

# RCP2-GR3SM

ROBO Cylinder 3-Finger Gripper Slider Type 80mm Width Pulse Motor

■ Configuration: **RCP2-GR3SM-I-42P-30-14** —  —  —

Series — Type — Encoder — Motor — Deceleration Ratio — Stroke — Compatible Controllers — Cable Length — Option

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

42P: 42 □ size Pulse motor  
30: 1/30 deceleration ratio (7mm per side)  
14: 14mm stroke (7mm per side)

P1: PCON  
RPCON  
PSEL  
P3: PMEC  
PSEP

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

FB: Flange bracket  
SB: Shaft bracket

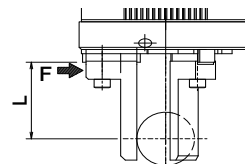
\* See page Pre-35 for an explanation of the naming convention.



Technical References P. A-5

- 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 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.

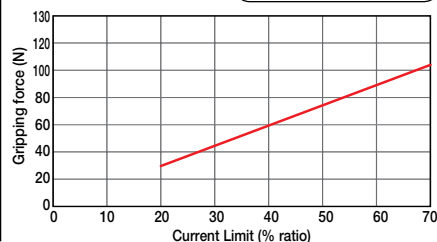
### ■ Gripping Force vs. Current Limit Slider Type (GR3SS/GR3SM)



\* 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

Model	Deceleration Ratio	Max. Gripping Force (N)	Stroke (mm)
RCP2-GR3SM-I-42P-30-14-①-②-③	30	102	14

Legend: ① Compatible controllers ② Cable length ③ Options

#### ■ Stroke and Maxi. Opening/Closing Speed

Deceleration Ratio	Stroke	14 (mm)
	30	50

(Unit: mm/s)

#### ① Stroke List

Stroke (mm)	Standard Price
14	-

#### ② Cable List

Type	Cable Symbol	Standard Price
Standard Type	P (1m)	-
	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 for cables for maintenance.

#### ③ Option List

Name	Option Code	See Page	Standard Price
Flange bracket	FB	→ A-26	-
Shaft bracket	SB	→ A-36	-

#### 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)

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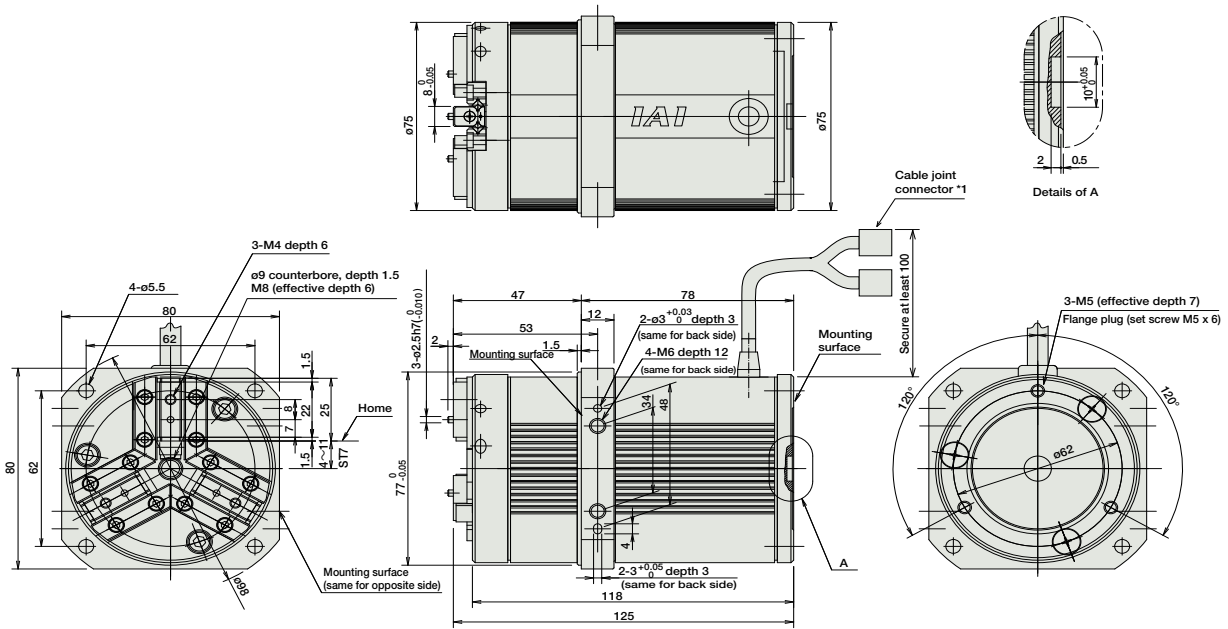
RCP2-GR3SM

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Cleanroom Type
- Splash-Proof
- Controllers
- PMEC/AMEC
- PSEP/ASEP
- ROBO NET
- ERC2
- PCON
- ACON
- SCON
- PSEL
- ASEL
- SSEL
- XSEL
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor

Dimensions

For Special Orders P. A-9

- \* 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.



Weight (kg) 1.2

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	Standard Price	See Page
Solenoid Valve Type		PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	See P481	-	→ P477
Splash-Proof Solenoid Valve Type		PSEP-C-42PI-NP-2-0 PSEP-CW-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.					→ P487
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	2A max.	-	→ P525
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					
Serial Communication Type		PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points	DC24V	2A max.	-	-
Field Network Type		RPCON-42P	Dedicated to field network	788 points	DC24V	2A max.	-	→ 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	DC24V	2A max.	-	→ P557

\* This is for the single-axis PSEL.  
 \* ① is a placeholder for the power supply voltage (1: 100V, 2: 100~240V).



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- Linear Servo Type
- Cleanroom Type
- Splash-Proof
- Controllers
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- ROBO NET
- ERC2
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- SCON
- PSEL
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- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor