

Gripper Type/Rotary Type

RCP2

RCS2

RCP2 series 24V Servo Motor Type	2-Finger gripper type		Width 60mm	RCP2-GRS	243
			Width 74mm	RCP2-GRM	245
	3-Finger gripper	Lever type	Width 60mm	RCP2-GR3LS	247
			Width 80mm	RCP2-GR3LM	249
		Slider type	Width 62mm	RCP2-GR3SS	251
			Width 80mm	RCP2-GR3SM	253

RCS2 series 24V Servo Motor Type	2-Finger gripper	Long stroke type	Width 104mm to 284mm	RCS2-GR8	255

RCP2 series 24V Servo Motor Type	Rotary type	Vertical	RCP2-RTB/RTBL	257
		Flat	RCP2-RTC/RTCL	259

RCS2 series 200V Servo Motor Type	Rotary type	Straight motor type	Width 64mm	RCS2-RT6	261
		Reverse-mounted motor type	Width 64mm	RCS2-RT6R	263
		Reverse-mounted motor, hollow axis type	Width 68mm	RCS2-RT7R	265

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP2-GRS

ROBO Cylinder, Gripper Type, Actuator Width 69mm, Pulse Motor

Model Description	RCP2	—	GRS	—	I	—	20P	—	1	—	10	—	P1	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series	—	Type	—	Encoder type	—	Motor type	—	Deceleration ratio	—	Stroke	—	Compatible Controllers	—	Cable length	—	Option
					Incremental specification		20P: Pulse motor 20 Size		1: Deceleration ratio 1/1		10: 10mm (5mm on one side)		P1: PCON PSEL		N : None P : 1m S : 3m M : 5m X□□: Length R□□: Robot cable		SB : Shaft bracket FB : Flange bracket

See preceding section for model descriptions.



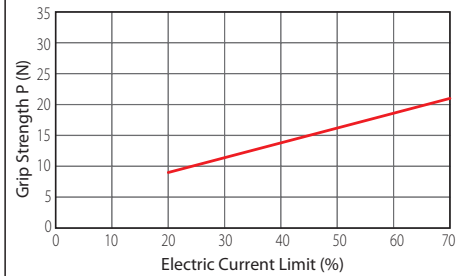
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- POINT** Notes on selection
- (1) The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this value.
 - (2) The maximum gripping force is the sum of gripping forces of both fingers when the gripping point distance is 0 and overhang distance is 0. Although the weight of a work part that can be physically transferred varies depending on the friction coefficient determined by the finger material and work material, as well as on the shape of the work, a rough guide is that normally the work weight should not exceed 1/10 to 1/20 of the gripping force (provide a greater allowance if the actuator is operated at high acceleration/deceleration or receives shock).
 - (3) The rated acceleration during movement is 0.3G.

Gripping Force Adjustment

The gripping force (push force) can be adjusted freely within the range of current limiting values of 20% to 70%.

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



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

Actuator Specification Table

Leads and Payloads

Model	Gear Ratio (mm)	Max. gripping force (N)	Stroke (mm)
RCP2-GRS-I-20P-1-10-P1-①-②	1	21	10

Legend: ① Cable length ② Option

Stroke and Max. Opening/Closing Speed

Deceleration ratio	Stroke	10 (mm)
	1	33.3

(Unit = mm/s)

Price List by Stroke

Stroke (mm)	Type code
	GRS
	Encoder type
	Incremental
10	-

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P374 for maintenance cables.

② Option Price List

Title	Option code	See page	Standard price
Shaft bracket	SB	→P445	-
Flange bracket	FB	→P437	-

Actuator Specification

Item	Description
Drive System	Timing belt + Trapezoidal screw (Lead 1.5)
Positioning Repeatability	±0.01mm
Backlash	0.15mm or less per side (pressure is constantly exerted by spring)
Guide	Cross roller guide
Allowable load moment	Ma: 6.3N·m, Mb: 6.3N·m, Mc: 7.0N·m
Weight	0.36kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

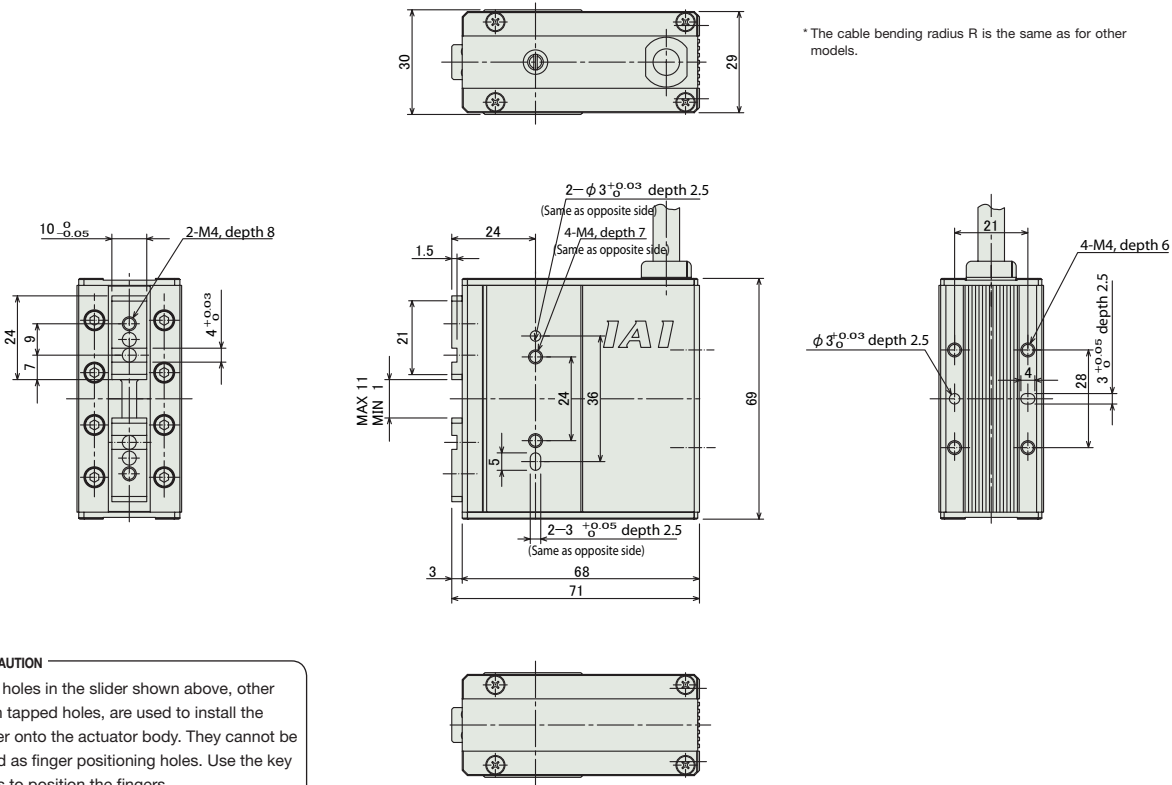
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Information on special orders

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* The slider home position is on the open side.
* See P374 for motor-encoder cable details.



CAUTION
The holes in the slider shown above, other than tapped holes, are used to install the slider onto the actuator body. They cannot be used as finger positioning holes. Use the key slots to position the fingers.

Weight (kg) 0.36

Compatible Controllers

The RCP2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-20PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-		
Safety category compatible positioner type		PCON-CG-20PI-NP-2-0					-		
Solenoid valve type		PCON-CY-20PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		→P365
Pulse series input type (differential line driver specification)		PCON-PL-20PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		PCON-PO-20PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-20PI-NP-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-20P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-20PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points			-		→P395

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP2-GRM

ROBO Cylinder, Gripper Type, Actuator Width 74mm, Pulse Motor

Model Description	RCP2 — GRM	—	I	—	28P	—	1	—	14	—	P1	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series	Type	Encoder type	Motor type	Deceleration ratio	Stroke	Compatible Controllers	Cable length	Option						
			I: Incremental specification	28P: Pulse motor 28 Size	1: Deceleration ratio 1/1	14: 14mm (7mm on one side)	P1: PCON PSEL	N : None P : 1m S : 3m M : 5m X <input type="checkbox"/> : Length R <input type="checkbox"/> : Robot cable	SB : Shaft bracket FB : Flange bracket						

See preceding section for model descriptions.

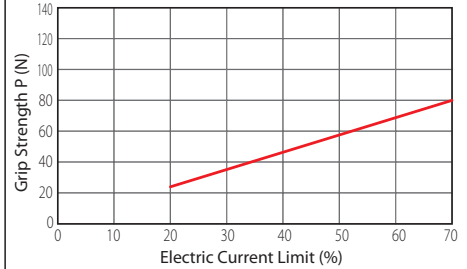


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Gripping Force Adjustment

The gripping force (push force) can be adjusted freely within the range of current limiting values of 20% to 70%.

* The gripping forces in the following diagrams indicate the sums of gripping forces of both fingers.



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



- (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 gripping forces of both fingers when the gripping point distance is 0 and overhang distance is 0. Although the weight of a work part that can be physically transferred varies depending on the friction coefficient determined by the finger material and work material, as well as on the shape of the work, a rough guide is that normally the work weight should not exceed 1/10 to 1/20 of the gripping force (provide a greater allowance if the actuator is operated at high acceleration/deceleration or receives shock).
- (3) The rated acceleration during movement is 0.3G.

Actuator Specification Table

Leads and Payloads

Model	Gear Ratio (mm)	Max. gripping force (N)	Stroke (mm)
RCP2-GRM-I-28P-1-14-P1-①-②	1	80	14

Legend: ① Cable length ② Option

Stroke and Max. Opening/Closing Speed

Deceleration ratio	Stroke	14 (mm)
	1	36.7

(Unit = mm/s)

Price List by Stroke

Stroke (mm)	Type code
	GRM
	Encoder type
	Incremental
14	-

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P374 for maintenance cables.

