



**ROBO
GRIPPER**

ROBO GRIPPER

Robo Gripper is a high-performance, electric-powered chuck employing a servo motor. With electric actuators, a source of air is not needed. Also fragile parts are easy to grip with the adjustable push force, and multiple part sizes are handled by several positions.

1. 2 models are available: Low payload type and High payload type.

The low payload type does not have a reduction gear and a maximum gripping force is 24N.

The high payload type has a reduction gear with a 5:1 ratio and a maximum gripping force is 45.1N.

2. High repeatability and rigidity are achieved by a linear guide attached to the fingers.

The linear guide supports finger movement allowing for accurate positioning and moment.

3. Controller is capable of 16 points.

A maximum of 16 positions are available within the range of stroke.

4. The grip force of the actuator is adjustable.

Grip force can be controlled by 20 ~ 70% of motor current in the push mode.

5. An output signal turns on when object has been gripped

The controller can detect when part has been clamped eliminating the need for a sensor.

6. Net Work I/O option are available (high payload type only).

The high payload type has DeviceNet and CC-Link* options.

*DeviceNet is a registered trade mark of ODVA. CC-Link is a registered trade mark of Mitsubishi Electronics. Both are connected as remote I/O stations.

*1 Stroke inside of () is non-standard and has a longer lead time.

*2 Value is the sum for both fingers.

*3 Value is for one finger.

Low & High Payload Type Specifications

Type		Low Payload Type								High Payload Type							
		RCP-G10I-P-1-□-□								RCS-G20I-60-5-□-□							
Stroke (*1)	mm	20	40	(60)	80	(100)	(120)	(200)	20	40	(60)	(80)	100	(120)	(200)		
Rated Output	W	-								60							
Maximum Speed	cpm	180								60							
Maximum Gripping Force (*3)	N(kgf)	24.5(2.5)								45.1(4.6)							
Repeatability	mm	±0.035								±0.04							
Backlash (*3)	mm	0.2								0.7							
Unit Weight	kg	1.2	1.3	1.3	1.4	1.4	1.5	3.7	1.8	1.9	1.9	2.0	2.0	2.1	2.3		
Motor		Multipolar Pulse Motor								AC Servo Motor							
Reduction		-								Planetary 5:1							
Body		Extruded Aluminun								Extruded Aluminun							
Guide		Linear Guide								Linear Guide							
Moment	N·m (kgf·m)	Ma:5.1 (0.5) Mb:5.1 (0.5) Mc:10.4 (1)															
Controller		RCP-C-G10I								RCS-S-G20I-60-□-□							
Controller Power Voltage		24V								100V/200V							

