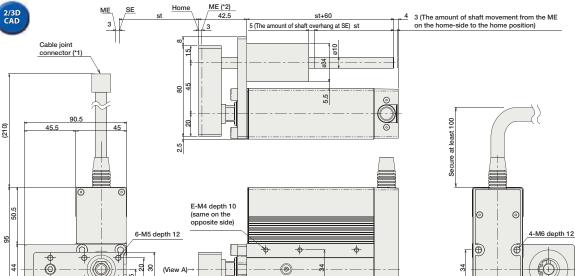
Actuator Specifications	
Item	Description
Drive System	Ball screw ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø22mm
Non-rotating accuracy of rod	±0.05 deg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

Dimensions

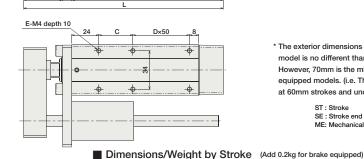
_{osite.} www.robocylinder.de

For Special Orders





GS4 Left-GS2 Right-GS3 Bottom mounted Guide mounting direction (as viewed from view A)



4-M6 depth 12

* The exterior dimensions for the brake-equipped model is no different than the standard model. However, 70mm is the minimum stroke of the brakeequipped models. (i.e. The brake is not compatible at 60mm strokes and under.)

ST : Stroke SE : Stroke end ME: Mechanical end

(*1) The motor-encoder cable is connected here. See page A-39 for details on cables.

(*2) When homing, the rod moves to the mechanical end position; therefore, please watch for any interference with the surrounding objects.

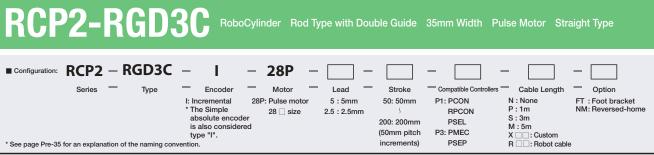
	_	-									
Stroke	20	30	40	50	60	70	80	90	100	150	200
L	126.5	136.5	146.5	156.5	166.5	176.5	186.5	196.5	206.5	256.5	306.5
Α	84	94	104	114	124	134	144	154	164	214	264
В	62	72	82	92	102	112	122	132	142	192	242
С	30	40	50	60	70	30	40	50	60	60	60
D	0	0	0	0	0	1	1	1	1	2	3
E	4	4	4	4	4	6	6	6	6	8	10
Weight (kg)	1.2	1.27	1.34	1.41	1.48	1.54	1.61	1.68	1.75	2.09	2.43

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-35PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Solellold valve Type	1	PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487	
Splash-Proof Solenoid Valve Type	I	PSEP-CW-35PI-NP-2-0	No homing necessary with simple absolute type.				7 1407	
Positioner Type	É	PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points				
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0	1 ostaoning to possible for up to ore points					
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)			
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-35P	Dedicated to field network	768 points			→ P503	
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557	

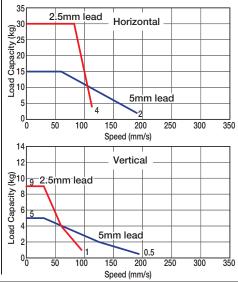
* This is for the single-axis PSEL.





Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.2G. 0.2G is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. See the technical resources (page A-83) for the allowable weight using the supplied guide alone

Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead (mm)	Max. Load Cap Horizontal (kg)	,, ,	Maximum Push Force (N)(Note 2)	01.0.10
RCP2-RGD3C-I-28P-5-① -② -③ -④	5	~ 15	~ 5	73.5	50 ∼ 200 (50mm
RCP2-RGD3C-I-28P-2.5-①-②-③-④	2.5	~ 30	~ 9	156.8	increments)
Legend: 1 Stroke Compatible controller Cable length 4	Options	(Note 2) S	ee page A-69	for the pushing	force graphs.

Drive System

Lost Motion

Guide Rod Diameter

Positioning Repeatability

Non-rotating accuracy of rod

Ambient Operating Temp./Humidity

Actuator Specifications Item

	· · · · · · · · · · · · · · · · · · ·
Stroke Lead	$50 \sim 200$ (50mm increments)
5	187
0.5	114 -02-

Description

 $0\sim40^{\circ}\text{C}$, 85% RH or less (non-condensing)

Double guide Guide rod diameter ø10mm Ball bush type

Ball screw ø8mm C10 grade

±0.02mm

ø22mm

±0.05 dea

0.1mm or less

(Unit: mm/s)

Cable List					
Туре	Cable Symbol				
	P (1m)				
Standard	S (3m)				
	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16 (16m) ~ X20 (20m)				
	R01 (1m) ~ R03 (3m)				
	R04 (4m) ~ R05 (5m)				
Robot Cable	R06 (6m) ~ R10 (10m)				
	R11 (11m) ~ R15 (15m)				
	R16 (16m) ~ R20 (20m)				

* See page A-39 for cable	es for maintenance.
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* S	ee	page	A-39	for	cab	oles	for	main	tenanc	e.

Option List

Cable List

Name	Option Code	See Page	
Foot bracket	FT	→ A-29	
Dayaraad hama	NIM	→ V-33	

Dimensions

CAD drawings can be downloaded from IAI website. www.robocylinder.de

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43

Secure at least 100

(240)

2/3D CAD

- The motor-encoder cable is connected here. See page A-39 for details on cables.
- When homing, the rod moves to the M.E.; therefore, please watch for any interference with the surrounding objects.

 ME: Mechanical end

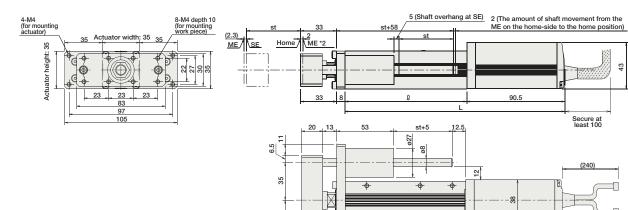
n-M4 depth 6 (for mounting actuator)

SE: Stroke end

N×50 P

_ 20

The values enclosed in "()" are reference dimensions.



32 6.5

■ Dimensions/Weight by Stroke

Cable joint connector *

Billionolollo, Wolgitt by Otroke							
Stroke	50	100	150	200			
٤	112.5	162.5	212.5	262.5			
L	203	253	303	353			
N	1	2	3	4			
n	6	8	10	12			
Weight (kg)	1.1	1.3	1.4	1.6			

Comp	atible	Control	lers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page
	PMEC-C-28SPI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477
	PSEP-C-28SPI-NP-2-0	Operable with same signal as solenoid valve.	3 points				→ P487
	PSEP-CW-28SPI-NP-2-0	No homing necessary with simple absolute type.					→ F407
	PCON-C-28SPI-NP-2-0	Positioning is possible for up to 512 points	512 points				
	PCON-CG-28SPI-NP-2-0	Positioning is possible for up to 312 points	312 points		2A max.		
	PCON-PL-28SPI-NP-2-0	Pulse train input type with differential line driver support	()	DC24V			→ P525
	PCON-PO-28SPI-NP-2-0	Pulse train input type with open collector support	(-)				
	PCON-SE-28SPI-N-0-0	Dedicated to serial communication	64 points				
	RPCON-28SP	Dedicated to field network	768 points				→ P503
200	PSEL-C-1-28SPI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557
	External View	PMEC-C-28SPI-NP-2-2 PSEP-C-28SPI-NP-2-0 PSEP-CW-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-G-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PO-28SPI-NP-2-0 PCON-SE-28SPI-N-0-0 RPCON-28SP	PMEC-C-28SPI-NP-2-2 PSEP-C-28SPI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid vpes. No homing necessary with simple absolute type. PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PUlse train input type with differential line driver support PCON-PC-28SPI-NP-2-0 Pulse train input type with open collector support PCON-SE-28SPI-NP-0-0 Dedicated to serial communication PCON-28SP Dedicated to field network Programmed operation is possible	PSEP-C-28SPI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 Pulse train input type with differential line driver support PCON-PC-28SPI-NP-2-0 Pcon-PC-28SPI-NP-2-0 Dedicated to serial communication RPCON-28SP Dedicated to field network T68 points Programmed operation is possible	PMEC-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No horning necessary with simple absolute type. PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 Positioning is possible for up to 512 points PCON-PC-28SPI-NP-2-0 Pulse train input type with differential line driver support PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 Dedicated to serial communication RPCON-28SP Dedicated to field network Programmed operation is possible 1500 points AC115V AC230V 3 points 512 points DC24V	PMEC-C-28SPI-NP-2-2 Easy-to-use controller, even for beginners PSEP-C-28SPI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No horning necessary with simple absolute type. PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 Positioning is possible for up to 512 points PCON-PC-28SPI-NP-2-0 Pulse train input type with differential line driver support PCON-PC-28SPI-NP-2-0 PCON-PC-28SPI-NP-2-0 Pulse train input type with open collector support PCON-SE-28SPI-NO-0 Dedicated to serial communication RPCON-28SP Dedicated to field network Programmed operation is possible 1500 points 1500 points	PMEC-C-28SPI-NP-2-0 PSEP-C-28SPI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-C-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PL-28SPI-NP-2-0 PCON-PD-28SPI-NP-2-0 PCON-PD-28SPI-NP-2-0 PCON-PD-28SPI-NP-2-0 PCON-PD-28SPI-NP-2-0 PCON-PD-28SPI-NP-2-0 PCON-PD-28SPI-NP-2-0 PCON-PD-28SPI-NP-2-0 Pulse train input type with differential line driver support PCON-PD-28SPI-NP-2-0 Pcon-PD-28SPI-NP-2-0 Pcon-PD-28SPI-NP-2-0 Pulse train input type with open collector support PCON-PD-28SPI-NP-2-0 Pcon-PD-28SPI-

158 RCP2-RGD3C

IAI

Slider
Type

Mini

Standard

Controllers
Integrated

Rod
Type

Mini

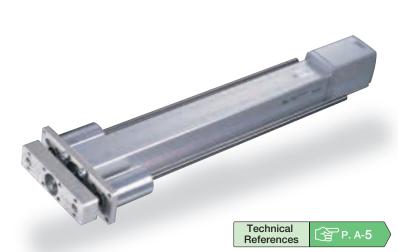
Standard

Controllers
Integrated

PMEC AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL

RCP2-RGD4C RoboCylinder Rod Type with Double Guide 45mm Width Pulse Motor Straight Type ■ Configuration: RCP2 — RGD4C — — 42P Encoder Lead Compatible Contr Cable Length Option Type Stroke N : None P : 1m 10:10mm P1: PCON I: Incremental 42P: Pulse motor 50: 50mm : Brake The Simple absolute encoder FT : Foot bracket NM: Reversed-home 5 : 5mm RPCON 42 🗌 size S : 3m M : 5m 2.5 : 2.5mm 300: 300mm PSEL is also considered (50mm pitch P3: PMEC

increments)



type "I".

When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.2G.

0.2G is the upper limit of the acceleration.

In addition, the horizontal load capacity is based on the use of an external guide. See the technical resources (page A-83) for the allowable weight using the supplied guide alone.

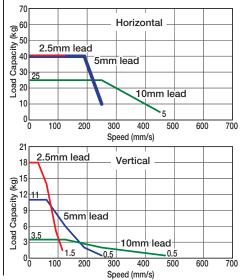
Speed vs. Load Capacity

PSEP

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

: Custom

R .: Robot cable



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Capacity (Note 1)		Maximum Push	Stroke
Model		Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP2-RGD4C-I-42P-10-①-②-③-④	10	~ 25	\sim 3.5	150	
RCP2-RGD4C-I-42P-5-①-②-③-④	5	~ 40	~ 11	284	50 ~ 300 (50mm increments)
RCP2-RGD4C-I-42P-2.5-①-②-③-④	2.5	40	~ 18	358	liichts
Legend: Stroke Compatible controller Cable length	Options	(Note 2) S	See page A-69	for the pushing	force graphs.

Stroke Lead	$50 \sim 200$ (50mm increments)	250 (mm)	300 (mm)
10	458	458	350
5	250	237	175
2.5	125 <114>	118 <114>	87

■ Stroke and Maximum Speed

(Note 2) See page A-69 for the pushing force graphs. *The values enclosed in < > apply for vertical usage. (Unit: mm/s)

Cable List					
Туре	Cable Symbol				
	P (1m)				
Standard	S (3m)				
	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16 (16m) ~ X20 (20m)				
	R01 (1m) ~ R03 (3m)				
	R04 (4m) ~ R05 (5m)				
Robot Cable	R06 (6m) ~ R10 (10m)				
	R11 (11m) ~ R15 (15m)				
	R16 (16m) ~ R20 (20m)				

*	See	page	A-39	for	cables	for	maintenance.
	000	page	,, ,,		oubico		mammonanoo.

Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	

Actuator Specifications					
Description					
Ball screw ø8mm C10 grade					
±0.02mm					
0.1mm or less					
Double guide Guide rod diameter ø10mm Ball bush type					
ø22mm					
±0.05 deg					
Ambient Operating Temp./Humidity 0 ~ 40°C, 85% RH or less (non-condensing)					

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders



57.5

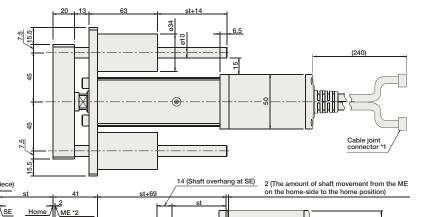


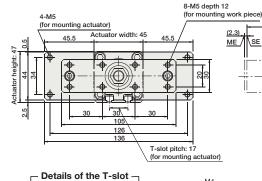
- *1. The motor-encoder cable is connected here. See page A-39 for details on cables.
- When homing, the rod moves to the M.E.; therefore, please watch for any interference with the surrounding objects.

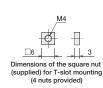
 ME: Mechanical end

SE: Stroke end
The values enclosed in "()" are reference dimensions.

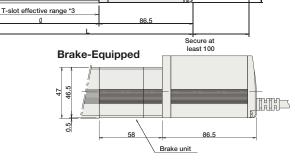
*3. Please note that there is no T-slot on the bottom of the brake unit.







SE



* Compared to the standard model, the brake-equipped model is longer by 58mm and

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300
Ł	112.5	162.5	212.5	262.5	312.5	362.5
L	199	249	299	349	399	449
Weight (kg)	2.2	2.5	2.8	3.1	3.4	3.7

Compa	atible	Control	lers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solellold valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				71407
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	realisting to peccession of up to one period	orz pomie			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

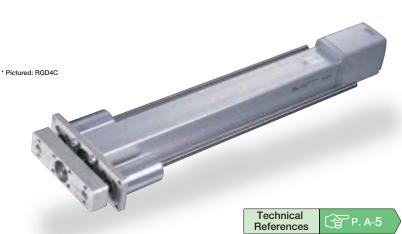
* This is for the single-axis PSEL.

RCP2-RGD4C

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RCP2-RGD6C RoboCylinder Rod Type with Double Guide 64mm Width Pulse Motor Straight Type \blacksquare Configuration: RCP2 - RGD6C -**56P** Encoder Lead Compatible Contr Cable Length Option Type Stroke P1: PCON N : None P : 1m I: Incremental 56P: Pulse motor 16:16mm 50: 50mm : Brake The Simple absolute encoder FT : Foot bracket NM: Reversed-home RPCON 8:8mm 56 🗌 size S : 3m M : 5m 300: 300mm PSEL is also considered (50mm pitch P3: PMEC type "I". : Custom

increments)



When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported. The load capacity is based on operation at an acceleration of 0.2G.

0.2G is the upper limit of the acceleration.

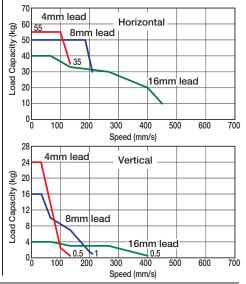
In addition, the horizontal load capacity is based on the use of an external guide. See the technical resources (page A-83) for the allowable weight using the supplied guide alone

Speed vs. Load Capacity

PSEP

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

R .: Robot cable



Actuator Specifications

Cable List

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	pacity (Note 1)	Maximum Push	Stroke	
Widdei	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)	
RCP2-RGD6C-I-56P-16-①-②-③-④	16	~ 40	~ 4	240		
RCP2-RGD6C-I-56P-8-①-②-③-④	8	~ 50	~ 16	470	50 ~ 300 (50mm increments)	
RCP2-RGD6C-I-56P-4-①-②-③-④	4	~ 55	~ 24	800	inorements)	
Legend: ① Stroke ② Compatible controller ③ Cable length ④ Options (Note 2) See page A-69 for the pushing force graphs.						

Stroke Lead	$50 \sim 300$ (50mm increments)
16	450 <400>
8	210

■ Stroke and Maximum Speed

* The values enclosed in < > apply for vertical usage. (Unit: mm/s)

130

Cable Symbol Type **P** (1m) Standard **S** (3m) **M** (5m) X06 (6m) \sim X10 (10m) Special Lengths X11 (11m) X15 (15m) X16 (16m) X20 (20m) R01 (1m) R03 (3m) R04 (4m) ~ R05 (5m)

Robot Cable R06 (6m) R10 (10m) R11 (11m) \sim R15 (15m) R16 (16m) ~ R20 (20m) See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Foot bracket	FT	→ A-29	
Reversed-home	NM	→ Δ-33	

Actuator Specifications

Item	Description				
Drive System	Ball screw ø12mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Guide	Double guide Guide rod diameter ø12mm Ball bush type				
Rod Diameter	ø22mm				
Non-rotating accuracy of rod	±0.05 deg				
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)				

4

Dimensions

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders

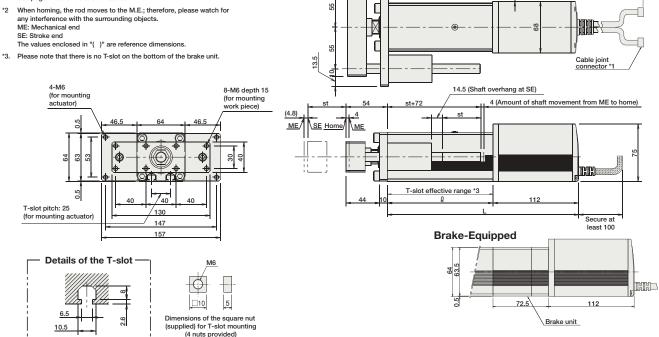
936



(240)



- The motor-encoder cable is connected here. See page A-39 for details on cables.



Compared to the standard model, the brake-equipped model is longer by 72.5mm and heavier by 0.9kg.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300
Ł	138	188	238	288	338	388
L	250	300	350	400	450	500
Weight (kg)	4.4	5.0	5.5	6.1	6.7	7.3

Compatible	Controllers
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The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page
	PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477
1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve.	3 points				→ P487
	PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.					
Í	PCON-C-56PI-NP-2-0 Resitiating in possible for up to 512 points.						
	PCON-CG-56PI-NP-2-0	r ositioning is possible for up to 312 points	one points	DC24V	2A max.		
í i	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-)				→ P525
	PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support					
	PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points				
	RPCON-56P	Dedicated to field network	768 points				→ P503
	PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557
		PSEP-C-56PI-NP-2-0 PSEP-CW-56PI-NP-2-0 PCON-C-56PI-NP-2-0 PCON-CG-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 PCON-SE-56PI-N-0-0 RPCON-56P	PSEP-C-56PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid vples. No homing necessary with simple absolute type. PCON-C-56PI-NP-2-0 PCON-CG-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 Pulse train input type with differential line driver support PCON-PO-56PI-NP-2-0 Pulse train input type with open collector support PCON-SE-56PI-N-0-0 Dedicated to serial communication RPCON-56P Dedicated to field network Programmed operation is possible	PSEP-C-56PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-56PI-NP-2-0 PCON-CG-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 PUlse train input type with differential line driver support PCON-PO-56PI-NP-2-0 Pulse train input type with open collector support PCON-SE-56PI-N-0-0 Dedicated to serial communication RPCON-56P Dedicated to field network 768 points	PMEC-C-56PI-NP-2-0 PSEP-C-56PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-56PI-NP-2-0 PCON-C-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 PUlse train input type with differential line driver support PCON-PO-56PI-NP-2-0 PUlse train input type with open collector support PCON-SE-56PI-N-0-0 Dedicated to serial communication RPCON-56P Dedicated to field network T68 points AC230V AC230V	PMEC-C-56PI-NP-2-0 PSEP-C-56PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-56PI-NP-2-0 PCON-C-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 PCON-PL-56PI-NP-2-0 PUlse train input type with differential line driver support PCON-PO-56PI-NP-2-0 PUlse train input type with open collector support PCON-PO-56PI-NP-2-0 Dedicated to serial communication RPCON-56P Dedicated to field network T68 points AC230V See P481 AC230V See P481	PMEC-C-56PI-NP-2-2 Easy-to-use controller, even for beginners PSEP-C-56PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-56PI-NP-2-0 PCON-C-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 Pulse train input type with differential line driver support PCON-PC-56PI-NP-2-0 PCON-PC-56PI-NP-2-0 PCON-SE-56PI-N-0-0 Dedicated to serial communication RPCON-SE-56PI-N-0-0 Dedicated to field network PCON-SE-56PI-N-0-0 Programmed operation is possible

162

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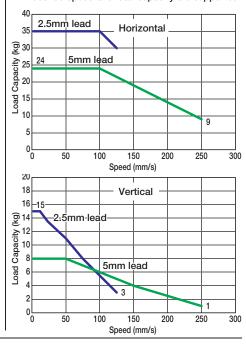
RCP2-SRGD4R RoboCylinder Short-Length Rod Type with Double Guide 45mm Width Pulse Motor Side-Mounted Motor

■ Configuration: RCP2 —SRGD4R — 35P Encoder Motor Lead Stroke Cable Length Option Type N : None P : 1m 35P: Pulse motor I: Incremental 5 : 5mm 20: 20mm P1: PCON See Options below The Simple absolute encoder 2.5 : 2.5mm RPCON 35 🗌 size S : 3m M : 5m 200: 200mm PSEL is also considered (10mm pitch increments) P3: PMEC
* Set in 50mm increments type "I". X 🗌 🗆 : Custom PSEP



■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



■ Stroke and Maximum Speed

Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically).

The horizontal load capacity is based on the use of an external guide. See the technical resources (page A-83) for the allowable weight using the supplied guide alone.

Lead and Load Capacity (Note 1)	Please note that the n	naximum load o	capacity decre	ases as the spe	ed inci
Model	Lead	Max. Load Ca	pacity (Note 1)	Maximum Push	Str
Woder	(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(m
RCP2-SRGD4R-I-35P-5-①-②-③-④	5	~ 24	~ 8	90	20~ (10i
	,				ineres

(mm)
~200
10mm
rements)
ote 3)
raphs.
1 (C

5 250 2.5 125

Cable List		
Type	Cable Symbol	
Standard	P (1m) S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

*	The cable	e is	a r	notor	-e	nco	oder	inte	e	grated cable, and is
	provided	as	a r	obot	ca	ble				
	•			_			_			

^{*} See page A-39 for cables for maintenance.

Actuator Specifications

Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Foot bracket 1 (base mounting)	FT	→ A-29	
Reversed-home	NM	→ A-33	

^{*} The brake can be used for strokes of 70mm or more.

Actuator Specifications	
Item	Description
Drive System	Ball screw ø8mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø22mm
Non-rotating accuracy of rod	±0.05 deg
Ambient Operating Temp./Humidity	$0\sim$ 40°C, 85% RH or less (non-condensing)

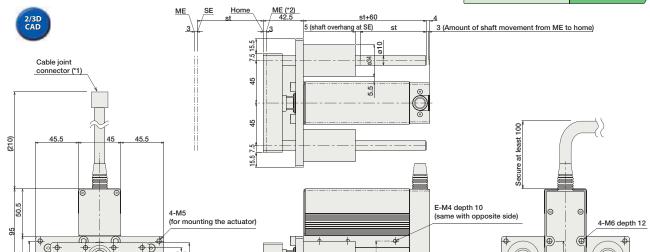
^{*} The foot bracket cannot be mounted on the side.

Dimensions

_{bsite.} www.robocylinder.de

For Special Orders

(译 P. A-**9**



.17

34.5 8

* The exterior dimensions for the brake-equipped model is no different than the standard model.

However, 70mm is the minimum stroke of the brake-equipped models. (i.e. The brake is not compatible at 60mm strokes and under.)

E-M4 depth 10

D×50

ST : Stroke SE : Stroke end ME : Mechanical end

34

- (*1) The motor-encoder cable is connected here. See page A-39 for details on cables.
- (*2) When homing, the rod moves to the mechanical end position; therefore, please watch for any interference with the surrounding objects.

■ Dimensions/Weight by Stroke (+0.2kg with brake)

15

Stroke	20	30	40	50	60	70	80	90	100	150	200
L	126.5	136.5	146.5	156.5	166.5	176.5	186.5	196.5	206.5	256.5	306.5
Α	84	94	104	114	124	134	144	154	164	214	264
В	62	72	82	92	102	112	122	132	142	192	242
С	30	40	50	60	70	30	40	50	60	60	60
D	0	0	0	0	0	1	1	1	1	2	3
E	4	4	4	4	4	6	6	6	6	8	10
Weight (kg)	1.47	1.55	1.62	1.7	1.77	1.84	1.92	1.99	2.07	2.44	2.81

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

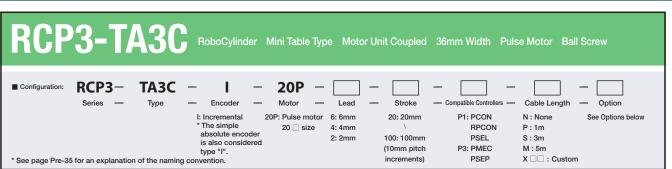
8-M5 depth 12

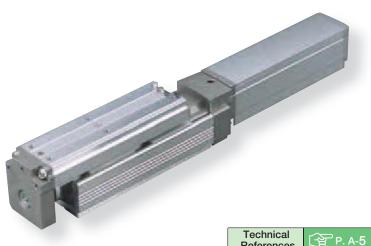
(for mounting work piece)

External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page
PMEC-C-35PI-NP-2-2		Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477
1	PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve.	3 points				→ P487
	PSEP-CW-35PI-NP-2-0	No homing necessary with simple absolute type.					
	PCON-C-35PI-NP-2-0	Positioning is possible for up to 512	512 noints				
	PCON-CG-35PI-NP-2-0	points	orz points				
PCON-PL-35PI-NP-2-0		Pulse train input type with differential line driver support	()	DC24V	2A max.		→ P525
8	PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support	(-)				
	PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points				
	RPCON-35P	Dedicated to field network	768 points				→ P503
	PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557
	1	PMEC-C-35PI-NP-2-2 PSEP-C-35PI-NP-2-0 PSEP-CW-35PI-NP-2-0 PCON-C-35PI-NP-2-0 PCON-CG-35PI-NP-2-0 PCON-PL-35PI-NP-2-0 PCON-PC-35PI-NP-2-0 PCON-SE-35PI-N-0-0 RPCON-35PI-NP-2-0	PMEC-C-35PI-NP-2-2 Easy-to-use controller, even for beginners Operable with same signal as solenoid valve. Supports both single and double solenoid types. No horning necessary with simple absolute type. PCON-C-35PI-NP-2-0 PCON-CG-35PI-NP-2-0 PCON-PL-35PI-NP-2-0 PCON-PL-35PI-NP-2-0 Pulse train input type with differential line driver support PCON-PO-35PI-NP-2-0 Pulse train input type with open collector support PCON-SE-35PI-N-0-0 Dedicated to serial communication RPCON-35P Dedicated to field network	PMEC-C-35PI-NP-2-2 Easy-to-use controller, even for beginners PSEP-C-35PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-35PI-NP-2-0 Positioning is possible for up to 512 points PCON-PC-35PI-NP-2-0 Pulse train input type with differential line driver support PCON-PC-35PI-NP-2-0 Pulse train input type with open collector support PCON-PC-35PI-NP-2-0 Dedicated to serial communication 64 points RPCON-35P Dedicated to field network 768 points Programmed operation is possible	PMEC-C-35PI-NP-2-2 Easy-to-use controller, even for beginners PSEP-C-35PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-35PI-NP-2-0 PCON-C-35PI-NP-2-0 PCON-PC-35PI-NP-2-0 PCON-PC-35PI-NP-2-0 PUlse train input type with differential line driver support PCON-PC-35PI-NP-2-0 Pulse train input type with open collector support PCON-SE-35PI-N-0-0 Dedicated to serial communication RPCON-35P Dedicated to field network Programmed operation is possible Programmed operation is possible	PMEC-C-35PI-NP-2-2 Easy-to-use controller, even for beginners PSEP-C-35PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-35PI-NP-2-0 PCON-C-35PI-NP-2-0 PCON-C-35PI-NP-2-0 PCON-PL-35PI-NP-2-0 Pulse train input type with differential line driver support PCON-PO-35PI-NP-2-0 Pulse train input type with open collector support PCON-SE-35PI-N-0-0 Dedicated to serial communication RPCON-35P Dedicated to field network T68 points 150 acids. AC115V AC230V See P481 AC115V AC230V See P481 AC115V AC230V See P481 Points DC24V 2A max.	PMEC-C-35PI-NP-2-2 Easy-to-use controller, even for beginners PSEP-C-35PI-NP-2-0 Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. PCON-C-35PI-NP-2-0 PCON-C-35PI-NP-2-0 PCON-PL-35PI-NP-2-0 PCON-PL-35PI-NP-2-0 PUse train input type with differential line driver support PCON-PO-35PI-NP-2-0 Puse train input type with open collector support PCON-PC-35PI-NP-2-0 Dedicated to serial communication RPCON-35PI-NP-3-0 Dedicated to field network PCON-35PI-NP-3-0 Programmed operation is possible 150 anists

RCP2-SRGD4R

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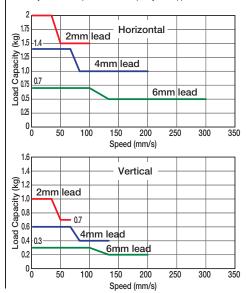


References

(1) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2mm-lead model, or when used vertically). 0.3G (0.2G for 2mm lead) is the upper limit of the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases. Feed Screw Lead (mm) Max. Load Capacity (Note 1) Maximum Positioning Push Force (N) Repeatability orizontal (kg) Vertical (kg) (Note 2) (mm) RCP3-TA3C-I-20P-6-1 - 2 - 3 - 4 6 \sim 0.7 \sim 0.3 20~100 Rall RCP3-TA3C-I-20P-4- 1 - 2 - 3 - 4 4 14 ±0.02 ~ 1.4 \sim 0.6 (10mm RCP3-TA3C-I-20P-2-1-2-3-4 2 ~ 1 ~ 2 28

(Note 2) See page A-66 for pushing force graphs. Legend ① Stroke ② Compatible controller ③ Cable length 4 Options

	■ Stroke and Maximum Speed							
		Stroke	20 ~ 100 (mm)					
	Lead		(11111)					
	We	6	300 <200>					
	Ball Screw	4	200 <133>					
		2	100 <67>					
,	* The values enclosed in "< >" apply to vertical usage. (Unit: mr							

Cable List

Туре	Cable Symbol	
Standard	P (1m)	
(Robot Cables)	S (3m)	
(Hobot Gables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

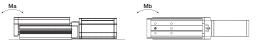
- * The RCP3 comes standard with a robot cable.
- * See page A-39 for cables for maintenance.

Actuator	Specification	ns

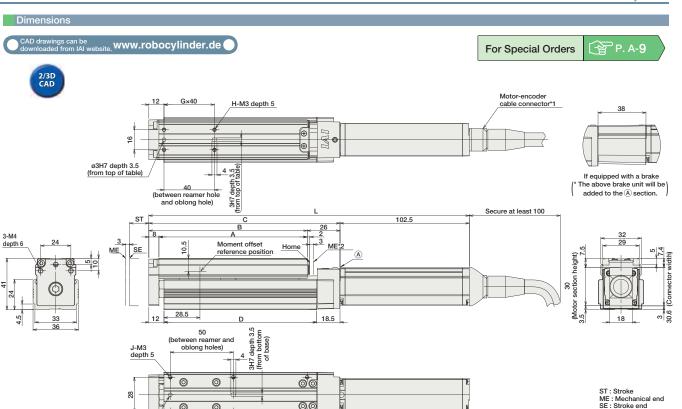
Item	Description
Drive System	Ball screw ø6mm C10 grade
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Dynamic Moment (Note 3)	Ma: 3.2 N·m Mb: 4.6 N·m Mc: 5.1 N·m
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

(Note 3) Based on a 5,000km service life.

Directions of Allowable Load Moments



Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	



*1 The motor-encoder cable is connected directly to the motor cover of the actuator. See page A-39 for details on cables.

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*2 When homing, the slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

■ Dimensions/Weight by Stroke	* Adding a brake will increase the actuator's weight by 0.1kg
-------------------------------	---------------------------------------------------------------

	Stroke	20	30	40	50	60	70	80	90	100
L	No Brake	224	234	244	254	264	274	284	294	304
_	Brake-equipped	262	272	282	292	302	312	322	332	342
	Α	87.5	97.5	107.5	117.5	127.5	137.5	147.5	157.5	167.5
B C		95.5	105.5	115.5	125.5	135.5	145.5	155.5	165.5	175.5
		121.5	131.5	141.5	151.5	161.5	171.5	181.5	191.5	201.5
	D	91	101	111	121	131	141	151	161	171
	Е	1	1	1	1	2	2	2	2	2
	F	28.5	38.5	48.5	58.5	18.5	28.5	38.5	48.5	58.5
	G	1	1	1	1	2	2	2	2	2
	Н	4	4	4	4	6	6	6	6	6
	J	6	6	6	6	8	8	8	8	8
	Weight (kg)	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7

Compatible Controllers

ø3H7 depth 3.5 (from bottom of base)

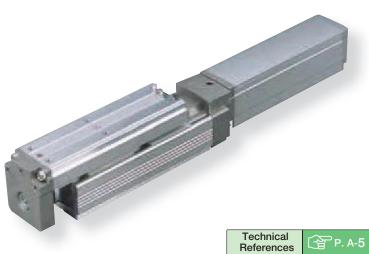
The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page									
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477									
Solehold valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points	3 points	3 points	3 points	3 points	3 points	3 points	3 points	3 points	perable with same signal as solenoid valve.			→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				→ F407									
Positioner Type	E	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points 5	512 points												
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	1 Coldoning is possible for up to 012 points													
Pulse Train Input Type (Differential Line Driver)	É	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525									
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)												
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points												
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P503									
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557									

This is for the single-axis PSEL.

PMEC /AMEC
PSEP /ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
SSEL

RCP3-TA4C RoboCylinder Mini Table Type Motor Unit Coupled 40mm Width Pulse Motor Ball Screw RCP3-TA4C ■ Configuration: I **28P** Encoder Motor Stroke Compatible Controllers Cable Length Option 28P: Pulse motor 6: 6mm P1: PCON N : None I: Incremental 20: 20mm See Options below The simple absolute encoder is also considered P:1m 4: 4mm RPCON 28 🗌 size 2: 2mm 100: 100mm PSEL S : 3m



(10mm pitch

increments)

[全 P. A-5

(1) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2mm-lead model, or when used vertically). 0.3G (0.2G for 2mm lead) is the upper limit of the acceleration.

Speed vs. Load Capacity

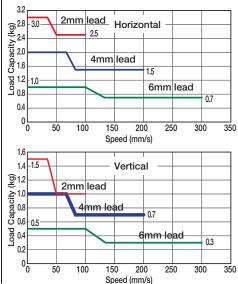
M : 5m

P3: PMEC

PSEP

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X .: Custom



	Actuator Specifications							
	■ Lead and Load Capacity		(Note 1) Plea	se note that the	maximum load	capacity decr	eases as the sp	peed increases.
	Model	Feed Screw	Lead (mm)	Max. Load Cap Horizontal (kg)	, , ,	Maximum Push Force (N) (Note 2)	Positioning Repeatability (mm)	Stroke (mm)
	RCP3-TA4C-I-28P-6-①-②-③-④]	6	~1	~ 0.5	15		
	RCP3-TA4C-I-28P-4- ① - ② - ③ - ④	Ball Screw	4	~ 2	~ 1	22	±0.02	20~100 (10mm increments)
\vdash	RCP3-TA4C-I-28P-2-①-②-③-④		2	~ 3	\sim 1.5	44		increments)
	Legend ① Stroke ② Compatible controller ③ Ca	ble length	4 Opti	ons	(Note 2) Se	e page A-66	for pushing f	orce graphs.

■ S	troke an	d Maximum Speed
	Stroke	20 ∼ 100
Lead		(mm)
We	6	300
Ball Screw	4	200
Ba	2	100
		(11-:4

Cable List		
Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

- * The RCP3 comes standard with a robot cable.
- * See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Cable exit direction (Top)	CJT		
Cable exit direction (Right)	CJR	` ^ 05	
Cable exit direction (Left)	CJL	→ A-2 5	
Cable exit direction (Bottom)	CJB		
Reversed-home	NM	→ A-33	

Actuator Specifications Item Description Drive System Ball screw ø6mm C10 grade Lost Motion 0.1mm or less Material: Aluminum (white alumite treated) Ma: 4.2 N·m Mb: 6 N·m Mc: 8.2 N·m Allowable Dynamic Moment (Note 3) Ambient Operating Temp./Humidity 0~40°C, 85% RH or less (non-condensing)

(Note 3) Based on a 5,000km service life.

Directions of Allowable Load Moments



20 12 4H7 depth 4.5 (from bottom of base) 50 (between reamer and oblong holes) ■Change cable outlet direction (optional) ⊕ 32 J-M4 depth 7.5 00 _ ⊚ 0 0 0 90 (Left: CJL) 25 ø4H7 depth 4.5 (from bottom of base) As viewed from arrow B (Bottom: CJB)

25.5

Home

H-M4 depth 6

4H7 depth

Moment offset reference position

В

(between reamer hole and oblong hole)

- *1 The motor-encoder cable is connected directly to the motor cover of the actuator. See page A-39 for details on cables.
- *2 When homing, the slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

ST : Stroke ME : Mechanical end SE : Stroke end

Dimensions

2/3D CAD

3-M5 depth 6

53

CAD drawings can be downloaded from IAI website. www.robocylinder.de

ø4H7 depth 4.5 (from top of table)

ST

SE

■ Dimensions/Weight by Stroke *Adding a brake will increase the actuator's weight by 0.2kg.

