CP2-GRS

RoboCylinder 2-Finger Gripper Vertical Small Slider Type 42 mm Width Pulse Motor

■ Model Description RCP2-

GRSS -

Туре

I: Incremental

* The Simple absolute encoder is also considered type "I."

20P

20P : 20□ size

Pulse motor

30

30:1/30

Deceleration

ratio

8

side)

8 mm (4mm per

P1:PCON-PL/PO/SE RPCON P3:PCON-CA PMEC/PSEP MSEP

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

Option NM: Non-motor end specification

FB: Flange bracket SB : Shaft bracket



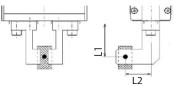




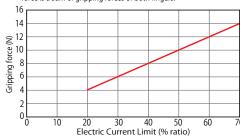
- (1) The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this value.
- (2) The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work part weight that can be actually moved depends on the friction coefficient between the gripper fingers and the work part, as well as on the shape of the work part. As a rough guide, a work part's weight should not exceed 1/10 to 1/20 of the gripping force. (See page 25 for details.)
- (3) The rated acceleration while moving is 0.3 G.

■ Gripping Force vs. Electric Current Limit

The gripping (pushing) force can be adjusted freely within the range of electric current limits of 20% to 70%.



- * Operate with the L1 distance under 40 mm
- The gripping force in the graph below assumes that L1 and L2 in the figure above are zero. (Refer to p. 26 for the rough guide on gripping force at each distance of L1.) Also note that the gripping force is a sum of gripping forces of both fingers.



* The gripping force graph above shows the number of references. Please allow margins up to \pm 15%.

Actuator Specifications

■ Lead and Payload

Model Number	Deceleration	Max. Gripping	Stroke
	Ratio	Force (N)	(mm)
RCP2-GRSS-I-20P-30-8- 11 - 22 - 33	30	14 (7 per side)	8 (4 per side)

Legend: 1 Compatible controllers 2 Cable length 3 Options

Stroke and Max. Opening/Closing Speed

Decele-	8
ration Ratio	(mm)
30	78 (per side)

(Unit: mm/s)

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

^{*} The standard cable is the motor-encoder integrated robot cable.

Actuator Specifications

ltem	Description
Drive System	Worm gear + helical gear + helical rack
Positioning Repeatability	±0.01 mm
Backlash	0.2 mm or less per side (constantly pressed out by a spring)
Lost Motion	0.05 mm or less per side
Guide	Linear guide
Allowable Static Load Moment	Ma: 0.5N•m Mb: 0.5N•m Mc: 1.5N•m
Weight	0.2 kg
Ambient Operating Temp./Humidity	0 to 40°C, 85% RH or less (non-condensing)

Option List

Name	Option Code	See Page	
Non-motor end specification	NM	P10	
Flange bracket	FB	-	
Shaft bracket	SB	-	

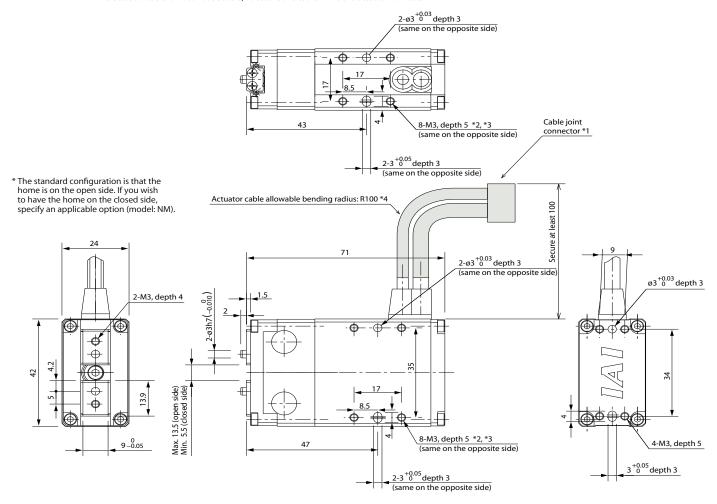
^{*} Please note that, when gripping (pushing), the speed is fixed at 5 mm/s.

CAD drawings can be downloaded from the website. www.intelligentactuator.com





- * The opening side of the slider is the home position.
- *1 The motor-encoder cable is connected here.
- *2 Use all tap holes (4 locations) on the same mounting surface to secure the actuator.
- *3 Do not screw in the bolt beyond the depth of the fixing tap hole. The internal parts may be damaged.
- *4 The actuator cable is not a robot cable, so secure the cable while the actuator is in use.



Compatible Controllers

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

Name	External View	Model Number	Description	Max. Pos. Points	Input Voltage	Power Supply Capacity		See Page	
Solenoid Valve Multi-axis Type PIO Specification	I way	MSEP-C- ③ -~- ① -2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	3 points		See RoboCylinder			
Solenoid Valve Multi-axis Type Net- work Specification		MSEP-C- ③ -~- ④ -0-0	Filed network-ready positioner type, allowing up to 8 axes to be connected	256 points		General Catalog.			
Positioner Type		PCON-CA-20PI- ①-2-0	PIO control ready	512 points				→ P29	
Pulse Train Type		PCON-CA-20PI-PL□-2-0	Pulse-train input ready	-		1A max.			
Network Type		PCON-CA-20PI- 4 -0-0	Field network ready	768 points	DC24V				
Pulse Train Type (Differential Line Driver Specification)		PCON-PL-20PI- ① -2-0	Differential line driver ready	_					
Pulse Train Type (Open Collector Specification)		PCON-PO-20PI- ① -2-0	Open collector ready			See RoboCylinder		See RoboCylinder	
Serial Communi- cation Type		PCON-SE-20PI-N-0-0	Dedicated serial communication type	64 points		General Catalog.		General Catalog.	
Program Control Type		PSEL-CS-1-20PI- ① -2-0	Program operation is possible. Operation is possible up to 2 axes.	1500 points				_	

^{*} This is for the single-axis PSEL.
*③ indicates number of axes (1~8).

^{*} \square indicates N (NPN specification) or P (PNP specification) symbol.

^{*} ① indicates I/O type (NP/PN).
* ④ indicates field network specification symbol.