② Option Price List

Title	Option code	See page	Standard price
Shaft bracket	SB	→P445	-
Flange bracket	FB	→P437	-

Actuator Specification

Item	Description
Drive System	Timing belt + Trapezoidal screw (Lead 1.5)
Positioning Repeatability	±0.01mm
Backlash	0.15mm or less per side (pressure is constantly exerted by spring)
Guide	Cross roller guide
Allowable load moment	Ma: 6.3N·m, Mb: 6.3N·m, Mc: 8.3N·m
Weight	0.5kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

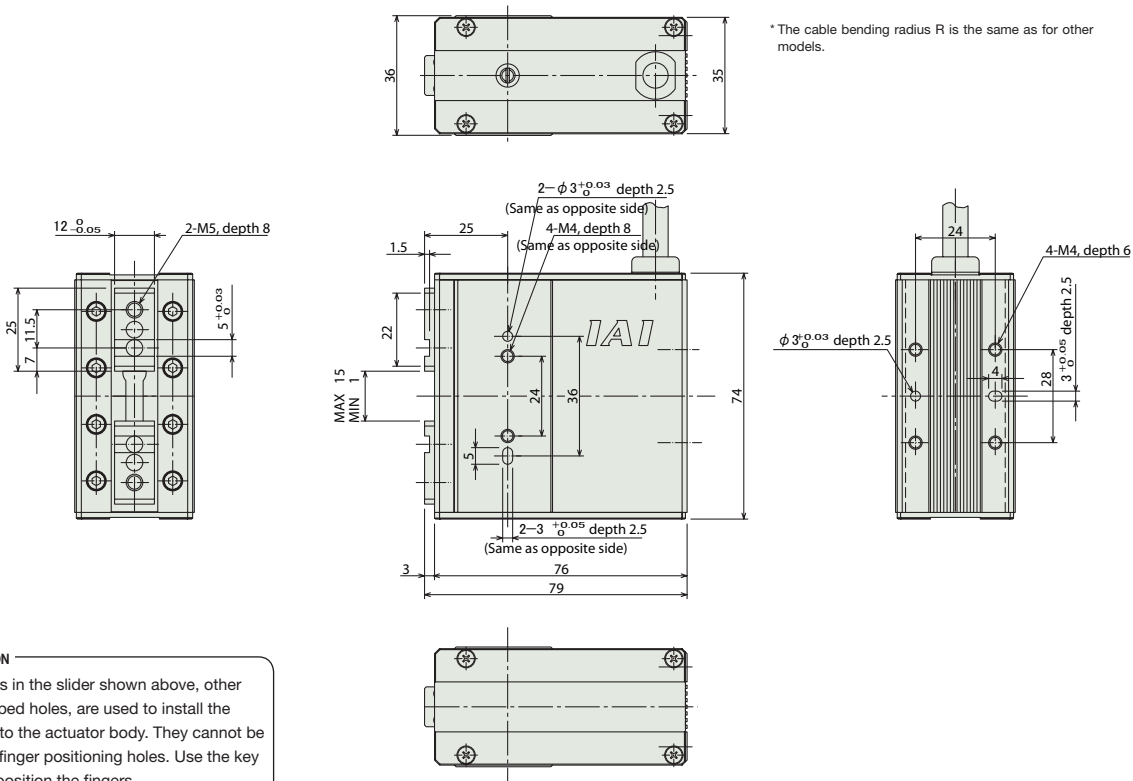
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Information on special orders

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* The slider home position is on the open side.
* See P374 for motor-encoder cable details.



CAUTION
The holes in the slider shown above, other than tapped holes, are used to install the slider onto the actuator body. They cannot be used as finger positioning holes. Use the key slots to position the fingers.

Weight (kg) 0.5

Compatible Controllers

The RCP2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-28PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-		
Safety category compatible positioner type		PCON-CG-28PI-NP-2-0					-		
Solenoid valve type		PCON-CY-28PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		→P365
Pulse series input type (differential line driver specification)		PCON-PL-28PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		PCON-PO-28PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-28PI-NP-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-28P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-28PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points			-		→P395

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP2-GR3LS

ROBO Cylinder, 3-Finger Gripper, Lever Type, Actuator Width 62mm, Pulse Motor

Model Description	RCP2	GR3LS	I	28P	30	19	P1		
Series	Type	Encoder type	Motor type	Deceleration ratio	Stroke	Compatible Controllers	Cable length	Option	
		Incremental specification	28P: Pulse motor 28 Size	30: Deceleration ratio 1/30	19: 19 degrees	P1: PCON PSEL	N : None P : 1m S : 3m M : 5m X□: Length R□: Robot cable	SB : Shaft bracket FB : Flange bracket	

See preceding section for model descriptions.

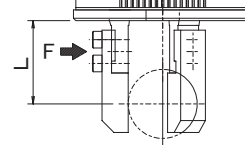


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- (1) The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this value.
- (2) The maximum gripping force is the sum of gripping forces of all fingers when the gripping point distance is 10 and overhang distance is 0. Refer to the explanation on the right when determining the weight of a work part that can be physically transferred.
- (3) The rated acceleration during movement is 0.3G.

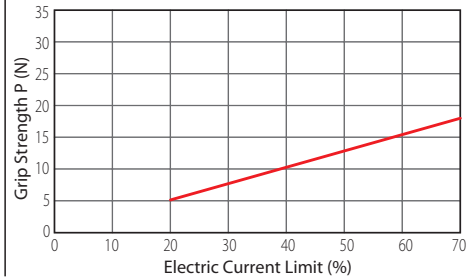
Grip Force vs. Current-limiting Graph Lever Type (GR3LS/GR3LM)



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

*The values in the graph below are the grip strength at a gripping point 10mm from the base. The actual gripping force decreases in inverse proportion to the distance from the opening/closing fulcrum.

Calculate the actual gripping force using the formulas below:
Effective gripping force (S type) = P x 24/(L + 14)
Effective gripping force (M type) = P x 28.5/(L + 18.5)
 P = Gripping force determined from the graph
 L = Distance from the finger attachment surface to the gripping point



Actuator Specification Table

Leads and Payloads

Model	Gear Ratio (mm)	Max. gripping force (N)	Stroke (degrees)
RCP2-GR3LS-I-28P-30-19-P1-①-②	30	18	19

Legend: ① Cable length ② Option

Stroke and Max. Opening/Closing Speed

Deceleration ratio	Stroke	19 (degrees)
	30	200

(Unit = mm/s)

Price List by Stroke

Stroke (mm)	Type code
	GR3LS
10	Encoder type
	Incremental

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P374 for maintenance cables.

② Option Price List

Title	Option code	See page	Standard price
Shaft bracket	SB	→P445	-
Flange bracket	FB	→P437	-

Actuator Specification

Item	Description
Drive System	Worm gear + Worm wheel gear
Positioning Repeatability	±0.01 degrees
Backlash	1° or less per side (fingers always pressured to open side via spring)
Weight	0.6kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

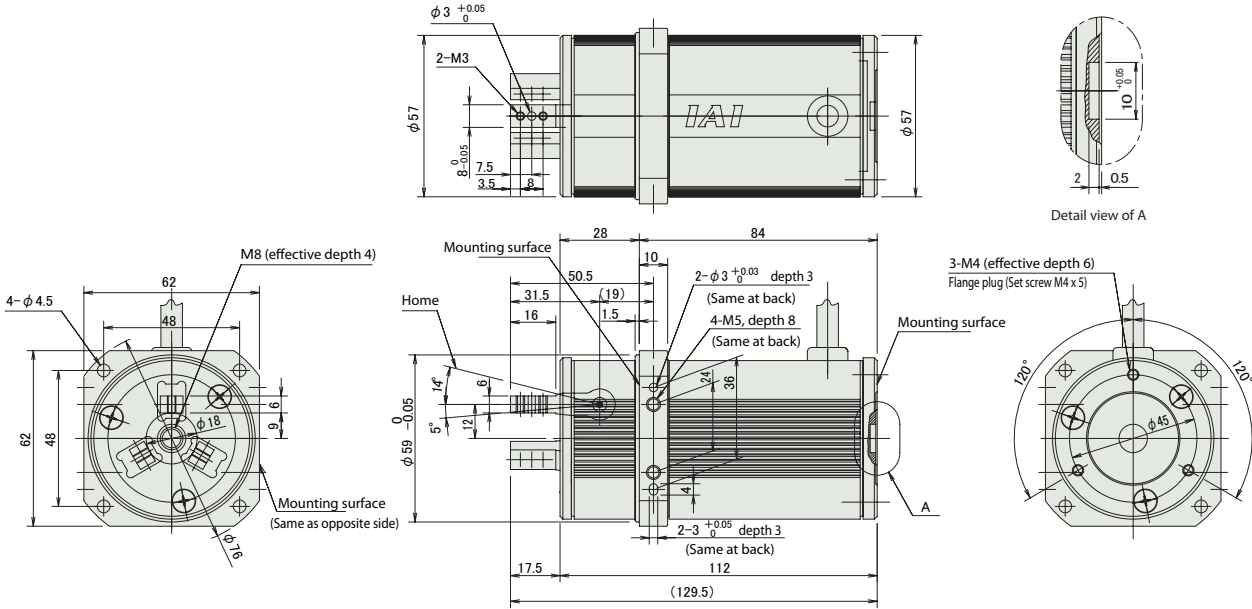
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Information on special orders

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* During home return, the fingers return along a line expanding outward by 1° from the home. Pay attention to prevent contact between the fingers and surrounding parts.
* See P374 for motor-encoder cable details.