Actuator Type

RCS-G20I-60-5-20-S

①

②

③

④

⑤

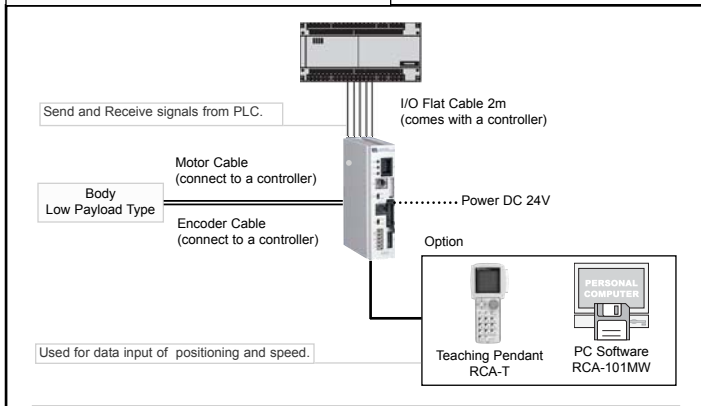
⑥

⑦

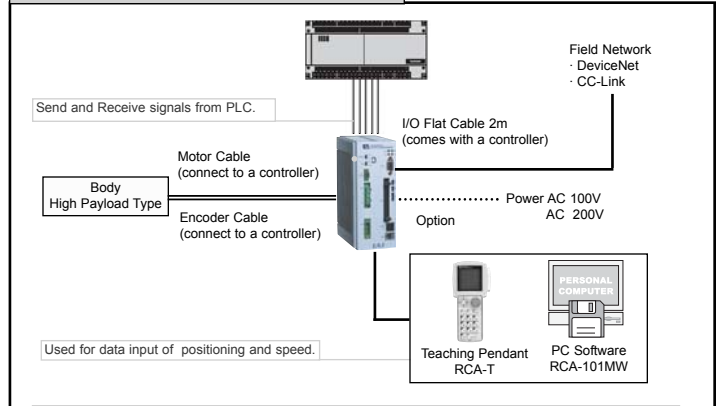
	Low Payload Type	High Payload Type
① Product name	RCP	RCS
② Type	G10	G20
③ Encoder	I:Incremental	
④ Motor wattage	P : RCP Motor	60 : RCS Motor 60W
⑤ Reduction gear ratio	1 : (no gear)	5 : 1
⑥ Stroke (*1)	20 · 40 · (60) · 80 · (100) · (120) · (200)	20 · 40 · (60) · 80 · (100) · (120) · (200)
⑦ Length of cable	P:1m/S:3m/M:5m/X□□:specific length/R□□:Robot Cable	
Controller	RCP-C-G10I	RCS-C-G20I-60-□-□

*1 Stroke inside of () is non-standard and has a longer lead time.

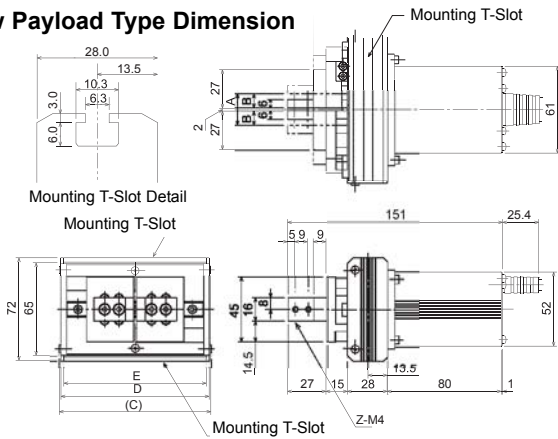
Low Payload Type [RCP-G101]



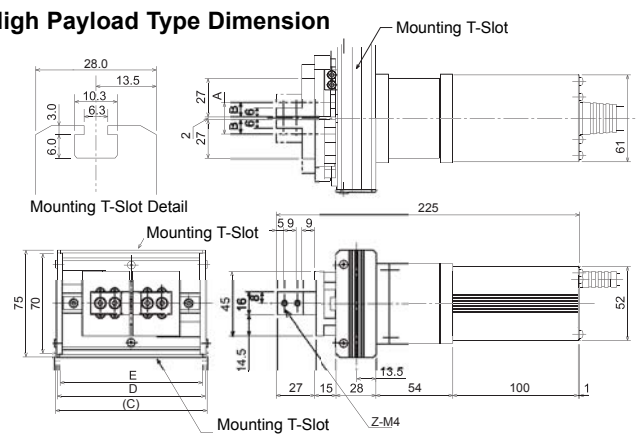
High Payload Type [RCS-G201]