		Stroke	20	30	40	50	60	70	80	90	100
		No Brake	214.5	224.5	234.5	244.5	254.5	264.5	274.5	284.5	294.5
	_	Brake-equipped	259	269	279	289	299	309	319	329	339
		Α	89	99	109	119	129	139	149	159	169
		В	97	107	117	127	137	147	157	167	177
	C D		122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5
			90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
		Е	1	1	1	1	2	2	2	2	2
		F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
		G	1	1	1	1	2	2	2	2	2
		Н	4	4	4	4	6	6	6	6	6
		J	6	6	6	6	8	8	8	8	8
		Weight (kg)	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9

Companible Controllers
The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
Solenoid Valve Type	draw	PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477		
Solenoid valve Type	PSEP-C-2	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-28PI-NP-2-0	No homing necessary with simple absolute type.				→ F407		
Positioner Type	Ė	PCON-C-28PI-NP-2-0	Positioning is possible for up to 512 points	nts 512 points					
Safety-Compliant Positioner Type	, ion	8	PCON-CG-28PI-NP-2-0	rositioning is possible for up to 312 points	O12 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support	Pulse train input type with					
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-28P	Dedicated to field network	768 points			→ P503		
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557		

псрз-та4с 272

IAI

(Top: CJT)

PMEC AMEC PSEP ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL SSEL

■ Configuration:

RCP3-TA5C RoboCylinder Table Type Motor Unit Coupled 55mm Width Pulse Motor Ball Screw

RCP3- TA5C-

Type

Encoder Motor I: Incremental The simple absolute encode 35 🗌 size

35P: Pulse motor 10: 10mm 5: 5mm 2.5: 2.5mm is also considered type "I". * See page Pre-35 for an explanation of the naming convention.

35P

Stroke 25: 25mm

100: 100mm (25mm pitch increments)

P1: PCON RPCON PSEL P3: PMEC

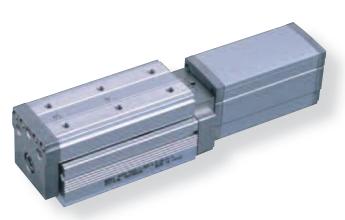
PSEP

Compatible Controllers

N : None P:1m S:3m M : 5m

Cable Length

X .: Custom



Technical References

[全 P. A-5

Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported. Please note that the maximum speed is different when used horizontally versus vertically. The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used

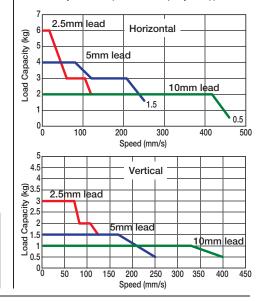
This is the upper limit of the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

Option

See Options below



Actuator Specifications

vertically).

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

= Lodd did Lodd Odpaoity	, ,			,	.,
Model	Lead (mm)	Max. Load Capacity (Note 1)		Maximum Push Force (N)	Stroke (mm)
Model		Horizontal (kg)	Vertical (kg)	(Note 2)	
RCP3-TA5C-I-35P-10-①-②-③-④	10	~ 2	~ 1	34	05 . 100
RCP3-TA5C-I-35P-5-①-②-③-④	5	~ 4	∼ 1.5	68	25~100 (25mm increments)
RCP3-TA5C-I-35P-2.5-①-②-③-④	2.5	~ 6	~ 3	136	increments)
Legend ① Stroke ② Compatible controller ③ Cable length ④ Options (Note 2) See page A-66 for pushing force graphs and a controller ③ Cable length ④ Options					g force graphs.

Stroke and	a Maximum Speed
Stroke	25 ~ 100
Lead	(25mm increments)

Stroke Lead	$25 \sim 100$ (25mm increments)	
10	465 <400>	
5	250	
2.5	125	

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard	P (1m) S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

* The standard cable is the motor-encoder integrated robot cable.

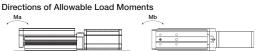
* See page A-39 for cables for maintenance.

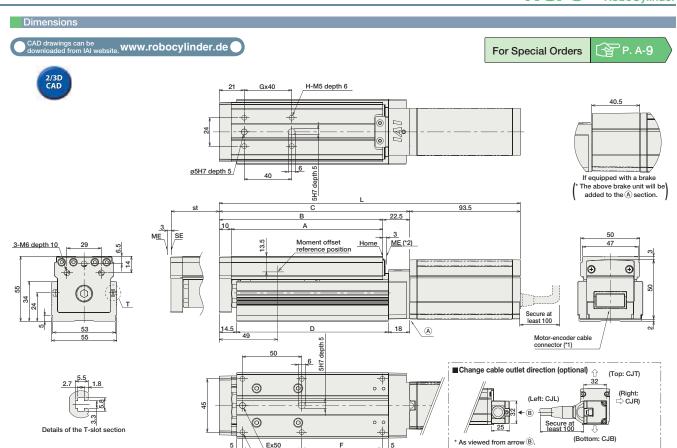
Option Code	Standard Price	
В	→ A-25	
CJT	→ A-25	
CJR	→ A-25	
CJL	→ A-25	
CJB	→ A-25	
NM	→ A-33	
	B CJT CJR CJL CJB	$\begin{array}{cccc} B & \rightarrow \text{A-25} \\ \hline \text{CJT} & \rightarrow \text{A-25} \\ \hline \text{CJR} & \rightarrow \text{A-25} \\ \hline \text{CJL} & \rightarrow \text{A-25} \\ \hline \text{CJL} & \rightarrow \text{A-25} \\ \hline \text{CJB} & \rightarrow \text{A-25} \\ \end{array}$

Actuator Specifications

Item	Description		
Drive System	Ball screw ø8mm C10 grade		
Positioning Repeatability	±0.02mm		
Lost Motion	0.1mm or less		
Base	Material: Material: Aluminum (special alumite treated)		
Allowable Static Moment	Ma: 25.5 N·m Mb: 36.5 N·m Mc: 56.1 N·m		
Allowable Dynamic Moment (*)	Ma: 6.57 N·m Mb: 9.32 N·m Mc: 14.32 N·m		
Overhang Load Length	Within the load moment range		
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)		

(*) Based on a 5,000km service life.





ÿ5H7 depth 5 J-M5 depth 10

■ Dimensions/Weight by Stroke *Adding a brake will increase the actuator's weight by 0.3kg.

			uica	ciuator s wei	giit by 0.0kg
Stroke		25	50	75	100
	No Brake	229	254	279	304
L	Brake-Equipped	269.5	294.5	319.5	344.5
-	4	103	128	153	178
E	3	113	138	163	188
С		135.5	160.5	185.5	210.5
D		103	128	153	178
E		1	1	2	2
I		43	68	43	68
(à	1	1	2	2
Н		4	4	6	6
	J	6	6	8	8
Weigl	nt (kg)	1.2	1.4	1.5	1.7

- (*1) The motor-encoder cable (integrated) is connected. (See page A-39 for details on cables.)
- (*2) After homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end

SE: Stroke end

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
		PMEC-C-35PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477		
olenoid Valve Type	1	PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve.	3 points			→ P487		
Splash-Proof colenoid Valve Type		PSEP-CW-35PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				→ P487		
Positioner Type	Pi	PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points		512 points			
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0	Positioning is possible for up to 312 points	512 points					
ulse Train Input Type ifferential Line Driver)	Ö		Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525		
ulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support		(-)	(-)	()		
Serial ommunication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-35P Dedicated to field network 768 points	768 points		→ P503				
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557		

RCP3-TA5C **274**

IAI

Type

Mini

Standard

Rod Type

Mini

Standard

Integrated

Flat Type

Mini

Rotary Type

Linear Motor Type

Туре

Splash Prod

Controllers

PMEC /AMEC

/ASEP ROBO

FRC2

LIIUZ

ACON

SCON

PSEL

CCEI

XSEL

Pulse Motor

Servo Moto (24V)

Servo Moto (230V)

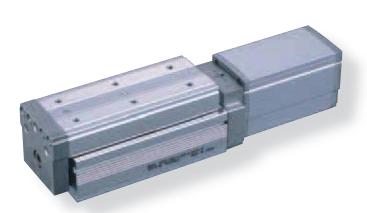
Linear Moto

* See page Pre-35 for an explanation of the naming convention.

ntrollers tegrated Rod Type Mini

RCP3-TA6C RoboCylinder Table Type Motor Unit Coupled 65mm Width Pulse Motor Ball Screw RCP3 - TA6C -■ Configuration: **42P** Type Encoder Motor Lead Stroke Compatible Controllers Cable Length Option 42P: Pulse motor 12:12mm P1: PCON N : None I: Incremental 25: 25mm See Options below The simple absolute encode 42 🗌 size 6:6mm RPCON P:1m 3:3mm 150: 150mm PSEL S:3m is also considered (25mm pitch P3: PMEC M : 5m

increments)



type "I".

Technical References

[全 P. A-5

- Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- Please note that the maximum speed is different when used horizontally versus vertically.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically).

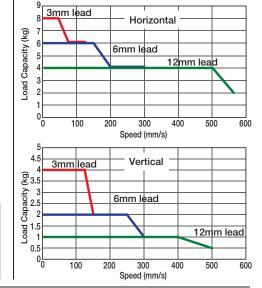
This is the upper limit of the acceleration.

Speed vs. Load Capacity

PSEP

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X . Custom



Actuator Specifications ■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

	Model		Max. Load Capacity (Note 1)		Maximum Push	Stroke
Wiodei		(mm)	Horizontal (kg)	Vertical (kg)	Force (N)(Note 2)	(mm)
RCP3-TA6C-I	-42P-12-①-②-③-④	12	~ 4	~1	47	05. 450
RCP3-TA6C-I	-42P-6-①-②-③-④	6	~ 6	~ 2	95	25~150 (25mm
RCP3-TA6C-I-42P-3-①-②-③-④		3	~ 8	~ 4	189	increments)
Legend Stroke	② Compatible controller ③ Cable length	4 Option	ıs (N	ote 2) See page	A-66 for pushin	g force graphs.

Stroke Lead	$25 \sim 150$ (25mm increments)
12	560 <500>
6	300
3	150

■ Stroke and Maximum Speed

Cable List

Cable List		
Туре	Cable Symbol	
Standard	P (1m)	
(Robot Cables)	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

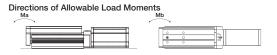
0	ption	List

Name	Option Code	Standard Price	
Brake	В	→ A-25	
Cable exit direction (Top)	CJT	→ A-25	
Cable exit direction (Right)	CJR	→ A-25	
Cable exit direction (Left)	CJL	→ A-25	
Cable exit direction (Bottom)	CJB	→ A-25	
Reversed-home	NM	→ A-33	

Actuator Specifications

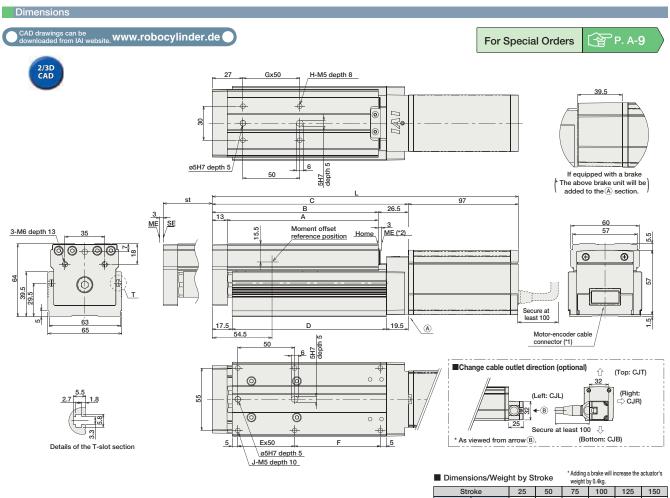
Item	Description
Drive System	Ball screw ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 29.4 N·m Mb: 42.0 N·m Mc: 74.1 N·m
Allowable Dynamic Moment (*)	Ma: 7.26 N·m Mb: 10.3 N·m Mc: 18.25 N·m
Overhang Load Length	Within the load moment range
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

(*) Based on a 5,000km service life.





(Unit: mm/s)



(*1) The motor-encoder cable (integrated) is connected. (See page A-39 for details on cables.)

(*2) After homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical end

SE: Stroke end

■ Dimens	Dimensions/Weight by Stroke					* Adding a brake will increase the actuator's weight by 0.4kg.				
Str	oke	25	50	75	100	125	150			
	No Brake	244.5	269.5	294.5	319.5	344.5	369.5			
_	Brake-Equipped	284	309	334	359	384	409			
,	A	108	133	158	183	208	233			
I	В		146	171	196	221	246			
(С		172.5	197.5	222.5	247.5	272.5			
I)	110.5	135.5	160.5	185.5	210.5	235.5			
	Ε	1	1	2	2	3	3			
	F		75.5	50.5	75.5	50.5	75.5			
(3	1	1	2	2	3	3			
I	Н		4	6	6	8	8			
	J	6	6	8	8	10	10			
Weigl	ht (kg)	1.8	2	2.2	2.4	2.6	2.8			

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P47
Solenoid valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve.	3 points			→ P48'
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				→ P46
Positioner Type	É	PCON-C-42PI-NP-2-0	Positioning is possible for up to E12 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Positioning is possible for up to 512 points -0	o iz pointo	0.2 pointo		
Pulse Train Input Type Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P52
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type	1	PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P50
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P55

Controllers

PMEC (AMEC)
PSEP (ASEP)
ROBO (NET)
ERC2
PCON
ACON
SCON
PSEL
ASEL
XSEL

■ Configuration:

Standard
ntrollers
tegrated
Rod
Type
Mini
Standard
ntrollers
tegrated

RCP3- TA7C-

RCP3-TA7C RoboCylinder Table Type Motor Unit Coupled 75mm Width Pulse Motor Ball Screw

Type Encoder I: Incremental The simple absolute encode

is also considered type "I". * See page Pre-35 for an explanation of the naming convention.

I

Lead 42P: Pulse motor 12: 12mm 42 🗌 size 6: 6mm 3: 3mm

42P

Motor

25: 25mm 200: 200mm (25mm pitch increments)

Stroke

Compatible Controllers Cable Length P1: PCON RPCON PSEL P3: PMEC

PSEP

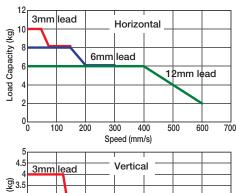
N : None P:1m S : 3m M : 5m X . Custom

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

Option

See Options below



6mm lead 12mm lead 0.5 100 200 300 400 500 600 700 Speed (mm/s)

Technical References

[全 P. A-5



- Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds.
- Check in the Speed vs. Load Capacity graph below to see if your desired speed and load capacity are supported. Please note that the maximum speed is different when used horizontally versus vertically.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically).
 - This is the upper limit of the acceleration.

Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

_ =====================================					
Model	Lead	Max. Load Capacity (Note 1)		Maximum Push Force (N)	Stroke
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	(Note 2)	(mm)
RCP3-TA7C-I-42P-12-①-②-③-④	12	~ 6	~ 1	47	05000
RCP3-TA7C-I-42P-6-①-②-③-④	6	~ 8	~ 2	95	25~200 (25mm
RCP3-TA7C-I-42P-3-①-②-③-④	3	~ 10	~ 4	189	increments)
Legend ① Stroke ② Compatible controller ③ Cable length	4 Option	ns (N	ote 2) See page	A-66 for pushin	g force graphs.

Stroke Lead	$25 \sim 200$ (25mm increments)
12	600 <580>
6	300
3	150

(Unit: mm/s)

Cable	List	

Cable List		
Туре	Cable Symbol	
Standard	P (1m) S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List

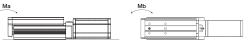
Name	Option Code	Standard Price	
Brake	В	→ A-25	
Cable exit direction (Top)	CJT	→ A-25	
Cable exit direction (Right)	CJR	→ A-25	
Cable exit direction (Left)	CJL	→ A-25	
Cable exit direction (Bottom)	CJB	→ A-25	
Reversed-home	NM	→ A-33	

Actuator Specifications

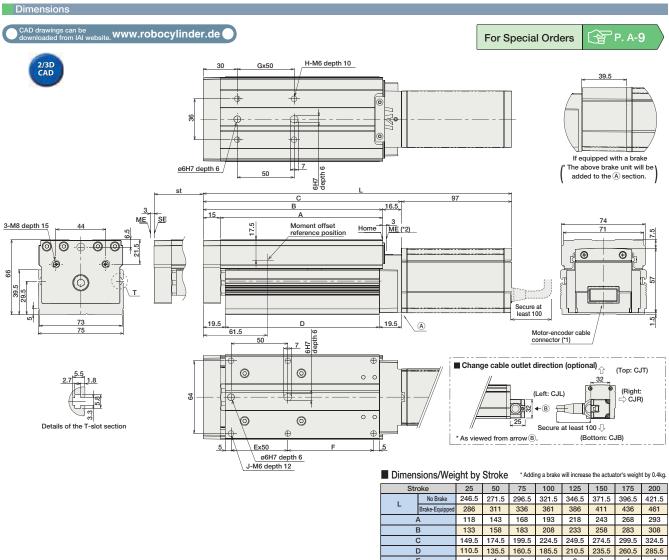
Item	Description
Drive System	Ball screw ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Material: Aluminum (special alumite treated)
Allowable Static Moment	Ma: 42.6 N·m Mb: 60.8 N·m Mc: 123.2 N·m
Allowable Dynamic Moment (*)	Ma: 9.91 N·m Mb: 14.13 N·m Mc: 28.65 N·m
Overhang Load Length	Within the load moment range
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

(*) Based on a 5.000km service life.

Directions of Allowable Load Moments







(*1) The m

(*2) After

ME: N

	Brake-Equipped	286	311	336	361	386	411	436	461
	Α	118	143	168	193	218	243	268	293
	В	133	158	183	208	233	258	283	308
	С	149.5	174.5	199.5	224.5	249.5	274.5	299.5	324.5
	D	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5
	E	1	1	2	2	3	3	4	4
motor-encoder cable (integrated) is connected. (See page A-39 for details on cables.)	F	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5
er homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.	G	1	1	2	2	3	3	4	4
:: Mechanical end	Н	4	4	6	6	8	8	10	10
: Stroke end	J	6	6	8	8	10	10	12	12
	Weight (kg)	2.1	2.3	2.5	2.8	3	3.2	3.4	3.6
	•								

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
ooienoid valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487	
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				→ P46	
Positioner Type	É	PCON-C-42PI-NP-2-0	Pulse train input type with	512 points				
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0		312 points				
Pulse Train Input Type Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0		()	DC24V	2A max.	→ P52	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-42P	Dedicated to field network	768 points			 → P50	
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P55°	

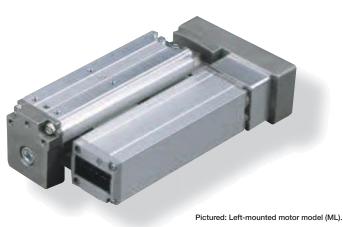
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IAI

PMEC //AMEC PSEP //ASEP ROBO NET ERC2 PCON ACON SCON PSEL SSEL XSEL

RCP3-TA3R RoboCylinder Mini Table Type Side-Mounted Motor 36mm Width Pulse Motor Ball Screw RCP3-TA3R **20P** ■ Configuration: I Туре Encoder Motor Stroke Compatible Controllers Cable Length Option 20P: Pulse motor 6: 6mm P1: PCON N : None I: Incremental 20: 20mm See Options below The simple absolute encoder is also considered * Be sure to specify which side the P:1m 4: 4mm RPCON 20 🗌 size 2: 2mm 100: 100mm PSEL S : 3m motor is to be (10mm pitch P3: PMEC M : 5m type "I". mounted (ML/MR).

increments)



Technical References

P. A-5



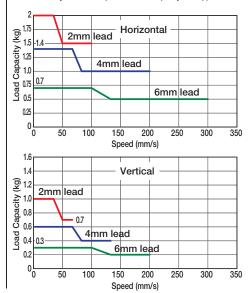
(1) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2mm-lead model, or when used vertically). 0.3G (0.2G for 2mm lead) is the upper limit of the acceleration.

Speed vs. Load Capacity

PSEP

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

X .: Custom



Actuator Specifications ■ Lead and Load Capacity Feed Lead Max. Load Capacity (Note 1) Maximum Positioning Stroke

Model	Screw	(mm)	Horizontal (kg)	Vertical (kg)	Push Force (N) (Note 2)	Repeatability (mm)	(mm)
RCP3-TA3R-I-20P-6-①-②-③-④		6	~ 0.7	\sim 0.3	9		00 400
RCP3-TA3R-I-20P-4- ① - ② - ③ - ④	Ball Screw	4	~ 1.4	~ 0.6	14	±0.02	20~100 (10mm increments)
RCP3-TA3R-I-20P-2-①-②-③-④		2	~ 2	~ 1	28		increments)
Legend ① Stroke ② Compatible controller ③ Cable length ④ Options (Note 2) See page A-66 for pushing force graphs.							

shing force graphs. * The values enclosed in "< >" apply to vertical usage. (Unit: mm/s)

		-
Stroke		20 ~ 100
Lead		(mm)
Wé	6	300 <200>
Ball Screw	4	200 <133>
Ba	2	100 <67>

■ Stroke and Maximum Speed

Cable List

Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m)	

- * The RCP3 comes standard with a robot cable.
- * See page A-39 for cables for maintenance.

Option List

opnon ziet					
Name	Option Code	See Page			
Brake	В	→ A-25			
Left-Mounted Motor (Standard)	ML	→ A-33			
Right-Mounted Motor	MR	→ A-33			
Reversed-home	NM	→ A-33			

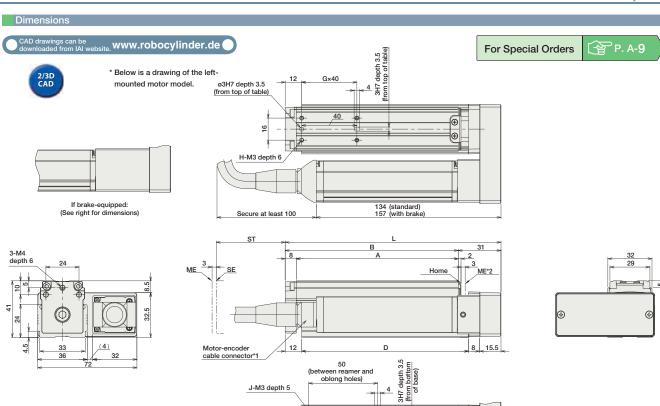
Actuator Specifications

Item	Description
Drive System	Ball screw ø6mm C10 grade
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Dynamic Moment (Note 3)	Ma: 3.2 N·m Mb: 4.6 N·m Mc: 5.1 N·m
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

(Note 3) Based on a 5,000km service life.

Directions of Allowable Load Moments





0

0

E×50

0

0

J-M3 depth 5

28

ø3H7 depth 3.5 (from bottom of base)

*1 The motor-encoder cable is connected directly to the motor cover of the actuator. See page A-39 for details on cables.

The offset reference position of the moment is the same as TA3C (P270).

*2 When homing, the slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

■ Dimensions	■ Dimensions/Weight by Stroke			* Adding a brake will increase the actuator's weight by 0.1kg.					
Stroke	20	30	40	50	60	70	80	90	100
L	126.5	136.5	146.5	156.5	166.5	176.5	186.5	196.5	206.5
Α	87.5	97.5	107.5	117.5	127.5	137.5	147.5	157.5	167.5
В	95.5	105.5	115.5	125.5	135.5	145.5	155.5	165.5	175.5
D	91	101	111	121	131	141	151	161	171
E	1	1	1	1	2	2	2	2	2
F	28.5	38.5	48.5	58.5	18.5	28.5	38.5	48.5	58.5
G	1	1	1	1	2	2	2	2	2
Н	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Weight (kg)	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7

00

<u></u>

7.5

The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.										
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Pag		
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P47		
solellold valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P48		
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.					- r40		
Positioner Type	Í	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points						
Safety-Compliant Positioner Type						PCON-CG-20PI-NP-2-0				
Pulse Train Input Type Differential Line Driver)		É	PCON-PL-20PI-NP-2-0	Pulse train input type with different line driver support		DC24V	2A max.		→ P52	
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	()						
Serial communication Type	Ĩ	PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points						
Field Network Type		RPCON-20P	Dedicated to field network	768 points				→ P50		
Program Control Type	PSEL-C-1-20PI-NP-2-0 Programmed operation is possible Operation is possible on up to 2 axes				→ P55					

ST : Stroke ME : Mechanical end SE : Stroke end

CP3-TA4R ■ Configuration: RCP3-TA4R **28P** Encoder Motor Option Туре Lead Stroke Compatible Controllers Cable Length I: Incremental * The simple absolute encoder is also considered 28P: Pulse motor 6 : 6mm P1: PCON N : None 20: 20mm See Options below * Be sure to specify which side the RPCON P:1m 28 🗌 size 4:4mm 2 : 2mm 100: 100mm PSEL S : 3m motor is to be (10mm pitch P3: PMEC M : 5m type "I". mounted (ML/MR). increments) PSEP X .: Custom



Pictured: TA3R with left-mounted motor (ML).

Technical References

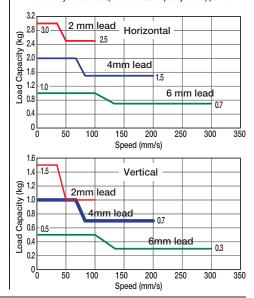
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(1) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2mm-lead model, or when used vertically). 0.3G (0.2G for 2mm lead) is the upper limit of the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

(Note 1) Please note that the maximum load capacity decreases as the speed increases. ■ Lead and Load Capacity

					Maximum		
Model	Feed	Lead	Max. Load Ca	Max. Load Capacity (Note 1)		Positioning Repeatability	Stroke
Wiodel	Screw	(mm)	Horizontal (kg)	Vertical (kg)	(Note 2)	(mm)	(mm)
RCP3-TA4R-I-28P-6-①-②-③-④		6	~1	\sim 0.5	15		00 400
RCP3-TA4R-I-28P-4- ① - ② - ③ - ④	Ball Screw	4	~ 2	~1	22	±0.02	20~100 (10mm increments)
RCP3-TA4R-I-28P-2-①-②-③-④		2	~ 3	\sim 1.5	44		increments)
Legend Stroke Compatible controller Cable length Options (Note 2) See page A-66 for pushing force graphs.							

		· · · · · · · · · · · · · · · · · · ·
	Stroke	20 ~ 100
Lead		(mm)
W	6	300
Ball Screw	4	200
Ba	2	100
		(Unit: mm/s)

	Cable List							
	Туре	Cable Symbol						
	Standard	P (1m)						
	(Robot Cables)	S (3m)						
	(HODOL Cables)	M (5m)						
ĺ		X06 (6m) ~ X10 (10m)						
5	Special Lengths	X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)						
	_	X16 (16m) ~ X20 (20m)						

- * The RCP3 comes standard with a robot cable.
- * See page A-39 for cables for maintenance.

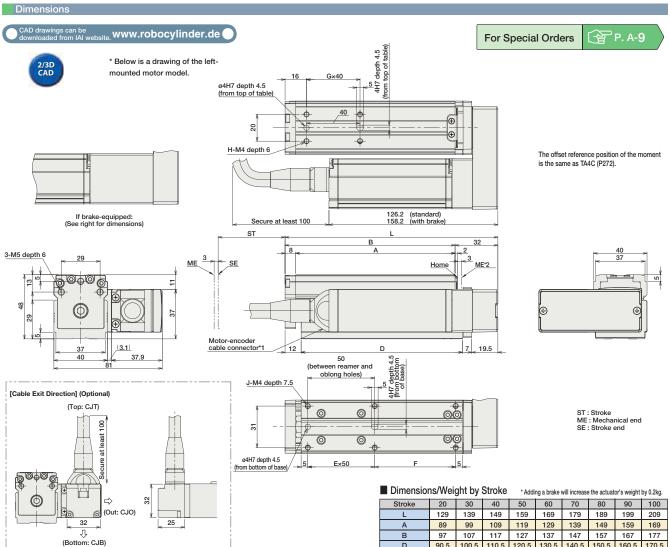
Option List			
Name	Option Code	See Page	
Brake	В	→ A-25	
Cable exit direction (Top)	CJT		
Cable exit direction (Outside)	CJO	→ A-25	
Cable exit direction (Bottom)	CJB		
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Reversed-home	NM	→ A-33	

Actuator opecinications				
Item	Description			
Drive System	Ball screw ø6mm C10 grade			
Lost Motion	0.1mm or less			
Base	Material: Aluminum (white alumite treated)			
Allowable Dynamic Moment (Note 3)	Ma: 4.2 N·m Mb: 6 N·m Mc: 8.2 N·m			
Ambient Operating Temp./Humidity	0~40°C, 85% BH or less (non-condensing)			

(Note 3) Based on a 5,000km service life.

Directions of Allowable Load Moments





*1 The motor-encoder cable is connected directly to the motor cover of the actuator. See page A-39 for details on cables.

*2 When homing, the slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

Dimension	ns/Wei	ght by	Stroke	* Addi	ng a brake	will increase	the actuat	or's weight	by 0.2kg.
Stroke	20	30	40	50	60	70	80	90	100
L	129	139	149	159	169	179	189	199	209
Α	89	99	109	119	129	139	149	159	169
В	97	107	117	127	137	147	157	167	177
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5
E	1	1	1	1	2	2	2	2	2
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5
G	1	1	1	1	2	2	2	2	2
Н	4	4	4	4	6	6	6	6	6
J	6	6	6	6	8	8	8	8	8
Weight (kg)	0.7	8.0	8.0	8.0	0.9	0.9	0.9	1.0	1.0

			ntrollers below. Select the controller ac			ı	
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Soleliolu valve Type	1	PSEP-C-28PI-NP-2-0 Operable with same signal as solenoid valve. 3 points				→ P487	
Splash-Proof Solenoid Valve Type	B.	PSEP-CW-28PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				7 1 407
Positioner Type	Í	PCON-C-28PI-NP-2-0	Positioning is possible for up to 512 points 512 points				
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0		312 points		2A max.	
Pulse Train Input Type Differential Line Driver)	D	PCON-PL-28PI-NP-2-0	Pulse train input type with different line driver support		DC24V		→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support	(—)			
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-28P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

See page Pre-35 for an explanation of the naming convention.

ntrollers tegrated Rod Type Mini

PMEC /AMEC PSEP /ASEP ROBO NET ERC2 PCON ACON SCON PSEL SSEL XSEL

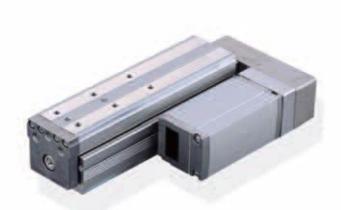
RCP3-TA5R RoboCylinder Table Type Side-Mounted Motor 55mm Width Pulse Motor Ball Screw RCP3 TA5R -■ Configuration: 35P Type Encoder Motor Stroke Compatible Controllers Cable Length Option 10: 10mm P1: PCON N : None I: Incremental 35P: Pulse motor 25: 25mm See Options below The simple absolute encoder is also considered Be sure to specify which side the 5: 5mm **RPCON** P:1m 35 🗌 size

2.5: 2.5mm

100: 100mm

(25mm pitch

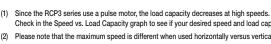
increments)



type "I".

Technical References





Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported. (2) Please note that the maximum speed is different when used horizontally versus vertically.

The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically). This is the upper limit of the acceleration.

■ Speed vs. Load Capacity

S:3m

M : 5m

X .: Custom

PSEL

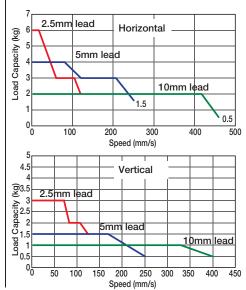
PSEP

P3: PMEC

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

motor is to be

mounted (ML/MR).



Actuator Specifications

■ Lead and Load Capacity

Model	Lead	Max. Load Capacity		Maximum	Stroke	
Model	(mm)	Horizontal (kg)	Vertical (kg)	Push Force (N)	(mm)	
RCP3-TA5R-I-35P-10-①-②-③-④	10	~ 2	~ 1	34	05. 100	
RCP3-TA5R-I-35P-5-①-②-③-④	5	~ 4	\sim 1.5	68	25~100 (25mm	
RCP3-TA5R-I-35P-2.5-①-②-③-④	2.5	~ 6	~ 3	136	increments)	
Legend ① Stroke ② Compatible controller ③ Cable length	4 Option	s				

■ Stroke and Maximum Speed

Stroke Lead	$25 \sim$ 100 (25mm increments)
10	465 <400>
5	250
2.5	125
* The values enclose	d in "< >" apply to vertical usage. (Unit: mm/s

Cable List

Cable List		
Туре	Cable Symbol	
Standard	P (1m)	
	S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths		
	X16 (16m) ~ X20 (20m)	

* The standard cable is the motor-encoder integrated robot cable.

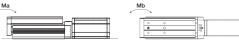
Option List

-			
Name	Option Code	See Page	
Brake	В	→ A-25	
Cable exit direction (Top)	CJT		
Cable exit direction (Outside)	CJO	→ A-25	
Cable exit direction (Bottom)	CJB		
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description				
Drive System	Ball screw ø8mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Material: Aluminum (special alumite treated)				
Allowable Static Load Moment	Ma: 25.5 N·m Mb: 36.5 N·m Mc: 56.1 N·m				
Allowable Dynamic Load Moment	Ma: 6.57 N·m Mb: 9.32 N·m Mc: 14.32 N·m				
Overhang Load Length	Within the load moment range				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

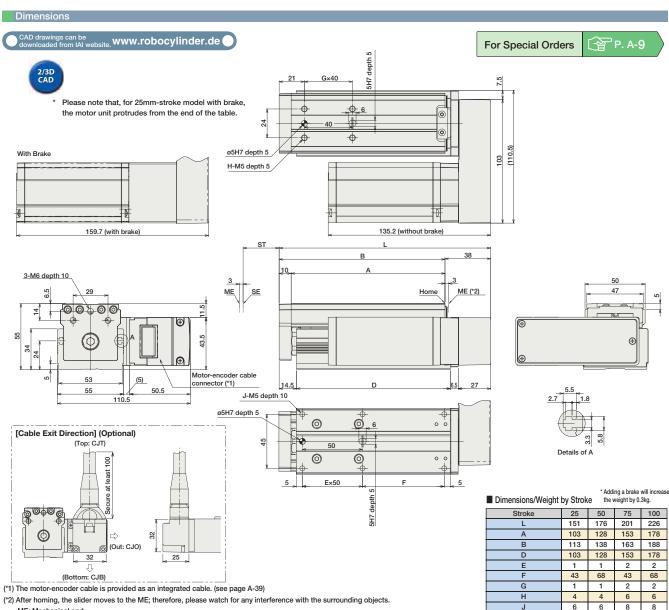
Directions of Allowable Load Moments





5,000 km service life

^{*} See page A-39 for cables for maintenance.



									4 6 1.6	6 8 1.7	6 8 1.9	
الناب سياد	e Controllers										1	
Compatible			The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.									
		operate with the co	ntrollers below. Select the controller a	according to your usa	age.							
		operate with the co	ntrollers below. Select the controller a	According to your usa	age. Input Voltage	Power Supply Capacity		i		See Page		

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page			
Solenoid Valve Type		PMEC-C-35PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477			
Solellold valve Type	1	PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487			
Splash-Proof Solenoid Valve Type	P	PSEP-CW-35PI-NP-2-0	No homing necessary with simple absolute type.	No homing necessary with simple absolute type							→ F40 <i>i</i>
Positioner Type	Í	PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points							
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0	r establing is possible for up to 012 points	orz pointo							
Pulse Train Input Type (Differential Line Driver)		PCON-PL-35PI-NP-2-0	Pulse train input type with differential line driver support		DC24V	2A max.		→ P525			
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support	(-)							
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points							
Field Network Type		RPCON-35P	Dedicated to field network	768 points				→ P503			
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557			
							* This is for the s	ingle-axis PSEL.			

■ Configuration:

otandard Introllers tegrated Rod Type Mini

RCP3-TA6R RoboCylinder Table Type Side-Mounted Motor 65mm Width Pulse Motor Ball Screw

RCP3- TA6R-

Type Encoder I: Incremental

The simple absolute encoder is also considered type "I". * See page Pre-35 for an explanation of the naming convention.

42P Motor Lead 42P: Pulse motor 12: 12mm 42 🗌 size

6: 6mm 3: 3mm

25: 25mm 150: 150mm (25mm pitch increments)

Stroke

P1: PCON P3: PMEC

Compatible Controllers Cable Length N : None RPCON P:1m PSEL S:3m M : 5m PSEP X .: Custom

Option See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).



Technical References

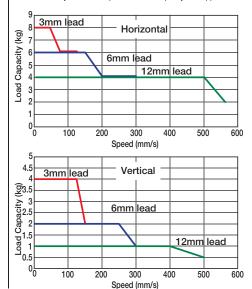




- Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds.
- Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) Please note that the maximum speed is different when used horizontally versus vertically.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead	Max. Load	I Capacity	Maximum	Stroke
Model	(mm)	Horizontal (kg)	Vertical (kg)	Push Force (N)	(mm)
RCP3-TA6R-I-42P-12-①-②-③-④	12	~ 4	~ 1	47	05. 150
RCP3-TA6R-I-42P-6-①-②-③-④	6	~ 6	~ 2	95	25~150 (25mm
RCP3-TA6R-I-42P-3-①-②-③-④	3	~ 8	~ 4	189	increments)
Legend ① Stroke ② Compatible controller ③ Cable length	4 Option	s			

■ Stroke and Maximum Speed

_	
Stroke	25 ∼ 150
Lead	(25mm increments)
12	560 <500>
6	300
3	150

* The values enclosed in "< >" apply to vertical usage. (Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Cable exit direction (Top)	CJT		
Cable exit direction (Outside)	C10	\rightarrow A-25	
Cable exit direction (Bottom)	CJB		
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description	
Drive System	Ball screw ø10mm C10 grade	
Positioning Repeatability	±0.02mm	
Lost Motion	0.1mm or less	
Base	Material: Material: Aluminum (special alumite treated)	
Allowable Static Load Moment	Ma: 29.4 N·m Mb: 42.0 N·m Mc: 74.1 N·m	
Allowable Dynamic Load Moment	Ma: 7.26 N·m Mb: 10.3 N·m Mc: 18.25 N·m	
Overhang Load Length	Within the load moment range	
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)	

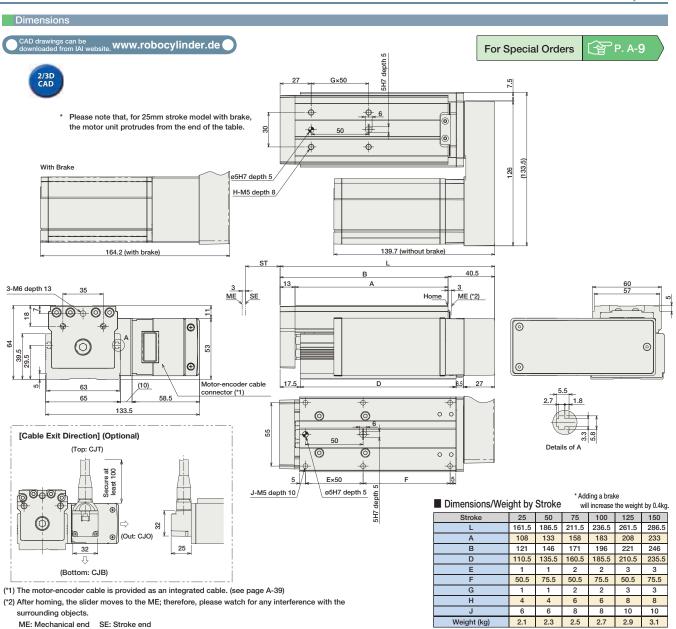
Directions of Allowable Load Moments







5,000 km service life



The RCP3 series actuators can operate with the controllers below. Select the controller according to your usage.									
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page	
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477	
ooienoid valve type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points	DC24V			→ P487	
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.					→ P467	
Positioner Type	É	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	Positioning is possible for up to 312 points	512 points					
Pulse Train Input Type Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0	Pulse train input type with different line driver support	()		DC24V	DC24V	2A max.	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(—)	Pulse train input type with				
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-42P	Dedicated to field network	768 points				→ P503	
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557	

RCP3-ТА6R **286**

■ Configuration:

tandard
ntrollers
egrated
Rod
Type
Mini
tandard
ntrollers
egrated

RCP3-TA7R RoboCylinder Table Type Side-Mounted Motor 75mm Width Pulse Motor Ball Screw

RCP3- TA7R-

Type Encoder I: Incremental The simple absolute encode is also considered

type "I". * See page Pre-35 for an explanation of the naming convention.