Weight (kg) 0.6

Compatible Controllers

The RCP2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-28PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-		
Safety category compatible positioner type		PCON-CG-28PI-NP-2-0					-		
Solenoid valve type		PCON-CY-28PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		→P365
Pulse series input type (differential line driver specification)		PCON-PL-28PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		PCON-PO-28PI-NP-2-0	Open collector compatible pulse series input type	(-)			-		
Serial communication type		PCON-SE-28PI-NP-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-28P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-28PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points			-		→P395

- Control-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP2-GR3LM

ROBO Cylinder, 3-Finger Gripper, Lever Type, Actuator Width 80mm, Pulse Motor

Model Description	RCP2	—	GR3LM	—	I	—	42P	—	30	—	19	—	P1	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series	—	Type	—	Encoder type	—	Motor type	—	Deceleration ratio	—	Stroke	—	Compatible Controllers	—	Cable length	—	Option
					I: Incremental specification		42P: Pulse motor 42 Size		30: Deceleration ratio 1/30		19: 19 degrees		P1: PCON PSEL		N : None P : 1m S : 3m M : 5m X <input type="checkbox"/> : Length R <input type="checkbox"/> : Robot cable		SB : Shaft bracket FB : Flange bracket

See preceding section for model descriptions.

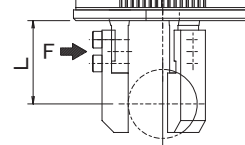


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- (1) The maximum opening/closing speed indicates the operating speed on one side. The relative operating speed is twice this value.
- (2) The maximum gripping force is the sum of gripping forces of all fingers when the gripping point distance is 10 and overhang distance is 0. Refer to the explanation on the right when determining the weight of a work part that can be physically transferred.
- (3) The rated acceleration during movement is 0.3G.

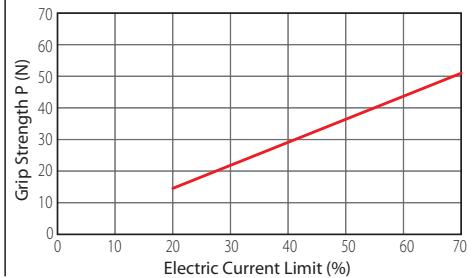
Grip Force vs. Current-limiting Graph Lever Type (GR3LS/GR3LM)



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

*The values in the graph below are the grip strength at a gripping point 10mm from the base. The actual gripping force decreases in inverse proportion to the distance from the opening/closing fulcrum.

Calculate the actual gripping force using the formulas below:
Effective gripping force (S type) = P x 24/(L + 14)
Effective gripping force (M type) = P x 28.5/(L + 18.5)
 P = Gripping force determined from the graph
 L = Distance from the finger attachment surface to the gripping point



Actuator Specification Table

Leads and Payloads

Model	Gear Ratio (mm)	Max. gripping force (N)	Stroke (degrees)
RCP2-GR3LM-I-42P-30-19-P1-①-②	30	51	19

Legend: ① Cable length ② Option

Stroke and Max. Opening/Closing Speed

Deceleration ratio	Stroke	19 (degrees)
	30	200

(Unit = mm/s)

Price List by Stroke

Stroke (mm)	Type code
	GR3LM
	Encoder type
	Incremental
10	-

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P374 for maintenance cables.

② Option Price List

Title	Option code	See page	Standard price
Shaft bracket	SB	→P445	-
Flange bracket	FB	→P437	-

Actuator Specification

Item	Description
Drive System	Worm gear + Worm wheel gear
Positioning Repeatability	±0.01 degrees
Backlash	1° or less per side (fingers always pressured to open side via spring)
Weight	1.1kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

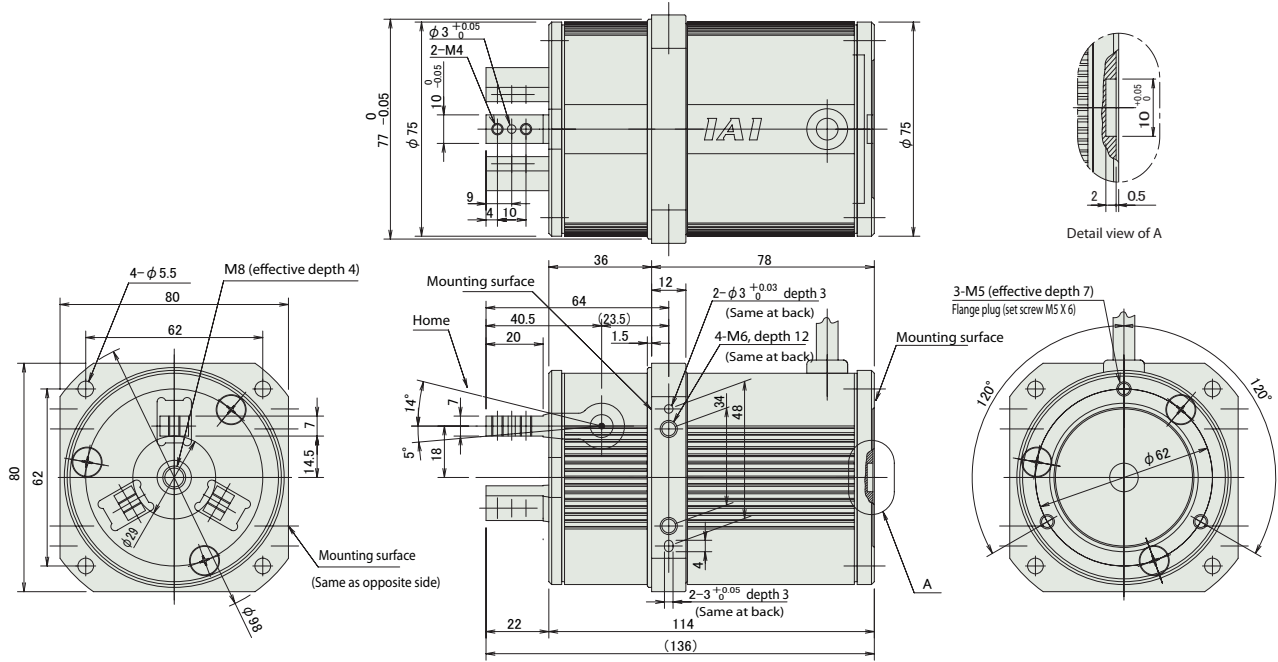
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Information on special orders

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* During home return, the fingers return along a line expanding outward by 1° from the home. Pay attention to prevent contact between the fingers and surrounding parts.
* See P374 for motor-encoder cable details.



Weight (kg) 1.1

Compatible Controllers

The RCP2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-42PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	→P365	
Safety category compatible positioner type		PCON-CG-42PI-NP-2-0					-		
Solenoid valve type		PCON-CY-42PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (differential line driver specification)		PCON-PL-42PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		PCON-PO-42PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-42PI-NP-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-42P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-42PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points			-		→P395

- Controler-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP2-GR3SS

ROBO Cylinder, 3-Finger Gripper, Slider Type, Actuator Width 62mm, Pulse Motor

Model Description	RCP2	GR3SS	I	28P	30	10	P1		
Series	Type	Encoder type	Motor type	Deceleration ratio	Stroke	Compatible Controllers	Cable length	Option	
		I: Incremental specification	28P: Pulse motor 28 Size	30: Deceleration ratio 1/30	10: 10mm (5mm on one side)	P1: PCON PSEL	N : None P : 1m S : 3m M : 5m X□: Length R□: Robot cable	SB : Shaft bracket FB : Flange bracket	

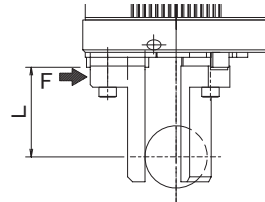
See preceding section for model descriptions.



Technical Reference P. 451

- 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 gripping forces of all fingers when the gripping point distance is 10 and overhang distance is 0. Refer to the explanation on the right when determining the weight of a work part that can be physically transferred.
 - (3) The rated acceleration during movement is 0.3G.

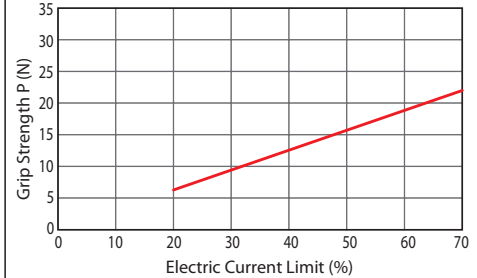
Grip Force vs. Current-limiting Graph Slider type (GR3SS/GR3SM)



* Keep the distance (L) from the finger attachment surface to the gripping point to the following dimensions or less.

GR3SS→50mm or less
GR3SM→80mm or less

*The speed is fixed at 5mm/s when gripping (pushing).



Actuator Specification Table

Leads and Payloads

Model	Gear Ratio (mm)	Max. gripping force (N)	Stroke (mm)
RCP2-GR3SS-I-28P-30-10-P1-①-②	30	22	10

Legend: ① Cable length ② Option

Stroke and Max. Opening/Closing Speed

Deceleration ratio	Stroke	10 (mm)
	30	40

(Unit = mm/s)

Price List by Stroke

Stroke (mm)	Type code
	GR3SS
	Encoder type
	Incremental
10	-

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P374 for maintenance cables.