Low Payload Type Dimension



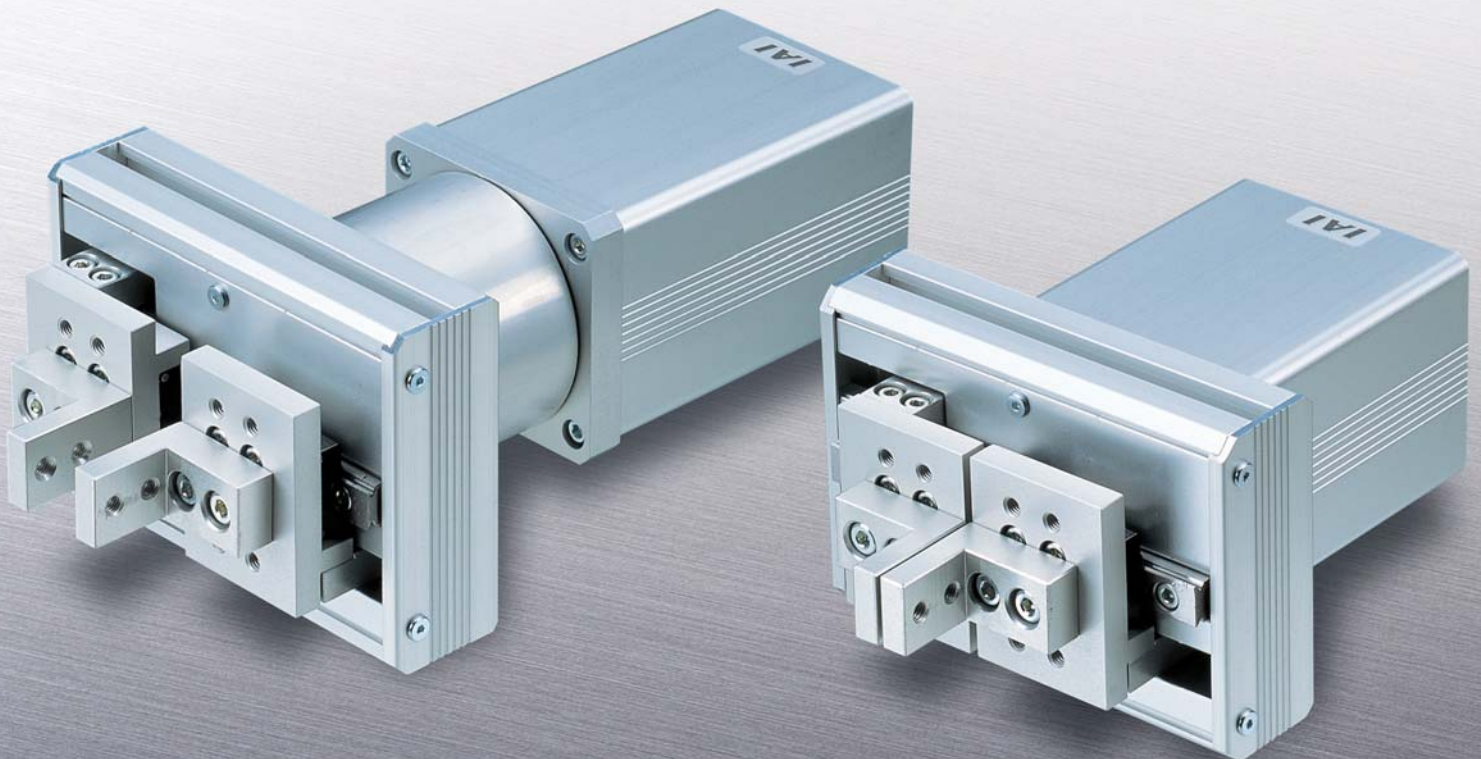
High Payload Type Dimension



Opening/Closing Stroke	A	B	C	D	E
20	22	10	106.4	104	100
40	42	20	126.4	124	120
(60)	62	30	146.4	144	140
80	82	40	166.4	164	160
(100)	102	50	186.4	184	180
(120)	122	60	206.4	204	200
(200)	202	100	286.4	284	280