42P Motor Lead 42P: Pulse motor 12:12mm 42 🗌 size 6 : 6mm 3:3mm

25: 25mm 200: 200mm (25mm pitch increments)

Stroke

Compatible Controllers P1: PCON RPCON PSEL P3: PMEC

PSEP

N : None P:1m S:3m M : 5m X .: Custom

Cable Length

Option See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).



Technical References [全 P. A-5

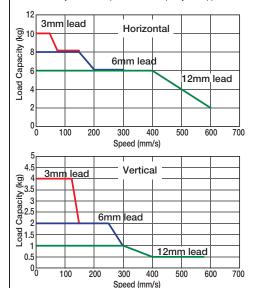




- Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. (1)
- Check in the Speed vs. Load Capacity graph below to see if your desired speed and load capacity are supported. (2) Please note that the maximum speed is different when used horizontally versus vertically.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.

Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity

Model	Lead (mm)	Max. Load Horizontal (kg)	. ,	Maximum Push Force (N)	Stroke (mm)
RCP3-TA7R-I-42P-12-①-②-③-④	12	~ 6	\sim 1	47	05000
RCP3-TA7R-I-42P-6-①-②-③-④	6	~ 8	~ 2	95	25~200 (25mm increments)
RCP3-TA7R-I-42P-3-①-②-③-④	3	~ 10	~ 4	189	increments)

■ Stroke and Maximum Speed

Stroke Lead	$25 \sim 200$ (25mm increments)
12	600 <580>
6	300
3	150

* The values enclosed in "< >" apply to vertical usage. (Unit: mm/s)

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

Cable Liet

Cable List					
Туре	Cable Symbol				
Standard	P (1m)				
(Robot Cables)	S (3m)				
(Robot Cables)	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16 (16m) ~ X20 (20m)				

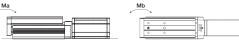
* The standard cable is the motor-encoder integrated robot cable.

Name	Option Code	See Page	
Brake	В	→ A-25	
Cable exit direction (Top)	CJT		
Cable exit direction (Outside)	CJO	→ A-25	
Cable exit direction (Bottom)	CJB		
Left-Mounted Motor (Standard)	ML	→ A-33	
Right-Mounted Motor	MR	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description				
Drive System	Ball screw ø10mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Base	Material: Material: Aluminum (special alumite treated)				
Allowable Static Load Moment	Ma: 42.6 N·m Mb: 60.8 N·m Mc: 123.2 N·m				
Allowable Dynamic Load Moment	Ma: 9.91 N·m Mb: 14.13 N·m Mc: 28.65 N·m				
Overhang Load Length	Within the load moment range				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

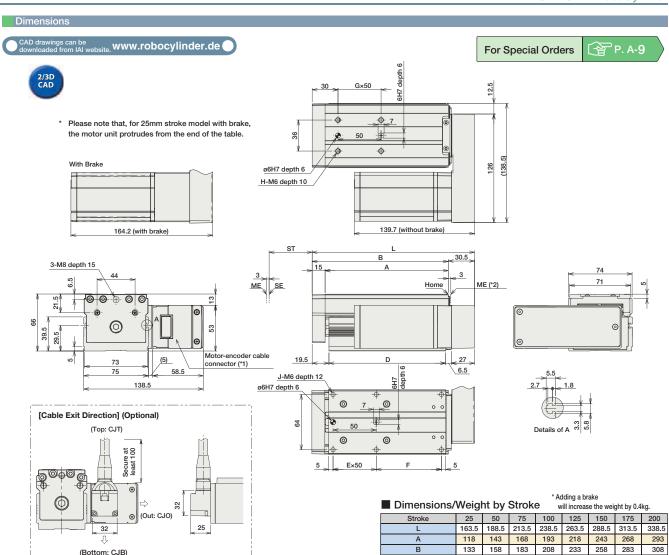
Directions of Allowable Load Moments





5,000 km service life

^{*} See page A-39 for cables for maintenance.



(*1) The motor-encod

(*2) After homing, the

ME: Mechanical

SE: Stroke end

Ţ.	A	118	143	168	193	218	243	268	293
(Bottom: CJB)	В	133	158	183	208	233	258	283	308
(D	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5
	E	1	1	2	2	3	3	4	4
oder cable is provided as an integrated cable. (see page A-39)	F	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5
the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.	G	1	1	2	2	3	3	4	4
al end	Н	4	4	6	6	8	8	10	10
al enu	J	6	6	8	8	10	10	12	12
	Weight (kg)	2.4	2.6	2.8	3.1	3.3	3.5	3.7	3.9

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag			
Calanaid Value Tura		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P47			
Solenoid Valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points						→ P48
Splash-Proof Solenoid Valve Type	I.	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.			**			→ F40	
Positioner Type	Í	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	DC24V				
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	1 ostavning is possible for up to 312 points	orz polito			DC24V	2A max.		
Pulse Train Input Type Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	<i>(</i> -)					→ P52	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(+) 64 points						
Serial Communication Type	ĺ	PCON-SE-42PI-N-0-0	Dedicated to serial communication							
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P50			
Program Control Type	2	PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P55			

* See page Pre-35 for an explanation of the naming convention.

tandard

ntrollers
egrated

Rod
Type

Mini
tandard
ntrollers
egrated

CP2-GRSS **20P** RCP2- GRSS-Configuration: 30 8 Encoder Motor Deceleration Ratio — Stroke - Compatible Controllers 30: 1/30 P1: PCON I: Incremental 20P : 20 □ size 8: 8mm

The Simple absolute e ncoder

is also considered

type "I".

Pulse motor



The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this (1)

The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work piece. As a rough guide, a work piece's weight should not exceed 1/10 to 1/20 of the gripping force. (2) (See page A-74 for details.)

The rated acceleration while moving is 0.3G

■ Gripping Force Adjustment

N : None P : 1m S : 3m

S:3m M:5m

RPCON

PSFL

PSEP

P3: PMEC

deceleration (4mm per side)

ratio

Cable Length

X 🔲 : Custom

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

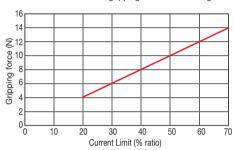
Option

NM:Reversed-home

FB:Flange bracket

SB: Shaft bracket

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



* The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.

* Please note that, when gripping (pushing), the speed is fixed at 5mm/s.

Actuator Specifications

■ Lead and Load Capacity

Lead and Load Oapacity							
Model	Deceleration	Max. Gripping	Stroke				
1110 401	Ratio	Force (N)	(mm)				
RCP2-GRSS-I-20P-30-8-①-②-③	30	14	8 (4 per side)				

■ Stroke and Maxi. Opening/Closing Speed

Stroke	8
Deceleration Ratio	(mm)
30	78 (per side)

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard Type (Robot Cables)	P (1m) S (3m) M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	

Legend: ① Compatible controllers ② Cable length ③ Options

* The standard cable is the motor-encoder integrated robot cable.

Shaft bracket

See page A-39 for Cables for filal	menance.		
Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	
Elange bracket	EB	→ Δ-26	

→ A-36

Actuator Specifications Item Description Drive System Worm gear + helical gear + helical rack Positioning Repeatability ±0.01mm Backlash 0.2mm or less per side (constantly pressed out by a spring) Lost Motion 0.05mm or less per side Linear guide Guide Allowable Static Load Moment Ma: 0.5 N·m Mb: 0.5 N·m Mc: 1.5 N·m 0.2kg Weight Ambient Operating Temp./Humidity 0~40°C, 85% RH or less (non-condensing)

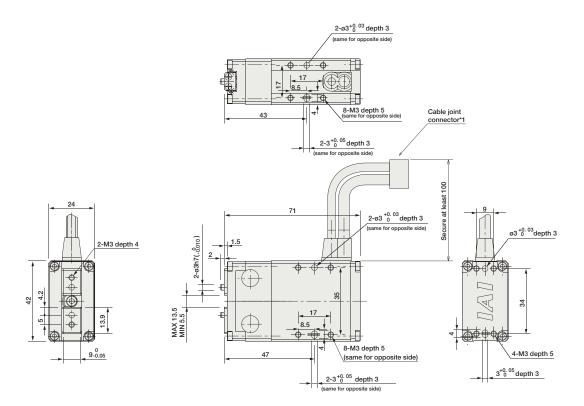
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders



2/3D CAD

- The opening side of the slider is the home position.
- The motor-encoder cable is connected here. See page A-39 for details on cables.



Weight (kg) 0.2

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.									
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag		
Solenoid Valve Type	413	PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	P481 See	→ P47		
ocieticia vaive type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P48		
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				57		
Positioner Type		PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type		B		PCON-CG-20PI-NP-2-0	rositioning is possible for up to 312 points	312 points			
Pulse Train Input Type Differential Line Driver)	Ó	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P52		
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)					
Serial communication Type		PCON-SE-20PI-N-0-0	Dedicated to communication	64 points					
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P50		
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P55		

IAI

20P RCP2- GRLS-■ Configuration: 30 180 Encoder Motor Stroke Compatible Controllers Cable Length Option N : None P : 1m S : 3m 180: 180 P1: PCON NM:Reversed-home I: Incremental 20P : 20 □ size 30: 1/30 The Simple absolute encoder

ratio

Pulse motor

degrees

(90 degrees per

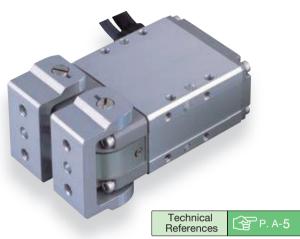
side)

RPCON

PSEL

PSEP

P3: PMEC



is also considered

type "I"

(1) The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this value. (2) The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work piece. As a rough guide, a work piece's weight should not exceed 1710 to 1/20 of the gripping force.

(See page A-77 for details.)

(3) The rated acceleration while moving is 0.3G.

* See page Pre-35 for an explanation of the naming convention.

■ Gripping Force Adjustment

S:3m M:5m

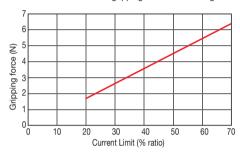
X : Custom

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

FB:Flange bracket

SB: Shaft bracket

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



* The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.

* Please note that, when gripping (pushing), the speed is fixed at 5 degrees/s.

Actuator Specifications

Legend: ① Compatible controllers

Lead and Load Capacity			
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (deg)
RCP2-GRLS-I-20P-30-180- ① - ② - ③	30	6.4	180 (90 per side)

② Cable length ③ Options

■ Stroke and Maxi. Opening/Closing Speed Stroke leceleration atio 180 600 30 (per side)

(Unit: degrees/s)

Cable List		
Туре	Cable Symbol	
Standard Type (Robot Cables)	P (1m) S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

Actuator Specifications Item Description Drive System Worm gear + helical gear Positioning Repeatability Backlash 1 degree or less per side (constantly pressed out by a spring) Lost Motion 1 degree or less Guide Allowable Static Load Moment 0.2kg Weight Ambient Operating Temp./Humidity 0~40°C, 85% RH or less (non-condensing)

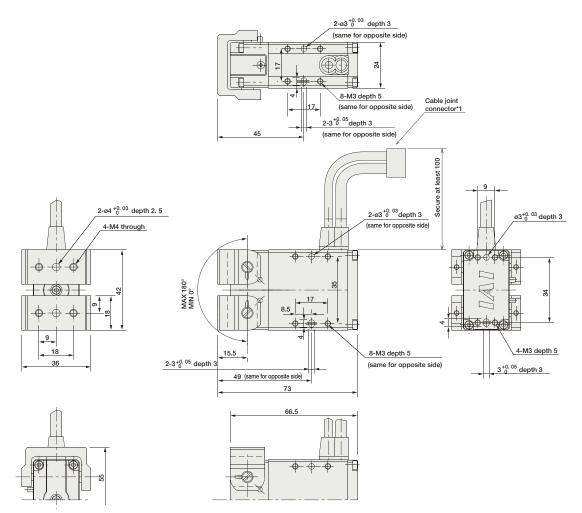
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





- * The opening side of the slider is the home position.
- 1 The motor-encoder cable is connected here. See page A-39 for details on cables.



Weight (kg) 0.2

	actuators car	Toperate with the cor	ntrollers below. Select the controller ac	to your usag					
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag		
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P47		
Soleliolu valve Type		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points	3 points			→ P48	
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				→ F40		
Positioner Type	H	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type				PCON-CG-20PI-NP-2-0	1 ostavning is possible for up to 012 points	orz pointo			
Pulse Train Input Type Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	DC24V 2A max.	→ P52		
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)					
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P50		
Program Control Type	3	PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P55		

RCP2-GRLS 336

IAI

Mini

Controllers

Rod Type

Mini

Standard

Controllers Integrated

Flat Type

Standard

Gripper/ Rotary Type

Linear Motor Type

Controllore

/AMEC

ROBO NFT

ERC2

PCON

ACON

SCON

PSEL

ASEL

SSEL

XSEL

Pulse Motor

Servo Moto (24V)

Servo Mot

Linear Mot

tandard

ntrollers
egrated

Rod
Type

Mini
tandard
ntrollers
egrated

RCP2- GRS -**20P** 10 ■ Configuration: Motor Encoder Stroke Compatible Controllers Cable Length N: None P: 1m S: 3m M: 5m X : Custom R: Shobot cable P1: PCON I: Incremental 20P : 20 □ size 1: 1/1 10: 10mm SB: Shaft bracket

Pulse motor deceleration ratio (5mm per side)



The Simple absolute encoder

is also considered

type "I".

The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this (1)

References

The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work piece. As a rough guide, a work piece's weight should not exceed 1/10 to 1/20 of the gripping force. (2) (See page A-74 for details.)

The rated acceleration while moving is 0.3G

* See page Pre-35 for an explanation of the naming convention.

■ Gripping Force Adjustment

RPCON

PSEL

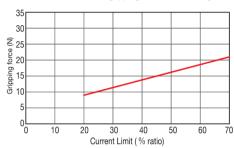
PSEP

P3: PMEC

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

FB:Flange bracket

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



* The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.

* Please note that, when gripping (pushing), the speed is fixed at 5mm/s.

Actuator Specifications

■ Lead and Load Capacity

Ecad and Load Capacity			
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)
RCP2-GRS-I-20P-1-10-①-②-③	1	21	10 (5 per side)

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	10 (mm)
1	33.3 (per side)

(Unit: mm/s)

Cabla List

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

Legend: ① Compatible controllers ② Cable length ③ Options

* See page A-39 for cables for maintena	ınce.
-----------------------------------------	-------

Option List			
Name	Option Code	See Page	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

Actuator Specification	115				
Item	Description				
Drive System	Timing belt + trapezoidal screw (1.5 lead)				
Positioning Repeatability	±0.01mm				
Backlash	0.15mm or less per side (constantly pressed out by a spring)				
Lost Motion	0.1mm or less per side				
Guide	Cross roller guide				
Allowable Static Load Moment	Ma: 6.3 N·m Mb: 6.3 N·m Mc: 7.0 N·m				
Weight	0.36kg				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

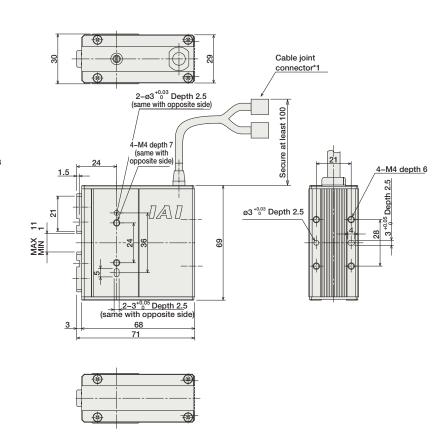
CAD drawings can be downloaded from IAI website. www.robocylinder.de

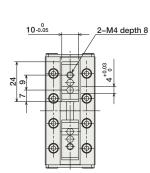
For Special Order

P. A-9

2/3D CAD

- The opening side of the slider is the home position.
- *1 The motor-encoder cable is connected here. See page A-39 for details on cables.





The holes in the slider shown above, other than tapped holes, are used to install the slider onto the actuator. They cannot be used as finger positioning holes. Use the key slots to position the fingers.

Weight (kg) 0.36

	es actuators ca	n operate with the cor	trollers below. Select the controller ac	cording to your usag	e.									
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Pag							
Solenoid Valve Type	110	PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P47							
Soleliolu valve Type		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points 512 points DC24V	3 points			→ P48						
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.			- 1.401								
Positioner Type	É	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points											
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	- Positioning is possible for up to 312 points		312 points	orz points	012 points				٥			
Pulse Train Input Type Differential Line Driver)	á	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support		()	DC24V	2A max.	→ P52						
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support											
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points	ı									
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P50							
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P55							

■ Configuration:

Mini
Itandard
Introllers
Itandard
Mini
Itandard
Introllers
Itandard

RCP2 - GRM -**28P** Motor Type Encoder

I: Incremental * The Simple absolute encoder is also considered type "I".

* See page Pre-35 for explanation of each code that makes up the configuration name.

- Deceleration Ratio-28P: 28 □ size 1: 1/1 Pulse motor deceleration ratio

14: 14mm (7mm per side)

14

Stroke

P1: PCON RPCON PSEL P3: PMEC **PSEP**

Compatible Controllers

Cable Length N : None P : 1m S : 3m S:3m M:5m X : Custom

Option SB: Shaft bracket FB : Flage bracket



Technical References

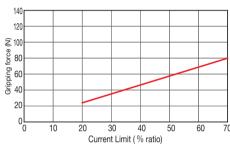
The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this (1)

- The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work pieces. As a rough guide, a work piece's weight should not exceed 1/10 to 1/20 of the gripping force. (2) (See page A-74 for details.)
- The rated acceleration while moving is 0.3G

■ Gripping Force Adjustment

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



- * The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.
- * Please note that, when gripping (pushing), the speed is fixed at 5mm/s.

Actuator Specifications

■ Lead and Load Capacity

Legend: ① Compatible controllers

Ecua and Loud Supusity					
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)		
RCP2-GRM-I-28P-1-14- ① - ② - ③	1	80	14 (7 per side)		

② Cable length ③ Options

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	14 (mm)
1	36.7 (per side)

(Unit: mm/s)

Cable List

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
Robot Cable	R04 (4m) ~ R05 (5m)	
	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

Option List			
Name	Option Code	See Page	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

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Item	Description	
Drive System	Timing belt + trapezoidal screw (1.5 lead)	
Positioning Repeatability	±0.01mm	
Backlash	0.15mm or less per side (constantly pressed out by a spring)	
Lost Motion	0.1mm or less per side	
Guide	Cross roller guide	
Allowable Static Load Moment	Ma: 6.3 N·m Mb: 6.3 N·m Mc: 8.3 N·m	
Weight	0.5kg	
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)	

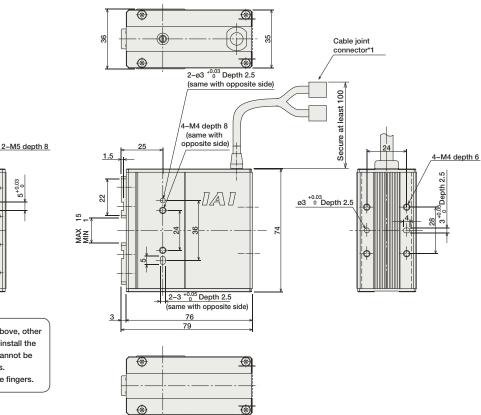
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Order

會 P. A-9



- * The opening side of the slider is the home position.
- *1 The motor-encoder cable is connected here. See page A-39 for details on cables.



Note. -

The holes in the slider shown above, other than tapped holes, are used to install the slider onto the actuator. They cannot be used as finger positioning holes.

Use the key slots to position the fingers.

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12-0.05

Weight (kg) 0.5

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
Colonsid Volum Torre		PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477		
Solenoid Valve Type		PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid	3 points			→ P487		
Splash-Proof Solenoid Valve Type		PSEP-CW-28PI-NP-2-0	types. No homing necessary with simple absolute type.				 → P467		
Positioner Type		PCON-C-28PI-NP-2-0 Positioning is possible for up to 512 points 512 points	Positioning is possible for up to 512 points						
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0	3.,						
Pulse Train Input Type Differential Line Driver)		PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)	(-)			
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-28P	Dedicated to field network	768 points			→ P503		
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557		

1 his is for the single-axis PSE

IAI

Mini

Integrated

Rod Type

Mini

Standard

Integrated

Flat Type

Standard

Gripper/ Rotary Type

Linear Motor Type

Туре

Controllers

PSEP /ASED

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XSEL

Pulse Motor

Servo Moto (24V)

Servo Mot

Linear Moto

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Rod
Type

Mini
tandard

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egrated

RCP2-GRHM-■ Configuration: Type I: Incremental * The Simple absolute encoder is also considered

Encoder

35P Motor 35P: 35 □ size 2: 1/2

Pulse motor deceleration

ratio

2 - Deceleration Ratio-

32 Stroke Compatible Controllers 32: 32mm (16mm per side)

P1: PCON RPCON

Cable Length N : None P : 1m S : 3m S : 3m M : 5m

Option Refer to the options

PSEL P3: PMEC Custom X : Custom R : Robot cable **PSEP**



type "I"

* See page Pre-35 for explanation of each code that makes up the configuration name.

Technical References

The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this (1)

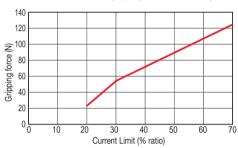
(2)

- The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work pieces. As a rough guide, a work piece's weight should not exceed 1/10 to 1/20 of the gripping force. (See page A-74 for details.)
- The rated acceleration while moving is 0.3G

■ Gripping Force Adjustment

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



- * The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.
- * Please note that, when gripping (pushing), the speed is fixed at 5mm/s.

Actuator Specifications

■ Lead and Load Capacity

= Load and Load output.					
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)		
RCP2-GRHM-I-35P-2-32- ①-②-③	2	125	32 (16 per side)		

Legend: ① Compatible controllers ② Cable length ③ Options

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	32 (mm)
2	100 (per side)

(Unit: mm/s)

Cable List

Cable List		
Туре	Cable Symbol	
Standard Type	P (1m) S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
Robot Cable	R04 (4m) ~ R05 (5m)	
	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

* See page A-39 for cables for maintenance.

Option List Name Option Code See Page Cable exit direction (Top) CJT → A-25 CJR → A-25 Cable exit direction (Right) Cable exit direction (Left) CJL → A-25 Cable exit direction (Bottom) CJB → A-25 FB Flange bracket → A-26 Shaft bracket SB → A-36

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Item	Description	
Drive System	Timing belt + trapezoidal screw (2 lead)	
Positioning Repeatability	±0.01mm	
Backlash	0.15mm or less per side (constantly pressed out by a spring)	
Lost Motion	0.2mm or less per side	
Guide	Cross roller guide	
Allowable Static Load Moment	Ma: 11.7 N·m Mb: 16.7 N·m Mc: 46.5 N·m	
Weight	1.14kg	
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)	

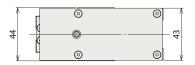
CAD drawings can be downloaded from IAI website. www.robocylinder.de

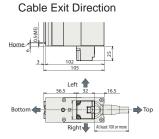


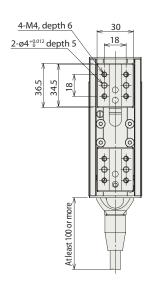


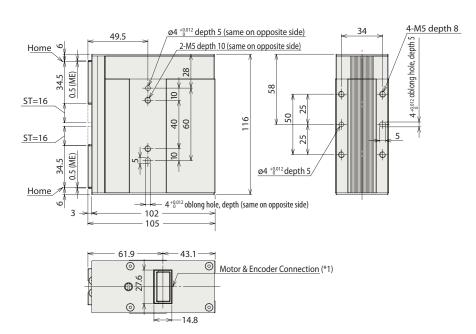


- The opening side of the slider is the home position.
- 1 The motor-encoder cable is connected here. See page A-39 for details on cables.
 2 ME: Mechanical end









Weight (kg) 1.14

Compatible Controllers

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page		
		PMEC-C-35PI-NP-2-2	Easy-to-use controller, even for beginners	maar outdoming round	AC115V/ AC230V	See P481	→ P477		
Solenoid Valve Type	1	PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487		
Splash-Proof Solenoid Valve Type	1	PSEP-CW-35PI-NP-2-0	No homing necessary with simple absolute type.						71407
Positioner Type	Í	PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type	6		PCON-CG-35PI-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		á	PCON-PL-35PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support	()					
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-35P	Dedicated to field network	768 points			→ P503		
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557		

* This is for the single-axis PSEL.

tandard

ntrollers
egrated

Rod
Type

Mini
tandard

ntrollers
egrated

RCP2-GRHB-**42P** 2 ■ Configuration: 40 Motor Type Encoder — Deceleration Ratio— Stroke Compatible Controllers Cable Length Option N : None P : 1m S : 3m I: Incremental * The Simple absolute encoder is also considered 42P: 42 □ size P1: PCON 2: 1/2 40: 40mm Refer to the options RPCON Pulse motor deceleration (20mm per side) S : 3m M : 5m PSEL ratio P3: PMEC type "I" Custom X : Custom R : Robot cable



* See page Pre-35 for explanation of each code that makes up the configuration name.

Technical References

Cable List

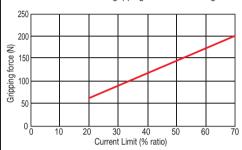
- The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this (1)
- The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work pieces. As a rough guide, a work piece's weight should not exceed 1/10 to 1/20 of the gripping force. (2) (See page A-74 for details.)
- The rated acceleration while moving is 0.3G

■ Gripping Force Adjustment

PSEP

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



- * The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.
- * Please note that, when gripping (pushing), the speed is fixed at 5mm/s.

Actuator Specifications

■ Lead and Load Capacity

Ecad and Load Capacity			
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)
RCP2-GRHB-I-42P-2-40- ①-②-③	2	200	40 (20 per side)

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	40 (mm)
2	100 (per side)

(Unit: mm/s)

Cable List		
Туре	Cable Symbol	
Standard Type	P (1m) S (3m)	
	M (5m) X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

Legend: ① Compatible controllers ② Cable length ③ Options

* See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Cable exit direction (Top)	CJT	→ A-25	
Cable exit direction (Right)	CJR	→ A-25	
Cable exit direction (Left)	CJL	→ A-25	
Cable exit direction (Bottom)	CJB	→ A-25	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

Actuator Specifications Item Description Drive System Timing belt + trapezoidal screw (2 lead) Positioning Repeatability ±0.01mm Backlash 0.15mm or less per side (constantly pressed out by a spring) 0.2mm or less per side Lost Motion Cross roller guide Guide Allowable Static Load Moment Ma: 15.7 N·m Mb: 26.4 N·m Mc: 59.8 N·m Weight 1.5kg Ambient Operating Temp./Humidity 0~40°C, 85% RH or less (non-condensing)

65.5

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< > 14.8

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CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Order

Cable Exit Direction





Dimensions

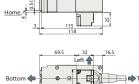
The opening side of the slider is the home position.

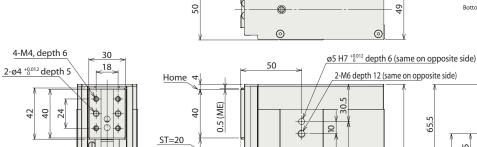
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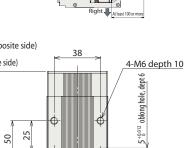
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- 1 The motor-encoder cable is connected here. See page A-39 for details on cables.
 2 ME: Mechanical end



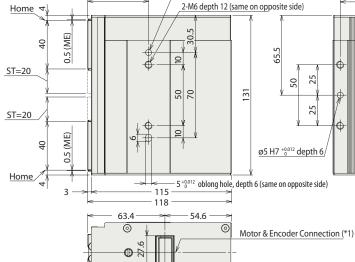






6

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Weight (kg) 1.5

Slider
Type

Mini

Standard

Controllers
Integrated

Rod
Type

Mini

Standard

Controllers
Integrated

Mini

Standard

Controllers
Integrated

Mini

Standard

Standard

Compatible Controllers

At least 100 or more

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page			
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V/ AC230V	See P481	→ P477			
Solenoid valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid	3 points						→ P487
Splash-Proof Solenoid Valve Type	PSEP-CW-42PI-NP-2-0 types. No homing necessary with simple absolute type.		→ F407							
Positioner Type	I	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points						
Safety-Compliant Positioner Type			PCON-CG-42PI-NP-2-0	r ostaoring is possible for up to 012 points	OTZ pointo					
Pulse Train Input Type Differential Line Driver)	ć	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	DC24V	2A max.	→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)						
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points 768 points						
Field Network Type		RPCON-42P	Dedicated to field network				→ P503			
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557			

■ Configuration:

Rod Type

Mini

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trollers
egrated

RCP2- GRST-Encoder I: Incremental

The Simple absolute encoder is also considered type "I" * See page Pre-35 for an explanation of the naming convention.

20P Motor - Deceleration Ratio -20P : 20 □ size 1: 1/1 deceleration Pulse motor

ratio High-Speed Type 2: 1/2 deceleration ratio Standard Type

Compatible Controllers P1: PCON 40: 40mm 60: 60mm RPCON 80: 80mm PSFL 100: 100mm P3: PMEC PSEP

Cable Length N : None P : 1m S : 3m S:3m M:5m X : Custom

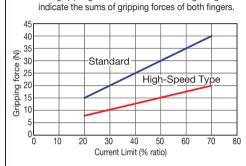
■ Gripping Force Adjustment

See Options below * Be sure to specify the side from which you want the cable to exit (A0 or A1).

Option

within the range of current limits of 20% to 70%. * The gripping forces in the following diagrams

The gripping (pushing) force can be adjusted freely



* The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.

* Please note that, when gripping (pushing), the speed is fixed at 5mm/s.

Technical References

The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is (1)

The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work piece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work piece, as well as on the shape of the work pieces. As a rough guide, a work piece's weight should not exceed 1/10 to 1/20 of the gripping force. (See page A-74 for details.) (2)

The rated acceleration while moving is 0.3G.

Actuator Specifications

■ Lead and Load Capacity Deceleration Max. Gripping Stroke Model Ratio Force (N) 40~100

RCP2-GRST-I-20P-1- ①-②-③-④ 20 1 ~50 per side) (20mm increments) RCP2-GRST-I-20P-2- ① - ② - ③ - ④ 2 40 Legend: ① Stroke ② Compatible controller 3 Cable length

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	40~100 (mm)
1	75 (per side)
2	34 (per side)

(Unit: mm/s)

Cable List		
Type	Cable Symbol	
Standard Type (Robot Cables)	P (1m) S (3m)	
(Hobot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

* The standard cable is the motor-encoder integrated robot cable.

* See page A-39 for cables for maintenance.

Actuator Specifications	
Item	Description
Drive System	Timing belt + worm/rack gear
Positioning Repeatability	±0.01mm
Backlash	0.2mm or less per side
Lost Motion	-
Guide	Linear guide
Allowable Static Load Moment	Ma: 2.93 N·m Mb: 2.93 N·m Mc: 5.0 N·m
Weight	0.51kg(40-stroke) ~ 0.66kg (100-stroke)
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	
Cable exiting from bottom	A0	→ A-25	
Cable exiting from the side	A1	→ A-25	

*Be sure to specify the side from which you want the cable to exit (A0 or A1).

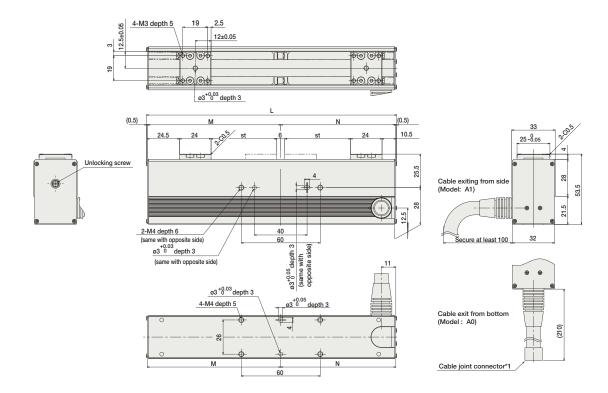
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For Special Orders



2/3D CAD

- The opening side of the slider is the home position.
- The motor-encoder cable is connected here. See page A-39 for details on cables.



ensions and Weight by Stroke

Dilliensi	Difficultions and weight by Stroke							
Stroke	40	60	80	100				
L	130	150	170	190				
М	71.5	81.5	91.5	101.5				
N	57.5	67.5	77.5	87.5				
Weight (kg)	0.51	0.56	0.61	0.66				

THE NOP2 Serie	es actuators car	n operate with the cor	ntrollers below. Select the controller a	ccording to your use	age.				
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Pag	
Solenoid Valve Type	110	PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P47	
outeriold valve type		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid	3 points	3 points				→ P48
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	types. No homing necessary with simple absolute type.				→ P44		
Positioner Type	Í	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	Positioning is possible for up to 312 points	512 points	DC24V 2A max.				
Pulse Train Input Type Differential Line Driver)	Ó	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)		2A max.		→ P52	
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)					
Serial Communication Type	-	PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-20P	Dedicated to field network	768 points				→ P50	
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P55	

RCP2-GRST 342

IAI

Configuration:

Mini
ttandard
ntrollers
tegrated
Rod
Type
Mini
ttandard
ntrollers
tegrated
Table/Arm
/Flat Type

PMEC /AMEC /

RCP2-GR3LS RoboCylinder 3-Finger Gripper Lever Type 62mm Width Pulse Motor

19

RCP2-GR3LS-Encoder

* See page Pre-35 for an explanation of the naming convention.

I: Incremental The Simple absolute encoder is also considered type "I"

Motor — Deceleration Ratio— 28P: 28 □ size 30: 1/30 Pulse motor

30

28P

Stroke 19: 19 degrees deceleration

Compatible Controllers

P1: PCON RPCON PSEL P3: PMEC

N : None P : 1m S : 3m M : 5m

Cable Length -

Option FB:Flange bracket SB: Shaft bracket

X : Custom
R : Robot cable **PSEP**



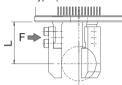
Technical References



- (1) The maximum opening/closin g speed indicates the operating speed on one side. The relative operating speed is twice this value.
- (2) The maximum gripping force is the sum of the gripping forces of all fingers with gripping point distance of 10mm and no overhang distance. For the actual transportable work piece weight, see explanation on the right, or page A-77.
- (3) The rated acceleration while moving is 0.3G.

■ Gripping Force vs. Current Limit

Lever Type (GR3LS/GR3LM)



Please note that, when gripping (pushing), the speed is fixed at 5 degrees/s.

The values in the graph below are gripping forces at 10mm gripping point. The actual gripping force decreases inversely proportional to the distance

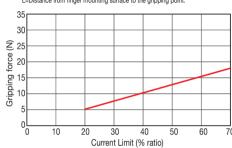
from the opening/closing point.

You can calculate the actual gripping force by the following equation.

Actual gripping force (type S)=Px24/(L+14) Actual gripping force (type M)=P×28.5/(L+18.5)

P=Gripping force on graph

L=Distance from finger mounting surface to the gripping point.



Actuator Specifications

■ Lead and Load Capacity

= Load and Load Capacity			
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (deg)
RCP2-GR3LS-I-28P-30-19-①-②-③	30	18	19

■ Stroke and Maxi. Opening/Closing Speed

_	
Stroke	19
Deceleration Ratio	(deg)
30	200 (per side)

(Unit: degrees/s)

Cable List

Cable List			
Cable Symbol			
P (1m)			
S (3m)			
M (5m)			
X06 (6m) ~ X10 (10m)			
X11 (11m) ~ X15 (15m)			
X16 (16m) ~ X20 (20m)			
R01 (1m) ~ R03 (3m)			
R04 (4m) ~ R05 (5m)			
R06 (6m) ~ R10 (10m)			
R11 (11m) ~ R15 (15m)			
R16 (16m) ~ R20 (20m)			
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m) R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)		

Legend: ① Compatible controllers ② Cable length ③ Options

* See page A-39 for cables for maintenant

* See page A-39	for cables	for maintenance.