② Option Price List

Title	Option code	See page	Standard price
Shaft bracket	SB	→P445	-
Flange bracket	FB	→P437	-

Actuator Specification

Item	Description
Drive System	Worm gear + Worm wheel gear
Positioning Repeatability	±0.01mm
Backlash	0.3mm or less per side (fingers always pressured to open side via spring)
Guide	Close roller guide
Allowable load moment	Ma: 3.8N-m, Mb: 3.8N-m, Mc: 3.0N-m
Weight	0.6kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

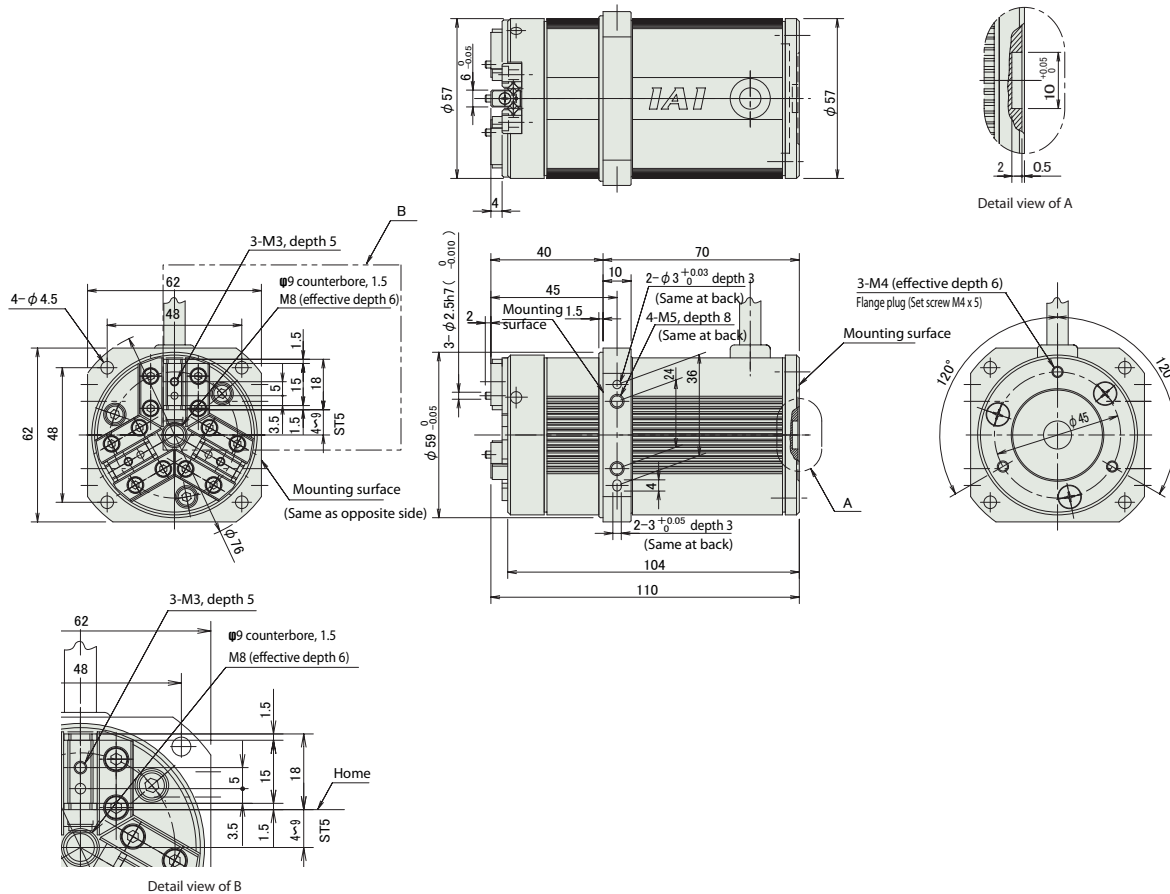
www.intelligentactuator.com

Information on special orders

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* During home return, the fingers return along a line expanding outward by 0.5 mm from the home. Pay attention to prevent contact between the fingers and surrounding parts.
* See P374 for motor-encoder cable details.



Weight (kg) 0.6

Compatible Controllers

The RCP2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-28PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-		
Safety category compatible positioner type		PCON-CG-28PI-NP-2-0					-		
Solenoid valve type		PCON-CY-28PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		→P365
Pulse series input type (differential line driver specification)		PCON-PL-28PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		PCON-PO-28PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-28PI-NP-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-28P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-28PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points			-		→P395

- Control-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP2-GR3SM

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

Model Description	RCP2	—	GR3SM	—	I	—	42P	—	30	—	14	—	P1	—	<input type="checkbox"/>	—	<input type="checkbox"/>
	Series		Type		Encoder type		Motor type		Deceleration ratio		Stroke		Compatible Controllers		Cable length		Option
					I: Incremental specification		42P: Pulse motor 42 Size		30: Deceleration ratio 1/30		14: 14mm (7mm on one side)		P1: PCON PSEL		N : None P : 1m S : 3m M : 5m X□□: Length R□□: Robot cable		SB : Shaft bracket FB : Flange bracket

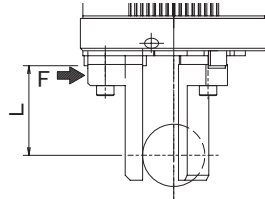
See preceding section for model descriptions.



Technical Reference P. 451

- 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 gripping forces of all fingers when the gripping point distance is 10 and overhang distance is 0. Refer to the explanation on the right when determining the weight of a work part that can be physically transferred.
 - (3) The rated acceleration during movement is 0.3G.

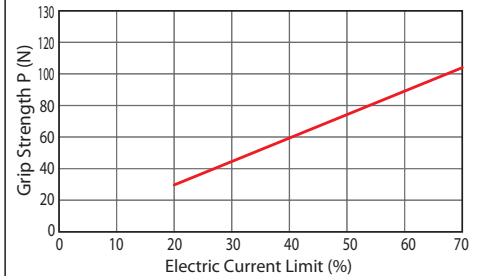
Grip Force vs. Current-limiting Graph Slider type (GR3SS/GR3SM)



* Keep the distance (L) from the finger attachment surface to the gripping point to the following dimensions or less.

GR3SS→50mm or less
GR3SM→80mm or less

*The speed is fixed at 5mm/s when gripping (pushing).



Actuator Specification Table

Leads and Payloads

Model	Gear Ratio (mm)	Max. gripping force (N)	Stroke (mm)
RCP2-G3SM-I-42P-30-14-P1-①-②	30	102	14

Legend: ① Cable length ② Option

Stroke and Max. Opening/Closing Speed

Deceleration ratio	Stroke	14 (mm)
	30	50

(Unit = mm/s)

Price List by Stroke

Stroke (mm)	Type code
	GR3SM
14	Encoder type
	Incremental

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P374 for maintenance cables.

② Option Price List

Title	Option code	See page	Standard price
Shaft bracket	SB	→P445	-
Flange bracket	FB	→P437	-

Actuator Specification

Item	Description
Drive System	Worm gear + Worm wheel gear
Positioning Repeatability	±0.01mm
Backlash	0.3mm or less per side (fingers always pressured to open side via spring)
Guide	Close roller guide
Allowable load moment	Ma: 6.3N-m, Mb: 6.3N-m, Mc: 5.7N-m
Weight	1.2kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

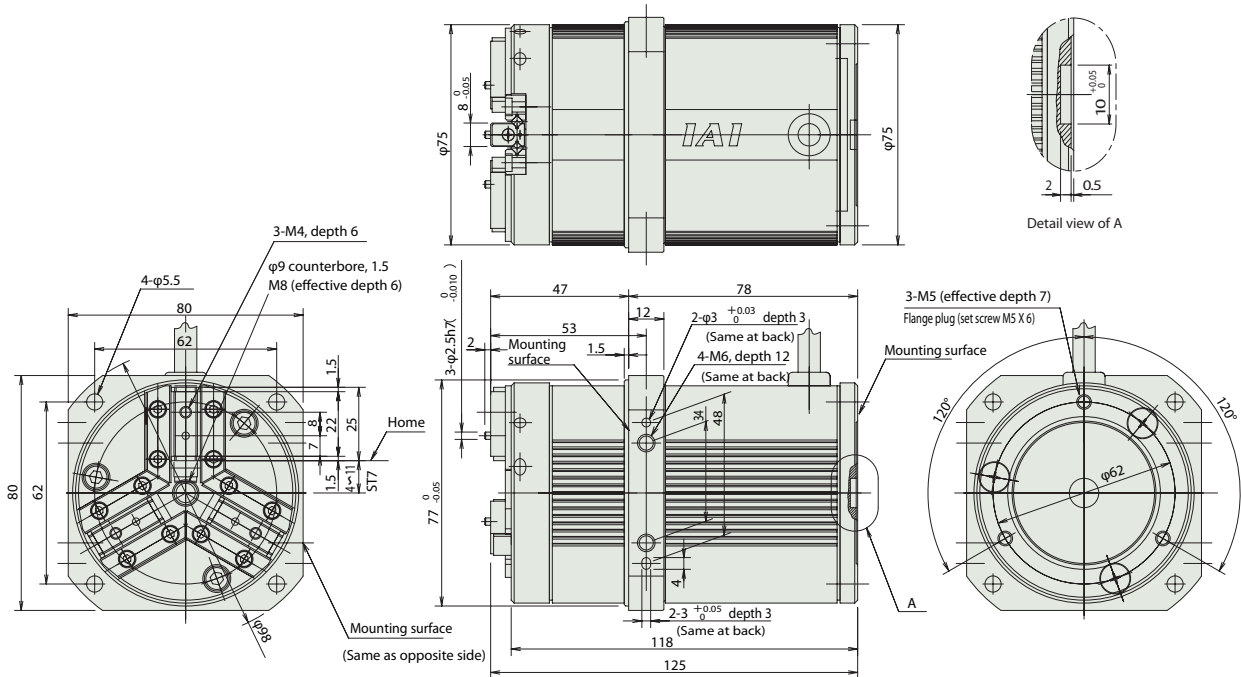
www.intelligentactuator.com

Information on special orders

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* During home return, the fingers return along a line expanding outward by 0.5 mm from the home. Pay attention to prevent contact between the fingers and surrounding parts.
* See P374 for motor-encoder cable details.



