RCP4-GRSML

RoboCylinder 2-Finger Gripper Vertical Medium Slider Type
54 mm Width Pulse Motor

■ Model Description

RCP4	GRSML	I	28P	30	14	P3	☐	☐
Series	Type	Encoder	Motor	Deceleration	Stroke	Compatible Controllers	Cable Length	Notes on Selection
		I: Incremental * The Simple absolute encoder is also considered type "I."	28P : 28 ☐ size Pulse motor	30 : 1/30 Deceleration ratio	14 :14 mm (7 mm per side)	P3: PCON-CA MSEP-C	N : None P : 1 m S : 3 m M : 5 m X☐☐ : Custom R☐☐ : Robot cable	AC1 : Actuator cable 1 m NM : Non-motor end specification

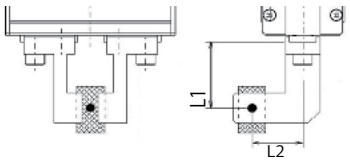
CE RoHS

POINT Notes on Selection

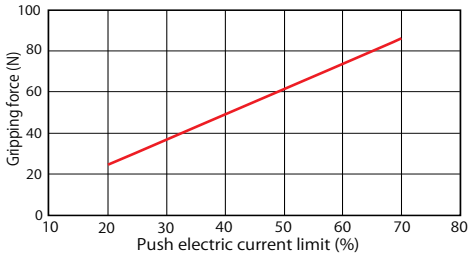
(1) The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this value.
(2) The maximum gripping force is the sum of the gripping forces of both fingers, at a gripping point where there is no offset or overhang distance. The work part weight 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 80 mm.
* The gripping force in the graph below assumes that L1 and L2 the figure above are zero. (Refer to p. 26 for the rough guide 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 ±15%

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

Actuator Specifications

■ Lead and Payload

Model Number	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)
RCP4-GRSML-I-28P-30-14-P3- 1 - 2	30	87 (43.5 per side)	14 (7 per side)

Legend: 1 Cable length 2 Options

■ Stroke and Max. Opening/Closing Speed

Stroke (mm)	Max. Speed (mm/s)
14	94

Cable List

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

Actuator Specifications

Item	Description
Drive System	Worm gear + helical gear + helical rack
Positioning Repeatability	±0.01 mm
Backlash per Finger	0.3 mm or less
Lost Motion	0.15 mm or less per side
Guide	Linear guide
Static Load Moment	Ma: 1.9N•m Mb: 2.7N•m Mc: 4.6N•m
Weight	0.5 kg
Ambient Operating Temp./Humidity	0 to 40°C, 85% RH or less (non-condensing)

Option List

Name	Option Code	See Page	
Actuator Cable 1 m	**AC1**	P12	
Non-motor end specification	**NM**	P12	