Option List			
Name	Option Code	See Page	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

Item	Description
Drive System	Worm gear + worm wheel gear
Positioning Repeatability	±0.01 degrees
Backlash	1 degree or less per side (constantly pressed out by a spring)
Lost Motion	0.15 degrees or less per side
Weight	0.6kg
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

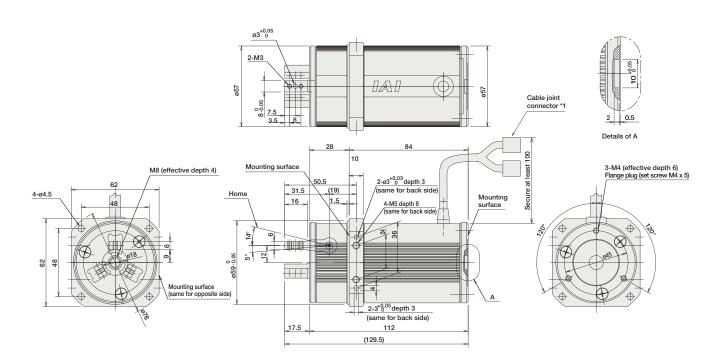
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





- When homing, the actuator swings 1 degree past the home position before returning. Therefore, please watch for any interference with the surrounding objects.
 The motor-encoder cable is connected here. See page A-39 for details on
- cables.



Weight (kg) 0.6

Com	patible	Control	lers
-----	---------	---------	------

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page			
Solenoid Valve Type	410	PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477			
Solellold valve Type	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. Positioning is possible for up to 512 points 512 points Pulse train input type with differential line driver support (-)	3 points			→ P487			
Splash-Proof Solenoid Valve Type	1	PSEP-CW-28PI-NP-2-0			DC24V		→ F40 <i>1</i>			
Positioner Type	Î	PCON-C-28PI-NP-2-0		512 points						
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0								
Pulse Train Input Type (Differential Line Driver)	Ö	PCON-PL-28PI-NP-2-0		()		2A max.	→ P525			
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)	(-)	(-)			
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points						
Field Network Type		RPCON-28P	Dedicated to field network	768 points			→ P503			
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557			

* This is for the single-axis PSEL.

Configuration:

CP2-GR3LM

19

RCP2-GR3LM-Type

* See page Pre-35 for an explanation of the naming convention.

I: Incremental The Simple absolute encoder is also considered type "I"

Encoder

42P 30 Motor

42P: 42 □ size 30: 1/30 19: 19 degrees deceleration Pulse motor ratio

Stroke Compatible Controllers

P1: PCON RPCON PSEL P3: PMEC **PSEP**

N : None P : 1m S : 3m S : 3m M : 5m : Custom

Cable Length

FB:Flange bracket SB: Shaft bracket

Option



Technical References

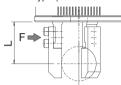




- (1) The maximum opening/closin g speed indicates the operating speed on one side. The relative operating speed is twice this value.
- (2) The maximum gripping force is the sum of the gripping forces of all fingers with gripping point distance of 10mm and no overhang distance. For the actual transportable work piece weight, see explanation on the right, or page A-77.
- (3) The rated acceleration while moving is 0.3G.

■ Gripping Force vs. Current Limit

Lever Type (GR3LS/GR3LM)



Please note that, when gripping (pushing), the speed is fixed at 5 degrees/s.

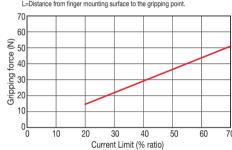
* The values in the graph below are gripping forces at 10mm gripping point. The actual gripping force decreases inversely proportional to the distance from the opening/closing point.

You can calculate the actual gripping force by the following equation.

Actual gripping force (type S)=P×24/(L+14)

Actual gripping force (type M)=P×28.5/(L+18.5)

P=Gripping force on graph
L=Distance from finger mounting surface to the gripping point.



Actuator Specifications

■ Lead and Load Capacity

= Load dild Load Gapaon,			
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (deg)
RCP2-GR3LM-I-42P-30-19- ① - ② - ③	30	51	19

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio		19 (deg)
	30	200 (per side)

(Unit: degrees/s)

Cable List

Odbie List			
Туре	Cable Symbol		
	P (1m)		
Standard Type	S (3m)		
	M (5m)		
	X06 (6m) ~ X10 (10m)		
Special Lengths	X11 (11m) ~ X15 (15m)		
	X16 (16m) ~ X20 (20m)		
	R01 (1m) ~ R03 (3m)		
	R04 (4m) ~ R05 (5m)		
Robot Cable	R06 (6m) ~ R10 (10m)		
	R11 (11m) ~ R15 (15m)		
	R16 (16m) ~ R20 (20m)		

Legend: ① Compatible controllers ② Cable length ③ Options

* See page A-39 for cables for maintenant

*	مم	nage	Δ_30	for	cables	for	maintenance.	
	See	page	M-39	101	Capies	101	mannenance.	

Option List			
Name	Option Code	See Page	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

Actuator Specifications			
Item	Description		
Drive System	Worm gear + worm wheel gear		
Positioning Repeatability	±0.01 degrees		
Backlash	1 degree or less per side (constantly pressed out by a spring)		
Lost Motion	0.15 degrees or less per side		
Weight	1.1kg		
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)		

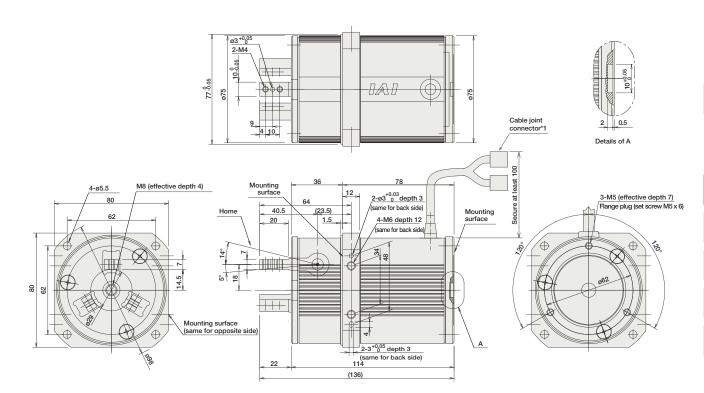
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders

P. A-9



- When homing, the actuator swings 1 degree past the home position before returning. Therefore, please watch for any interference with the surrounding objects.
 The motor-encoder cable is connected here. See page A-39 for details on
- cables.



Weight (kg) 1.1

Compatible	Controllers

	The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.							
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Colonia valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487	
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				71407	
Positioner Type	PCON-C-42PI-NP-2-0	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points				
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	Pulse train input type with	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points		<u> </u>		
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503	
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557	

* This is for the single-axis PSEL.

Configuration:

Mini
Introllers
Itegrated
Rod
Type
Mini
Introllers
Itegrated
Introllers
Itegrated
Introllers
Itegrated

PMEC /AMEC /AMEC /AMEC /AMEC /ASEP ROBO NET ERC2 PCON ACON SCON PSEL ASEL XSEL XSEL

RCP2-GR3SS RoboCylinder 3-Finger Gripper Slider Type 62mm Width Pulse Motor

RCP2-GR3SS-Encoder I: Incremental

28P : 28 □ size The Simple absolute encoder is also considered type "I" * See page Pre-35 for an explanation of the naming convention.

28P 30 Motor

10: 10mm 30: 1/30 Pulse motor deceleration (5mm per side)

Stroke Compatible Controllers

10

P1: PCON RPCON PSEL P3: PMEC

N : None
P : 1m
S : 3m
M : 5m
X _ : Custom
R _ : Robot cable

Cable Length

FB:Flange bracket SB: Shaft bracket

Option

PSEP



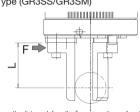
Technical References





- (1) The maximum opening/closin g speed indicates the operating speed on one side. The relative operating speed is twice this value.
- (2) The maximum gripping force is the sum of the gripping forces of all fingers with gripping point distance of 10mm and no overhang distance. For the actual transportable work piece weight, see explanation on the right or page A-74.
- (3) The rated acceleration while moving is 0.3G.

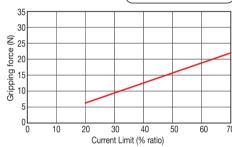
■ Gripping Force vs. Current Limit Slider Type (GR3SS/GR3SM)



* Please keep the distance L from the finger mounting surface to the gripping point at less than the following dimensions.

GR3SS→50mm or less GR3SM→80mm or less

Please note that, when gripping (pushing), the speed is fixed at 5mm/s.



Actuator Specifications

■ Lead and Load Capacity

Ecad and Loud outputity					
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)		
RCP2-GR3SS-I-28P-30-10-①-②-③	30	22	10 (5 per side)		

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	10 (mm)
30	40 (per side)

(Unit: mm/s)

Cable List

Cable Elst			
Туре	Cable Symbol		
	P (1m)		
Standard Type	S (3m)		
	M (5m)		
	X06 (6m) ~ X10 (10m)		
Special Lengths	X11 (11m) ~ X15 (15m)		
	X16 (16m) ~ X20 (20m)		
	R01 (1m) ~ R03 (3m)		
	R04 (4m) ~ R05 (5m)		
Robot Cable	R06 (6m) ~ R10 (10m)		
	R11 (11m) ~ R15 (15m)		
	R16 (16m) ~ R20 (20m)		

Legend: ① Compatible controllers ② Cable length ③ Options

* See page A-39 for cables f	for maintenance.
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Item	Description		
Drive System	Worm gear + worm wheel gear		
Positioning Repeatability	±0.01mm		
Backlash	0.3mm or less per side (constantly pressed out by a spring)		
Lost Motion	0.1mm or less per side		
Guide	Cross roller guide		
Allowable Static Load Moment	Ma: 3.8 N·m Mb: 3.8 N·m Mc: 3.0 N·m		
Weight	0.6kg		
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)		

Option List					
Name	Option Code	See Page			
Flange bracket	FB	→ A-26			
Shaft bracket	SB	→ A-36			

CAD drawings can be downloaded from IAI website. www.robocylinder.de

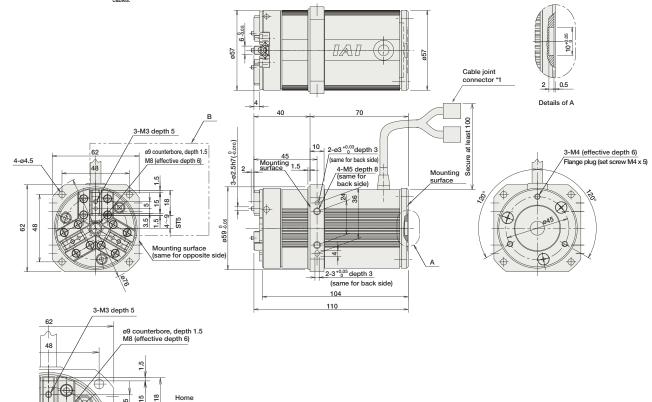
For Special Orders





- When homing, the actuator swings 0.5mm past the home position before returning. Therefore, please watch for any interference with the surrounding
- objects.

 1 The motor-encoder cable is connected here. See page A-39 for details on cables.



Details of section B

Weight (kg) 0.6

Cam	natibla	Control	lore
COILL	palible	Control	IEI 5

4~9 ST5

3.5 1.5

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solenoid valve Type	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.	3 points			→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-28PI-NP-2-0					→ P487
Positioner Type		PCON-C-28PI-NP-2-0	Positioning is possible for up to 512 points 512 points				
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0	r ostitoring is possible for up to 312 points	312 points			
Pulse Train Input Type Differential Line Driver)		PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)	PCON-PO-28PI-NP-2-0	Pulso train input typo with	(-7				
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-28P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

* This is for the single-axis PSEL.

Configuration:

Mini
Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated
Table/Arm
/Flat Type

RCP2-GR3SM

14

RCP2-GR3SM-Type Encoder

I: Incremental The Simple absolute encoder is also considered type "I" * See page Pre-35 for an explanation of the naming convention.

42P 30 - Deceleration Batio -Motor 42P: 42 □ size 30: 1/30

14: 14mm Pulse motor deceleration (7mm per side) ratio

Stroke

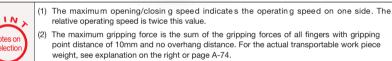
Compatible Controllers -P1: PCON RPCON PSEL P3: PMEC **PSEP**

Cable Length Option N : None P : 1m S : 3m M : 5m FB:Flange bracket SB: Shaft bracket X : Custom
R : Robot cable



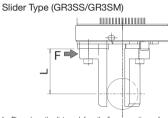
Technical References





(3) The rated acceleration while moving is 0.3G.

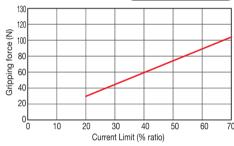
■ Gripping Force vs. Current Limit



* Please keep the distance L from the finger mounting surface to the gripping point at less than the following dimensions.

GR3SS→50mm or less GR3SM→80mm or less

Please note that, when gripping (pushing), the speed is fixed at 5mm/s.



Actuator Specifications

■ Lead and Load Canacity

Lead and Load Capacity			
Model	Deceleration	Max. Gripping	Stroke
Widdel	Ratio	Force (N)	(mm)
RCP2-GR3SM-I-42P-30-14- ① - ② - ③	30	102	14 (7 per side)

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	14 (mm)
30	50 (per side)

(Unit: mm/s)

Cabla List

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

Legend: ① Compatible controllers ② Cable length ③ Options

* See page A-39 for cables for maintena	ınce.
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Actuator	Specifications

Item	Description				
Drive System	Worm gear + worm wheel gear				
Positioning Repeatability	±0.01mm				
Backlash	0.3mm or less per side (constantly pressed out by a spring)				
Lost Motion	0.1mm or less per side				
Guide	Cross roller guide				
Allowable Static Load Moment	Ma: 6.3 N·m Mb: 6.3 N·m Mc: 5.7 N·m				
Weight	1.2kg				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

Option List			
Name	Option Code	See Page	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

CAD drawings can be downloaded from IAI website. www.robocylinder.de

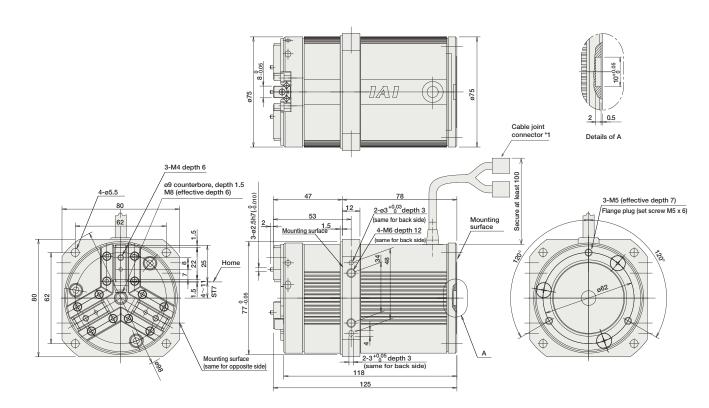
For Special Orders





- When homing, the actuator swings 0.5mm past the home position before returning. Therefore, please watch for any interference with the surrounding objects.

 The motor-encoder cable is connected here. See page A-39 for
- details on cables.



Weight (kg) 1.2

Compatible	Controllers	

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type	100	PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Soleliold valve type	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487	
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				→ F407
Positioner Type	Ü	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points 512 points				
Safety-Compliant Positioner Type	PCON-CG-42PI-NP-2-0	rositioning is possible for up to 312 points	312 points				
Pulse Train Input Type Differential Line Driver)	train Input Type PCON-PL-42PI-NP-2-0 PCON-PL-42PI-NP-2-0	differential line driver support	()	DC24V 2	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)	(-)		
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type	7	PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

Standard
ntrollers
tegrated
Rod
Type
Mini
Standard
ntrollers
tegrated

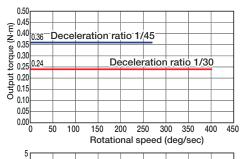
RCP2-RTBS/RTBSL

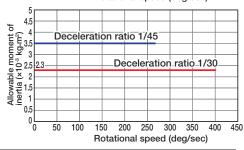
■ Configuration: RCP2-**20P** Series Туре Encoder Motor - Deceleration Ratio- Oscillation Angle Compatible Controllers -Cable Length Option N : None P : 1m S : 3m M : 5m RTBS: 330-degree 20P: 20 □ size 30: 1/30 330: 330degrees P1: PCON NM :Reversed-rotation I: Incremental The Simple absolute encoder deceleration (RTBS only) **RPCON** SA: Shaft adapter rotation Pulse motor ratio 45: 1/45 RTBSL: Multiple 360: 360degrees PSEL TA: Table adapter is also considered rotation (RTBSL P3: PMEC dece ratio type "I". * See page Pre-35 for an explanation of the naming convention. only) PSEP



■ Speed vs. Load Capacity

Due to the characteristics of the Pulse Motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





(1) The output torque decreases as the rotational speed increases. Check the output torque graph on the right to see whether the speed required for your desired motion is supported.

- (2) The allowable moment of inertia of the rotated work piece varies with the rotational speed. Check the Allowable Moment of Inertia graph on the right to see if the moment of inertia required for your desired motion is within the allowable range.
- (3) The rated acceleration while moving is 0.2G.
- (4) When using index mode with multiple rotation type, PMEC/PSEP controller is not available to operate.

Actuator Specifications

■ Lead and Load Capacity

Model	Deceleration Ratio	Max. Torque (N·m)	Allowable Moment of Inertia (kg·m²)	Oscillation Angle (deg)
RCP2-RTBS-I-20P-30-330-①-②-③	1/30	0.24	0.0023	330
RCP2-RTBS-I-20P-45-330-①-②-③	1/45	0.36	0.0035	330
RCP2-RTBSL-I-20P-30-360-1 -2 -3	1/30	0.24	0.0023	360
RCP2-RTBSL-I-20P-45-360-1 -2 -3	1/45	0.36	0.0035	300
Legend: ① Compatible controller ② Cable length ③ Optio	ns			

■ Deceleration Ratio and Max. Speed

Stroke Deceleration Ratio	330/360 (deg)
1/30	400
1/45	266

(Unit: degrees/s)

Cable List

Туре	Cable Symbol	
Standard Type	P (1m) S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) \sim X15 (15m)	
	X16 (16m) ~ X20 (20m)	

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List

-			
Name	Option Code	See Page	
Reversed-rotation	NM	→ A-33	
Shaft adapter	SA	→ A-35	
Table adapter	TA	→ A-37	

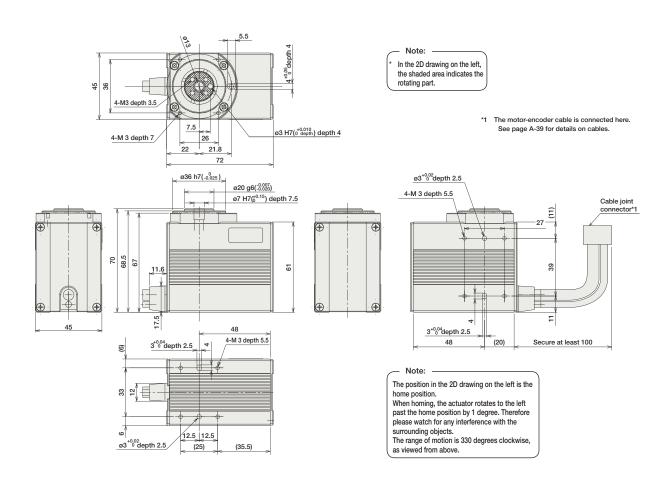
Item	Description
Drive System	Hypoid gear
Positioning Repeatability	±0.05 degrees
Homing Accuracy	±0.05 degrees
Lost Motion	±0.1 degrees
Allowable Thrust Load	30N
Allowable Load Moment	3.6N·m
Weight	0.52kg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders







Weight (kg) 0.52

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.									
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page	
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477	
Soleliolu valve Type	old valve type	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.	3 points	DC24V 2	2A max.			
Splash-Proof Solenoid Valve Type	I	PSEP-CW-20PI-NP-2-0						→ P487	
Positioner Type	É	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0							
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	(-)				→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)					
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-20P	Dedicated to field network	768 points				→ P503	
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557	

IAI RCP2-RTBS/RTBSL 354

Mini

Standard

Integrated

od ype

Controllers

Table/Arm

Flat Type

Mini

Standard

Rotary Type

Linear Motor Type

Туро

Controllers

PSEP

ROBO NET

ERC2

PCON

ACON

SCON

PSEL

ASEL

SSEL

XSEL

Pulse Moto

Servo Moto

. . . .

(230V)

Linear Mot

PMEC PMEC PSEP POON NET PCON ACON SCON PSEL ASEL XSEL

RCP2-RTCS/RTCSL RoboCylinder Rotary Small Flat Type 72mm Width Pulse Motor ■ Configuration: RCP2-**20P** Туре Encoder Motor - Deceleration Ratio - Oscillation Angle - Compatible Controllers Cable Length Option N : None P : 1m S : 3m M : 5m RTCS: 330 degree I: Incremental 28P: 28 🗆 size 30: 1/30 330: 330degrees P1: PCON NM :Reversed-rotation

deceleration

ratio 45: 1/45

Pulse motor

(RTCS only)

(RTCSL only) P3: PMEC

360: 360degrees

RPCON

PSEL

PSEP

dece * See page Pre-35 for an explanation of the naming convention.

The Simple absolute encoder is also considered

type "I".

rotation

rotational

RTCSL : Multi-

Technical References



- (1) The output torque decreases as the rotational speed increases.

 Check the output torque graph on the right to see whether the speed required for your desired motion is supported.
- (2) The allowable moment of inertia of the rotated work piece varies with the rotational speed.

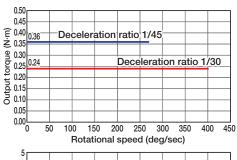
 Check the Allowable Moment of Inertia graph on the right to see if the moment of inertia required for your desired motion is within the allowable range.
- (3) The rated acceleration while moving is 0.2G.
- (4) When using index mode with multiple rotation type, PMEC/PSEP controller is not available to operate.

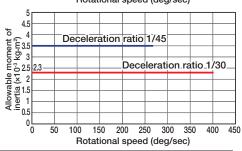
■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

SA: Shaft adapter

TA: Table adapter





Actuator Specifications ■ Load and Load Canacity ■ Deceleration Ratio and Max. Speed

Lead and Load Capacity								
Model	Deceleration Ratio	Max. Torque (N·m)	Allowable Moment of Inertia (kg·m²)	Oscillation Angle (deg)				
RCP2-RTCS-I-20P-30-330-①-②-③	1/30	0.24	0.0023	330				
RCP2-RTCS-I-20P-45-330-10-2-3	1/45	0.36	0.0035	330				
RCP2-RTCSL-I-20P-30-360-1 -2 -3	1/30	0.24	0.0023	360				
RCP2-RTCSL-I-20P-45-360- ① - ② - ③	1/45	0.36	0.0035	300				

_ 5000000000	Boooloration riatio and make opeca					
Stroke	330/360					
Deceleration Ratio	(deg)					
1/30	400					
1/45	266					

(Unit: degrees/s)

Cable List

Туре	Cable Symbol	
Standard Type	P (1m)	
(Robot Cables)	S (3m) M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) \sim X20 (20m)	

Legend: ①Compatible controller ②Cable length ③Options

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Reversed-rotation	NM	→ A-33	
Shaft adapter	SA	→ A-35	
Table adapter	TA	→ A-37	

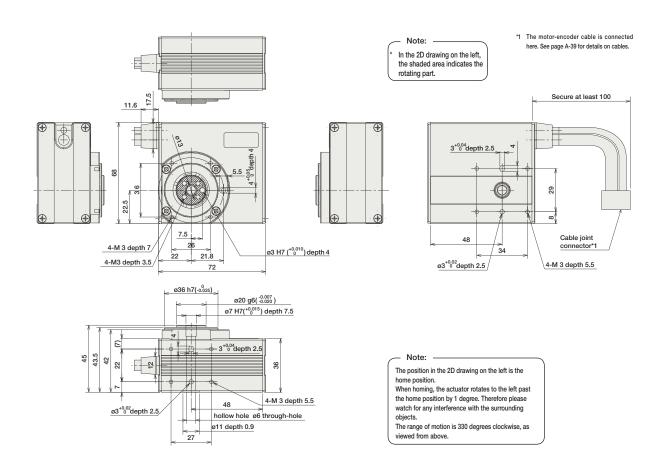
Item	Description
Drive System	Hypoid gear
Positioning Repeatability	±0.05 degrees
Homing Accuracy	±0.05 degrees
Lost Motion	±0.1 degrees
Allowable Thrust Load	30N
Allowable Load Moment	3.6N·m
Weight	0.52kg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders







Weight (kg) 0.48

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solenoid valve type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type	1	PSEP-CW-20PI-NP-2-0	No homing necessary with simple absolute type.				→ P487
Positioner Type	É	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	2A max.	
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0	Positioning is possible for up to 512 points				
Pulse Train Input Type (Differential Line Driver)	É	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	()			→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type	ĺ	PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

IAI

RCP2-RTCS/RTCSL 356

Slider
Type

Mini

Standard

Controllers
Integrated

Rod
Type

Mini

Standard

Controllers
Integrated

Table/Arm
/Flat Type

Mini

Standard

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated
Table/Arm
//Flat Type

RCP2-RTB/RTBL

* See page Pre-35 for an explanation of the naming convention.

■ Configuration: RCP2-**28P** Series Туре Encoder Motor - Deceleration Ratio - Oscillation Angle — Compatible Controllers Cable Length Option

RTB : 330-degree I: Incremental rotation * The Simple absolute encoder is also considered type "I".

28P: 28 🗆 size 20: 1/20 deceleration ratio Pulse motor 30: 1/30 deceleratio

330: 330degrees (RTB only) 360: 360degrees (RTBL only)

P1: PCON **RPCON** PSEL P3: PMEC

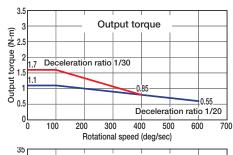
N:None
P:1m
S:3m
M:5m
X : Custom
R : Robot cable NM :Reversed-rotation SA: Shaft adapter TA: Table adapter

PSEP



■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Allowable moment of inertia-30 ₫ Allowable moment o inertia (x10⁻³ kg·m²) 2 0 1 5 0 55 Deceleration ratio 1/30 Deceleration ratio 1/20 ٥Ĺ 100 200 300 400 500 600 Rotational speed (deg/sec)

(1) The output torque decreases as the rotational speed increases.

Check the output torque graph on the right to see whether the speed required for your desired motion is supported (2) The allowable moment of inertia of the rotated work piece varies with the rotational speed. Check the Allowable Moment of Inertia graph on the right to see if the moment of inertia required for your desired motion is within the allowable range.

(3) The rated acceleration while moving is 0.3G.

(4) When using index mode with multiple rotation type, PMEC/PSEP controller is not available to operate.

Actuator Specifications

■ Lead and Load Capacity

Model	Deceleration Ratio	Max. Torque (N·m)	Allowable Moment of Inertia (kg·m²)	Oscillation Angle (deg)
RCP2-RTB-I-28P-20-330-①-②-③	1/20	1.1	0.01	330
RCP2-RTB-I-28P-30-330-①-②-③	1/30	1.7	0.015	330
RCP2-RTBL-I-28P-20-360-1 -2-3	1/20	1.1	0.01	360
RCP2-RTBL-I-28P-30-360-①-②-③	1/30	1.7	0.015	300
Legend: ① Compatible controller ② Cable length ③ Option	ns			

■ Deceleration Ratio and Max. Speed

Stroke Deceleration Ratio	330/360 (deg)
1/20	600
1/30	400

(Unit: degrees/s)

Cable List

Type	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
Robot Cable	R04 (4m) ~ R05 (5m)	
	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

	*	See	page	A-39 t	for	cables	for	maintenance.
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Option List

Name	Option Code	See Page	
Reversed-rotation	NM	→ A-33	
Shaft adapter	SA	→ A-35	
Table adapter	TA	→ A-37	

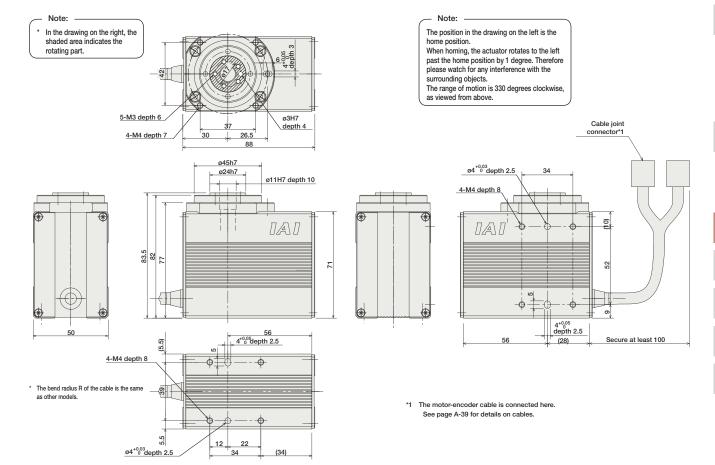
Item	Description			
Drive System	Hypoid gear			
Positioning Repeatability	±0.01 degrees			
Homing Accuracy	±0.01 degrees			
Lost Motion	±0.1 degrees			
Allowable Thrust Load	50N			
Allowable Load Moment	3.9 N⋅m			
Weight	0.86kg			
Ambient Operating Temp./Humidity	$0 \sim$ 40°C, 85% RH or less (non-condensing)			

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders







Weight (kg) 0.86

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Colonald Value Toro		PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solenoid Valve Type	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-28PI-NP-2-0	No homing necessary with simple absolute type.				→ P487
Positioner Type	Í	PCON-C-28PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V 2A max.		
Pulse Train Input Type (Differential Line Driver)	É	PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	()		→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-28P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

IAI

RCP2-RTB/RTBL **358**

Туре

Mini

Standard

Rod Type

Mini

Standard

Controllers Integrated

Table/Arm /Flat Type

Mini

Standard

otary Type

Linear Motor Type

-,,-

Controllers

PSEP

ROBO

ERC2

SCON

DCEI

ACEL

SSEL

XSEL

.

Servo Moto

Servo Mot

(230V)

Linear Moto

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated

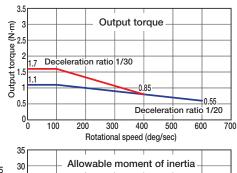
RCP2-RTC/RTCL RoboCylinder Rotary Medium Flat Type 88mm Width Pulse Motor

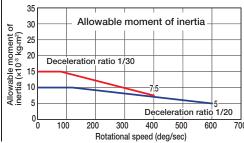
■ Configuration: RCP2-**28P** Series Туре Encoder Motor Deceleration Ratio Oscillation Angle - Compatible Controllers-Cable Length Option 330: 330degrees (RTC only) N : None P : 1m S : 3m M : 5m RTC: 330-degree 28P: 28 🗆 size 20: 1/20 P1: PCON NM :Reversed-rotation I: Incremental * The Simple absolute encoder is also considered deceleration rotation Pulse RPCON SA: Shaft adapter ratio
30: 1/30
deceleration
ratio 360: 360degrees (RTCL only) RTCL: Multi-rotational motor PSEL TA: Table adapter P3: PMEC type "I". * See page Pre-35 for an explanation of the naming convention. PSEP



■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





- (1) The output torque decreases as the rotational speed increases.

 Check the output torque graph on the right to see whether the speed required for your desired motion is supported
- (2) The allowable moment of inertia of the rotated work piece varies with the rotational speed. Check the Allowable Moment of Inertia graph on the right to see if the moment of inertia required for your desired motion is within the allowable range.
- (3) The rated acceleration while moving is 0.3G.
- (4) When using index mode with multiple rotation type, PMEC/PSEP controller is not available to operate

Actuator Specifications

■ Lead and Load Capacity

Model	Deceleration Ratio	Max. Torque	Allowable Moment of Inertia (kg·m²)	Oscillation Angle (deg)	
RCP2-RTC-I-28P-20-330-①-②-③	1/20	1.1	0.01	330	
RCP2-RTC-I-28P-30-330-①-②-③	1/30	1.7	0.015	330	
RCP2-RTCL-I-28P-20-360-1 - 2 - 3	1/20	1.1	0.01	360	
RCP2-RTCL-I-28P-30-360-1 - 2 - 3	1/30	1.7	0.015	300	
Legend: ① Compatible controller ② Cable length ③ Options					

■ Deceleration Ratio and Max. Speed

Stroke	330/360
Deceleration Ratio	(deg)
1/20	600
1/30	400

(Unit: degrees/s)

Cable List

Туре	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
Robot Cable	R04 (4m) ~ R05 (5m)	
	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

Item	Description
Drive System	Hypoid gear
Positioning Repeatability	±0.01 degrees
Homing Accuracy	±0.01 degrees
Lost Motion	±0.1 degrees
Allowable Thrust Load	50N
Allowable Load Moment	3.9 N·m
Weight	0.92kg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

Actuator Specifications

See page A-39 for cables for maintenance.

Ontion List

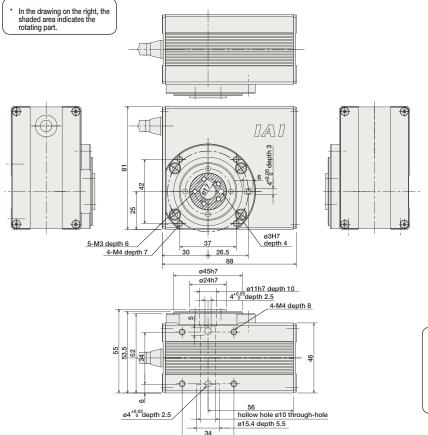
Option Liot			
Name	Option Code	See Page	
Reversed-rotation	NM	→ A-33	
Shaft adapter	SA	→ A-35	
Table adapter	TΛ	\ A 27	

CAD drawings can be downloaded from IAI website. www.robocylinder.de

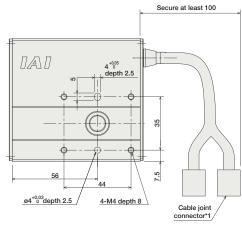
For Special Orders







*1 The motor-encoder cable is connected here. See page A-39 for details on cables.



The position in the drawing on the left is the home position.

When homing, the actuator rotates to the left past the home position by 1 degree. Therefore please watch for any interference with the surrounding objects.

The range of motion is 330 degrees clockwise, as viewed from above.

* The bend radius R of the cable is the same as other models.

Weight (kg) 0.92

Compatible	Controllers	

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page
		PMEC-C-28PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477
Solenoid Valve Type	1	PSEP-C-28PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-28PI-NP-2-0	No homing necessary with simple absolute type.			,		→ F407
Positioner Type		PCON-C-28PI-NP-2-0	Positioning is possible for up to 512 points	512 points				
Safety-Compliant Positioner Type PCON-CG-28PI-NP-2	PCON-CG-28PI-NP-2-0	r contouring to possible for up to 612 points						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.		→ P525
Pulse Train Input Type (Open Collector)	PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support	()					
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-28P	Dedicated to field network	768 points				→ P503
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557
Note * When using inde	ex mode with	multiple rotation type, I	PMEC/PSEP controller is not available to	operate.			* This is for the si	ingle-axis PSE

Mini
Standard
Controllers
Integrated

Mini
Standard
Controllers
Integrated

Controllers
Integrated

Series

■ Configuration:

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated

RCP2-RTBB/RTBBL

RoboCylinder Rotary Large Vertical Type 76mm Width Pulse Motor

RCP2-35P Туре Encoder Motor - Deceleration Ratio -Oscillation Angle — Compatible Controllers Cable Length Option RTBB: 330-degree I: Incremental 35P: 35 □ size 20: 1/20

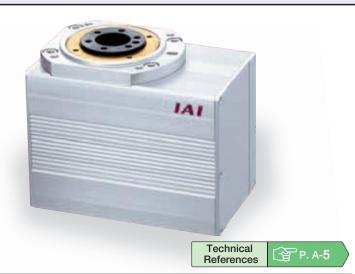
The Simple absolute encoder is also considered rotation RTBBL : Multirotational type "I".

deceleration ratio Pulse motor 30: 1/30 deceleration ratio 330: 330degrees P1: PCON (RTBB only) **RPCON** 360: 360degrees PSEL (RTBBL only) P3: PMEC **PSEP**

N : None P : 1m S : 3m M : 5m

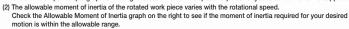
NM :Reversed-rotation SA: Shaft adapter TA: Table adapter

X□□ : Custom
R□□ : Robot cable



(1) The output torque decreases as the rotational speed increases.

Check the output torque graph on the right to see whether the speed required for your desired motion is supported.

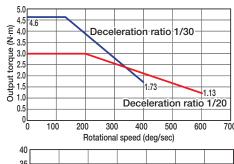


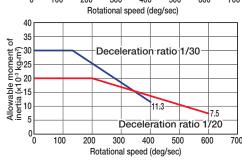
(3) The rated acceleration while moving is 0.3G.

(4) When using index mode with multiple rotation type, PMEC/PSEP controller is not available to operate.

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse Motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





Actuator Specifications

■ Lead and Load Capacity

Model	Deceleration Ratio	Max. Torque (N·m)	Allowable Moment of Inertia (kg·m²)	Oscillation Angle (deg)	
RCP2-RTBB-I-35P-20-330-①-②-③	1/20	3.0	0.02	330	
RCP2-RTBB-I-35P-30-330-①-②-③	1/30	4.6	0.03	330	
RCP2-RTBBL-I-35P-20-360-1 -2 -3	1/20	3.0	0.02	360	
RCP2-RTBBL-I-35P-30-360-1 - 2 - 3	1/30	4.6	0.03	300	
Legend: ① Compatible controller ② Cable length ③ Options					

■ Deceleration Ratio and Max. Speed

	-
Stroke Deceleration Ratio	330/360 (deg)
Deceleration riatio	
1/20	600
1/30	400

(Unit: degrees/s)

Cable List

Type	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

	*	See	page	A-39 t	for	cables	for	maintenance.
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Option List

Name	Option Code	See Page	
Reversed-rotation	NM	→ A-33	
Shaft adapter	SA	→ A-35	
Table adapter	TA	→ A-37	

Item	Description
Drive System	Hypoid gear
Positioning Repeatability	±0.01 degrees
Homing Accuracy	±0.01 degrees
Lost Motion	±0.1 degrees
Allowable Thrust Load	200N
Allowable Load Moment	17.7N·m
Weight	2.3kg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

Rod Type

Mini

Standard

Controllers
Integrated

Table/Arm
/Flat Type

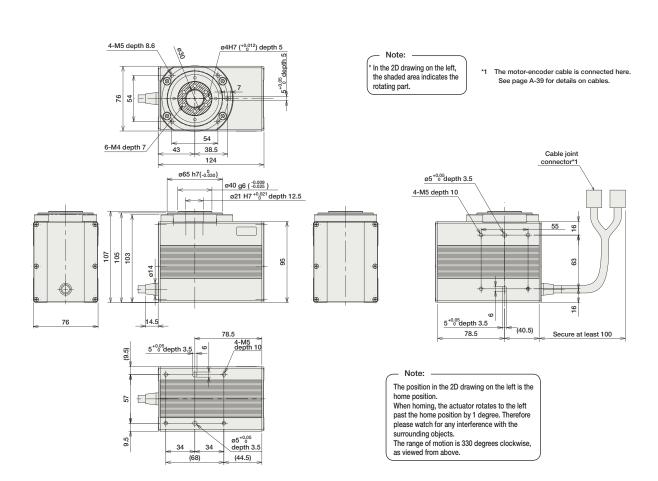
Dimensions

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders







Weight (kg) 2.3

Compatible Controllers The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage. AC115V AC230V PMEC-C-35PI-NP-2-2 See P481 → P477 Easy-to-use controller, even for beginners Solenoid Valve Type 1 PSEP-C-35PI-NP-2-0 3 points Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type. → P487 Splash-Proof Solenoid Valve Type Ī PSEP-CW-35PI-NP-2-0 Positioner Type PCON-C-35PI-NP-2-0 Positioning is possible for up to 512 points Safety-Compliant Positioner Type PCON-CG-35PI-NP-2-0 Pulse Train Input Type (Differential Line Driver) Pulse train input type with differential line driver support PCON-PL-35PI-NP-2-0 DC24V 2A max. → P525 (-) Pulse Train Input Type (Open Collector) Pulse train input type with open collector support PCON-PO-35PI-NP-2-0 Serial Communication PCON-SE-35PI-N-0-0 Dedicated to serial communication 64 points Type Field Network Type RPCON-35P Dedicated to field network 768 points → P503 Programmed operation is possible Operation is possible on up to 2 axes PSEL-C-1-35PI-NP-2-0 Program Control Type 1500 points → P557 * This is for the single-axis PSEL.