Weight (kg) 1.2

Compatible Controllers

The RCP2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-42PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	→P365	
Safety category compatible positioner type		PCON-CG-42PI-NP-2-0					-		
Solenoid valve type		PCON-CY-42PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (differential line driver specification)		PCON-PL-42PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		PCON-PO-42PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-42PI-NP-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-42P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-42PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points			-		→P395

- Control-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

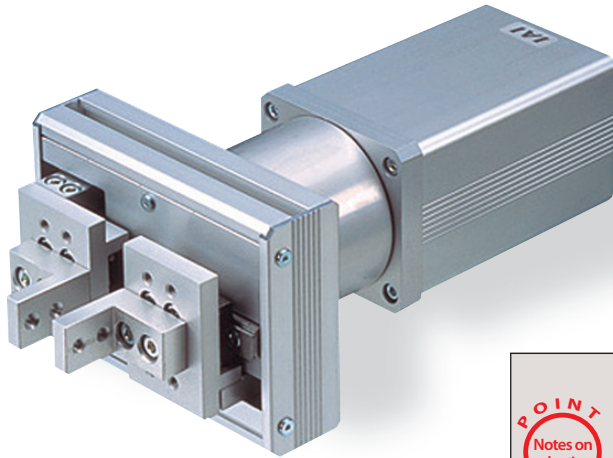
RCS2-GR8

ROBO Cylinder, Gripper Type, Actuator Width of 104 to 284mm,
 200-V Servo Motor

Model Description	RCS2	GR8	I	60	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Series	Type	Encoder type	Motor type	Deceleration ratio	Stroke	Compatible Controllers	Cable length	
I: Incremental specification	60 : Servo motor 60W	5 : 1/5	20 : 20mm 40 : 40mm (60) : 60mm (80) : 80mm 100 : 100mm (120) : 120mm (200) : 200mm	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N : None P : 1m S : 3m M : 5m X□ : Length R□ : Robot cable			

See preceding section for model descriptions.

Power saving



* Note that the speed is fixed at 10mm/s when gripping (pushing).

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POINT
Notes on selection

(1) (60, 80, 120, 200) are standard stroke-equipped models.
 (2) The maximum gripping force is the sum of gripping forces of both fingers

Actuator Specification Table

Model	Motor output (W)	Deceleration ratio	Max. gripping force (N)	Stroke (mm)
RCS2-GR8-I-60-5-①-②-③	60	1/5	45.1	20, 40, (60), (80), 100, (120), (200)

Legend: ① Stroke ② Cable length ③ Option

Price List by ① Stroke

① Stroke (mm)	Type code	
	GR8	Encoder type
	Incremental	
	I	
20	-	-
40	-	-
(60)	-	-
(80)	-	-
100	-	-
(120)	-	-
(200)	-	-

② Cable Length Price List

Type	② Cable code	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P374 about maintenance cables.

Actuator Specification

Item	Description
Drive System	Rack & pinion
Positioning Repeatability	±0.04mm
Backlash	0.7mm or less
Base	Material: aluminum white alumite treated
Allowable load moment	Ma: 5.1N-m, Mb: 5.1N-m, Mc: 10.4N-m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- 20P Pulse Motor
- 28P Pulse Motor
- 35P Pulse Motor
- 42P Pulse Motor
- 56P Pulse Motor
- 86P Pulse Motor
- 10W Servo Motor
- 20W Servo Motor
- 30W Servo Motor
- 60W Servo Motor
- 100W Servo Motor
- 150W Servo Motor
- 750W Servo Motor

RCP2-RTB/RTBL

ROBO Cylinder, Verticle Rotary Type, Actuator Width 50mm, Pulse Motor

Model Description	RCP2	<input type="checkbox"/>	I	28P	<input type="checkbox"/>	<input type="checkbox"/>	P1	<input type="checkbox"/>	<input type="checkbox"/>
Series	Type	Encoder type	Motor type	Speed reduction ratio	Vibration angle	Compatible Controllers	Cable length	Option	
RTB: 330° rotation specification		I: Incremental specification	28: Pulse motor 28□ Size	20: Deceleration ratio 1/20 30: Deceleration ratio 1/30	330: 330 degrees (RTB dedicated) 360: 360 degrees (RTBL dedicated)	P1: PCON PSEL	N: None P: 1m S: 3m M: 5m X: Length designation R: Robot cable	SA: Shaft Adapter TA: Table Adapter	

See preceding section for model descriptions.



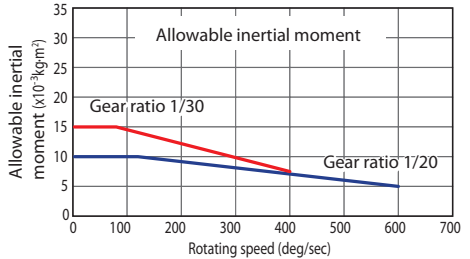
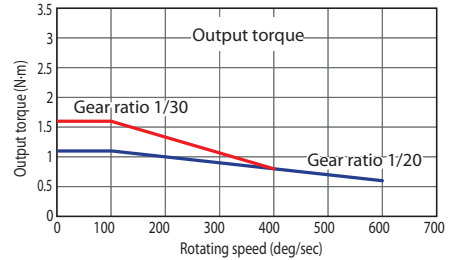
Technical Reference P. 451



- (1) Output torque decreases as rotational speed increases. Use the output torque graph at the right to determine if the required operating speed can be achieved.
- (2) The allowable inertial moment of a rotatable work varies depending on the rotating speed.
- (3) The rated acceleration during movement is 0.3G.

Speed vs. Payload Graph

A characteristic of the RCP2 Series pulse motor is that the payload decreases as the speed increases. Use the table below to confirm that there is sufficient speed at the desired payload.



Actuator Specification Table

Leads and Payloads

Model	Speed reduction ratio	Maximum torque (N·m)	Allowable inertial moment (kg·m ²)	oscillation angle (degrees)
RCP2-RTB-I-28P-20-330-P1-①-②	1/20	1.1	0.01	330
RCP2-RTB-I-28P-30-330-P1-①-②	1/30	1.7	0.015	
RCP2-RTBL-I-28P-20-360-P1-①-②	1/20	1.1	0.01	360
RCP2-RTBL-I-28P-30-360-P1-①-②	1/30	1.7	0.015	

Legend: ① Cable length ② Options

Deceleration Ratio and Maximum Speed

Speed reduction ratio	Oscillation Angle (degrees)	330/360 (degrees)
1/20		600
1/30		400

(Unit: degrees)

Price List by Stroke

Vibration angle (degrees)	Type code	
	RTB	RTBL
	Encoder type	
330	—	—
	Incremental	

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) to X10 (10m)	—
	X11 (11m) to X15 (15m)	—
Robot cable	X16 (16m) to X20 (20m)	—
	R01 (1m) to R03 (3m)	—
	R04 (4m) to R05 (5m)	—
	R06 (6m) to R10 (10m)	—
	R11 (11m) to R15 (15m)	—
	R16 (16m) to R20 (20m)	—

*Please see P374 for information on the maintenance cable.

② Option Price List

Title	Option code	See page	Standard price
Reversed specification(*)	NM	P258	—
Shaft adapter	SA	P444	—
Table adapter	TA	P445	—

*Only multiple rotation specifications can be selected for reverse rotation specifications.

Actuator Specification

Item	Description
Drive method	Hypoid gear
Positioning Repeatability	±0.01 degrees
Return Home Precision	Within ±0.01 degree (RTB)/Within ±0.05 degree (RTBL)
Backlash	±0.1 degrees
Allowable thrust load	50N
Allowable load moment	3.9N·m
Weight	0.86kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com

Technical Reference

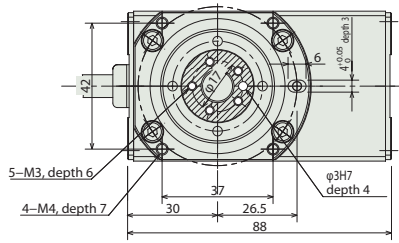
P. 451

2D CAD

3D CAD

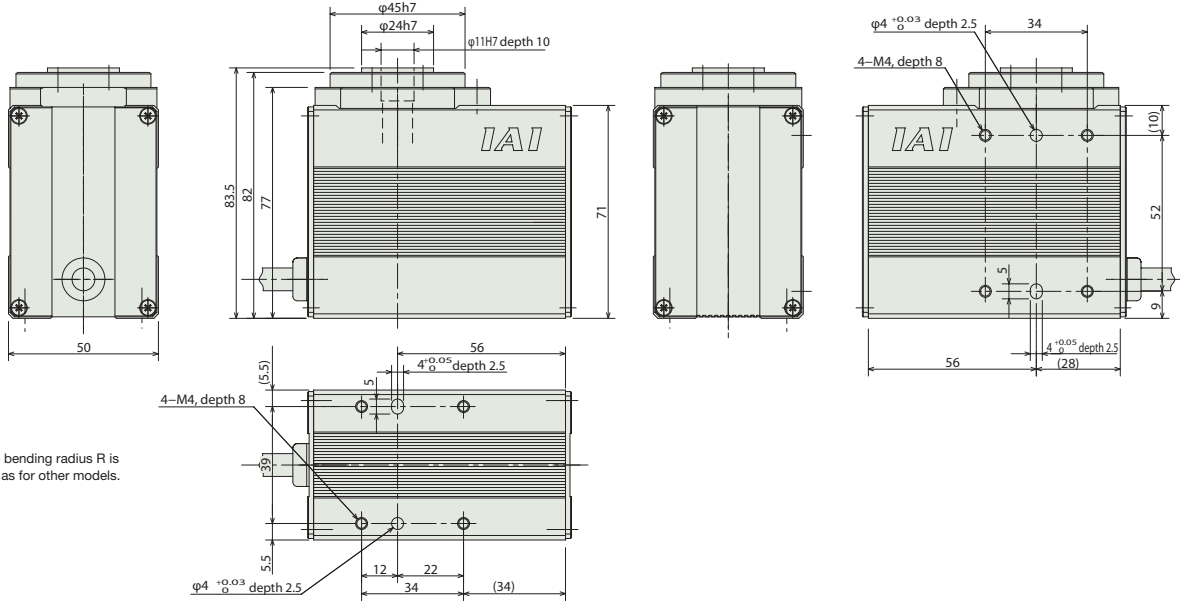
Caution

*The diagonal lines in the area to the right show the rotating areas.