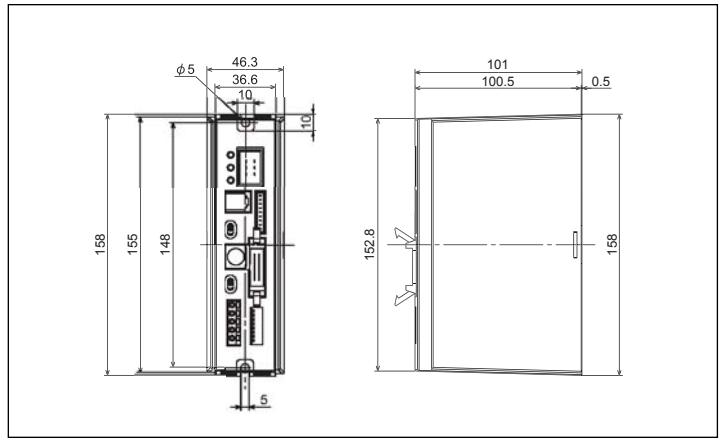
Opening/Closing Stroke	A	B	C	D	E
20	22	10	106.4	104	100
40	42	20	126.4	124	120
(60)	62	30	146.4	144	140
(80)	82	40	166.4	164	160
100	102	50	186.4	184	180
(120)	122	60	206.4	204	200
(200)	202	100	286.4	284	280

*1 Stroke inside of () is non-standard and has a higher lead time.

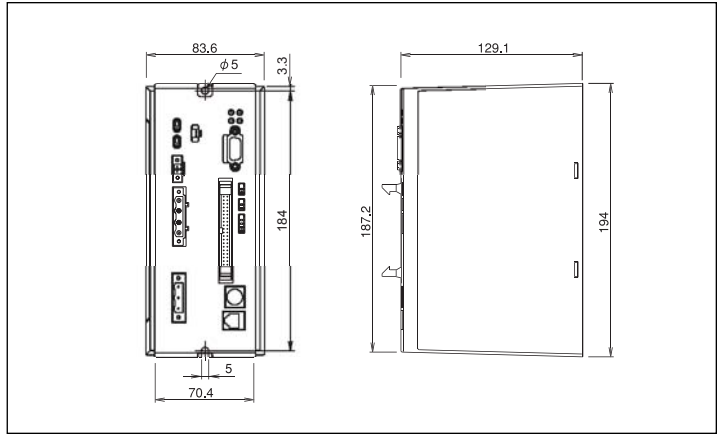




RCP-C



RCS-C



Controller Specification

Controller	RCP-C-G101	RCS-C-G201-60-□-□	
Power Voltage	DC24+10%, -10%	AC100/200V	
Power Capacity	Max 2.5A	100W/165VA	
Ambient temperature & humidity	Temperature 0~40°C Humidity 85%RH		
Environment	No corrosive gas and heavy particulate		
Unit weight	360g	1.32kg	
Protective function	Encoder error, Cable disconnection, Speed error, and regenerative power error		
I/O Signal	Input	Start	
		Command position number (4 bit binary)	
		Hold	
	Output	-	Reset
		-	Servo ON
		Complete positioning number (4 bit binary)	
		Positioning complete	
		Homing complete	
		Zone Signal	
		Emergency Stop	
Alarm			
Position number	16 points		
Memory	EEPROM		
Network	-	Device Net / CC-Link	

Controller Type (for low payload)

RCP-C-G101

1	2
1. Controller Name	RCP-C
2. Body Type	G101

Controller Type (for high payload)

RCS-C-G101-60-DV-1

1	2	3	4
1. Controller Name	RCS-C		
2. Body Type	G201-60		
3. Net Work	(Not Specified): Standard I/O Specification DV: DeviceNet / CC: CC-Link		
4. Power Voltage	1: 100V / 2: 200V		

- Note
1. Please keep body parts away from the Robo Gripper's fingers to avoid being pinched.
 2. During Position mode, the Low Type (RCP) does not fault out if position is not reached due to an obstruction; however, the High Type (RCS) faults out if position is not reached due to an obstruction. The gripper exerts maximum force when obstacle stops motion. If obstacle is removed, the gripper will continue to position. Please be cautious of fingers.
 3. Use push function to grip part. In the positioning mode, grip force may not be strong enough to hold the part.
 4. When power is turned OFF, grip force is lost and part may be released. Please take necessary steps to prevent dropping by attaching flange or surface treatment.



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