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated

RCP2-RTCB/RTCBL RoboCylinder Rotary Large Flat Type 124mm Width Pulse Motor

■ Configuration: RCP2-35P Series Туре Encoder Motor - Deceleration Ratio - Oscillation Angle - Compatible Controllers -Cable Length Option N : None P : 1m S : 3m M : 5m RTCB: 330-degree 35P : 35 □ size 20: 1/20 deceleration 330: 330degrees P1: PCON NM :Reversed-rotation I: Incremental 35 ☐ size 20. I/30 deceleration 360: 360: 360degrees rotation * The Simple absolute encoder is also considered **RPCON** SA: Shaft adapter TA: Table adapter PSEL (RTBL only) P3: PMEC X : Custom type "I". * See page Pre-35 for an explanation of the naming convention. **PSEP**



(1) The output torque decreases as the rotational speed increases.

Check the output torque graph on the right to see whether the speed required for your desired motion is supported.

(2) The allowable moment of inertia of the rotated work piece varies with the rotational speed.

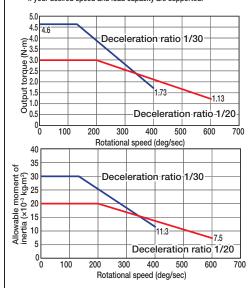
Check the Allowable Moment of Inertia graph on the right to see if the moment of inertia required for your desired motion is within the allowable range.

(3) The rated acceleration while moving is 0.3G.

(4) When using index mode with multiple rotation type, PMEC/PSEP controller is not available to operate.

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

Lead and Load Capacity

Model	Deceleration Ratio	Max. Torque (N·m)	Allowable Moment of Inertia (kg·m²)	Oscillation Angle (deg)	
RCP2-RTCB-I-35P-20-330-①-②-③	1/20	3.0	0.02	330	
RCP2-RTCB-I-35P-30-330-①-②-③	1/30	4.6	0.03	330	
RCP2-RTCBL-I-35P-20-360-1 -2 -3	1/20	3.0	0.02	360	
RCP2-RTCBL-I-35P-30-360-1 -2 -3	1/30	4.6	0.03	300	
Legend: ① Compatible controller ② Cable length ③ Options					

■ Deceleration Ratio and Max. Speed

	-
Stroke Deceleration Ratio	330/360 (deg)
1/20	600
1/30	400

(Unit: degrees/s)

Cable List

Type	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
1	R16 (16m) ~ R20 (20m)	

See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Reversed-rotation	NM	→ A-33	
Shaft adapter	SA	→ A-35	
Table adapter	TA	→ A-37	

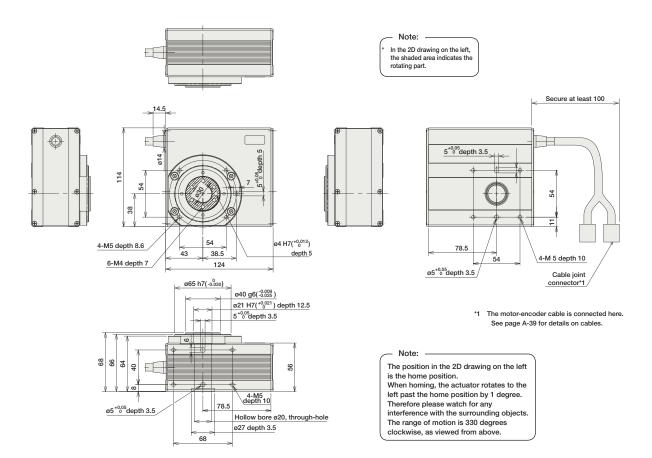
Item	Description
Drive System	Hypoid gear
Positioning Repeatability	±0.01 degrees
Homing Accuracy	±0.01 degrees
Lost Motion	±0.1 degrees
Allowable Thrust Load	200N
Allowable Load Moment	17.7N·m
Weight	2.2kg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders







Weight (kg) 2.2

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.									
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page	
Solenoid Valve Type	PMEC-C-35PI-NP-2-2 Easy-to-use controller, even for beginners			AC115V AC230V	See P481		→ P477		
Colciloid valve Type	1	PSEP-C-35PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points				→ P487	
Splash-Proof Solenoid Valve Type	I	PSEP-CW-35PI-NP-2-0	No homing necessary with simple absolute type.					→ F407	
Positioner Type PCON-C-35PI-NP-2-		PCON-C-35PI-NP-2-0	Positioning is possible for up to 512 points	512 points					
Safety-Compliant Positioner Type		PCON-CG-35PI-NP-2-0	r ositioning is possible for up to 312 points	312 points					
Pulse Train Input Type (Differential Line Driver)	á	PCON-PL-35PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.		→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-35PI-NP-2-0	Pulse train input type with open collector support	(-)					
Serial Communication Type		PCON-SE-35PI-N-0-0	Dedicated to serial communication	on 64 points					
Field Network Type		RPCON-35P	Dedicated to field network	768 points				→ P503	
Program Control Type		PSEL-C-1-35PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557	

IAI

RCP2-RTCB/RTCBL **364**

Туре

Mini

Standard

Rod

Mini

Standard

Integrated

Flat Type

Mini

Gripper/ Rotary Type

Linear Motor

Cleanroom Type

Splash-Proof

Controllers

PSEP

ROBO NET

ERC2

PCON

 \equiv

SSEL

XSEL

Pulse Moto

Servo Motoi

ervo Moto

Linoar Mot

* See page Pre-35 for an explanation of the naming convention.

■ Configuration:

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated
Table/Arm
/Flat Type

RCP2CR-SA5C Cleanroom RoboCylinder Sli Cleanroom RoboCylinder Slider Coupling Type 52mm Width

RCP2CR- SA5C -**42P** Motor Туре Encoder

I: Incremental
* The simple
absolute encoder
is also considered
type "I".

Lead 42P: Pulse motor 20: 20mm 42 🗌 size 12:12mm 6 : 6mm

Stroke 50: 50mm 800: 800mm 3:3mm

P1: PCON RPCON PSEL P3: PMEC

Compatible Controllers —

N:None
P:1m
S:3m
M:5m
X : Custom
R : Robot cable

Cable Length

3mm lead Horizontal

BE: Brake (Cable exiting from end) BL: Brake (Cable exiting from left)
BR: Brake (Cable exiting from right

NM: Reversed-home VR: Intake port on opposite side

Option

16 (kg 13 Capacity 10 Load

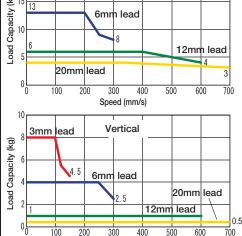
Technical [全 P. A-5 References

- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire
- Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds.

 In the Speed vs. Load Capacity graph on the right, see if your desired speed and load capacity are supported.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-53.
- The ISO cleanliness class 4 is for horizontal usage Please note that the actuator may not support C10 when used on its side or in vertical orientation.

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Speed (mm/s)

Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	Stroke					
Widdel	(mm)	Horizontal (kg)	Vertical (kg)	(mm)				
RCP2CR-SA5C-I-42P-20-①-②-③-④	20	~ 4	0.5					
RCP2CR-SA5C-I-42P-12-①-②-③-④	12	~ 6	1	50 ~ 800 (50mm increments)				
RCP2CR-SA5C-I-42P-6-①-②-③-④	6	~ 13	~ 4	,				
RCP2CR-SA5C-I-42P-3-①-②-③-④	3	16	~ 8					
Legend: ①Stroke ②Compatible controller ③Cable length ④Options								

■ Stroke, Max. Speed, and Suction Volume

	Stroke Lead	50 ~ 500 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)	Suction Volume (N \(\ell / min \)
	20	20 1000		850	740	650	580	80
;)	12	600	540	460	400	360	300	50
	6	300	270	230	200	180	150	30
	3	150	135	115	100	90	75	15

Cable List

Odbie List							
Туре	Cable Symbol						
Standard Type	P (1m)						
	S (3m)						
	M (5m)						
	X06 (6m) ~ X10 (10m)						
Special Lengths	X11 (11m) \sim X15 (15m)						
	X16 (16m) ~ X20 (20m)						
	R01 (1m) ~ R03 (3m)						
	R04 (4m) ~ R05 (5m)						
Robot Cable	R06 (6m) ~ R10 (10m)						
	R11 (11m) ~ R15 (15m)						
	R16 (16m) \sim R20 (20m)						

* See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake (Cable exiting from end)	BE	→ A-25	
Brake (Cable exiting from left)	BL	→ A-25	
Brake (Cable exiting from right)	BR	→ A-25	
Reversed-home	NM	→ A-33	
Intake port on opposite side	VR	→ A-38	

Actuator Specifications

Item	Description				
Drive System	Ball screw ø10mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Allowable Static Moment	Ma: 18.6N·m Mb: 26.6N·m Mc: 47.5N·m				
Allowable Dynamic Moment (*)	Ma: 4.9N·m Mb: 6.8N·m Mc: 11.7N·m				
Overhang Load Length	Ma direction: 150mm or less Mb, Mc direction: 150mm or less				
Grease Type	Low dust generation grease (both ball screw and guide)				
Cleanliness	ISO class 4 (US FED STD class 10)				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

(*) Based on a 5.000km service life.









CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





Details of A

(mounting holes and reference surface)

Details of oblong hole

*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

Ma moment offset

reference position*3

The motor-encoder cable is connected here. See page A-39 for details on cables.

C×100^p

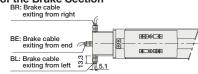
P (ø4 hole and oblong hole pitch)

50 20

When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end SE: Stroke end

The values enclosed in "()" are reference dimensions Reference position for calculating the moment Ma 5 30 5 2-ø4H7 depth 6 5.5 19^{-0.02} 5.5 4-M4 depth 9 Cable joint connector*1 Serance 26 (240) Applicable tube OD: ø8 (ID: ø6) Stroke 118.5 Secure at least 100 15.5 2.7 ME SE (2.3) Home ME*2 (1.6) Standard (Optional) **♦** E-ø4. 5 through, ø8 counterbore depth 4. 5 (from opposite site) B×100^p 2-ø4H7 50 52 13.8 depth 5.5 from bottom of base

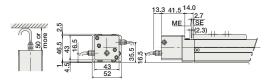
Dimensions of the Brake Section



H-oblong hole, D-M4 depth 7 depth 5.5 from bottom of base

ю

D



50 52

The length L of a brake-equipped actuator is longer than that of a standard model (see the table) by 40mm (53.3mm with the cable exit out its end); add 0.4kg to weight.

■ Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	279	329	379	429	479	529	579	629	679	729	779	829	879	929	979	1029
Α	73	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
D	4	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18
Е	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	1.7	1.8	1.9	2.0	2.1	2.3	2.4	2.5	2.6	2.7	2.8	3.0	3.1	3.2	3.3	3.4

Compatible Controllers

The RCP2CR series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Coloniid Volus Tura	1	PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solenoid Valve Type	1	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.			2A max.	→ P487
Positioner Type	Í	PCON-C-42PI-NP-2-0-H	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0-H		0.2 positio			
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0-H	Pulse train input type with differential line driver support	(-)	DC24V		→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support				
Serial Communication Type		PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P-H	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

This is for the single-axis PSEL.

■ Configuration:

Mini
Standard
ntrollers
tegrated
Rod
Type
Mini
Standard
ntrollers
tegrated
Table/Arm
/Flat Type

RCP2CR-SA6C Cleanroom Rob Aluminum Base

RCP2CR- SA6C -

Cleanroom RoboCylinder Slider Coupling Type 58mm Width Pulse motor

42P

Туре Encoder I: Incremental The simple absolute encoder is also

Motor 42P: Pulse motor 42 □ size * See page Pre-35 for an explanation of the naming convention.

20 : 20mm 12 : 12mm 6:6mm 3:3mm

50: 50mm 800: 800mm (50mm pitch increments)

Stroke

Compatible Controllers P1: PCON RPCON PSEL P3: PMEC PSEP

N: None
P:1m
S:3m
M:5m
X : Custom
R: R: Robot cable

Cable Length

BE : Brake (Cable exiting from end) BL : Brake (Cable exiting from left)
BR : Brake (Cable exiting from right) NM · Reversed-home VR : Intake port on opposite side

Option

Technical References (音 P. A-5

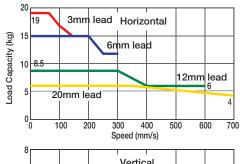
When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds. In the Speed vs. Load Capacity graph on the right, see if your desired speed and load capacity are supported.

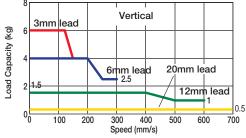
The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). The maximum acceleration is 0.7G (0.3G when used vertically), however, note that the load capacity decreases at high accelerations. For more information, see the table of load capacity by acceleration, on page A-53.

The ISO cleanliness class 4 is for horizontal usage. Please note that the actuator may not support C10 when used on its side or in vertical orientation.

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	Stroke				
	(mm)	Horizontal (kg)	Vertical (kg)	(mm)			
RCP2CR-SA6C-I-42P-20-①-②-③-④	20	~ 6	0.5				
RCP2CR-SA6C-I-42P-12-①-②-③-④	12	~ 8.5	1.5	50 ~ 800 (50mm increments)			
RCP2CR-SA6C-I-42P-6-①-②-③-④	6	~ 15	~ 4	,			
RCP2CR-SA6C-I-42P-3-①-②-③-④	~ 6						
egend: ① Stroke ② Compatible controller ③ Cable length ④ Options							

■ Stroke, Max. Speed, and Suction Volume

	Stroke Lead	50 ~ 500 (50mm increments)	600 (mm)	650 (mm)	700 (mm)	750 (mm)	800 (mm)	Suction Volume (N l/min)
	20	1000	980	850	740	650	580	80
)	12	600	540	460	400	360	300	50
	6	300	270	230	200	180	150	30
	3	150	135	115	100	90	75	15
	(Unit: mn	n/s)						

		1-1-	
man i	n a	hla	iet :

3 Cable List							
Туре	Cable Symbol						
Standard Type	P (1m)						
	S (3m)						
	M (5m)						
	X06 (6m) ~ X10 (10m)						
Special Lengths	X11 (11m) ~ X15 (15m)						
	X16 (16m) ~ X20 (20m)						
	R01 (1m) ~ R03 (3m)						
	R04 (4m) ~ R05 (5m)						
Robot Cable	R06 (6m) ~ R10 (10m)						
	R11 (11m) ~ R15 (15m)						
	R16 (16m) ~ R20 (20m)						

* See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description
Drive System	Ball screw ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Allowable Static Moment	Ma: 38.3N·m Mb: 54.7N·m Mc: 81.0N·m
Allowable Dynamic Moment (*)	Ma: 8.9N·m Mb: 12.7N·m Mc: 18.6N·m
Overhang Load Length	Ma direction: 220mm or less Mb, Mc direction: 220mm or less
Grease Type	Low dust generation grease (both ball screw and guide)
Cleanliness	ISO class 4 (US FED STD class 10)
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
(*) Based on a 5,000km service	e life. Querhang Load Langth

Directions of Allowable Load Moments





Name	Option Code	See Page	
Brake (Cable exiting from end)	BE	→ A-25	
Brake (Cable exiting from left)	BL	→ A-25	
Brake (Cable exiting from right)	BR	→ A-25	

→ A-33

→ **A-3**8

NM

Intake port on opposite side

Reversed-home

an be m IAI website. www.robocylinder.de

Ma moment offset reference position*3

For Special Orders





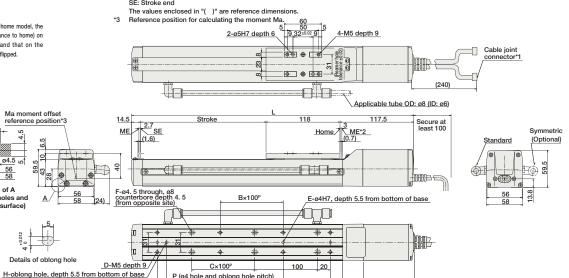
*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

(mounting holes and reference surface)

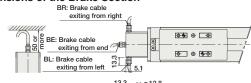
The motor-encoder cable is connected here. See page A-39 for details on cables.

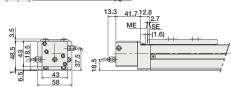
P (ø4 hole and oblong hole pitch)

When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end



Dimensions of the Brake Section





The length L of a brake-equipped actuator is longer than that of a standard model (see the table) by 40mm (53.3mm with the cable exit out its end); add 0.4kg to weight.

■ Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
П	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
Е	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
F	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
H	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	2.0	2.2	2.3	2.4	2.6	2.7	2.9	3.0	3.1	3.3	3.4	3.6	3.7	3.8	4.0	4.1

Com	patible	Control	lers
-----	---------	---------	------

The RCP2CR series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page	
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481		→ P477	
Soleliola valve Type	1	PSEP-C-42PI-NP-2-0-H	Operable with same signal as solenoid valve.	s both single and double solenoid types.				→ P487	
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0-H	No homing necessary with simple absolute type.						
Positioner Type	É	PCON-C-42PI-NP-2-0-H Positioning is possible for up to 512 points 512			512 points		2A max.		
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0-H	Positioning is possible for up to 312 points	512 points					
Pulse Train Input Type (Differential Line Driver)	Ö	PCON-PL-42PI-NP-2-0-H	Pulse train input type with differential line driver support	(-)	DC24V			→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0-H	Pulse train input type with open collector support	(-)	(-)	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0-H	Dedicated to serial communication	64 points					
Field Network Type		RPCON-42P-H	Dedicated to field network	768 points				→ P503	
Program Control Type		PSEL-C-1-42PI-NP-2-0-H	Programmed operation is possible Operation is possible on up to 2 axes	1500 points				→ P557	

This is for the single-axis PSEL

■ Configuration:

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated
Table/Arm
/Flat Type

RCP2CR-SA7C Cleanroom Rob Aluminum Base

RCP2CR- SA7C -

Cleanroom RoboCylinder Slider Coupling Type 73mm Width Pulse motor

Series Туре Encoder I: Incremental The simple

absolute encoder is also considered type "!".

* See page Pre-35 for an explanation of the naming convention.

56P Motor 56P: Pulse motor

56 🗌 size

16:16mm 8: 8mm 4: 4mm

50: 50mm 800: 800mm (50mm pitch increments)

Stroke

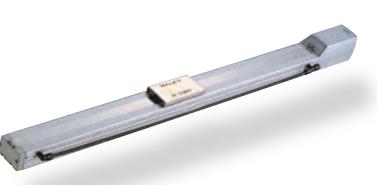
P1: PCON **RPCON** PSEL P3: PMEC PSEP

Compatible Controllers

Cable Length

BE : Brake (Cable exiting from end) BL : Brake (Cable exiting from left) BR : Brake (Cable exiting from right) NM : Reversed-home

Option



Technical References





When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.

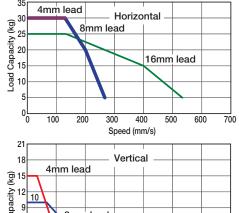
Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds. In the Speed vs. Load Capacity graph on the right, see if your desired speed and load capacity are supported.

The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 4mm-lead model, or when used vertically). This is the upper limit of the acceleration.

The ISO cleanliness class 4 is for horizontal usage. Please note that the actuator may not support C10 when used on its side or in vertical orientation.

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



1 Capacity (8mm lead Load 16mm lead - 1 400 200 300 500 600 Speed (mm/s)

Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	Stroke	
Model	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2CR-SA7C-I-56P-16-①-②-③-④	16	~ 25	~ 5	50. 000
RCP2CR-SA7C-I-56P-8-①-②-③-④	8	~ 30	~ 10	50~800 (50mm
RCP2CR-SA7C-I-56P-4-①-②-③-④	4	~ 30	∼ 1 5	increments)
Legend: ① Stroke ② Compatible controller ③ Cable length	Options			

Stroke Lead	$50 \sim 700$ (50mm increments)	~ 800 (mm)	Suction Volume (NI/min)
16	533 <400>	480 <400>	70
8	266	240	40
4	133	120	30

The values enclosed in "<	>" apply to vertical usage	(Unit:
---------------------------	----------------------------	--------

Cable List	Cable List			
Туре	Cable Symbol			
	P (1m)			
Standard Type	S (3m)			
	M (5m)			
	X06 (6m) ~ X10 (10m)			
Special Lengths	X11 (11m) ~ X15 (15m)			
	X16 (16m) ~ X20 (20m)			
	R01 (1m) ~ R03 (3m)			
	R04 (4m) ~ R05 (5m)			
Robot Cable	R06 (6m) ~ R10 (10m)			
	R11 (11m) ~ R15 (15m)			
	R16 (16m) ~ R20 (20m)			

^{*} See page A-39 for cables for maintenance.

Option List

•			
Name	Option Code	See Page	
Brake (Cable exiting from end)	BE	→ A-25	
Brake (Cable exiting from left)	BL	→ A-25	
Brake (Cable exiting from right)	BR	→ A-25	
Reversed-home	NM	→ A-33	
Intake port on opposite side	VR	→ A-38	

Actuator Specifications

Item	Description
Drive System	Ball screw ø12mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Allowable Static Moment	Ma: 50.4N·m Mb: 71.9N·m Mc: 138.0N·m
Allowable Dynamic Moment (*)	Ma: 13.9N·m Mb: 19.9N·m Mc: 38.3N·m
Overhang Load Length	Ma direction: 230mm or less Mb, Mc direction: 230mm or less
Grease Type	Low dust generation grease (both ball screw and guide)
Cleanliness	ISO class 4 (US FED STD class 10)
Ambient Operating Temp /Humidity	0~40°C, 85% RH or less (non-condensing)

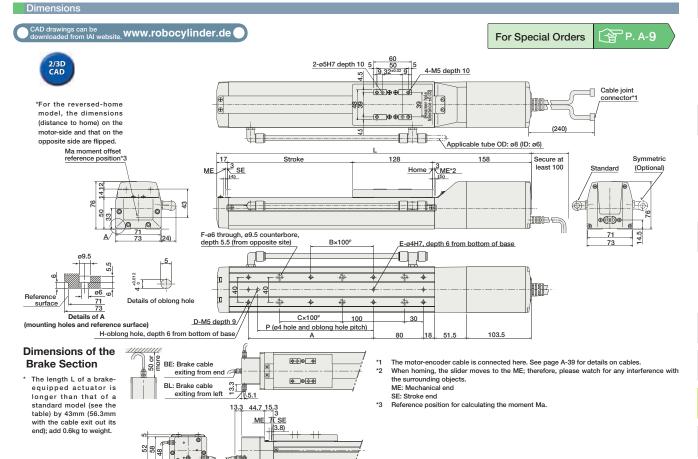
(*) Based on a 5.000km service life. **Directions of Allowable Load Moments**



Overhang Load Length

mm/s)





Dimensions and Weight by Stroke

Dillicits	10113	and v	reigiii	. by C	LIONC											
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	353	403	453	503	553	603	653	703	753	803	853	903	953	1003	1053	1103
Α	0	100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
В	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
С	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
D	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
E	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
F	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
Н	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Р	0	85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
Weight (kg)	3.3	3.5	3.8	4.0	4.2	4.4	4.7	4.9	5.1	5.3	5.6	5.8	6.0	6.2	6.5	6.7

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Soleliold valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.				→ P487	
Splash-Proof Solenoid Valve Type		PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.				→ P467	
Positioner Type	sitioner Type	PCON-C-56PI-NP-2-0		Positioning is possible for up to 512 points	512 points		2A max.	
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	r ostitoring is possible for up to 312 points	312 points	DC24V			
Pulse Train Input Type Differential Line Driver)	Ó	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-)		→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)				
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P503	
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557	

RCP2CR-SA7C 404

■ Configuration:

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated
Table/Arm
/Flat Type

RCP2CR-SS7C Cleanroom RoboCylinder Slider Coupling Type 60mm Width Pulse motor Steel Base

RCP2CR- SS7C -Encoder

I: Incremental The simple absolute encoder is also considered type "I".

* See page Pre-35 for an explanation of the naming convention.

42P Motor 42P: Pulse motor

42 🗌 size

12:12mm 6: 6mm 3: 3mm

50: 50mm 600: 600mm (50mm pitch increments)

Stroke

- Compatible Controllers -P1: PCON RPCON PSEL P3: PMEC **PSEP**

N: None P:1m S:3m M:5m X 🔲 : Custom
R 🔲 : Robot cable

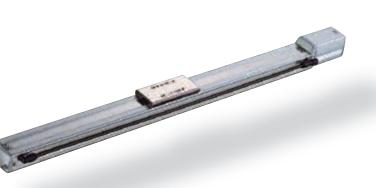
Cable Length

NM: Reversed-home

Option

B : Brake

VR : Intake port on opposite side



Technical References

[全 P. A-5

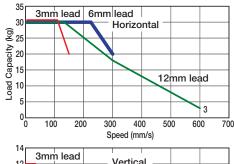


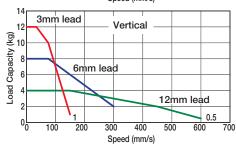


- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.
- Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds. In the Speed vs. Load Capacity graph on the right, see if your desired speed and load capacity are supported.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically).

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

	. ,				
Model	Lead	Max. Load Cap	Stroke		
IVIOGEI	(mm)	Horizontal (kg)	Vertical (kg)	(mm)	
RCP2CR-SS7C-I-42P-12-①-②-③-④	12	~ 30	~ 4	50. 600	
RCP2CR-SS7C-I-42P-6-①-②-③-④	6	~ 30	~ 8	50~600 (50mm increments)	
RCP2CR-SS7C-I-42P-3-①-②-③-④	3	~ 30	\sim 12	increments)	
Legend: ①Stroke ②Compatible controller ③Cable length	4 Options				

Stroke, Max. Speed, and Suction Volume Stroke 50 ~ 500 Suction ~ 600 Volume (NI/m 12 600

6 300 230 30 3 15 150 115

(Unit: mm/s)

Coble List

Reversed-home

Intake port on opposite side

Cable List							
Cable Symbol							
P (1m)							
S (3m)							
M (5m)							
X06 (6m) ~ X10 (10m)							
X11 (11m) ~ X15 (15m)							
X16 (16m) ~ X20 (20m)							
R01 (1m) ~ R03 (3m)							
R04 (4m) ~ R05 (5m)							
R06 (6m) ~ R10 (10m)							
R11 (11m) ~ R15 (15m)							
R16 (16m) ~ R20 (20m)							
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m) R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)						

* See page A-39 for cables for maintenance.

Option List **Option Code** Name See Page Brake В → A-25

NM

VR

→ A-33

→ A-38

Actuator Specifications

Item	Description				
Drive System	Ball screw ø10mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1mm or less				
Allowable Static Moment	Ma: 79.4N·m Mb: 79.4N·m Mc: 172.9N·m				
Allowable Dynamic Moment (*)	Ma: 14.7N·m Mb: 14.7N·m Mc: 33.3N·m				
Overhang Load Length	Ma direction: 300mm or less Mb, Mc direction: 300mm or less				
Grease Type	Low dust generation grease (both ball screw and guide)				
Cleanliness	ISO class 4 (US FED STD class 10)				
Ambient Operating Temp /Humidity	0~40°C, 85% RH or less (non-condensing)				

(*) Based on a 10.000km service life. **Directions of Allowable Load Moments**







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For Special Orders





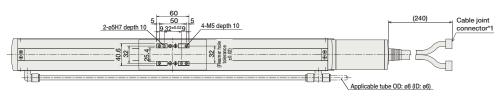
*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.

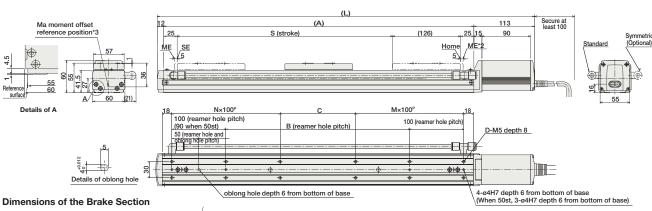
The motor-encoder cable is connected here. See page A-39 for details on cables.

When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end

The dimensions enclosed in "()" are reference dimensions.

Reference position for calculating the moment Ma.





The length L of a brake-equipped

actuator is longer than that of a standard model (see the table) by 24.5mm; add 0.3kg to weight. 36.5 23 25

■ Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	351	401	451	501	551	601	651	701	751	801	851	901
Α	226	276	326	376	426	476	526	576	626	676	726	776
В	0	40	90	140	190	240	290	340	390	440	490	540
С	90	40	90	140	190	40	90	140	190	40	90	140
D	6	8	8	8	8	12	12	12	12	16	16	16
M	1	1	1	1	1	2	2	2	2	3	3	3
N	0	1	1	1	1	2	2	2	2	3	3	3
Weight (kg)	3.3	3.6	3.9	4.2	4.6	4.9	5.3	5.6	6.0	6.3	6.6	6.9

Com	patible	Controllers	

The RCP2CR series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solelloid valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			D407
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				→ P487
Positioner Type	E .	PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points		2A max.	
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	r estroning is possible for up to 012 points				
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support		DC24V		→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-42P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

■ Configuration:

Standard
ntrollers
tegrated
Rod
Type
Mini
Standard
ntrollers
tegrated

RCP2CR-SS8C Cleanroom RoboCylinder Slider Coupling Type 80mm Width Pulse motor Steel Base

RCP2CR- SS8C -Encoder I: Incremental

The simple absolute encoder is also considered * See page Pre-35 for an explanation of the naming convention.

Motor 20:20mm 56P: Pulse motor 56 🗌 size 10:10mm 5: 5mm

56P

Stroke Compatible Controllers P1: PCON 50: 50mm 1000: 1000mm PSEL (50mm pitch P3: PMEC increments) PSEP

RPCON

N : None P : 1m S : 3m M : 5m X 🔲 : Custom R 🔲 : Robot cable

Cable Length

B : Brake NM: Reversed-home VR : Intake port on opposite side

Option



Technical References

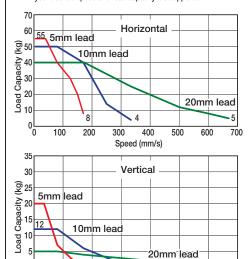




- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed Use the actuator specification table below to check the maximum speed at the stroke you desire.
- Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds. In the Speed vs. Load Capacity graph on the right, see if your desired speed and load capacity are supported.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 5mm-lead model, or when used vertically).

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	, ,	Stroke
	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2CR-SS8C-I-56P-20-①-②-③-④	20	~ 40	\sim 5	50, 1000
RCP2CR-SS8C-I-56P-10-①-②-③-④	10	~ 50	\sim 12	50~1000 (50mm increments)
RCP2CR-SS8C-I-56P-5-①-②-③-④	5	∼ 5 5	\sim 20	increments)
Legend: ① Stroke ② Compatible controller ③ Cable length	0ptions			

300

400

Speed (mm/s)

500

Stroke Lead	50 ~ 800 (50mm increments)	~ 900 (mm)	~ 1000 (mm)	Suction Volume (NI/min)
20	666 <500>	625 <500>	515 <500>	80
10	333 <300>	310 <300>	255	40
5	165 <150>	155 <150>	125	20

* The val

0.5

100

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ues enclose	ed in "<	>" a	pply to vertic	al usage	(Unit: mm/

Cable List

Cable List						
Туре	Cable Symbol					
	P (1m)					
Standard Type	S (3m)					
	M (5m)					
	X06 (6m) ~ X10 (10m)					
Special Lengths	X11 (11m) ~ X15 (15m)					
	X16 (16m) ~ X20 (20m)					
	R01 (1m) ~ R03 (3m)					
	R04 (4m) ~ R05 (5m)					
Robot Cable	R06 (6m) ~ R10 (10m)					
	R11 (11m) ~ R15 (15m)					
	R16 (16m) ~ R20 (20m)					
Robot Cable	R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)					

^{*} See page A-39 for cables for maintenance.

Option List

0 0 11 0 11 0 1			
Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Intake port on opposite side	VR	→ A-38	

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Allowable Static Moment	Ma: 198.9N·m Mb: 198.9N·m Mc: 416.7N·m
Allowable Dynamic Moment (*)	Ma: 36.3N·m Mb: 36.3N·m Mc: 77.4N·m
Overhang Load Length	Ma direction: 450mm or less Mb, Mc direction: 450mm or less
Grease Type	Low dust generation grease (both ball screw and guide)
Cleanliness	ISO class 4 (US FED STD class 10)
Ambient Operating Temp /Humidity	0~40°C, 85% RH or less (non-condensing)

(*) Based on a 10.000km service life. Directions of Allowable Load Moments







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For Special Orders

4-ø5H7 depth 6 from bottom of base





*For the reversed-home model, the dimensions (distance to home) on the

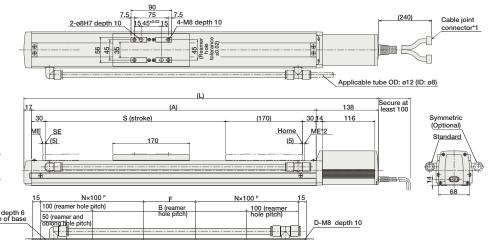
motor-side and that on the opposite side are

Ma moment offset reference position*3

The motor-encoder cable is connected here. See page A-39 for details on cables. *1 *2

When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end SE: Stroke end

Reference position for calculating the moment Ma.

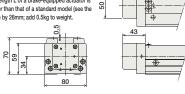


-⊕+⊕--

Details of A **Dimensions of**

the Brake Section

The length L of a brake-equipped actuator is longer than that of a standard model (see the table) by 26mm; add 0.5kg to weight.



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■ Dimensions and Weight by Stroke

-**|--|--|--|-**|-

- Dillions	10110	211G V	reigin	. Dy C	LIOILO															
Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385
Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	7.0	7.5	8.0	8.5	9.0	9.6	10.1	10.6	11.2	11.7	12.3	12.7	13.3	13.8	14.4	14.9	15.4	15.9	16.5	17.0

Compatible Controllers

The RCP2CR series actuators can operate with the controllers below. Select the controller according to your usage

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477	
Solelloid valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ D497	
Splash-Proof Solenoid Valve Type	1	PSEP-CW-56PI-NP-2-0	No homing necessary with simple absolute type.			→ P487		
Positioner Type	i.	PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points	512 points		2A max.		
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0	rositioning is possible for up to 312 points	312 points				
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	()	DC24V		→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support	(-)	(4)			
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points	3			
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P503	
Program Control Type	-	PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557	

* See page Pre-35 for an explanation of the naming convention.

RCP2CR-HS8C Cleanroom RoboCylinder High-Speed Slider Coupling Type 80mm Width Pulse motor Steel Base

■ Configuration: RCP2CR— HS8C — Туре Encoder

86P Motor 86P: Pulse motor I: Incremental 56 🗌 high

output

30:30mm

50: 50mm 1000: 1000mm

P2: PCON-CF

P2

Compatible Controllers -N: None P:1m S:3m M:5m

Option B : Brake NM: Reversed-home VR : Intake port on opposite side

(50mm pitch X 🔲 : Custom
R 🔲 : Robot cable increments)



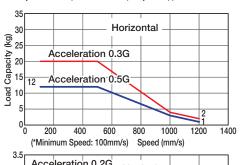
Technical References

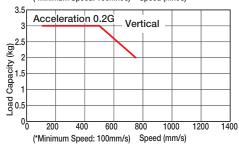


- Due the large lead of the ball screw in high-speed actuators, operating at low speeds may cause vibration and/or noise. Therefore, use the actuator at speeds over 100mm/s.
- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed (2) Use the actuator specification table below to check the maximum speed at the stroke you desire.
- Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds. In the Speed vs. Load Capacity graph on the right, see if your desired speed and load capacity are supported.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G when used vertically). $0.5\mbox{G}$ (horizontal) and $0.3\mbox{G}$ (vertical) are the upper limits of the acceleration.

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model	Lead	Max. Load Ca	Stroke	
Wiodei	(mm)	Horizontal (kg)	apacity (Note 1) Vertical (kg) ~ 3	(mm)
RCP2CR-HS8C-I-86P-30-①-P2-②-③	30	~ 20	~ 3	50~1000 (50mm increments)
Legend ① Stroke ② Cable length ③ Options	· · · · · ·			

■ Stroke and Maximum Speed

Stroke Lead	50 ~ 800 (50mm increments)	~ 900 (mm)	~ 1000 (mm)	Suction Volume (NI/min)
30	1200 <750>	1000 <750>	800 <750>	180

* The values enclosed in "< >" apply to vertical usage

Cable List

Cable List		
Туре	Cable Symbol	
	P (1m)	
Standard Type	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

^{*} See page A-39 for cables for maintenance.

Option List

Name	Option Code	See Page	
Brake	В	→ A-25	
Reversed-home	NM	→ A-33	
Intake port on opposite side	VR	→ A-38	

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Allowable Static Moment	Ma: 198.9N·m Mb: 198.9N·m Mc: 416.7N·m
Allowable Dynamic Moment (*)	Ma: 36.3N·m Mb: 36.3N·m Mc: 77.4N·m
Overhang Load Length	Ma direction: 450mm or less Mb, Mc direction: 450mm or less
Grease Type	Low dust generation grease (both ball screw and guide)
Cleanliness	ISO class 4 (US FED STD class 10)
Ambient Operating Tomp /Humidity	0~40°C, 85% BH or less (non-condensing)

(*) Based on a 10.000km service life. Directions of Allowable Load Moments









(Unit: mm/s)

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders



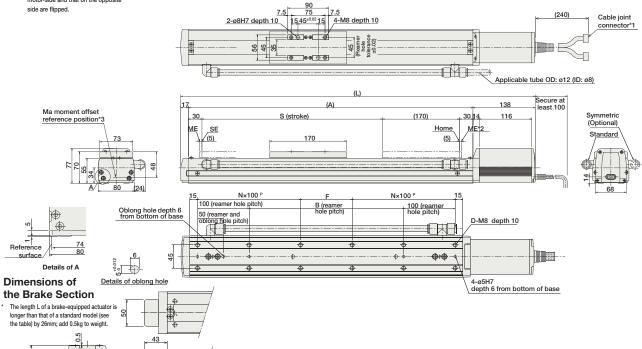


*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite

The motor-encoder cable is connected here. See page A-39 for details on cables.

2 When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects. ME: Mechanical end SE: Stroke end

*3 Reference position for calculating the moment Ma.



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385
Α	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
В	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	7.0	7.5	8.0	8.5	9.0	9.6	10.1	10.6	11.2	11.7	12.3	12.7	13.3	13.8	14.4	14.9	15.4	15.9	16.5	17.0

Compatible Controllers

70

The RCP2CR-HS8C series actuators can operate with the controllers below.

ı	Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
	Positioner Type		PCON-CF-86PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	6A max.	→ P525

Note: Please note that a dedicated CF type encoder cable is used, which is different from the encoder cable used for the PCON-C/CG/CY/PL/PO/SE controllers.

Slider

Mini

Standard

Integrated

Rod Voe

Mini

Controllers

Table/Arm

riat Type

Standard

Gripper/ Rotary Type

Type

Туре

Spiasii-Proo

CONTROLLERS

PSEP /ASEP

NET

.....

ACON

SCON

PSEL

ASEL

VCEI

Pulse Motor

Servo Motor (24V)

Servo Moto (230V)

Linear Mot

* See page Pre-35 for an explanation of the naming convention.

RCP2CR-GRSS Cleanroom RoboCylinder 2-Finger Gripper Mini Slider Type 42mm Width Pulse motor

8

■ Configuration: RCP2CR - GRSS -**20P** Encoder Motor

- Deceleration Ratio -20P: Pulse motor 30: 1/30 I: Incremental 20 🗌 size encoder is also considered type "I".

8: 8mm deceleration (4mm per side)

30

Stroke Compatible Controllers P1: PCON **RPCON** PSEL

P3: PMEC

N: None P: 1m S: 3m M: 5m X __ : Custom

Cable Length

NM: Reversed-home FB: Flange bracket SB: Shaft bracket

Option

PSEP



Technical References



 $The \ maximum \ opening/closing \ speed \ indicates \ the \ operating \ speed \ on \ one \ side. \ The \ relative \ operating \ speed \ is \ twice \ this \ value.$ The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point distance of 0mm and no overhang (2)

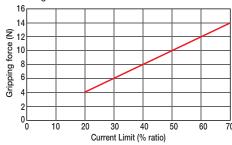
distance. The workpiece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the workpiece, as well as on the shape of the workpiece. As a rough guide, a workpiece's weight should not exceed 1/10 to 1/20 of the gripping force. (See page A-74 for details.)

The rated acceleration while moving is 0.3G.

■ Gripping Force Adjustment

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

* The gripping forces in the following diagrams indicate the sum of the gripping forces of both fingers.



* The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.

* Please note that, when gripping (pushing), the speed is fixed at 5mm/s.

Actuator Specifications

■ Lead and Load Capacity

Ecad and Load Supasity			
Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)
RCP2CR-GRSS-I-20P-30-8-①-②-③	30	14	8 (4 per side)

■ Stroke, Max. Opening/Closing Speed, and Suction Volume

Stroke	8	Suction Volume
Deceleration Ratio	(mm)	(NI/min)
30	78	10

(Unit: mm/s)

Cable List

Cable List		
Туре	Cable Symbol	
Standard Type	P (1m)	
(Robot Cables)	S (3m)	
(Robot Gables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

Legend: ① Compatible controllers ② Cable length ③ Options

* The standard cable is the motor-encoder integrated robot cable.

* See page A-39 for cables for maintenance.

Actuator -	S	pecifi	cations

Item	Description				
Drive System	Worm gear + helical gear + helical rack				
Positioning Repeatability	±0.01mm				
Backlash	0.2mm or less per side (constantly pressed out by a spring)				
Lost Motion	0.05mm or less per side				
Guide	Linear guide				
Allowable Static Load Moment	Ma: 0.5N·m Mb: 0.5N·m Mc: 1.5N·m				
Weight	0.2kg				
Cleanliness	ISO class 4 (US FED STD class 10)				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)				

Option List

Name	Option Code	See Page	
Reversed-home	NM	→ A-33	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

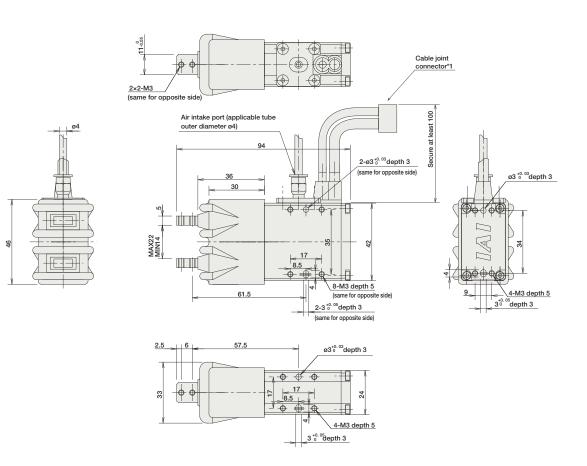
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders





- * The opening side of the slider is the home position.
- * 1 The motor-encoder cable is connected here. See page A-39 for details on cables.



Weight (kg) 0.2

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Solenoid Valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.			→ P487	
Positioner Type	PC	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	512 points			
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0					
Pulse Train Input Type Differential Line Driver)	Ó	PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	()	DC24V	2A max.	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	(-) Pulse train input type with open collector support				
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-20P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			→ P557

■ Configuration:

Cleanroom RoboCylinder 2-Finger Gripper Mini Lever Type 42mm Width

RCP2CR— GRLS

I: Incremental The simple absolute encoder is also considered type "I".

Encoder

Motor - Deceleration Ratio -20P: Pulse motor 30: 1/30 20 🗌 size

30

ratio

20P

Stroke 180:180 degrees deceleration (90 degrees per side)

180

P1: PCON **RPCON** PSEL P3: PMEC **PSEP**

- Compatible Controllers

N: None P:1m S:3m M:5m X □□ : Custom

Cable Length

NM: Reversed-home FB : Flange bracket SB : Shaft bracket

Option

* See page Pre-35 for an explanation of the naming convention.

Technical References

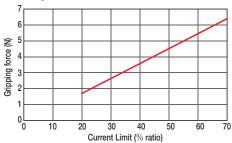


- The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this
- The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point distance of 0mm and no overhang distance. The workpiece weight that can be actually moved depends on the friction coefficient between the gripper fingers and the workpiece, as well as on the shape of the workpiece. As a rough guide, a workpiece's weight should not (2) exceed 1/10 to 1/20 of the gripping force. (See page A-77 for details.)
- (3) The rated acceleration while moving is 0.3G.

■ Gripping Force Adjustment

The gripping (pushing) force can be adjusted freely within the range of current limits of 20% to 70%.

* The gripping forces in the following diagrams indicate the sum of the gripping forces of both fingers.



- * The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.
- * Please note that, when gripping (pushing), the speed is fixed at 5 degrees/s.

Actuator Specifications

■ Lead and Load Capacity

Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (deg)
RCP2CR-GRLS-I-20P-30-180-10-2-3	30	6.4	180 (90 per side)

■ Stroke and Maxi. Opening/Closing Speed

Stroke Deceleration Ratio	180 (deg)
30	600

(Unit: degrees/s)

Cable List

Туре	Cable Symbol	
Standard Type	P (1m)	
	S (3m)	
(Robot Cables)	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	

Legend: ① Compatible controllers ② Cable length ③ Options

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	
Flange bracket	FB	→ A-26	
Shaft bracket	SB	→ A-36	

Actuator Specifications Description Item Drive System Worm gear + helical gear ±0.01mm Positioning Repeatability Backlash 1 degree or less per side (constantly pressed out by a spring) Lost Motion 0.1 degree or less per side Guide Allowable Static Load Moment Weight 0.2kg Ambient Operating Temp./Humidity 0~40°C, 85% RH or less (non-condensing)

CAD drawings can be downloaded from IAI website. www.robocylinder.de

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18

36

Compatible Controllers

Pulse Train Input Type

(Open Collector)

Serial Communication Type

Field Network Type

Program Control Type For Special Orders

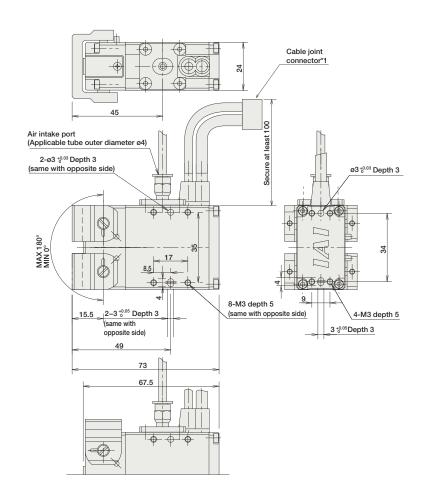
P. A-9



* The opening side of the slider is the home position.

2-ø4^{+0.03} Depth 2.5 4-M4 through

*1 The motor-encoder cable is connected here. See page A-39 for details on cables.



Weight (kg) 0.2

The RCP2CR series actuators can operate with the controllers below. Select the controller according to your usage.							
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type	413	PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners		AC115V AC230V	See P481	→ P477
Soleliola valve Type	1	PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			→ P487
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0	Supports both single and double solenoid types. No homing necessary with simple absolute type.				→ F407
Positioner Type	É	PCON-C-20PI-NP-2-0	Positioning is possible for up to 512 points	510 points			
Safety-Compliant Positioner Type		PCON-CG-20PI-NP-2-0		512 points			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Pulse train input type with differential line driver support	()	DC24V	2A max.	→ P525
				(-)			

64 points

768 points

1500 points

Pulse train input type with

open collector support

Dedicated to serial communication

Dedicated to field network

Programmed operation is possible Operation is possible on up to 2 axes

PCON-PO-20PI-NP-2-0

PCON-SE-20PI-N-0-0

PSEL-C-1-20PI-NP-2-0

RPCON-20P

→ P503 (230V)

* This is for the single-axis PSEL.

IAI

RCP2CR-GRLS 414

Mini

Controllers

Rod Type

Mini

Controllers

Table/Arm /Flat Type

Mini

Gripper/ Rotary Type

notary rypo

Type

1,100

PMFC:

/ASEP

FRC2

ACON

SCON

PSEL

ASEL

SSEL

XSEL

Pulse Moto

Servo Motoi (24V)

Servo Mot

PCON
ACON
SCON
PSEL
ASEL

RCP2W-SA16C

* See page Pre-35 for explanation of each code that makes up the configuration name.

RoboCylinder Water-proof Slider Type 158mm Width Pulse Motor Coupled

P2 ■ Configuration: RCP2W — SA16C 86P Type Motor Compatible Controllers ____ Series Encoder Stroke Lead Option P2: PCON-CF

8:8mm 86P: Pulse motor I: Incremental 56 High Output 4:4mm

50:50mm

600 : 600mm (50mm pitch increments)

CO: With Cover N: None P:1m S:3m M:5m NM : Reversed-home

X : Custom Length R : Robot Cable



References

(1) The actuator is limited to being installed horizontally. Please note that it can't be used when installed in a wrong direction (transverse, vertical or reverse). (The same goes for storage.) (2) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed.

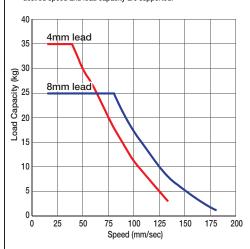
Use the actuator specification table below to check the maximum speed at the stroke you desire.

- (3) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

 Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (4) The load capacity is based on operation at an acceleration of 0.2G. 0.2G is the upper limit for the acceleration.
- (5) This actuator is not available to use push function mode. (6) The cable joint connector is not splash-proof; secure it in a place that is not prone to water spills.

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

Legend 1 Stroke 2 Cable length 3 Options

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

_ ======				-
Model	Lead	Max. Load Ca	Stroke	
Wodel	(mm)	Horizontal (kg)	Vertical (kg)	(mm)
RCP2W-SA16C-I-86P-8-① -P2-② -③	8	~25	Not Allowed	50~600
RCP2W-SA16C-I-86P-4-1 -P2-2 -3	4	~35	NOT Allowed	(50mm increments)

Stroke and Maximum Speed Stroke 50~600 8 180

4 133 (Unit: mm/s)

Cable List

Cable List					
Туре	Cable Symbol				
	P(1m)				
Standard	S (3m)				
	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16(16m) ~ X20(20m)				
	R01(1m) ~ R03(3m)				
	R04(4m) ~ R05(5m)				
Robot Cable	R06(6m) ~ R10(10m)				
	R11(11m) ~ R15(15m)				
	R16(16m) ~ R20(20m)				

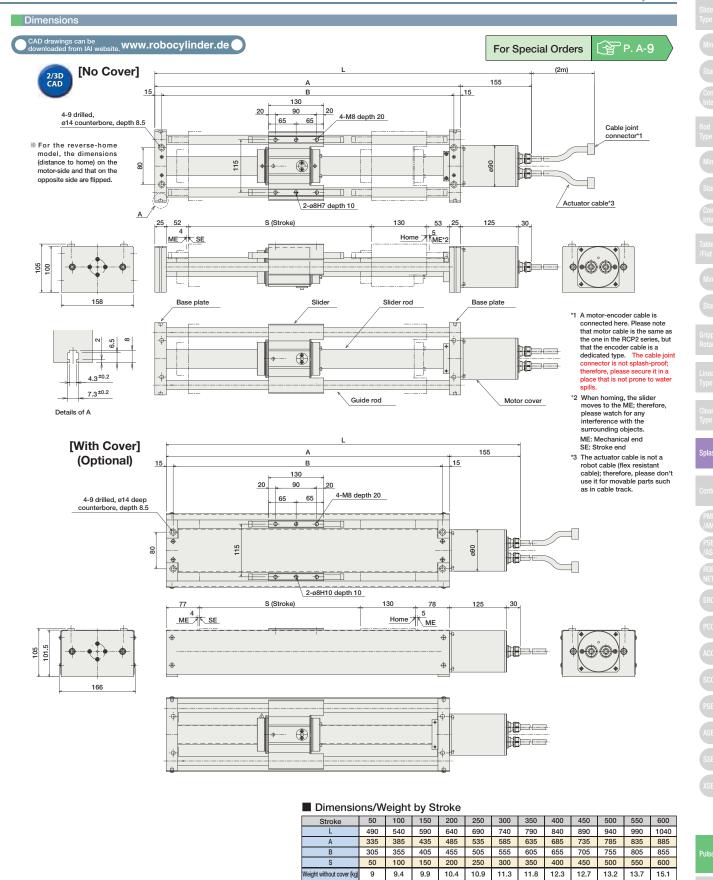
* See page A-39 for cables for maintenance.

Option List			
Name	Option Code	See Page	
With cover	CO	→ 444	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description		
Drive System	Ball screw ø12mm C10 grade		
Positioning Repeatability	±0.08mm		
Lost Motion	0.7 mm or less		
Guide	ø20 Non-lubricated Linear Sliding Guide		
Allowable Static Load Moment	20.0N·m		
Overhang Load Length	Ma direction 200mm or less		
Protection Structure	IP67		
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)		

A dynamic moment isn't applicable for the SA16C for structural reasons. When an object is to be mounted on the slider, please fix it in a manner so that no moment load is applied in the direction Mb or Mc, and so that the load is distributed evenly.



Compatible Controllers							
The controller for the RCP2W-SA16C type is a dedicated controller.							
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Positioner Type		PCON-CF-86PI-NP-2-0	Positioning possible for up to 512 points	512 points	DC24V	6A max.	→ P525

Weight with cover (kg) 10.5

11.1 11.8 12.5 13.2 13.8 14.6 15.3 15.9

Note: Please note that the encoder cable is a dedicated CF-type cable that is different from the PCON-C/CG/CY/PL/PO/SE controllers. 18.9

16.6 17.3 * See page Pre-35 for explanation of each code that makes up the configuration name.

RCP2W-RA4C RoboCylinder Splash-proof Rod Type 45mm Width Pulse Motor Coupled ■ Configuration: RCP2W — RA4C 42P Type Motor Cable Length Series Encoder Stroke Lead Option I: Incremental Type 42P: Pulse motor 10:10mm P1: PCON N : None 50: 50mm : Brake-Equipped The simple absolute encoder is also considered type "I". P:1m S:3m M:5m FL With Flange With Foot bracket 5 : 5mm RPCON 42 🗌 size 2.5 : 2.5mm 300: 300mm PSEL NM : Reversed-home (50mm pitch P3: PMEC

increments)



Technical References

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.

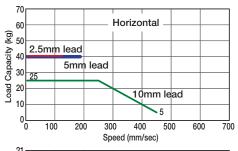
- (2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph on the above right to see if your desired speed and load capacity are supported.
- (3) The load capacity is based on operation at an acceleration of 0.2G. 0.2G is the upper limit for the acceleration.
- (4) The cable joint connector is not splash-proof; secure it in a place that is not prone to water spills.

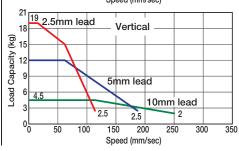
Speed vs. Load Capacity

PSEP

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

Custom





Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model		Max. Load Ca Horizontal (kg)	sacity (140to 1)	Maximum Push Force (N) (Note 2)	Stroke (mm)
RCP2W-RA4C-I-42P-10-①-②-③-④	10	~25	~4.5	150	50.000
RCP2W-RA4C-I-42P-5-①-②-③-④	5	40	~12	284	50~300 (50mm increments)
RCP2W-RA4C-I-42P-2.5-①-②-③-④	2.5	40	~19	358	increments)

Stroke Lead	50~200 (50mm increments)	250	300	
10	450 〈250〉	450 〈250〉	350 〈250〉	
5	190	190	175	
2.5	125 〈115〉	115	85	

(Note 2) See page A-69 for push force graph. * The value inside < > applies to vertical setting. (Unit: mm/s)

Туре	Cable Symbol	
Standard	P (1m)	
	S (3m)	
	M (5m)	
Special Lengths	X06 (6m) ~ X10 (10m)	
	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
· ·	Dodge Doore	

Legend Stroke Compatible controller Cable length Options

	noi (iiii) ~	nus (SIII)	
	R04 (4m) ~	R05 (5m)	
Robot Cable	R06 (6m) ~	R10 (10m)	
	R11 (11m) ~	R15 (15m)	
	R16 (16m) ~	R20 (20m)	

See page A-39 for cables for maintenance.

Cable List

Option List			
Name	Option Code	See Page	
Brake-Equipped	В	→ A-25	
With Flange	FL	→ A-27	
With Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	

Actuator Specifications

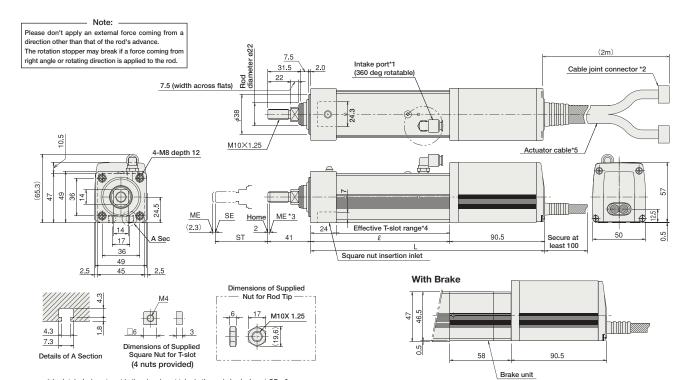
Actuator opecinication	Actuator openinations				
Item Description					
Drive System	Ball screw ø8mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1 mm or less				
Rod diameter	ø22mm				
Rod non-rotational accuracy	±1.5 degrees				
Protection Structure	IP65				
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)				

CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Orders







- * 1. Intake/exhaust port is the air exhaust tube in the main body. Insert OD ø6 mm tube and use it extended to a place that is not prone to water spills or intake.
- * 2. Connect motor encoder cable . See page A-39 for details on cables. The cable joint connector is not splash-proof; therefore, please secure it in a place that is not prone to water spills.
- * 3. When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical End

SE: Stroke end

The dimensions enclosed in "()" are reference dimensions.

- * 4. Please note that there is no T-slot in the bottom of brake unit.
- * 5. The actuator cable is not a robot cable (flex resistant cable); therefore, please don't use it for movable parts such as cable track.

■ Dimensions/Weight by Stroke

Birrieriaiona Weight by Groke									
Stroke	50	100	150	200	250	300			
l	132.5	182.5	232.5	282.5	332.5	382.5			
L	223	273	323	373	423	473			
Weight (kg)	1.9	2.1	2.2	2.5	2.9	3.1			

* Adding a brake increases overall length by 58mm

and its weight by 0.4kg.

Compatible Controllers										
The RCP2W series actuators can operate with the controllers below. Select the controller according to your usage.										
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Page		
Solenoid		PMEC-C-42PI-NP-2-2	Easy-to-use controller, even for beginners.		AC115V AC230V	See P481		→ P477		
Valve Type	1	PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid	ne signal as opports both a solenoid 3 points				→ P487		
Splash-Proof Solenoid Valve Type	I	PSEP-CW-42PI-NP-2-0	types. No homing necessary with simple absolute type.					→ → P487		
Positioner Type	É	PCON-C-42PI-NP-2-0	Positioning possible for	512 points						
Safety Category Compliant Positioner Type		PCON-CG-42PI-NP-2-0	up to 512 points	312 points	DC24V 2A max	2A max.				
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0	Differential line driver support Pulse Train Input Type	(-)				→ P525		
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Open Collector Pulse Train Input Type	(-)						
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points						
Field Network Type		RPCON-42P	Dedicated to field network	768 points				→ P503		
Program Control Type		PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P557		
							* This is for the sing	le-axis PSE		

* See page Pre-35 for explanation of each code that makes up the configuration name

Standard
Introllers
tegrated
Rod
Type
Mini
Standard
Introllers
tegrated
Table/Arm
/Flat Type

PMEC / AMEG / AMEG / AMEG / AMEG NET / ASEP PCON ACON SCON PSEL SSEL

CP2W-RA6C

■ Configuration: RCP2W — RA6C **56P** Motor Series Type Encoder Stroke Lead

I: Incremental Type 56P: Pulse motor *The simple absolute encoder is also considered type "I".

56 □ size is ze

16:16mm 8:8mm 4:4mm

50: 50mm 300: 300mm (50mm pitch increments)

P1 : PCON RPCON PSEL

N : None P : 1m S : 3m M : 5m

: Brake-Equipped FL: With Flange FT: With Foot bracket NM: Reversed-home

Option

P3:PMEC PSEP



Technical References

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the (2) Since the RCP2 series use the pulse motor, the load capacity decreases at high speeds. Check in the

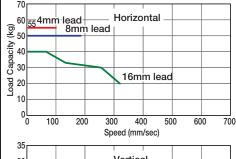
Speed vs. Load Capacity graph on the above right to see if your desired speed and load capacity are

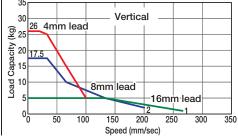
(3) The load capacity is based on operation at an acceleration of 0.2G. 0.2G is the upper limit for the acceleration.

4) The cable joint connector is not splash-proof; secure it in a place that is not prone to water spills

Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below. check if your desired speed and load capacity are supported.





Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model		Max. Load Ca Horizontal(kg)		Maximum Push Force (N) (Note 2)	Stroke (mm)		
RCP2W-RA6C-I-56P-16-①-②-③-④	16	~40	~5	240	50.000		
RCP2W-RA6C-I-56P-8-①-②-③-④	8	50	~17.5	470	50~300 (50mm		
RCP2W-RA6C-I-56P-4-①-②-③-④	4	55	~26	800	increments)		
Legend Stroke Compatible controller Cable length Options (Note 2) See page A-69 for push force graph.							

Stroke	50~300 (50mm increments)
16	320 〈265〉
8	200

■ Stroke and Maximum Speed

* The value inside < > applies to vertical setting. (Unit: mm/s)

100

Cable List		
Туре	Cable Symbol	
	P(1m)	
Standard	S (3m)	
	M (5m)	
	X06 (6m) ~ X10 (10m)	
Special Lengths	X11 (11m) ~ X15 (15m)	
	X16 (16m) ~ X20 (20m)	
	R01 (1m) ~ R03 (3m)	
	R04 (4m) ~ R05 (5m)	
Robot Cable	R06 (6m) ~ R10 (10m)	
	R11 (11m) ~ R15 (15m)	
	R16 (16m) ~ R20 (20m)	

	*	See	page	A-39	for	cables	for	maintenance
--	---	-----	------	------	-----	--------	-----	-------------

Option List			
Name	Option Code	See Page	
Brake-Equipped	В	→ A-25	
With Flange	FL	→ A-27	
With Foot bracket	FT	→ A-29	
Reversed-home	NM	→ A-33	

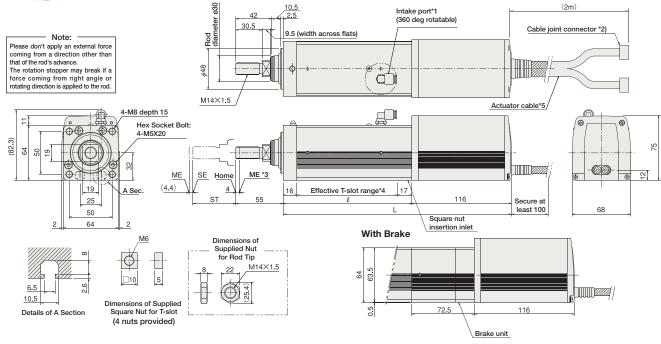
Actuator Specifications					
Item	Description				
Drive System	Ball screw ø12mm C10 grade				
Positioning Repeatability	±0.02mm				
Lost Motion	0.1 mm or less				
Rod diameter	ø30mm				
Rod non-rotational accuracy	±1.0 degrees				
Protection Structure	IP65				
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)				



For Special Orders







- *1. Intake/exhaust port is the air exhaust tube in the main body. Insert OD ø6 mm tube and use it extended to a place that is not prone to water spills or intake.
- *2. Connect motor encoder cable . See page A-39 for details on cables.

The cable joint connector is not splash-proof; therefore, please secure it in a place that is not prone to water spills.

*3. When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical End

SE: Stroke end

The dimensions enclosed in "()" are reference dimensions.

- *4. Please note that there is no T-slot in the bottom of brake unit.
- *5. The actuator cable is not a robot cable (flex resistant cable); therefore, please don't use it for movable parts such as cable track.

* Adding a brake increases overall length by 72.5mm and its weight by 0.9kg.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300
l	150	200	250	300	350	400
L	266	316	366	416	466	516
Weight (kg)	3.5	4.0	4.5	5.0	5.5	6.0

	e Controllers	an operate with the controllers below.	Select the controller acco	ording to your u	sage.		
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Solenoid Valve Type		PMEC-C-56PI-NP-2-2	Easy-to-use controller, even for beginners.		AC115V AC230V	See P481	→ P477
Solelloid valve Type	1	PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and	3 points			→ P487
Splash-Proof Solenoid ValveType	1	PSEP-CW-56PI-NP-2-0	double solenoid types. No homing necessary with simple absolute type.				7 1401
Positioner Type	Í	PCON-C-56PI-NP-2-0	Positioning possible for	512 points	DC24V		
Safety Category Compliant Positioner Type		PCON-CG-56PI-NP-2-0	up to 512 points	312 points		2A max.	
Pulse Train Input ype (Differential Line Driver)	Ó	PCON-PL-56PI-NP-2-0	Differential line driver support Pulse Train Input Type	(-)			→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Open Collector Pulse Train Input Type	(-)			
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points			
Field Network Type		RPCON-56P	Dedicated to field network	768 points			→ P503
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557

RCP2W-RA6C 448

IAI

ROBO NET ERC2 PCON ACON SCON PSEL ASEL

RCP2W-RA10C

* See page Pre-35 for explanation of each code that makes up the configuration name.

RoboCylinder High-thrust Dust-proof Rod Type 100mm Width Pulse Motor

P2

■ Configuration: RCP2W — RA10C 86P Type Encoder Motor

I: Incremental

86P: Pulse motor 10: 10mm 86 🗌 size

5 : 5mm 2.5 : 2.5mm

(50mm pitch

Stroke 50: 50mm 300: 300mm

increments)

Compatible Controllers P2: PCON-CF

N: None A1~A3: Connector cable P:1m S:3m Cable outlet X □ : Custom Length R □ : Robot Cable FT : With Flange M:5m

direction change : Brake-Equipped

Option



Technical References

(1) Minimum speed is set for each lead. (Lead 10: 10mm/s, Lead 5: 5mm/s, Lead 2.5: 1mm/s) Please note that vibration etc. may occur when operated at minimum speed.

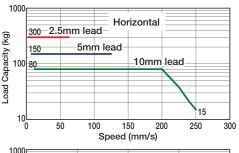
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check the Speed vs. Load Capacity on the right hand graph to see if your desired speed and load capacity are supported.

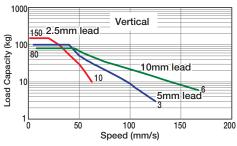
(3) The load capacity is based on operation at lead 10: 0.04G, lead 5: 0.02G and lead 2.5: 0.01G. These values are the upper limits for the acceleration. Also, this is when the load capacity is attached to the external guide. The rotation stopper may break if an external force coming from a direction other than that of rod's advance is applied.

(4) The cable joint connector is not splash-proof; secure it in a place that is not prone to water

■ Speed vs. Load Capacity

Due to the characteristics of the Pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.





Actuator Specifications

■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases.

Model		Max. Load Ca Horizontal(kg)		Maximum Push Force (N) (Note 2)	Stroke (mm)	
RCP2W-RA10C-I-86P-10-①-P2-②-③	10	~80	~80	1500	50.000	
RCP2W-RA10C-I-86P-5-①-P2-②-③	5	150	~100	3000	50~300 (50mm	
RCP2W-RA10C-I-86P-2.5-1 -P2-2 -3	2.5	300	~150	6000	increments)	
Legend Stroke Cable length Options (Note 2) See page A-70 for push force graph.						

Stroke (50mm increments) 10 250 (167) 5 125

Stroke and Maximum Speed

* The value inside < > applies to vertical setting. (Unit: mm/s)

63

Cable List

Cable List						
Cable Symbol						
P (1m)						
S (3m)						
M (5m)						
X06 (6m) ~ X10 (10m)						
X11 (11m) ~ X15 (15m)						
X16 (16m) ~ X20 (20m)						
R01 (1m) ~ R03 (3m)						
R04 (4m) ~ R05 (5m)						
R06 (6m) ~ R10 (10m)						
R11 (11m) ~ R15 (15m)						
R16 (16m) ~ R20 (20m)						
	P (1m) S (3m) M (5m) X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m) R01 (1m) ~ R03 (3m) R04 (4m) ~ R05 (5m) R06 (6m) ~ R10 (10m) R11 (11m) ~ R15 (15m)					

*	See	page	A-39	for	cables	for	maintenance.
	000	page	,, ,,		oubico		mammonanoo.

Option List			
Name	Option Code	See Page	
Connector cable outlet direction changed	A1~A3	→ A-25	
Brake	В	→ A-25	
Flange	FL	→ A-27	
Foot bracket	FT	→ Δ-29	

Actuator Specifications

Item	Description	
Drive System	Ball screw C10 grade	
Positioning Repeatability	±0.02mm	
Lost Motion	0.1 mm or less	
Rod diameter	ø40mm	
Rod non-rotational accuracy	±1.0 degrees	
Protection Structure	IP54	
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)	

2.5

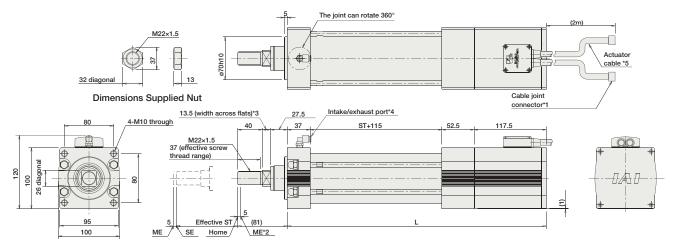


For Special Orders





Please note that reversed home position is unavailable for the RA10C type for structural reasons.



*1. A motor-encoder cable is connected here.

Please note that motor cable is the same as the one in the RCP2 series, but that the encoder cable is a dedicated

type.
See page A-39 for details on cables.
The cable joint connector is not splash-proof; therefore, please secure it in a place that is not prone to water spills.

2. When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end

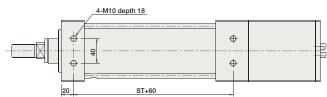
SE: Stroke end
The dimensions enclosed in "()" are reference dimensions.

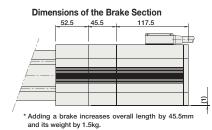
The direction of across-flats will vary depending on the product.

 Intake/exhaust port is the air exhaust tube in the main

body.
*5. The actuator cable is not a robot cable (flex resistant

cable); therefore, please don't use it for movable parts such as cable track.





■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300
L	372	422	472	522	572	622
Weight (kg)	9	9.5	10	10.5	11	11.5

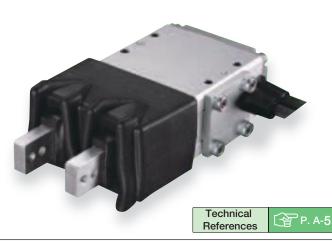
Compatible Controllers

The controller for the RCP2W-RA10C type is a dedicated controller.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page
Positioner Type		PCON-CF-86PI-NP-2-0	Positioning possible for up to 512 points	512 points	DC24V	6A max.	→ P525

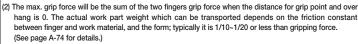
Please note that the encoder cable is a dedicated CF-type cable that is different from the PCON-C/CG/CY/PL/PO/SE controllers.

RCP2W-GRSS RoboCylinder 2-Finger Gripper Dust-proof Mini Slider Type 42mm Width Pulse Motor ■ Configuration: RCP2W — GRSS **20P** 8 30 ı Motor Lead Stroke Cable Length Series Type Encoder Option I: Incremental Type 20P: Pulse motor 30: Deceleration 8:8mm P1: PCON NM: Reversed-home FB: Flange Bracket : None N P S M : 1m : 3m The simple absolute encoder **RPCON** 20 size ratio 1/30 (One side 4mm)



(1) The max. open/close speed represents one side operating speed.

* See page Pre-35 for explanation of each code that makes up the configuration name.



- (3) The rated acceleration at transportation is 0.3G.
- (4) Please note that the product has no splash-proof function.

■ Grip Force Arrangement

PSEL

PSEP

P3:PMEC

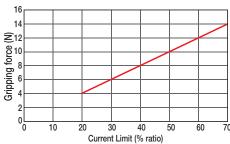
Through push operation the grip force (push force) can be arranged freely within the range of 20%-70% of current limit value of the controller.

: 5m

X 🗆 🗆 : Custom Length

SB: Shaft Bracket

* Grip force noted in the figure below is the sum of the grip force of two fingers.



- * The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.
- * Please note when gripping (pushing) is performed the speed will be fixed at 5 mm/s.

Actuator Specifications

■ Lead and Load Capacity

Toda and Toda Oupdon					
Model	Deceleration ratio	Max. Grip Force	Stroke (mm)		
RCP2W-GRSS-I-20P-30-8-①-②-③	30	14	8 (One side 4)		

■ Stroke and Maximum Open/Close Speed

Stroke Decele- ration ratio	8 (mm)
30	78

Legend ① Compatible controller ② Cable length ③ Options

(Unit: mm/s)

Cable List

Cable List	Cable List				
Туре	Cable Symbol				
Standard	P (1m)				
(Robot Cables)	S (3m)				
	M (5m)				
	X06 (6m) ~ X10 (10m)				
Special Lengths	X11 (11m) ~ X15 (15m)				
	X16 (16m) ~ X20 (20m)				

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Ontion List

Option List			
Name	Option Code	See Page	
Reversed-home	NM	→ A-33	
Flange Bracket	FB	→ 26	
Shaft Bracket	SB	→ 36	

Actuator Specifications				
Item	Description			
Drive System	Worm gear + Helical gear + Helical rack			
Positioning Repeatability	±0.01mm			
Backlash	0.2 mm or less for one side (stressed by spring on the side which is opened always)			
Lost Motion	0.05mm or less one side			
Guide	Linear Guide			
Statically Allowable Load Moment	Ma:0.5N·m Mb:0.5N·m Mc:1.5N·m			
Weight	0.2kg			
Protection Structure	IP50			
Ambient Operating Temp./Humidity	0~40°C, 85%BH or less (Non-condensing)			

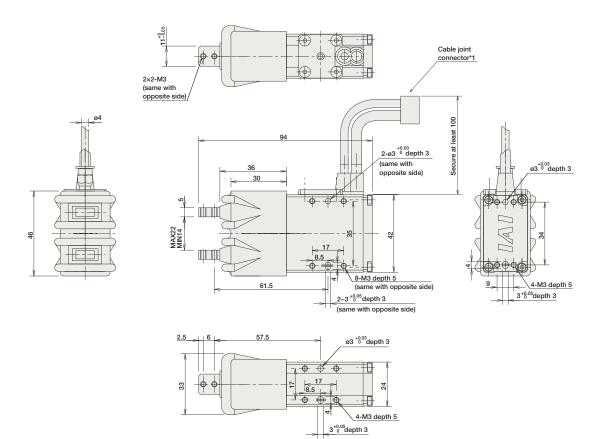
CAD drawings can be downloaded from IAI website. www.robocylinder.de

For Special Order

P. A-9



- Open side of slider will be home position.
- *1 A motor-encoder cable is connected here. See page A-39 for details on cables.