Caution

The position shown to the left becomes the home position. During home return, the actuator rotates to a position 1° counterclockwise from the current position. Pay attention to prevent contact between the actuator and surrounding parts. The operating range covers up to the 330° position in clockwise rotation as viewed from the top.



*The cable bending radius R is the same as for other models.

Weight (kg) 0.86

Compatible Controllers

The RCP2 Series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	See page		
Positioner type		PCON-C-28PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	P365		
Safety category compatible Positioner type		PCON-CG-28PI-NP-2-0								
Solenoid valve type		PCON-CY-28PI-NP-2-0	Same as solenoid valve Controlled operation enabled	3 points						
Pulse series input type (Differential line driver specification)		PCON-PL-28PI-NP-2-0	Differential line driver compatible Pulse series input type	(-)						
Pulse series input type (Open collector specification)		PCON-PO-28PI-NP-2-0	Open collector compatible Pulse series input type							
Serial communication type		PCON-SE-28PI-NP-0-0	Serial communications Special type	64 points						
Field network type		RPCON-28P	Field network Dedicated type	768 points					-	P343
Program control type		PSEL-C-1-28PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points					-	P395

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP2-RTC/RTCL

ROBO Cylinder, Flat Rotary Type, Actuator Width 88mm, Pulse Motor

Model Description	RCP2	I	28P	P1
Series	Type	Encoder type	Motor type	Speed reduction ratio
RTC: 330° rotation specification	RTCL: Multi-rotation specification	I: Incremental specification	28: Pulse motor 28□ Size	20: Deceleration ratio 1/20 30: Deceleration ratio 1/30
				Vibration angle
				330: 330 degrees (RTC dedicated) 360: 360 degrees (RTCL dedicated)
				Compatible Controllers
				P1: PCON PSEL
				Cable length
				N: None P: 1m S: 3m M: 5m X: Length designation R: Robot cable
				Option
				SA: Shaft Adapter TA: Table Adapter

See preceding section for model descriptions.

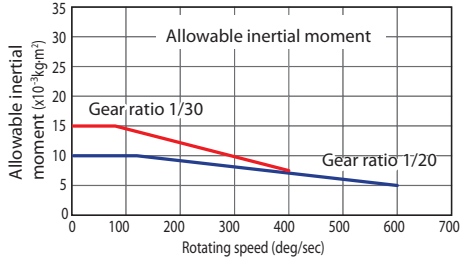
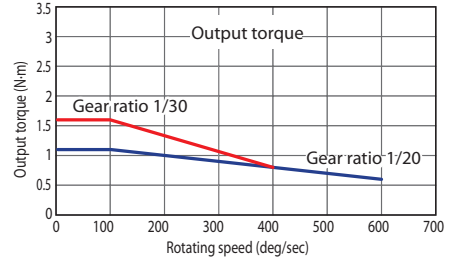


Technical Reference P. 451

- POINT** Notes on selection
- (1) Output torque decreases as rotational speed increases. Use the output torque graph at the right to determine if the required operating speed can be achieved.
 - (2) The allowable inertial moment of a rotatable work varies depending on the rotating speed.
 - (3) The rated acceleration during movement is 0.3G.

Speed vs. Payload Graph

A characteristic of the RCP2 Series pulse motor is that the payload decreases as the speed increases. Use the table below to confirm that there is sufficient speed at the desired payload.



Actuator Specification Table

Leads and Payloads

Model	Speed reduction ratio	Maximum torque (N·m)	Allowable inertial moment (kg·m ²)	oscillation angle (degrees)
RCP2-RTC-I-28P-20-330-P1-①-②	1/20	1.1	0.01	330
RCP2-RTC-I-28P-30-330-P1-①-②	1/30	1.7	0.015	
RCP2-RTCL-I-28P-20-360-P1-①-②	1/20	1.1	0.01	360
RCP2-RTCL-I-28P-30-360-P1-①-②	1/30	1.7	0.015	

Legend: ① Cable length ② Options

Deceleration Ratio and Maximum Speed

Speed reduction ratio	Oscillation Angle (degrees)	330/360 (degrees)
1/20		600
1/30		400

(Unit: degrees)

Price List by Stroke

Vibration angle (degrees)	Type code	
	RTC	RTCL
	Encoder type	
330	—	—
	Incremental	

① Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) to X10 (10m)	—
	X11 (11m) to X15 (15m)	—
	X16 (16m) to X20 (20m)	—
	R01 (1m) to R03 (3m)	—
Robot cable	R04 (4m) to R05 (5m)	—
	R06 (6m) to R10 (10m)	—
	R11 (11m) to R15 (15m)	—
	R16 (16m) to R20 (20m)	—

*Please see P374 for information on the maintenance cable.

② Option Price List

Title	Option code	See page	Standard price
Reversed specification(*)	NM	P258	—
Shaft adapter	SA	P444	—
Table adapter	TA	P445	—

*Only multiple rotation specifications can be selected for reverse rotation specifications.

Actuator Specification

Item	Description
Drive method	Hypoid gear
Positioning Repeatability	±0.01 degrees
Return Home Precision	Within ±0.01 degree (RTC)/Within ±0.05 degree (RTCL)
Backlash	±0.1 degrees
Allowable thrust load	50N
Allowable load moment	3.9N·m
Weight	0.92kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

CAD drawings can be downloaded from the website.

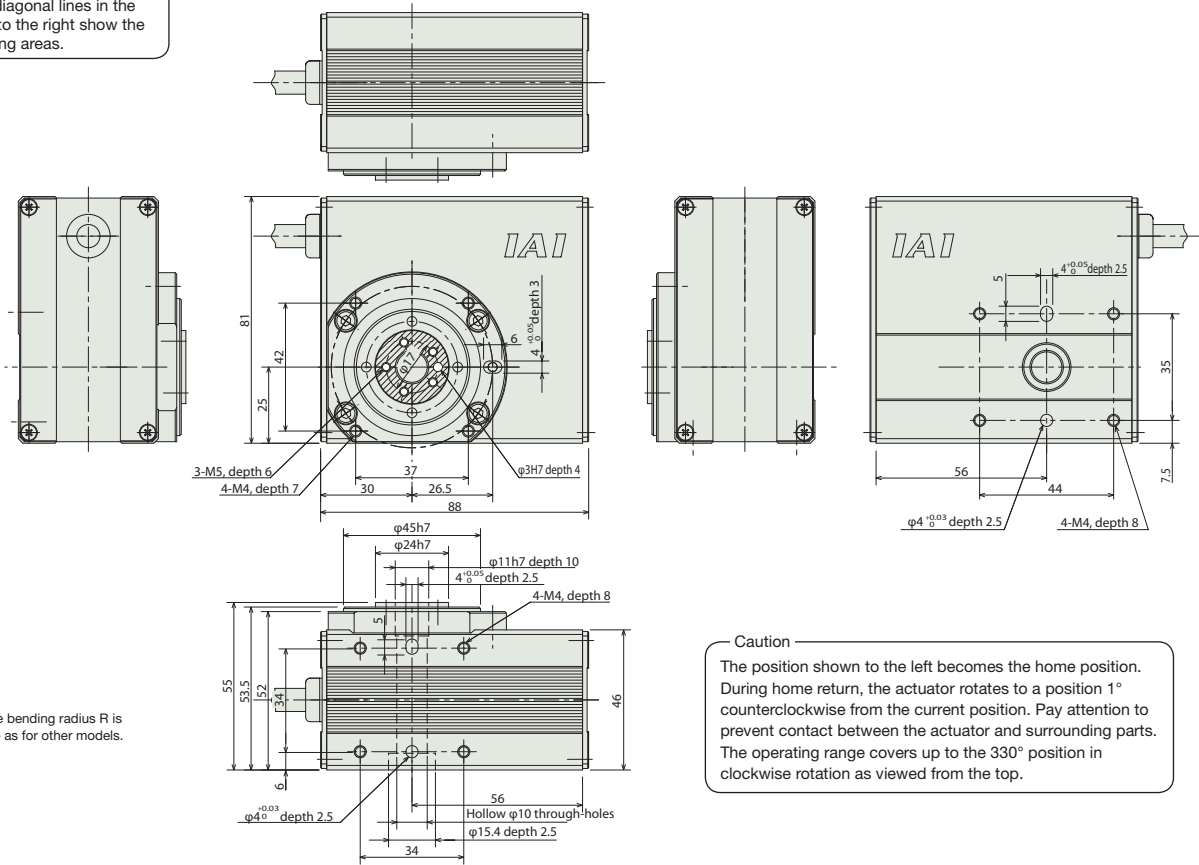
www.intelligentactuator.com

2D CAD

3D CAD

Caution

*The diagonal lines in the area to the right show the rotating areas.