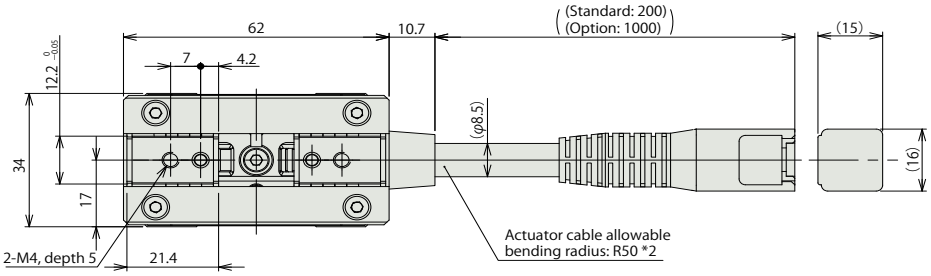
Dimensions

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

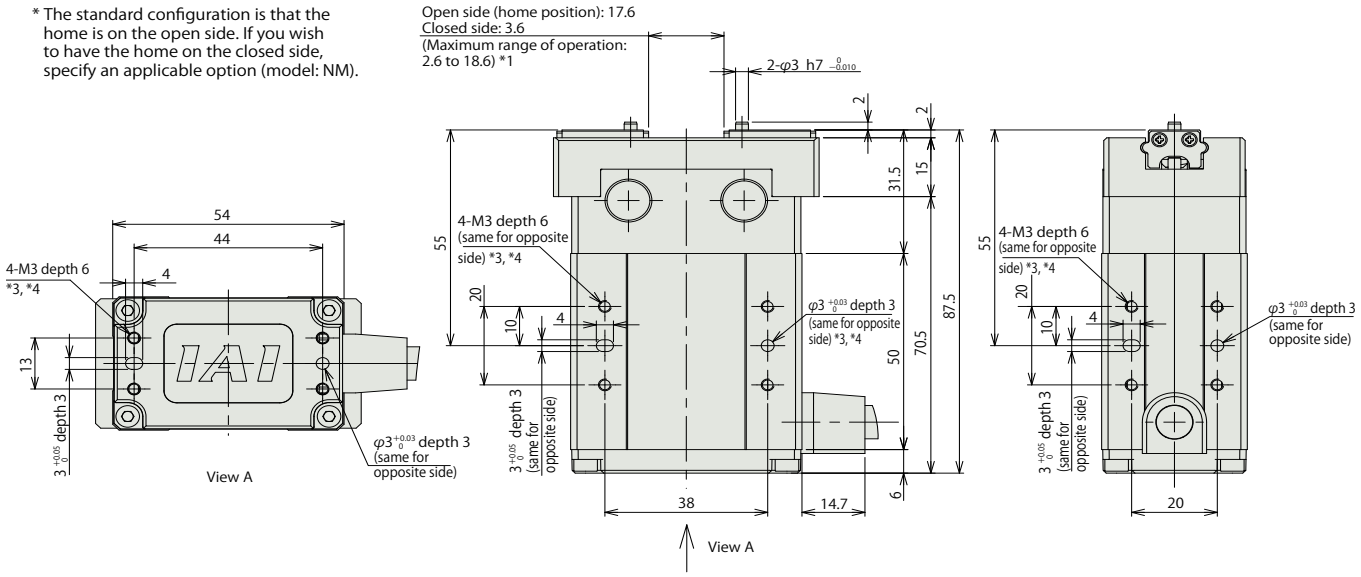
2D CAD

*1 This is the maximum range over which the finger operates during home return operation, etc. Be careful not to let the finger contact the customer's finger, any nearby work part, etc.
*2 The actuator cable is a robot cable.
*3 Use all tap holes (4 locations) on the same mounting surface to secure the actuator.
*4 Do not screw in the bolt beyond the depth of the fixing tap hole. The internal parts may be damaged.

* The standard length of the actuator cable is 200 mm. The cable length can be changed to 1000 mm by selecting an applicable option (model: AC1).



* The standard configuration is that the home is on the open side. If you wish to have the home on the closed side, specify an applicable option (model: NM).



Compatible Controllers

The RCP4 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		MSEP-C- ③ -~- ① -2-0	Positioner type based on PIO control, allowing up to 8 axes to be connected	3 points	DC24V	See RoboCylinder General Catalog.		→ P29
Solenoid Valve Multi-axis Type Network Specification		MSEP-C- ③ -~- ④ -0-0	Filed network-ready positioner type, allowing up to 8 axes to be connected	256 points				
Positioner Type		PCON-CA-28PI- ① -2-0	PIO control ready	512 points		2.2 A max.		
Pulse Train Type		PCON-CA-28PI-PL□-2-0	Pulse-train input ready	—				
Network Type		PCON-CA-28PI- ④ -0-0	Field network ready	768 points				

* ① indicates I/O type (NP/PN).
* ④ indicates field network specification symbol.
* ③ indicates number of axes (1~8).
* □ indicates N (NPN specification) or P (PNP specification) symbol.