Weight (kg) 0.2

The RCP2W sei	ries actuators ca	an operate with the controllers below	. Select the controller acc	ording to your u	ısage.			
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	See Page	
Solenoid ValveType		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners.		AC115V AC230V	See P481	→ P477	
Soleriola valvetype		PSEP-C-20PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and	3 points			→ P487	
Splash-Proof Solenoid Type	1	PSEP-CW-20PI-NP-2-0	double solenoid types. No homing necessary with simple absolute type.	cessary				7 F407
Positioner Type	Ė	PCON-C-20PI-NP-2-0 Positioning possible for	Positioning possible for up to 512 points 512 points	Desitioning possible for	512 points			
Safety Category Compliant Positioner Type		PCON-CG-20PI-NP-2-0		orz points	0.12			
Pulse Train Input Type (Differential Line Driver)		PCON-PL-20PI-NP-2-0	Differential line driver support Pulse Train Input Type	(-)	DC24V	2A max.	→ P525	
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Open Collector Pulse Train Input Type	(-)				
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points				
Field NetworkType		RPCON-20P	Dedicated to field network	768 points			→ P503	
Program Control Type		PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			→ P557	

ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL
XSEL

* See page Pre-35 for explanation of each code that makes up the configuration name.

RoboCylinder 2-Finger Gripper Dust-proof Mini Lever Type 42mm Width Pulse Motor

■ Configuration: RCP2W— **GRLS** I **20P** 30 180 Туре Encoder Motor Lead Stroke

> I: Incremental Type 20P: Pulse motor 30 : Deceleration 180 : 180 Degress P1 : PCON The simple absolute encoder is also considered type "I". 20 🗌 size

ratio 1/30 (One side 90 dedress)

RPCON PSEL P3: PMEC

N:None P:1m S : 3m M:5m

NM: Reversed-home FB: Flange Bracket SB : Shaft Bracket

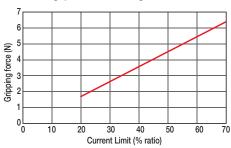
X 🗌 🗆 : Custom Length PSEP

Technical P. A-5 References

■ Grip Force Arrangement

Through push operation the grip force (push force) can be arranged freely within the range of 20%~70% of current limit value of the controller.

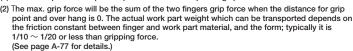
* Grip force noted in the figure below is the sum of the grip force of two fingers.



* The value of the gripping (pushing) in the graph is only reference. Please note that there is a maximum variation of about 15%.

* Please note when gripping (pushing) is performed the speed will be fixed at 5 degrees/sec.

(1) The max. open/close speed represents one side operating speed.



(3) The rated acceleration at transportation is 0.3G.

(4) Please note that the product has no splash-proof function.

Actuator Specifications

■ Lead and Load Capacity

Load and Load outpastly						
Model	Deceleration ratio	Max. Grip Force	Stroke degrees)			
RCP2W-GRLS-I-20P-30-180-① -② -③	30	6.4	180 (One side 90)			

■ Stroke and Maximum Open/Close Speed

Stroke	180
Deceleration ratio	(degrees)
30	600

(Unit: degrees/s) Legend ① Compatible controller ② Cable length ③ Options

Cabla List

Cable List						
Туре	Cable Symbol					
Standard (Robot Cables)	P (1m) S (3m) M (5m)					
Special Lengths	X06 (6m) ~ X10 (10m) X11 (11m) ~ X15 (15m) X16 (16m) ~ X20 (20m)					

- * The standard cable is the motor-encoder integrated robot cable.
- * See page A-39 for cables for maintenance.

Actuator Specifications

Item	Description		
Drive System	Worm gear + Helical gear		
Positioning Repeatability	±0.01mm		
Backlash	1 degree or less for one side (stressed by spring on the side which is opened always)		
Lost Motion	0.1 mm or less one side		
Guide	-		
Statically Allowable Load Moment	-		
Weight	0.2kg		
Protection Structure	IP50		
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)		

Option List			
Name	Option Code	See Page	
Reversed-home	NM	A-33	
Flange Bracket	FB	26	
Shaft Bracket	SB	36	

CAD drawings can be downloaded from IAI website. www.robocylinder.de

>| |ø4

9 18

36

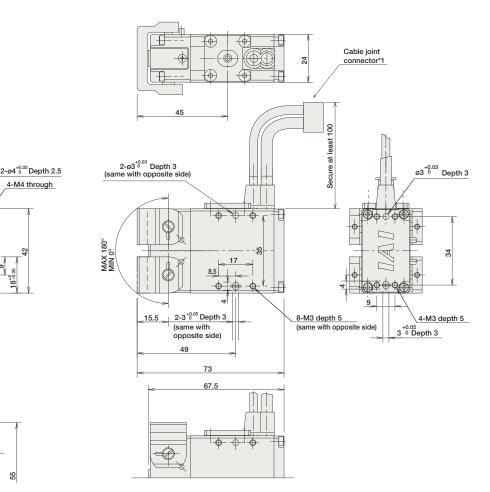
22

For Special Order

P. A-9



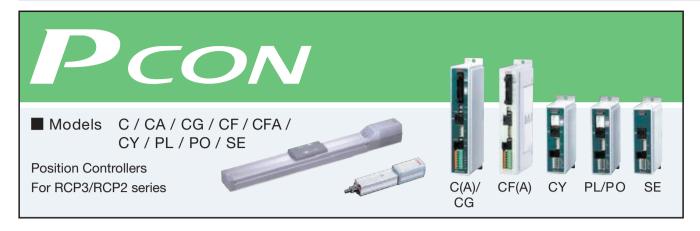
- Open side of slider will be home position.
- *1 A motor-encoder cable is connected here. See page A-39 for details on cables.



Weight (kg) 0.2

Compatible Controllers The RCP2W series actuators can operate with the controllers below. Select the controller according to your usage.										
Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity		See Pag		
Solenoid		PMEC-C-20PI-NP-2-2	Easy-to-use controller, even for beginners.		AC115V AC230V	See P481		→ P47		
ValveType		PSEP-C-20PI-NP-2-0	Supports both single and double solenoid types.					→ P48		
Splash-Proof Solenoid Valve Type		PSEP-CW-20PI-NP-2-0						→ F40		
Positioner Type	ĺ	É	É	PCON-C-20PI-NP-2-0	Positioning possible for	512 points				
Safety Category Compliant Positioner Type		PCON-CG-20PI-NP-2-0 up to 512 points	312 points							
Pulse Train Input Type (Differential Line Driver)	Ġ.	PCON-PL-20PI-NP-2-0	Differential line driver support Pulse Train Input Type	()	DC24V	2A max.		→ P52		
Pulse Train Input Type (Open Collector)		PCON-PO-20PI-NP-2-0	Open Collector Pulse Train Input Type	(-)						
Serial Communication Type		PCON-SE-20PI-N-0-0	Dedicated to serial communication	64 points						
Field NetworkType		RPCON-20P	Dedicated to field network	768 points				→ P50		
Program Control Type	M	PSEL-C-1-20PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P55		

* This is for the single-axis PSEL.



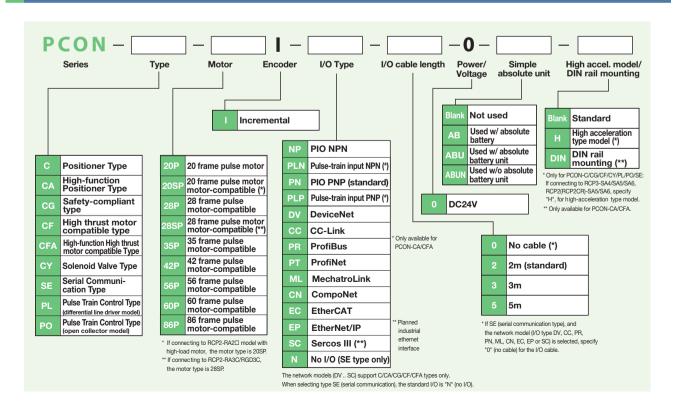
List of models

These are the position controllers that can be used with the RCP3/RCP2 series actuators. Our line-up has 6 types, which are compatible with various control systems.

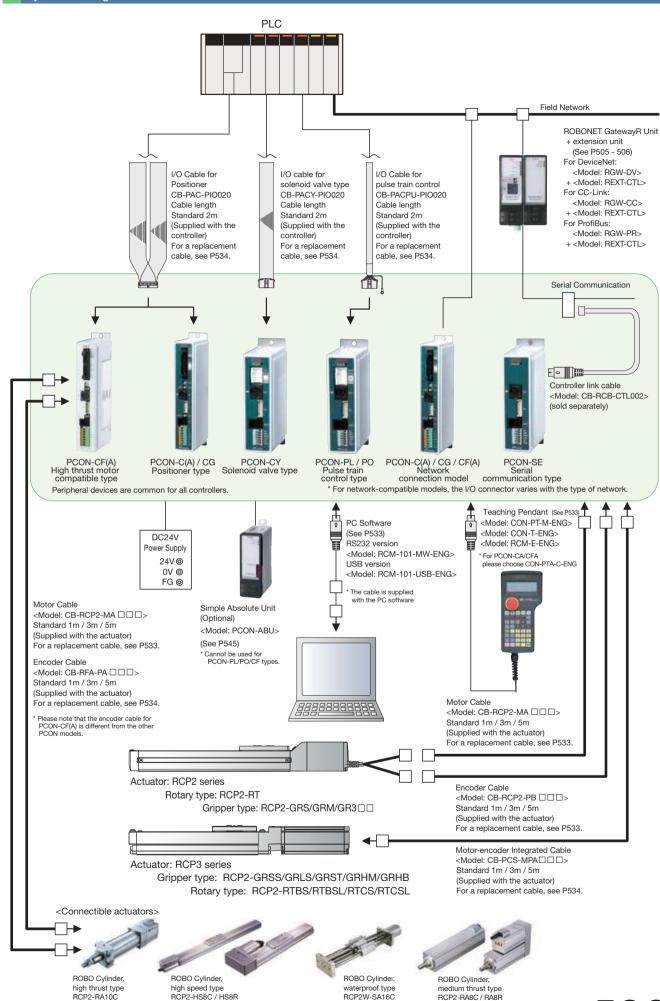
Туре	C / CA	CG	CF / CFA	CY	PL/PO	SE
Name	Positioner type	Conforming to safety category compatible type	High-thrust motor compatible type	Solenoid valve type	Pulse train control type	Serial communication type
External View	Transport of the Parket	Comments of the Comments of th				
Description	Positioner capable of a maximum of 512 points positioning (*1)	Conforming to type C safety category specifications (*1)	Dedicated controller for RCP2 high-speed type / high-thrust type / waterproof type (*1)	Can be operated using the same control as the air cylinder type	For pulse train control	For Serial communication
Position points	512 points (*2)	512 points (*2)	512 points (*2)	3 points	-	64 points

- (*1) Network connection specifications are designated by the I/O type symbols for the model.
 (*2) Besides positioning mode PCON-C/CG/CF can be operated in teaching and solenoid valve mode, PCON-CA/CFA additionally in pulse-train mode.

Model



System configuration



RCP2W-SA16C

RCP2-RA8C / RA8R

I/O Specifications

Input section





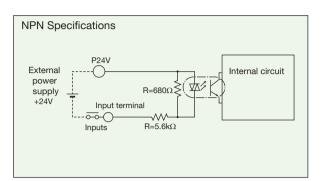


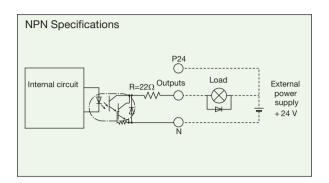
Item Specifications Input voltage DC24V +/-10% Input current 5mA/circuit Leak current 1mA max./point Isolation method Photocoupler

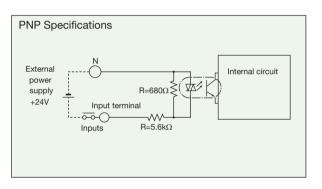
External input specifications

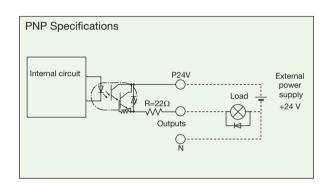
Output section External output specifications

Item	Specifications
Load Voltage	DC24V
Max. load current	50mA/point
Remaining voltage	2V or less
Isolation method	Photocoupler









I/O Specifications

The 4 types of controllers (C(A)/CG/CF(A), CY, PL/PO, and SE) are classified by their respective I/O specifications. In addition, with the positioner type and solenoid valve type, the I/O signal details can be changed via the controller settings. As a result, a number of functions can be used.

■ Control Function by Type

Туре	C(A)/CG/CF(A)	CY	PL/PO	SE	Features
Name	Positioner type	Solenoid valve type	Pulse in-line control type	Serial communication type	reatures
Positioner mode	\circ	-	-	(*1)	This is the basic operating mode, in which the user designates position numbers and inputs start signals.
Teaching mode	0	-	-	(*1)	In this mode, the slider (rod) moves based on an external signal, and the stopped positions can be registered as position data.
Solenoid valve mode	0	0	-	(*1)	The actuator can be moved simply by ON/OFF of position signals. This mode supports the same control signals you are already familiar with on solenoid valves of air cylinders.
Pulse train mode	(*2)	-	0	-	In this mode, you can operate the actuator freely using pulse trains without inputting position data.
Network compatible	(*3)	-	-	(*4)	The controller can be connected to a DeviceNet or CC-Link network.

^{*1} Operates using network communications or serial communications.

^{*2} Only high-function types PCON-CA/CFA can be operated in pulse-train mode.

^{*3} Can make a direct connection to a field network with the network specifications.

^{*4} Can be connected to a field network using a gateway unit.

Explanation of I/O Signal Functions

The table below explains the functions allocated to the controller's I/O signal.

Since the signals that can be used vary depending on the controller type and settings, check the signal table for each controller to confirm the available functions.

■ Signal Function Description

lassification	Signal abbreviations	Signal	Function description			
	CSTR	PTP strobe signal (start signal)	Input this signal to cause the actuator to start moving to the position set by the comman position number signal.			
	PC1 to PC256	Command position number signal	This signal is used to input a target position number (binary input).			
	BKRL	Brake forced release signal	This signal forcibly releases the brake.			
	RMOD	Running mode switching signal	This signal can switch the running mode when the MODE switch on the controller is set to AUTO (AUTO when this signal is OFF, or MANU when the signal is ON)			
	*STP	Pause signal	Turning this signal OFF causes the moving actuator to decelerate to a stop. The actuator wi resume the remaining movement if the signal is turned ON during the pause.			
	RES	Reset signal	Turning this signal ON resets the alarms that are present. If this signal is turned ON while th actuator is paused (*STP is OFF), the remaining movement can be cancelled.			
	SON	Servo ON signal	The servo remains on while this signal is ON, or off while the signal is OFF.			
	НОМЕ	Home return signal	Turning this signal ON performs home-return operation.			
Input	MODE	Teaching mode signal	Turning this signal ON switches the controller to the teaching mode. (provided that CSTR, JOG and JOG- are all OFF and the actuator is not moving).			
	JISL	JOG/INCHING switching signal	When the main signal is off, the JOG operation will be conducted for JOG+ and JOG When the signal is on, the unit will do the inching operation for JOG+ and JOG			
	JOG+, JOG-	JOG signal	When the JISL signal is off and the JOG +/- signal turns on, the unit will jog in the + (positive direction when the JOG + turns on and the - (negative) direction when the JOG - turns on. During the JOG operation, the unit slows to a stop when the JOG +/- signal turns off.			
	PWRT	Teaching signal	In the teaching mode, specify a desired position number and then turn this signal ON for at least 20ms to write the current position to the specified position number.			
	ST0 to ST6	Start position command	Turning this signal ON in the solenoid valve mode causes the actuator to move to the spec position. (Start signal is not required)			
	TL	Torque limit selection signal	While this signal is ON, torque is limited by the value set by a parameter. The TLR signal turns of if torque has reached the specified value.			
	DCLR	Deviation counter clear signal	The position deviation counter is continuously cleared while this signal is ON.			
	PEND/INP	In position signal	This signal turns ON when the actuator has entered the positioning band after movemer actuator has exceeded the positioning band, PEND does not turn OFF, but INP does. PE INP can be swapped within parameters.			
	PM1 to PM256	Positioning complete signal	This signal is used to output the position number achieved at the completion of positionin (binary output)			
	HEND	Home return completion signal	This signal turns ON upon completion of home return.			
	ZONE1	Zone signal	This signal turns ON when the current actuator position has entered the range specified by the parameters.			
	PZONE	Position zone signal	Turns ON when the actuator moves into a position within the range of the target position dat that was set. PZONE can be used together with ZONE1, but PZONE is valid only durin movement to a specified position.			
	RMDS	Running mode status signal	This outputs the operation mode status.			
	*ALM	Controller alarm status signal	This signal remains ON while the controller is not in the alarm condition, and turns OFF when a alarm has occurred.			
	MOVE	Moving signal	Turns ON while the actuator is moving (home return), including when there is push force.			
	sv	Servo ON status signal	This signal turns ON when servo is ON.			
Output	*EMGS	Emergency stop status signal	This signal remains ON while the controller is not in the emergency stop mode, and turns OF once an emergency stop has been actuated.			
	MODES	Mode status signal	The mode signal input turns it ON when it goes into teaching mode. It turns OFF when it goes into normal mode.			
	WEND	Writing complete signal	This signal remains OFF after the controller has switched to the teaching mode. It turns ON upo completion of data write using the PWRT signal. If the PWRT signal is turned Off, this signal als turns OFF.			
	PE0 to PE6	Current position number signal	This signal turns ON after the controller has completed moving to the target position in the solenoid valve mode.			
	TLR	Torque limiting signal	This signal turns ON once the motor torque has reached the specified value in a condition wher torque is being limited by the TL signal.			
	LSO to LS2	Limit switch output signal	Each signal turns ON when the current actuator position has entered the positioning band befor or after the target position. If the actuator has already completed home return, these signals are output even before a movement command is issued or while the servo is OFF.			
	LOAD	Load output determination status signal	This signal turns ON once the motor torque has reached the specified value. (*PCON-C dedicated signal)			
	TRQS	Torque level status signal	Turns ON when the motor current reaches the threshold. (*PCON-CF dedicated signal)			

(Note) Signals with asterisks (*) are normally ON and OFF during operation.

oller

Oversland

Controller

Rod Type

Mini

Controlle Integrate

Table/Arm

Mini

Gripper/

Rotary Type

Linear Moto Type

Туре

Spiasn-Proc

Controllers

AIVIEC

ROBO

WIET .

ACEL

COFI

XSEL

Pulse Moto

Servo Mot

Servo Mot

Linear Mot

Slider Type

Mini

Roi

Standard

/FlatType

Gripper/ Rotary Type

Linear Motor Type

Type

Controllers

/AMEC

PSEP
/ASEP

NET ERC2

ACON

SCON

SSEL

Pulse Motor

Servo Motor (24V)

Servo Motor (230V)

Linear Motor

I/O Signal table

■ Positioner types (PCON-C / CA / CG / CF / CFA)

			Parameters (select PIO pattern)					
	 E		0	1	2	3	4	5
Pin	Classification		Positioning mode	Teaching mode	256-point mode	512-point mode	Solenoid Valve Mode 1	Solenoid Valve Mode 2
No.	ISSILLI	Positioning Points	64 points	64 points	256 points	512 points	7 points	3 points
	응	Zone signal	0	-	-	-	0	0
		P-zone signal	0	0	0	-	0	0
1A	24V				P	24		
2A	24V				P	24		
3A	_				N	C		
4A	_				N	C		
5A		IN0	PC1	PC1	PC1	PC1	ST0	ST0
6A		IN1	PC2	PC2	PC2	PC2	ST1	ST1 (JOG+)
7A		IN2	PC4	PC4	PC4	PC4	ST2	ST2 (-)
8A		IN3	PC8	PC8	PC8	PC8	ST3	-
9A		IN4	PC16	PC16	PC16	PC16	ST4	-
10A		IN5	PC32	PC32	PC32	PC32	ST5	-
11A		IN6	-	MODE	PC64	PC64	ST6	-
12A	Input	IN7	_	JISL	PC128	PC128	_	-
13A	IIIput	IN8	-	JOG+	-	PC256	-	-
14A		IN9	BKRL	JOG-	BKRL	BKRL	BKRL	BKRL
15A		IN10	RMOD	RMOD	RMOD	RMOD	RMOD	RMOD
16A		IN11	HOME	HOME	HOME	HOME	HOME	-
17A		IN12	*STP	*STP	*STP	*STP	*STP	-
18A		IN13	CSTR	CSTR/PWRT	CSTR	CSTR	_	_
19A		IN14	RES	RES	RES	RES	RES	RES
20A		IN15	SON	SON	SON	SON	SON	SON
1B		OUT0	PM1	PM1	PM1	PM1	PE0	LSO
2B		OUT1	PM2	PM2	PM2	PM2	PE1	LS1 (TRQS)
3B		OUT2	PM4	PM4	PM4	PM4	PE2	LS2 (-)
4B		OUT3	PM8	PM8	PM8	PM8	PE3	-
5B		OUT4	PM16	PM16	PM16	PM16	PE4	-
6B		OUT5	PM32	PM32	PM32	PM32	PE5	_
7B		OUT6	MOVE	MOVE	PM64	PM64	PE6	-
8B	Output	OUT7	ZONE1	MODES	PM128	PM128	ZONE1	ZONE1
9B	Jourpur	OUT8	PZONE	PZONE	PZONE	PM256	PZONE	PZONE
10B		OUT9	RMDS	RMDS	RMDS	RMDS	RMDS	RMDS
11B		OUT10	HEND	HEND	HEND	HEND	HEND	HEND
12B		OUT11	PEND	PEND/WEND	PEND	PEND	PEND	-
13B		OUT12	SV	SV	SV	SV	SV	SV
14B		OUT13	* EMGS	* EMGS	* EMGS	* EMGS	* EMGS	* EMGS
15B		OUT14	* ALM	* ALM	* ALM	*ALM	* ALM	* ALM
16B		OUT15	LOAD/TRQS	_	LOAD/TRQS	LOAD/TRQS	LOAD/TRQS	_
17B	-					IC		
18B	-					C		
19B	0V					N		
20B	0V				1	N		

(Note) The names of signals above inside () are functions before the unit returns home. (Note) Signals with asterisks (*) are normally ON, and OFF during operation.

■ Solenoid valve type (PCON-CY)

			Parameters (sele	ect PIO pattern)
	⊆		0	1
Pin	Classification		Solenoid valve mode 0	Solenoid valve mode 1
No.	issifi	Positioning Points	3 points	3 points
	් පී	Zone signal	-	-
		P-zone signal	ı	0
1	24V			
2	0V			
3		IN0	ST0	ST0
4	Input	IN1	ST1 (JOG+)	ST1 (JOG+)
5	Input	IN2	ST2 (RES)	ST2 (RES)
6		IN3	SON	SON
7		OUT0	LS0	PE0
8		OUT1	LS1 (TRQS)	PE1 (TRQS)
9	Output	OUT2	LS2 (-)	PE2 (-)
10	Output	OUT3	SV	PZONE
11		OUT4	HEND	HEND
12		OUT5	* ALM	* ALM

(Note) The names of signals above inside () are functions before the unit returns home. (Note) Signals with asterisks (*) are normally ON, and OFF during operation.

■ Pulse Train Type (PCON-PL/PO)

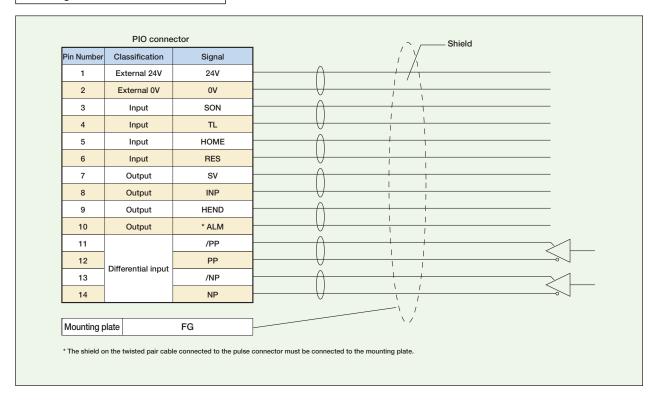
			Parameters (sele	ect PIO pattern)
	_ ⊆		0	1
Pin	catio		Standard mode	Push mode
No.	Classification	Positioning Points	-	-
	ස	Zone signal	-	-
		P-zone signal	ı	ı
1	24V			
2	0V			
3		IN0	SON	SON
4	Input	IN1	TL	TL
5	IIIput	IN2	HOME	HOME
6		IN3	RES	RES / DCLR
7		OUT0	SV	SV
8	Output	OUT1	INP	INP / TLR
9	Output	OUT2	HEND	HEND
10		OUT3	* ALM	* ALM
11			* PP	* PP
12] ,		PP	PP
13	Input		* NP	* NP
14	1		NP	NP

(Note) Signals with asterisks (*) are normally ON, and OFF during operation.

Pulse train input type wiring diagram

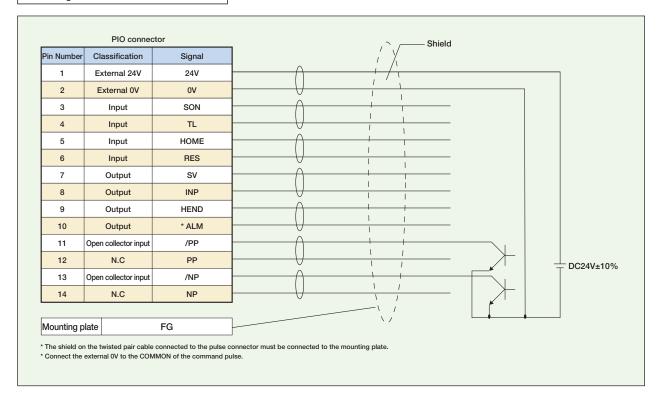
■ Differential Receiver Method (PCON-PL)

Max. input pulse frequency : Max. 200 kpps
Cable Length : Max. 10m



■ Open Collector Method (PCON-PO)

Max. input pulse frequency : Max. 60 kpps
Cable Length : Max. 2m



Slider Type

Mini

Olympiani

Integrated

Rod Type

Mini

Staridard

Table/Arm

Mini

Standard

Rotary Type

Type

Cleanroom Type

Splash-Proc

Controllers

/AMEC

AGEI

 \equiv

SCON

PSEL

ASEL

SSEL

XSEL

Pulse Moto

. ...

(24V)

Servo Mot (230V)

inear Mot

Controllers

PMEC
/AMEC
PSEP
/ASEP
ROBO
NET
ERC2
PCON
ACON
SCON
PSEL
ASEL

531 PCON

Command Pulse Input State

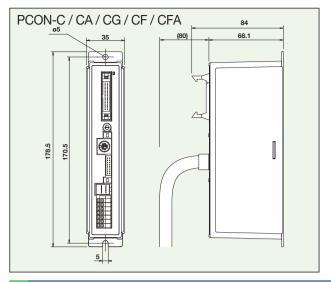
	Command pulse train state	Input terminal	During forward operation	During reversed operation
	Forward pulse train	PP•/PP	7.7.	
	Reversed pulse train	NP•/NP		
	The forward pulse t	rain causes the motor to rotate	forward, and the reverse pulse train causes the	motor to rotate in reverse.
logic	Pulse train	PP•/PP		
Negative logic	Symbols	NP•/NP	Low	High
Z	The command p	ulse is used for the amount of n	notor rotation, and the command symbol is use	d for rotational direction.
	A/D phase pulse train	PP•/PP		
	A/B phase pulse train	NP•/NP		
	An A/B phase pulse with a 90°	phase difference (multiplier is	4) is used to generate commands for the amour	nt of rotation and rotational direction.
	Forward pulse train	PP•/PP		
	Reversed pulse train	NP•/NP		
Positive logic	Pulse train	PP•/PP		
Positiv	Symbols	NP•/NP		Low
	A/B phase pulse train	PP•/PP		
	A D priase puise traili	NP•/NP		

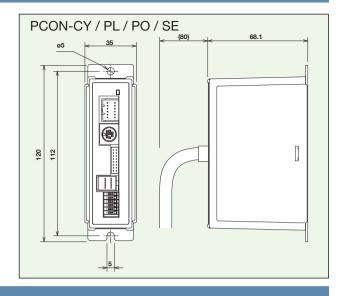
Table of specifications

Item	Specifications						
Controller type	CF / CFA	C / CA	CG	CY	PL	PO	SE
Connected actuator (*1)	RCP2-RA8C (R) RCP2-RA10C RCP2-HS8C (R) RCP3 / RCP2 series actuator (Note 1) RCP2W-SA16C						
Number of control axes	1-axis						
Operating method	Positioner type			Solenoid valve type	Pulse train input type		Serial communication type
Positioning Points	512 points			3 points	-		64 points
Backup memory	EEPROM						
I/O connector	40-pin connector			12-pin connector	40-pin connector		None
Number of I/O	16 input points/16 output points			4 input points/6 output points	4 input points/4 output points		None
I/O power	External supply DC24V±10%						_
Serial Communication	RS485 1ch						
Peripheral device communication cable	CB-PAC-PIO □□□			CB-PACY-PIO 🗆 🗆	CB-PACPU-PIO 🗆 🗆		CB-RCB-CTL002
Command pulse train input method	_				Differ ential line driver	Open collector	_
Max. input pulse frequency (Note 2)	— Мах. 200 kpps Мах. 60 kpps					_	
Position detection method	Incremental encoder						
Drive-source cutoff relay at emergency stop	Integrated			External			
Forced release of electromagnetic brake	Brake release switch ON/OFF ON/OFF terminal signal inside the power terminal for bra					ke release	
Input Supply Voltage	DC 24 V ± 10%						
Power Supply Capacity	Max. 6A ("2) 2.2A max.						
Dielectric strength voltage	DC500V 1MΩ						
Vibration resistance	XYZ directions 10 to 57Hz, One side amplitude: 0.035mm (continuous), 0.075mm (intermittent) 58 to 150Hz, 4.9m/s² (continuous), 9.8m/s² (intermittent)						
Ambient operating temperature	0~40°C						
Ambient operating humidity	10 - 95% (non-condensing)						
Ambient operating atmosphere	Without corrosion gases						
Protection class	IP20						
Weight	Approx. 320g Approx. 300g Approx. 130g						

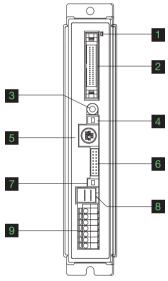
(Note 1) The medium-thrust type (RABC/RABR), high-thrust type (RA10C), high-speed type (HS8C/HS8R) and waterproof type (RCP2W-SA16) cannot be operated.
(Note 2) With the open collector specification, keep the maximum input frequency to 60 kpps or below to prevent malfunction. For applications exceeding 60kpps, use the differential line driver.
(11) RCP2-RABC/RABR/RA10C/HSBC/HSBR and RCP2W-SA16C can only operate with PCON-CF(A).
Other RCP2 / RCP3 Series actuators can be operated with C(A) / CG / CY / PL / PO / SE.
(22) Inrush current peak: 10A

External Dimensions

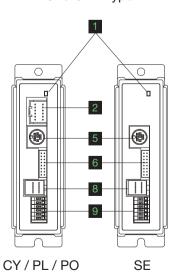




Name of Each Part



C / CA / CG / CF / CFA Type



Type

Type
* PIO connectors are:
CY: 12 pin
PL/PO: 14 pin

1 LED display

These LED colors indicate the condition of the controller.

Lit (green) Servo ON Lit (red) Alarm activated Unlit Servo OFF Blinking (green) Automatic servo-off Emergency stop

2 PIO connector

Connects a cable for communicating with a PLC or other external equipment.

3 Address-setting rotary switch

This switch sets the addresses for controllers used when the unit is linked with other controllers.

4 Mode switch

Switches between manual teaching operations (MANU) and automatic operations (AUTO).

Operation details

MANU	I/O commands are not accepted. Data can be written from a teaching pendant or PC.
AUTO	I/O commands are valid, while operations from a teaching pendant or PC are not accepted. However, monitoring is possible.

5 SIO connector

Connects a teaching pendant, PC cable, controller, or gateway unit to a controller.

Operation details

Pin No.	Signal	Name	Remarks
1	SGA	Positive side, RS485 differential signal	
2	SGB	Negative side, RS485 differential signal	
3	5V	+5V output	For RS232/485 conversion
4	ENBL	Enable signal	
5	EMGA	EMG line connection to external equipment	
6	24V	24-V power for T/P	For T/P
7	0V	GND	
8	EMGB	EMG line connection to external equipment	
9	0V	EMG line connection to external equipment ground	

6 Encoder brake connector

Connects the encoder/brake cable for the actuator.

7 Brake release switch

This switch forces the brake to release.

8 Motor connector

Connects the motor cable for the actuator.

9 Power terminal block

Main power for controller(s), emergency stop

C / CA / CG / CF / CFA type

Terminal number	Signal	Name
7	S1	External drive-source cutoff for TP_
6	S2	EMG terminal
5	MPI	Motor drive-source cutoff terminal
4	MPO	Motor drive-source cutoff terminal
3	24V	Positive side of the 24-V power supply
2	0V	Negative side of the 24-V power supply
1	EMG	EMG signal (application of 24 V)
1	EMG	EMG signal (application of 24 V)

CY / PL / PO / SE type

	1070L type	
Terminal number	Signal	Name
6	BK	BK release
5	MPI	Motor drive-source cutoff terminal
4	MPO	Motor drive-source cutoff terminal
3	24V	Positive side of the 24-V power supply
2	0V	Negative side of the 24-V power supply
1	EMG	EMG signal (application of 24 V)

Slider Type

Mini

Standar

Controller Integrated

Rod Type

Mini

Controllers Integrated

Table/Arm /FlatType

Standard

Rotary Type

Linear Motor

Cleanroom Type

Splash-Proc

Controllers

PMEC /AMEC

ROBO

ERC2

FCON

PSFI

ASEL

SSEL

Servo Mot

Servo Moto (230V)

Linear Mot

PMEC (AMEC PSEP PASE)
ROBO NET ERC2
PCON
ACON
SCON
PSEL
SSEL

Option

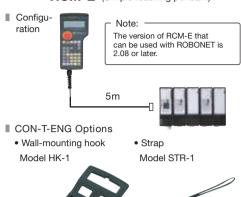
Teaching Pendant

Features This is a teaching device that provides information on functions such as the position input, test runs, and monitoring.

■ Model **CON-PT-M-ENG** (Touch panel teaching pendant)

CON-T-ENG (Standard type)

RCM-E (Simple teaching pendant)





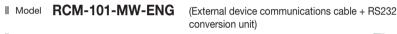
Specifications

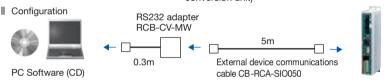
- opcomeditions			
Item	CON-PT-M-ENG	CON-T-ENG	RCM-E
Data input	0	0	0
Actuator motion	0	0	0
Ambient Operating temp/humidity	Temp: 0~40	°C; Humidity: 85% RI	H or below
Ambient Operating atmosphere	Ambient Operating No corrective gases. Especially no dust		no dust.
Protection class	IP40	IP54	_
Weight	Approx. 750g	Approx. 400g	Approx. 400g
Cable length		5m	
Display	3-color LED touch panel with backlight	20 char. × 4 lines LCD display	16 char. × 2 lines LCD display

For PCON-CA/CFA please choose more functional and lighter teaching pendant CON-PTA-C-ENG with 16-bit color LED touch panel (IP40).

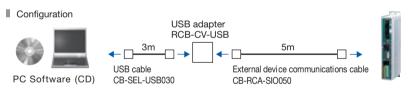
PC Software (Windows Only)

Features A startup support software for inputting positions, performing test runs, and monitoring. With enhancements for adjustment functions, the startup time is shortened.





■ Model RCM-101-USB-ENG (External device communications cable + USB adapter + USB cable)

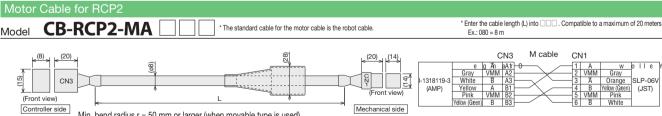


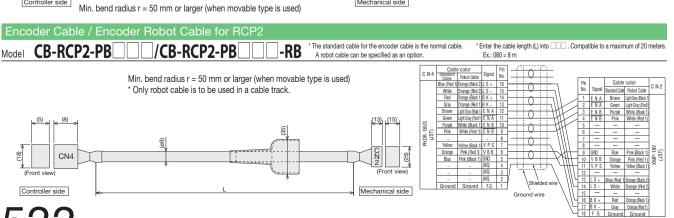


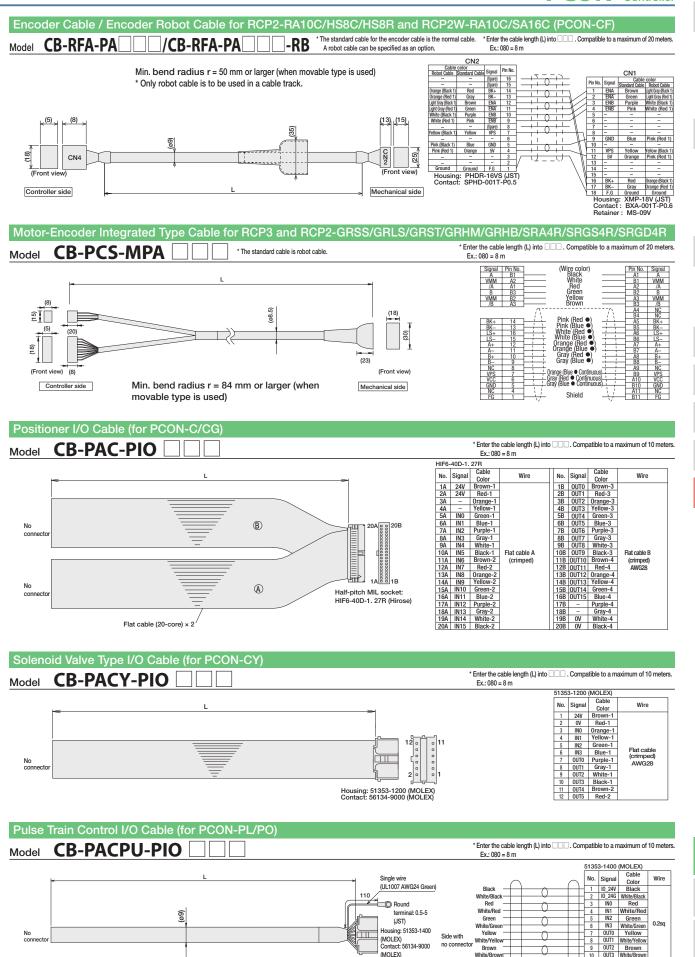


Spare Parts

When you need spare parts after purchasing the product, such as when replacing a cable, refer to the list of models below.