*The cable bending radius R is the same as for other models.

Caution
The position shown to the left becomes the home position. During home return, the actuator rotates to a position 1° counterclockwise from the current position. Pay attention to prevent contact between the actuator and surrounding parts. The operating range covers up to the 330° position in clockwise rotation as viewed from the top.

Weight (kg) 0.92

Compatible Controllers

The RCP2 Series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	See page		
Positioner type		PCON-C-28PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	P365		
Safety category compatible Positioner type		PCON-CG-28PI-NP-2-0								
Solenoid valve type		PCON-CY-28PI-NP-2-0	Same as solenoid valve Controlled operation enabled	3 points						
Pulse series input type (Differential line driver specification)		PCON-PL-28PI-NP-2-0	Differential line driver compatible Pulse series input type	(-)						
Pulse series input type (Open collector specification)		PCON-PO-28PI-NP-2-0	Open collector compatible Pulse series input type							
Serial communication type		PCON-SE-28PI-NP-0-0	Serial communications Special type	64 points						
Field network type		RPCON-28P	Field network Dedicated type	768 points					-	P343
Program control type		PSEL-C-1-28PI-NP-2-0	Programmable type capable of operating up to 2 axes	1500 points					-	P395

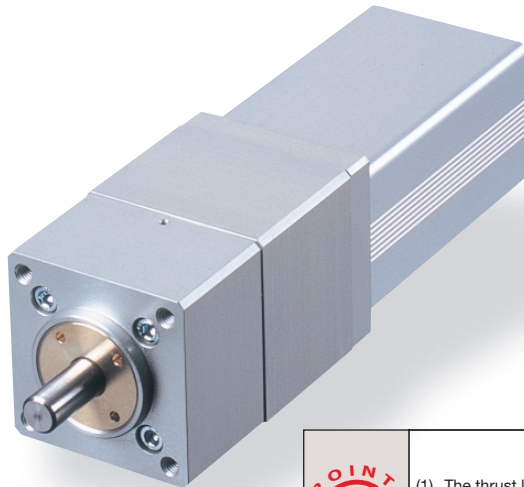
- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct) mounted
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCS2-RT6

ROBO Cylinder, Rotary Type, Actuator Width 64mm, 200-V Servo Motor, Straight Type

Model Description	RCS2	RT6	I	60	18	300			L
	Series	Type	Encoder type	Motor type	Speed reduction ratio	Vibration angle	Compatible Controllers	Cable length	Option
			I: Incremental specification	60: Servo Motor 60W	18:1/18	300:300 degrees	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N: None P: 1m S: 3m M: 5m X: Length designation R: Robot cable	L: Limit switch (Standard equipment)

See preceding section for model descriptions.



Technical Reference P. 451

- POINT**
Notes on selection
- (1) The thrust load indicates the mechanical strength of the output shaft when the actuator is stationary. When selecting a model, consider the load moment and load inertia.
 - (2) The rated acceleration is based on operation at an acceleration of 0.3G.

Actuator Specification Table

Leads and Payloads

Model	Motor output (w)	Speed reduction ratio	Rated torque (N·m)	Allowable inertial moment (kg·m ²)	Oscillation angle (degrees)
RCS2-RT6-I-60-18-300-①-②-L	60	1/18	2.4	2.5×10 ⁻² or less	300

Legend: ① Applicable controller ② Cable length

Stroke and Maximum Speed

Speed reduction ratio	Oscillation angle (degrees)	
	300	500
1/18	300	500

(Unit: degrees)

Pricing List By Stroke

Vibration angle (degrees)	Type code
	RT6
	Encoder type
	Incremental
300	I

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) to X10 (10m)	—
	X11 (11m) to X15 (15m)	—
	X16 (16m) to X20 (20m)	—
	R01 (1m) to R03 (3m)	—
Robot cable	R04 (4m) to R05 (5m)	—
	R06 (6m) to R10 (10m)	—
	R11 (11m) to R15 (15m)	—
	R16 (16m) to R20 (20m)	—

*Please see P394 for information on the maintenance cable.

Actuator Specification

Item	Description
Drive System	Ball speed reducer
Positioning Repeatability	±0.02 degrees
Backlash	0.1 degrees or less
Base	Material Aluminum White alumite treated
Allowable load moment	6.8N·m or less
Thrust load	100N or higher
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

Dimensional Drawings

CAD drawings can be downloaded from the website.

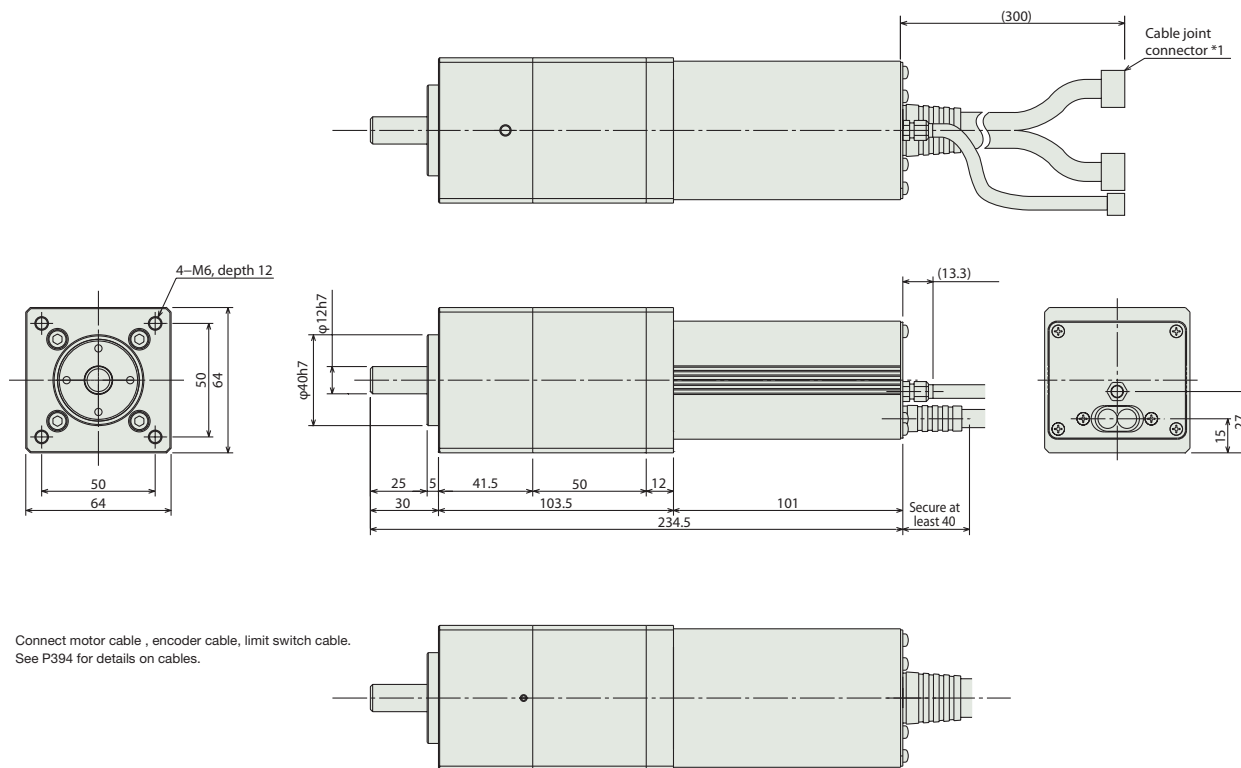
www.intelligentactuator.com



*See P507 for more on home return.

Information on special orders

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*1 Connect motor cable, encoder cable, limit switch cable. See P394 for details on cables.

Weight (kg) 1.9

Compatible Controllers

The RCS2 Series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	See page
Positioner mode		SCON-C-60①-NP-2-②	Up to 512-point positioning possible	512 points	Single-phase AC 100V Single-phase AC 200V Three-phase AC 200V (XSEL-P/Q only)	Maximum 360VA *1-axis specification for 150W operation	-	P385
Solenoid valve mode			Same as solenoid valve Controlled operation enabled	7 points				
Serial communication type			Serial communications Special type	64 points				
Pulse train input control type			Pulse train input control type Special type	(-)				
Program control, 1 to 2 axis type		SSEL-C-1-60①-NP-2-②	Programmable type capable of operating up to 2 axes	20000 points			-	P415
Program control, 1 to 6 axis type		XSEL-③-1-60①-N1-EEE-2-④	Programmable type capable of operating up to 6 axes	4000 points			-	P425

*The SSEL and XSEL models are based on a 1-axis specification.

*① For entering the encoder type (I: incremental/A: absolute).

*② Indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V).

*③ Indicates the XSEL type (J/K/P/Q).

*④ Indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V, 3: Three-phase 200V).