(60)

0 0 \cap **534**

0.2sq

0

0

0

White/Gree Yellow White/Yello Brown White/Brov Blue White/Blu Gray White/Gra

terminal: 0.5-5 (JST)

Housing: 51353-1400

(MOLEX) Contact: 56134-9000

(MOLEX)

Type

Mini

Matandard

Antrollers

Agrated

Mini

Matandard

Mini

Matandard

Mini

Matandard

Mata

Controllers

PMEC
/AMEC

PSEP
/ASEP

ROBO
NET

ERC2

PCON

ACON

SCON

PSEL

ASEL

SSEL

PCON-ABU ACON-ABU

Simple absolute unit For PCON/ACON/PSEL controller



Features

When attached to a ACON/PCON-C/-CG/-CY/-SE or PSEL-C (incremental) controller, the data from the encoder is retained even after the controller's main power has been turned OFF, allowing you to use it as an absolute model, which does not require homing at power-up.

* Cannot be used for ACON/PCON-PL or PO types.

Caution:

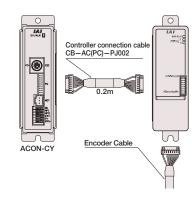
The encoder type for the actuators and controllers with a simple absolute unit is "I" (incremental) and not "A" (absolute).

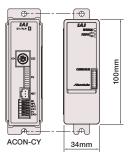
Having the same size as the CY and SE compact controllers (W 34mm × H 100mm × D 75.3mm), it can be installed in a small space.

Encoder data can be retained up to 20 days.

Caution:

An error will occur if the actuator's slider or rod is moved faster than the fixed speed, while the encoder data is retained. Check the specifications table on page 546 for the allowable speed (rotations).





Dedicated controllers and software

Controller	PCON-C/CG/CY/SE	ACON-C/CG/CY/SE	PSEL-C
Absolute unit	PCON-ABU	ACON-ABU	PCON-ABU
PC software	RCM-101-MW/USE	3-EU, V6.0 ot later	IA-101-X-MW/USB, V7.4 or later

Connectable actuator

The simple absolute unit is available for the following actuators. (Models other than following models are not available.)

Corresponding series	Reference
RCP3 series	Corresponding to all models
RCP2 series	Corresponding to all models other than HS8C/HS8R/RA10C.
RCP2 CR series	Corresponding to all models other than HS8C.
RCP2 W series	Corresponding to all models other than SA16C/RA10C.
RCA2 series	Corresponding to all models
RCA series	Corresponding to all models
RCA CR series	Corresponding to all models
RCA W series	Corresponding to all models

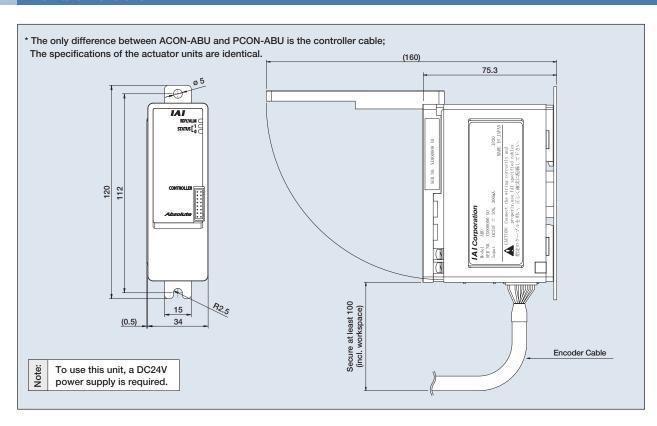
Specifications

Item		Deta	ails	
Model	ACON-ABU PCON-ABU			
	ACON - C /	CG / CY / SE	PCON - C / CG / CY /	/ SE ; PSEL - C
Connecting controller	When choosing a co	ntroller to connect with the simple abso	lute unit, add	
	Caution: "-ABU" to the end of	the controller model designation.	Ex. ACON - C - 20I - NP - 2 - 0 - ABU	
Connecting actuator	RCA2 /	RCA series	RCP3/RCP2 se	ries (* 1)
Controller connection cable (included accessory)	Model CB - A	C - PJ002 (0.2m)	Model CB - PC - PJ00	2 (0.2m)
Simple absolute unit	Model ABU			
Backup battery (included accessory)	Model AB - 7 (Ni - MH battery / Life: approx. 3 years)			
Power supply voltage	DC24V±10%			
Power supply current	Max. 300 mA			
Ambient operating temperature	0 to 40°C (approx. 20°C is preferred)			
Ambient operating humidity		95% RH or lower (non-condensing)	
Ambient operating atmosphere	Without corrosive gases, without dust			
Weight		330)g	
Allowable encoder RPM during data retention (*2)	800 rpm	400 rpm	200 rpm	100 rpm
Position data retaining time (*2)	120h 240h 360h 480h		480h	

^(*1) Cannot be used with RCP2-RA10C/HS8C/HS8R/RCP2W-RA10C/SA16C

(800rpm ightarrow 120h / 400rpm ightarrow 240h / 200rpm ightarrow 360h / 100rpm ightarrow 480h)

External dimensions

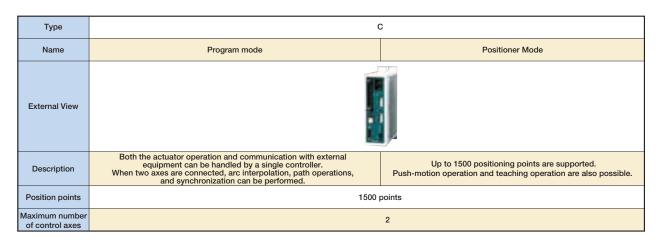


^(*2) Position data retention time changes with the allowable encoder RPMs during data retention.

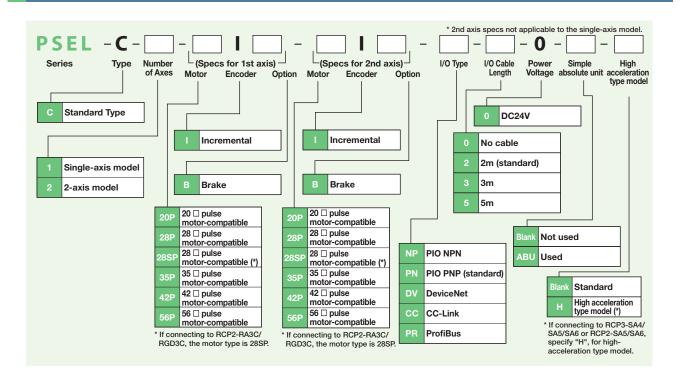


List of models

Program controller for operating RCP3/RCP2 series actuators. Various control functions are combined into a single unit.

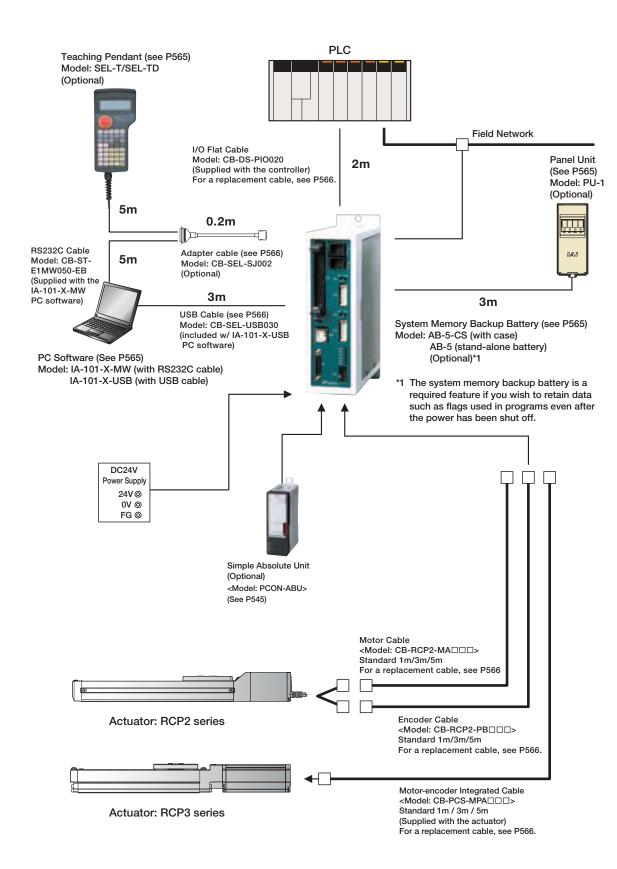


Model



Mini
tandard
trollers
egrated
Rod
Type
Mini
Standard
ntrollers
tegrated
Table/Arm
/Flat Type PMEC /AMED /

System configuration



Slider

Mini

Standard

Rod

Time:

Controllers

Table/Arm /Flat Type

Mini

Gripper/

7 7 7

Cleanroom

Splash-Pro

O-utus II-us

PMEC

/ASEP

ROBO NET

ERUZ

PCUN

SCUN

ASEL

SSEL

XSEL

Pulse Moto

Servo Mot

Servo Mot (230V)

Linear Mot

PIASEL

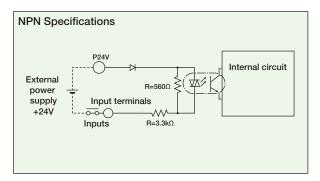
ASEL

XSEL

I/O Specifications

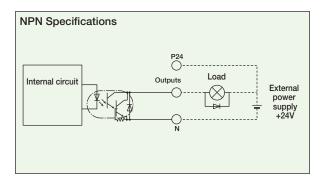
■ Input section External input specifications

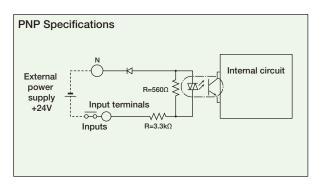
Item	Specifications	
Input voltage	DC24V ±10%	
Input current	7mA / circuit	
ON/OFF voltage	ON voltage (min.)	NPN: DC16V/PNP: DC8V
ON/OFF voilage	OFF voltage (max.)	NPN: DC5V / PNP: DC19V
Isolation method	Photocoupler	

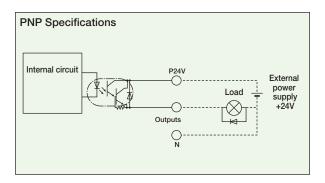


■ Output section External output specifications

Item	Specifications
Load Voltage	DC24V
Max. load current	100mA / 1 point 400mA / 8 points in total
Residual voltage (Max.)	Max 0.1mA / 1 point
Isolation method	Photocoupler







Explanation of I/O Signal Functions

Two modes can be selected for the SSEL controller: "Program Mode," in which the actuator is operated by entering a program, and "Positioner Mode," in which PLC signals are received and the actuator is moved to designated positions. The Positioner Mode has the five input patterns listed below to enable various applications.

■ Control Function by Type

Operation	on mode	Features
Progra	m mode	Various operations including linear/arc interpolation operation, path operation ideal for coating processes, etc., archmotion operation and palletizing operation can be performed using the Super SEL language that lets you program complex control actions using simple commands.
	Standard mode	This is the basic mode from which operations can be conducted by designating position numbers and inputting the start signal. Push-motion operation and teaching operation are also possible.
	Product Change mode	Multiple work parts of the same shape with slightly different hole positions can be handled using movement commands to the same position numbers by simply changing the product type number.
Positioner mode	2-axis independent mode	With a 2-axis controller, each axis can be commanded and operated separately.
	Teaching mode	In this mode, the slider (rod) moves based on an external signal, when the actuator is stopped, the current location can be registered as position data.
	DS-S-C1 Compatible mode	If you were using a DS-S-C1 controller, you can replace it with a PSEL controller without having to change the host programs. *This mode does not ensure actuator compatibility.



Explanation of I/O Signal Functions

Program mode

in Number	Classification	Port No.	Program Mode	Functions	NPN* Wiring Diagram
1A	P24		24V input	Connect 24V.	
1B		016	Select Program No. 1		•••
2A		017	Select Program No. 2		•
2B] [018	Select Program No. 4	0-1	•••
3A		019	Select Program No. 8	Selects the program number to start.	•
3B	020	Select Program No. 10	(Input as BCD values to ports 016 to 022)	•	
4A		021	Select Program No. 20		•
4B		022	Select Program No. 40		•••
5A		023	CPU reset	Resets the system to the same state as when the power is turned on.	•
5B		000	Start	Starts the program selected by ports 016 to 022.	•
6A] [001	General-purpose input		• •
6B] [002	General-purpose input		•
7A	Input	003	General-purpose input		•
7B	Input	004 005	General-purpose input		•
8A			General-purpose input		•••
8B		006	General-purpose input		•
9A		007	General-purpose input		• •
9B		800	General-purpose input	Waits for external input via program instructions.	•
10A		009	General-purpose input		•
10B		010	General-purpose input		•
11A		011	General-purpose input		•
11B		012	General-purpose input		•
12A		013	General-purpose input		•
12B		014	General-purpose input		•
13A		015	General-purpose input		
13B		300	Alarm	Turns off when an alarm occurs. (Contact B)	
14A		301	Ready	Turns on when the controller starts up normally and is in an operable state.	•5•
14B		302	General-purpose output		- T
15A	Output	303	General-purpose output		
15B	Juipui	304	General-purpose output	These outputs can be turned ON/OFF as desired via program instructions.	
16A	305		General-purpose output		
16B		306	General-purpose output		
17A		307	General-purpose output		
17B	N N		0V input	Connect 0V.	

Positioner mode

Pin Number	Classification	Port No.	Positioner Standard Mode	Functions	NPN* Wiring Diagram
1A	P24		24V input	Connect 24V.	
1B		016	Position input 10		
2A		017	Position input 11	Specifies the position numbers to move to, using port number 007 to 019.	
2B		018	Position input 12	The number can be specified either as BCD or binary.	
3A	ĺ	019	Position input 13		
3B		020	-	-	
4A] [021	=	-	
4B]	022	=	-	
5A		023	Error reset	Resets minor errors. (Severe errors require a restart.)	
5B		000	Start	Starts moving to selected position.	
6A] [001	Home return	Performs home return.	-
6B		002	Servo ON	Switches between Servo ON and OFF.	
7A	l [003	Push	Performs a push motion.	
7B	Input	004	Pause	Pauses the motion when turned OFF, and resumes when turned ON.	
8A		005	Cancel	Stops the motion when turned OFF. The remaining motion is canceled.	
8B		006	Interpolation settings	When this signal is turned ON for a 2-axis model, the actuator moves by linear interpolation.	—
9A		007	Position input 1		-
9B		800	Position input 2		
10A		009	Position input 3	Specifies the position numbers to move to, using ports 007 to 019.	
10B		010	Position input 4	The number can be specified either as BCD or binary.	•••
11A		011	Position input 5	The number can be specified either as BCD or billary.	
11B		012	Position input 6		
12A		013	Position input 7		
12B		014	Position input 8		—
13A		015	Position input 9		
13B		300	Alarm	Turns off when an alarm occurs. (Contact B)	→ 55 →
14A		301	Ready	Turns on when the controller starts up normally and is in an operable state.	
14B		302	Positioning complete	Turns on when the movement to the destination is complete.	-FOT-
15A	Output	303	Home return complete	Turns on when the home return operation is complete.	
15B	Output	304	Servo ON output	Turns on when servo is ON.	
16A		305	Pushing complete	Turns on when a push motion is complete.	
16B		306	System battery error	Turns on when the system battery runs low (warning level).	→ 55 →
17A		307	-		
17B	N		0V input	Connect 0V.	

Cleanroom
Type

Splash-Proof

Controllers

PMEC
/AMEC
PSEP
/ASEP

ROBO
NET

ERC2

PCON

ACON

SCON

PSEL

ASEL

XSEL

Explanation of I/O Signal Functions

Positioner, Product-Type Change Mode

Pin Number	Classification	Port No.	Positioner Product Type Change Mode	Functions	NPN* Wiring Diagram
1A	P24		24V input	Connect 24V.	
1B		016	Position/Product Type Input 10		
2A] [017	Position/Product Type Input 11		
2B	1	018	Position/Product Type Input 12	Specifies the position numbers to move to, and the product type numbers,	—
3A	1 1	019	Position/Product Type Input 13	using ports 007 to 022.	
3B] [020	Position/Product Type Input 14	The position and product type numbers are assigned by parameter settings.	—
4A	1	021	Position/Product Type Input 15	The number can be specified either as BCD or binary.	
4B]	022	Position/Product Type Input 16		
5A] [023	Error reset	Resets minor errors. (Severe errors require a restart.)	
5B]	000	Start	Starts moving to selected position.	
6A] [001	Home return	Performs home return.	
6B] [002	Servo ON	Switches between Servo ON and OFF.	
7A] Innut	003	Push	Performs a push motion.	
7B	Input	004	Pause	Pauses the motion when turned OFF, and resumes when turned ON.	—
8A] [005	Cancel	Stops the motion when turned OFF. The remaining motion is canceled.	
8B] [006	Interpolation settings	When this signal is turned ON for a 2-axis model, the actuator moves by linear interpolation.	—
9A] [007	Position/Product Type Input 1		
9B		800	Position/Product Type Input 2		—•
10A] [009	Position/Product Type Input 3	Specifies the position numbers to move to, and the product type numbers,	
10B] [010	Position/Product Type Input 4	· · · · · · · · · · · · · · · · · · ·	—
11A		011	Position/Product Type Input 5	using ports 007 to 022.	—
11B		012	Position/Product Type Input 6	ne position and product type numbers are assigned by parameter settings. The number can be specified either as BCD or binary.	—
12A] [013	Position/Product Type Input 7	The number can be specified either as BCD or binary.	
12B] [014	Position/Product Type Input 8		•••
13A		015	Position/Product Type Input 9		
13B]	300	Alarm	Turns off when an alarm occurs. (Contact B)	-
14A] [301	Ready	Turns on when the controller starts up normally and is in an operable state.	
14B		302	Positioning complete	Turns on when the movement to the destination is complete.	
15A	Output	303	Home return complete	Turns on when the home return operation is complete.	
15B	Output	304	Servo ON output	Turns on when servo is ON.	-
16A] [305	Pushing complete	Turns on when a push motion is complete.	
16B]	306	System battery error	Turns on when the system battery runs low (warning level).	
17A		307	-	-	
17B	N		0V input	Connect 0V.	

Positioner, 2-axis Independent Mode

in Number	Classification	Port No.	Positioner 2-axis Independent Mode	Functions	NPN* Wiring Diagram
1A	P24		24V input	Connect 24V.	
1B		016	Position input 7		•
2A		017	Position input 8	Specifies the position numbers to move to, using ports 010 to 022.	
2B		018	Position input 9	The position numbers on the 1st and 2nd axes are assigned by	•
3A		019	Position input 10	parameter settings.	
3B		020	Position input 11	The number can be specified either as BCD or binary.	•
4A		021	Position input 12		
4B		022	Position input 13		•
5A] [023	Error reset	Resets minor errors. (Severe errors require a restart.)	•••
5B		000	Start 1	Starts the movement to the selected position number on the 1st axis.	•
6A		001	Home return 1	Performs home return on the 1st axis.	
6B]	002	Servo ON 1	Switches between servo ON and OFF for the 1st axis.	•
7A	lanut [003	Pause 1	Pauses the motion on 1st axis when turned OFF, and resumes when turned ON.	
7B	Input	004	Cancel 1	Cancels the movement on the 1st axis.	•
8A] [005	Start 2	Starts the movement to the selected position number on the 2nd axis.	•••
8B	[006	Home return 2	Performs home return on the 2nd axis.	•
9A		007	Servo ON 2	Switches between servo ON and OFF for the 2nd axis.	•••
9B		800	Pause 2	Pauses the motion on 2nd axis when turned OFF, and resumes when turned ON.	•
10A		009	Cancel 2	Cancels the movement on the 2nd axis.	•••
10B		010	Position input 1	Specifies the position numbers to move to, using ports 010 to 022.	•
11A		011	Position input 2	The position numbers on the 1st and 2nd axes are assigned by	•
11B		012	Position input 3	parameter settings.	•
12A		013	Position input 4	The number can be specified either as BCD or binary.	•••
12B		014	Position input 5	The number can be specified either as BOD of billary.	•
13A		015	Position input 6		
13B		300	Alarm	Turns off when an alarm occurs. (Contact B)	◆ O +
14A		301	Ready	Turns on when the controller starts up normally and is in an operable state.	
14B		302	Positioning complete 1	Turns on when the movement to the specified position on the 1st axis is complete.	-FÖ
15A	Output	303	Home return complete 1	Turns on when home return on the 1st axis is complete.	
15B	Output	304	Servo ON output 1	Turns on when the 1st axis is in a servo ON state.	-FO
16A		305	Positioning complete 2	Turns on when the movement to the specified position on the 2nd axis is complete	
16B		306	Home return complete 2	Turns on when home return on the 2nd axis is complete.	-FO
17A		307	Servo ON output 2	Turns on when the 2nd axis is in a servo ON state.	
17B	l N		0V input	Connect 0V.	

*Note: With regard to PNP wiring diagram, please refer to PSEL manual.

Explanation of I/O Signal Functions

Positioner, Teaching Mode

Pin Number	Classification	Port No.	Positioner Teaching Mode	Functions	NPN* Wiring Diagran
1A	P24		24V input	Connect 24V.	
1B		016	JOG- on 1st axis	While the signal is on, the 1st axis is moved in the - (negative) direction.	
2A] [017	JOG+ on 2nd axis	While the signal is on, the 2nd axis is moved in the + (positive) direction.	
2B] [018	JOG- on 2nd axis	While the signal is on, the 2nd axis is moved in the - (negative) direction.	
3A] [019	Specify inching (0.01mm)		
3B] [020	Specify inching (0.1mm)	Specifies how much to move during inching.	
4A] [021	Specify inching (0.5mm)	(Total of the values specified for ports 019 to 022)	
4B] [022	Specify inching (1mm)		
5A] [023	Error reset	Resets minor errors. (Severe errors require a restart.)	
5B] [000	Start	Starts moving to selected position.	
6A] [001	Servo ON	Switches between Servo ON and OFF.	
6B] [002	Pause	Pauses the motion when turned OFF, and resumes when turned ON.	
7A] ,, [003	Position input 1		
7B	Input	004	Position input 2		
8A	1 [005	Position input 3		
8B]	006	Position input 4	D-+- 000 +- 010 d +it -thiti	
9A	1 [007	Position input 5	Ports 003 to 013 are used to specify the position number to move, and	
9B] [008	Position input 6	the position number for inputting the current position.	
10A] [009	Position input 7	- When the teaching mode setting on port 014 is in the ON state, the	
10B] [010	Position input 8	current value is written to the specified position number.	
11A	1 [011	Position input 9		
11B] [012	Position input 10		
12A] [013	Position input 11		
12B] [014	Teaching mode setting	-	
13A		015	JOG+ on 1st axis	While the signal is on, the 1st axis is moved in the + (positive) direction.	N. 1
13B		300	Alarm	Turns off when an alarm occurs. (Contact B)	- ₹8
14A] [301	Ready	Turns on when the controller starts up normally and is in an operable state.	
14B		302	Positioning complete	Turns on when the movement to the destination is complete.	
15A	Output	303	Home return complete	Turns on when the home return operation is complete.	
15B	Output	304	Servo ON output	Turns on when servo is ON.	
16A] [305	_	_	
16B] [306	System battery error	Turns on when the system battery runs low (warning level).	-
17A		307	_	_	
17B	N		0V input	Connect 0V.	

Positioner, DS-S-C1 Compatible Mode

Pin Number	Classification	Port No.	Positioner DS-S-C1 Compatible Mode	Functions	NPN* Wiring Diagram
1A	P24		24V input	Connect 24V.	
1B		016	Position No. 1000	(Same as ports 004 through 015)	
2A] [017	-	-	
2B		018	-	-	
3A] [019	=	-	
3B] [020	=	-	
4A] [021	_	-	
4B		022	-	-	
5A] [023	CPU reset	Resets the system to the same state as when the power is turned on.	
5B		000	Start	Starts moving to selected position.	
6A] [001	Hold (Pause)	Pauses the motion when turned ON, and resumes when turned OFF.	•••
6B] [002	Cancel	Stops the motion when turned ON. The remaining motion is canceled.	
7A]	003	Interpolation settings	When this signal is turned ON for a 2-axis model, the actuator moves by linear interpolation.	•••
7B	Input	004	Position No. 1		
8A] [005	Position No. 2		
8B] [006	Position No. 4		
9A] [007	Position No. 8		
9B] [800	Position No. 10	D-+- 004 thus and 040 and the second to second the second	
10A] [009	Position No. 20	Ports 004 through 016 are used to specify the position number to move.	
10B] [010	Position No. 40	The numbers are specified as BCD.	
11A		011	Position No. 80		
11B] [012	Position No. 100		
12A] [013	Position No. 200		•••
12B] [014	Position No. 400		•
13A	<u>]</u> [015	Position No. 800		N
13B		300	Alarm	Turns off when an alarm occurs. (Contact A)	
14A] [301	Ready	Turns on when the controller starts up normally and is in an operable state.	
14B] [302	Positioning complete	Turns on when the movement to the destination is complete.	
15A	Output	303	_	-	
15B	Jourput	304	-	-	- O
16A] [305	_	_	-
16B] [306	System battery error	Turns on when the system battery runs low (warning level).	
17A		307	_	-	
17B	N		0V input	Connect 0V.	

PSEL **562**

Slider Type

Mini

Standard

Rod Tyne

Mini

Controllers

Table/Arm /Flat Type

Mini

Gripper/ Rotary Type

Linear Moto

. . ..

DMEC

PSEP

ROBO NET

ERC2

PCON

ACON

30014

SSEL

YOEL

Pulse Moto

Servo Mot

Servo Moto (230V)

Linear Mot

PMEC /AMEC /AMEC /AMEC /AMEC /AMEC /AMEC /AMEC /AMEC /AMED /

Table of specifications

	Item	Specifications		
	Connected actuator	RCP2/RCP3 series actuator (Note 1)		
Suc	Input voltage	DC24V ±10%		
atic	Power Supply Capacity	Control power (Max. 1.2A) + Motor power (See the table below)		
ific	Dielectric strength voltage	DC500V 10MΩ or higher		
bec	Withstand voltage	AC500V 1 min.		
တ	Rush current	Max. 30A		
Basic Specifications	Vibration resistance	XYZ directions 10 to 57Hz, One side amplitude: 0.035mm (continuous), 0.075mm (intermittent) 58 to 150 Hz 4.9 m/s² (continuous), 9.8 m/s² (intermittent)		
_	Maximum total output of connected axis	-		
ol atio	Position detection method	Incremental encoder		
Control	Speed setting	From 1mm/s. The maximum limit varies depending on the actuator.		
Control specification	Acceleration setting	From 0.01G. The maximum limit varies depending on the actuator.		
κ	Operating method	Program operation / Positioner operation (switchable)		
	Programming language	Super SEL language		
	Number of programs	64 programs		
Ē	Number of program steps	2000 steps		
Program	Number of multi-tasking programs	8 programs		
Pro	Positioning Points	1500 points		
	Data memory device	FLASHROM (A system-memory backup battery can be added as an option)		
	Data input method	Teaching pendant or PC software		
	Number of I/O	24 input points / 8 output points (NPN or PNP selectable)		
Б	I/O power	Externally supplied 24VDC ± 10%		
cati	PIO cable	CB-DS-PIO □□□ (supplied with the controller)		
Communication	Serial communications function	RS232C (Half-pitch connector) / USB connector		
E	Field Network	DeviceNet, CC-Link, ProfiBus		
Ö	Motor Cable	RCP2:CB-RCP2-MA 🔲 🗆 (Max. 20m) / RCP3: CB-PCS-MPA 🖂 🖂 (Max. 20m)		
	Encoder cable	RCP2:CB-RCP2-PA . (Max. 20m) / RCP3: see motor cable (dual motor-encoder cable)		
<u>s</u>	Protection function	Motor driver temperature check, Encoder open-circuit check Soft limit over, system error, battery error, etc.		
盲교	Ambient operating humidity and temperature	0 to 40°C 10 to 95% (non-condensing)		
General specifications	Ambient atmosphere	Free from corrosive gases. In particular, there shall be no significant powder dust.		
Ge	Protection class	IP20		
g	Weight	Approx. 450g		
	External dimension	43 mm (W) x 159 mm (H) x 110 mm (D)		

(Note 1) Cannot operate High-Thrust type (RA10C), High-Speed type (HS8C/HS8R), or Waterproof type (RCP2W-SA16).

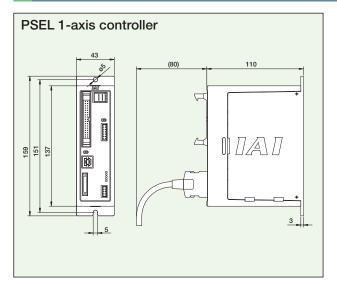
		1-Axis spe	ecifications	2-Axis specifications		
Motorpower	Motor type	Rated	Max.(Note 3)	Rated	Max.(Note 3)	
supply Capacity (Note2)	20P, 28P, 28SP motor	0.4A	2.0A	0.8A	4.04	
	35P, 42P, 56SP motor	1.2A		2.4A	4.0A	

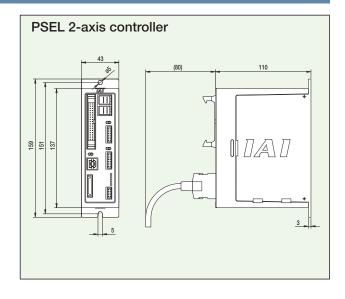
(Note 2) For both 1-axis and 2-axis specifications, approx. 30A inrush current flows for 5 ms when the control power supply is turned on.

(Note 3) After Servo ON, excitation detection is performed. In that case, the current is maximized. (Approx. 100 msec)

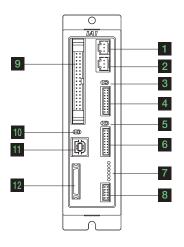
However, if motor drive power supply is turned on after a shut-down, approx. 6.0A and approx. 12.0A current flows to axis-1 and axis-2 respectively. (Approx. 1 to 2 msec)

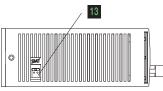
Exterior dimensions

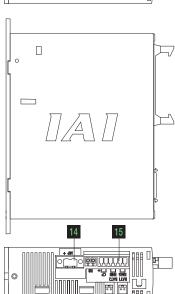




Name of Each Part







1 Motor connector for axis 1

Connects the motor cable of the axis 1 actuator.

2 Motor connector for axis 2

Connects the motor cable of the axis 2 actuator.

3 Brake switch for axis 1

This switch is used to release the axis brake. Setting it to the left position (RLS side) forcibly releases the brake, while setting it to the right position (NOM side) causes the controller to automatically control the brake.

4 Encoder connector for axis 1

Connect the encoder cable of the axis 1 actuator.

5 Brake switch for axis 2

This switch is used to release the axis brake. Setting it to the left position (RLS side) forcibly releases the brake, while setting it to the right position (NOM side) causes the controller to automatically control the brake.

6 Encoder connector for axis 2

Connect the encoder cable of the axis 2 actuator.

7 Status indicator LEDs

These LEDs are used to indicate the operating condition of the controller.

The LED status indicators are as follows:

PWR Power is input to controller.

RDY The controller is ready to perform program

operation.

ALM The controller is abnormal. **EMG**

An emergency stop is actuated and the drive

source is cut off. The axis 1 actuator servo is on.

SV1

SV2 : The axis 2 actuator servo is on.

8 Panel unit connector

A connector for the panel unit (optional) that displays the controller status and error codes.

9 I/O Connector

A connector for interface I/Os.

34-pin flat cable connector for DIO (24IN/8OUT) interface.

I/O power is also supplied to the controller via this connector (Pin No. 1 and No. 34).

10 Mode switch

This switch is used to specify the running mode of the controller. The left position indicates the MANU (manual operation) mode, while the right position indicates the AUTO (automatic operation) mode. Teaching can only be performed in manual operation, and automatic operation using external I/Os is not possible in the MANU mode.

11 USB connector

A connector for PC connection via USB. If the USB connector is connected, the TP connector is disabled and all communication inputs to the TP connector are cut off.

12 Teaching pendant connector

A half-pitch I/O 26-pin connector that connects a teaching pendant when the running mode is MANU. A special conversion cable is needed to connect a conventional D-sub. 25-pin connector.

13 System-memory backup battery

If you wish to retain the various data recorded in the SRAM of the controller even after the power is cut off, connect the necessary battery to this connector. This battery is installed externally to the unit. The controller does not come standard with the battery (Option).

14 Motor power input connector

This connector is used to input the motor power. It consists of a 2-pin, 2-piece connector by Phoenix Contact.

15 Control power/System input connector

This connector is used to connect the control power input, emergency stop switch, and enable switch. It consists of a Phoenix Contact 6-pin 2-piece connector.

PMEC
/AMEC

PSEP
/ASEP

ROBO
NET

ERC2

PCON

ACON

SCON

PSEL

ASEL

tandard

ntrollers
tegrated

Rod
Type

Mini

Standard

ntrollers
tegrated

PMEC / AMEC / AM

Option

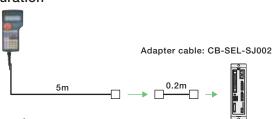
■Teaching Pendant

■ Features This is a teaching device that provides information on functions such as position input, test runs, and monitoring.

Model

Model	Description
SEL-T-J	Standard type with adapter cable
SEL-TD-J	Equipped with a deadman switch and adapter cable

Configuration



SEL-T option

• Wall-mounting hook • Strap Model HK-1 Model STR-1



55.0

Specifications

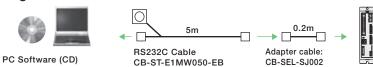
- opcomouncino				
Item	SEL-T-J	SEL-TD-J		
3-position Enable Switch	No	Yes		
ANSI/UL standards	Non-compliant	Compliant		
CE mark	Compliant			
Display	20 char.	k 4 lines		
Ambient Operating Temp./Humidity	0~40°C 10~90% RH (non-condensing)			
Protective structure	IP54			
Weight	Approx. 0.4kg (not incl. cable)		

■PC Software (Windows Only)

■ Features A startup support software for inputting programs/positions, performing test runs, and monitoring. More functions have been added for debugging, and improvements have been made to shorten the start-up time.

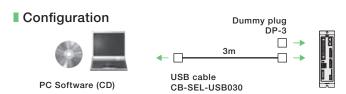
IA-101-X-MW-J (with RS232C cable + adapter cable) Model IA-101-X-MW (with RS232C cable)

Configuration





IA-101-X-USB (with USB cable) Model

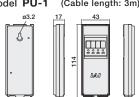


Note: -Only versions 7.0.0.0 and later can

Panel Unit

Display device that shows the error code from the controller or the currently running program number. ■ Features

■ Model PU-1 (Cable length: 3m)



System Memory Backup Battery

Features This battery is required when you are using global flags in the program and you want to retain your data even after the power has been turned OFF.

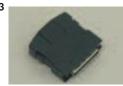
■ Model AB-5-CS (with case) AB-5 (stand-alone battery)



Dummy Plug

When connecting the PSEL controller to a computer with a USB cable, this plug is inserted in the teaching port to shut off the enable circuit. (Supplied with the PC software IA-101-X-USB) Features

■ Model DP-3



Option

USB Cable

■ Features

A cable for connecting the controller to the USB port to a computer. A controller with no USB port (e.g. XSEL) can be connected to the USB port of a computer by connecting an RS232C cable to the USB cable via a USB cabo USB adapter. (See PC software IA-101-X-USBMW)

■ Model CB-SEL-USB030 (Cable length: 3m)



Adapter Cable

■ Features

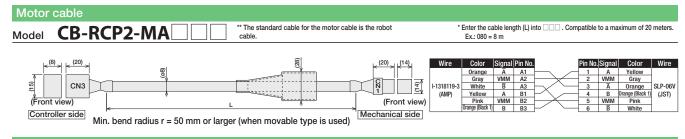
An adapter cable to connect the D-sub 25-pin connector from the teaching pendant or a PC to the teaching connector (half-pitch) of the PSEL controller.

■ Model CB-SEL-SJ002 (Cable length: 0.2m)

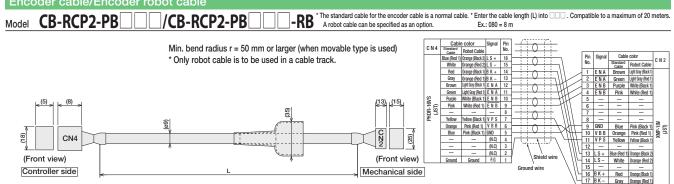


Spare Parts

When you need spare parts after purchasing the product, such as when replacing a cable, refer to the list of models below.

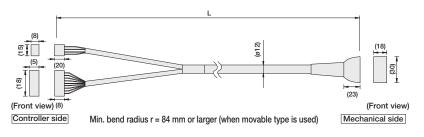




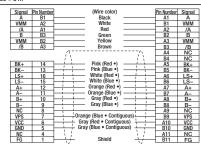


Motor-Encoder Integrated Cable for RCP3





* Enter the ca Ex.: 080 =		gth (L) ir	to 🗆 🗆 . Compatible to a maximur	n of 20 m	eters.
F	Signal A	Pin Number B1	(Wire color) Black	Pin Number	Signal A



I/O Flat Cable

CB-DS-PIO Model

	 	2m	─
1B 🛗 1A			
1B 1A			No connector
1/B 偿 1/A		Flat cable AWG	28 (34-core)

* Enter the cable length (L) into $\Box\Box$.	Compatible to a maximum of 10 meters.
Ev : 000 = 0 m	

Pin No.	Color	Wire	Pin No.	Color	Wire
1A	Brown 1		9B	Gray 2	
1B	Red 1		10A	White 2	
2A	Orange 1		10B	Black 2	
2B	Yellow 1		11A	Brown-3	
3A	Green 1		11B	Red 3	
3B	Blue1		12A	Orange 3	
4A	Purple 1		12B	Yellow 3	
4B	Gray 1	Flat	13A	Green 3	Flat
5A	White 1	cable	13B	Blue 3	cable
5B	Black 1	crimped	14A	Purple 3	crimped
6A	Brown-2		14B	Gray 3	
6B	Red 2		15A	White 3	
7A	Orange 2		15B	Black 3	
7B	Yellow 2		16A	Brown-4	
8A	Green 2		16B	Red 4	
8B	Blue 2		17A	Orange 4	
9A	Purnle 2		17R	Yellow 4	

RCP2&RCP3 Series Extract Cat. No. 0513-E

The information contained in this catalog is subject to change without notice for the purpose of product improvement



Providing quality products since 1986



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