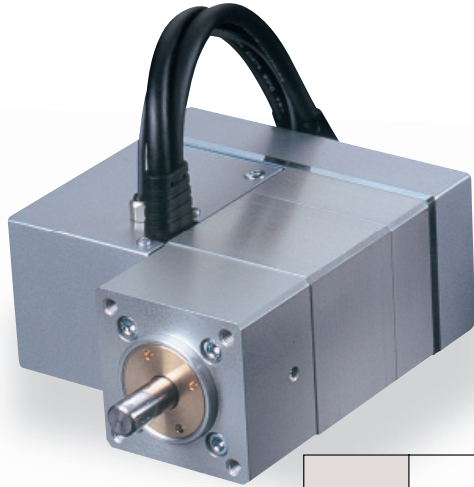
- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCS2-RT6R

ROBO Cylinder, Rotary Type, Actuator Width 64mm, 200-V Servo Motor, Reversing Type

Model Description	RCS2	RT6R	I	60	18	300			L
	Series	Type	Encoder type	Motor type	Speed reduction ratio	Vibration angle	Compatible Controllers	Cable length	Option
			I: Incremental specification	60: Servo Motor 60W	18:1/18	300:300 degrees	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N: None P: 1m S: 3m M: 5m X: Length designation R: Robot cable	L: Limit switch (Standard equipment)

See preceding section for model descriptions.



Technical Reference P. 451

POINT
Notes on selection

- (1) The thrust load indicates the mechanical strength of the output shaft when the actuator is stationary. When selecting a model, consider the load moment and load inertia.
- (2) The rated acceleration is based on operation at an acceleration of 0.3G.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Speed reduction ratio	Rated torque (N·m)	Allowable inertial moment (kg·m ²)	Oscillation angle (degrees)
RCS2-RT6R-I-60-18-300-①-②-L	60	1/18	2.4	2.5×10 ⁻² or less	300

Legend: ① Applicable controller ② Cable length

Stroke and Maximum Speed

Speed reduction ratio	Oscillation angle (degrees)	
	300	500
1/18	300	500

(Unit: degrees)

Pricing List By Stroke

Vibration angle (degrees)	Type code
	RT6R
	Encoder type
	Incremental
300	I

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) to X10 (10m)	—
	X11 (11m) to X15 (15m)	—
	X16 (16m) to X20 (20m)	—
	R01 (1m) to R03 (3m)	—
Robot cable	R04 (4m) to R05 (5m)	—
	R06 (6m) to R10 (10m)	—
	R11 (11m) to R15 (15m)	—
	R16 (16m) to R20 (20m)	—

*Please see P394 for information on the maintenance cable.

Actuator Specification

Item	Description
Drive System	Ball deceleration device + timing belt
Positioning Repeatability	±0.02 degrees
Backlash	0.1 degrees or less
Base	Material Aluminum White alumite treated
Allowable load moment	6.8N·m or less
Thrust load	100N or higher
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

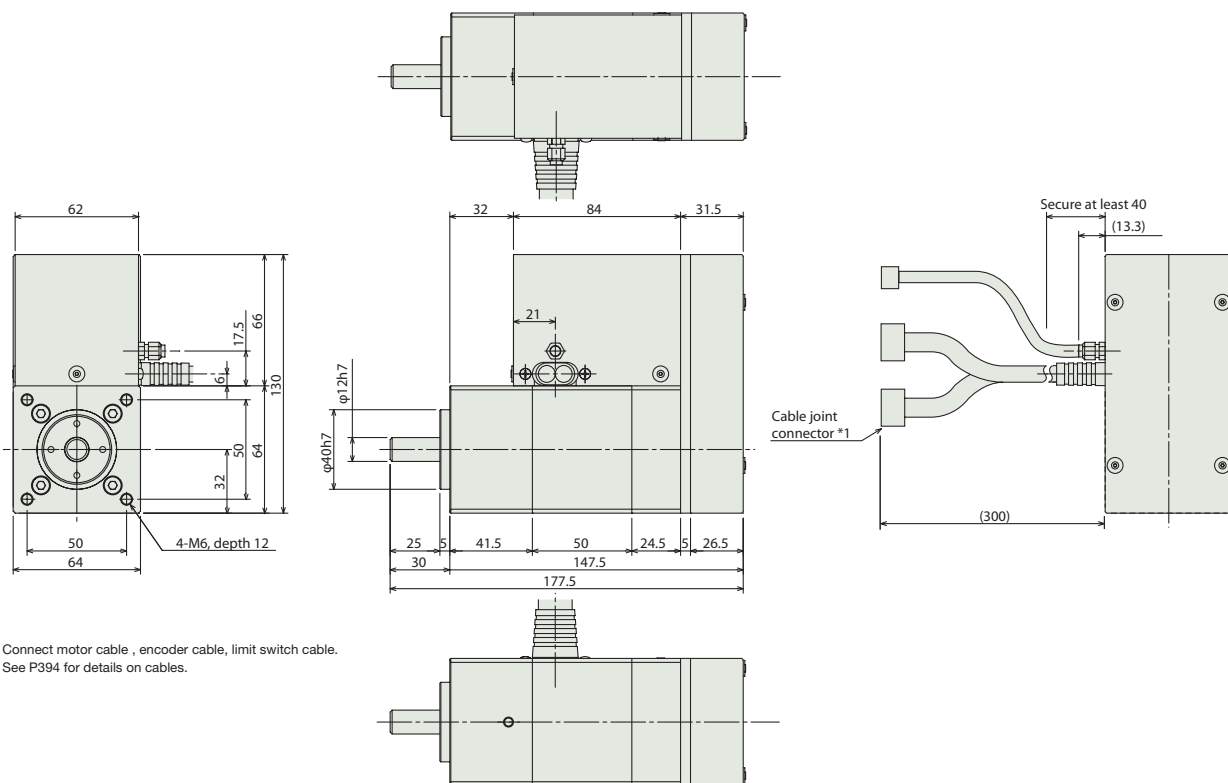
Dimensional Drawings

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

Information on special orders P. 454



*See P507 for more on home return.



*1 Connect motor cable, encoder cable, limit switch cable. See P394 for details on cables.

Weight (kg) 2.8

Compatible Controllers

The RCS2 Series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	See page
Positioner mode		SCON-C-60①-NP-2-②	Up to 512-point positioning possible	512 points	Single-phase AC 100V Single-phase AC 200V Three-phase AC 200V (XSEL-P/Q only)	Maximum 360VA *1-axis specification for 150W operation	-	P385
Solenoid valve mode			Same as solenoid valve Controlled operation enabled	7 points				
Serial communication type			Serial communications Special type	64 points				
Pulse train input control type			Pulse train input control type Special type	(-)				
Program control, 1 to 2 axis type		SSEL-C-1-60①-NP-2-②	Programmable type capable of operating up to 2 axes	20000 points			-	P415
Program control, 1 to 6 axis type		XSEL-③-1-60①-N1-EEE-2-④	Programmable type capable of operating up to 6 axes	4000 points			-	P425

*The SSEL and XSEL models are based on a 1-axis specification.
 *① For entering the encoder type (I: incremental/A: absolute).
 *② Indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V).
 *③ Indicates the XSEL type (J/K/P/Q).
 *④ Indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V, 3: Three-phase 200V).

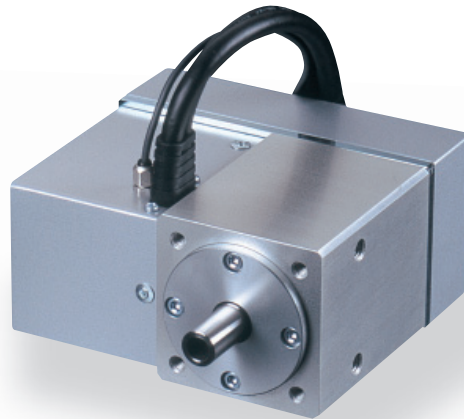
- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCS2-RT7R

ROBO Cylinder, Rotary Type, Actuator Width 68mm, 200-V Servo Motor, Motor Reversing Hollow Type

Model Description	RCS2	RT7R	I	60	4	300			L
	Series	Type	Encoder type	Motor type	Speed reduction ratio	Vibration angle	Compatible Controllers	Cable length	Option
			I: Incremental specification	60: Servo Motor 60W	4:1/4	300:300 degrees	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N: None P: 1m S: 3m M: 5m X: Length designation R: Robot cable	L: Limit switch (Standard equipment)

See preceding section for model descriptions.



Technical Reference P. 451

POINT
Notes on selection

- (1) The thrust load indicates the mechanical strength of the output shaft when the actuator is stationary. When selecting a model, consider the load moment and load inertia.
- (2) The rated acceleration is based on operation at an acceleration of 0.3G.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Speed reduction ratio	Rated torque (N·m)	Allowable inertial moment (kg·m ²)	Oscillation angle (degrees)
RCS2-RT7R-I-60-4-300-①-②-L	60	1/4	0.764	1.25×10 ⁻³ or less	300

Legend: ① Applicable controller ② Cable length

Stroke and Maximum Speed

Speed reduction ratio	Oscillation angle (degrees)	
	300	500
1/4	300	500

(Unit: degrees)

Pricing List By Stroke

Vibration angle (degrees)	Type code
	RT7R
	Encoder type
	Incremental
300	I

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) to X10 (10m)	—
	X11 (11m) to X15 (15m)	—
	X16 (16m) to X20 (20m)	—
	R01 (1m) to R03 (3m)	—
Robot cable	R04 (4m) to R05 (5m)	—
	R06 (6m) to R10 (10m)	—
	R11 (11m) to R15 (15m)	—
	R16 (16m) to R20 (20m)	—

*Please see P394 for information on the maintenance cable.

Actuator Specification

Item	Description
Drive System	Timing belt
Positioning Repeatability	±0.1 degrees
Backlash	0.1 degrees or less
Base	Material Aluminum White alumite treated
Allowable load moment	8.9N·m or less
Thrust load	100N or higher
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)

Dimensional Drawings

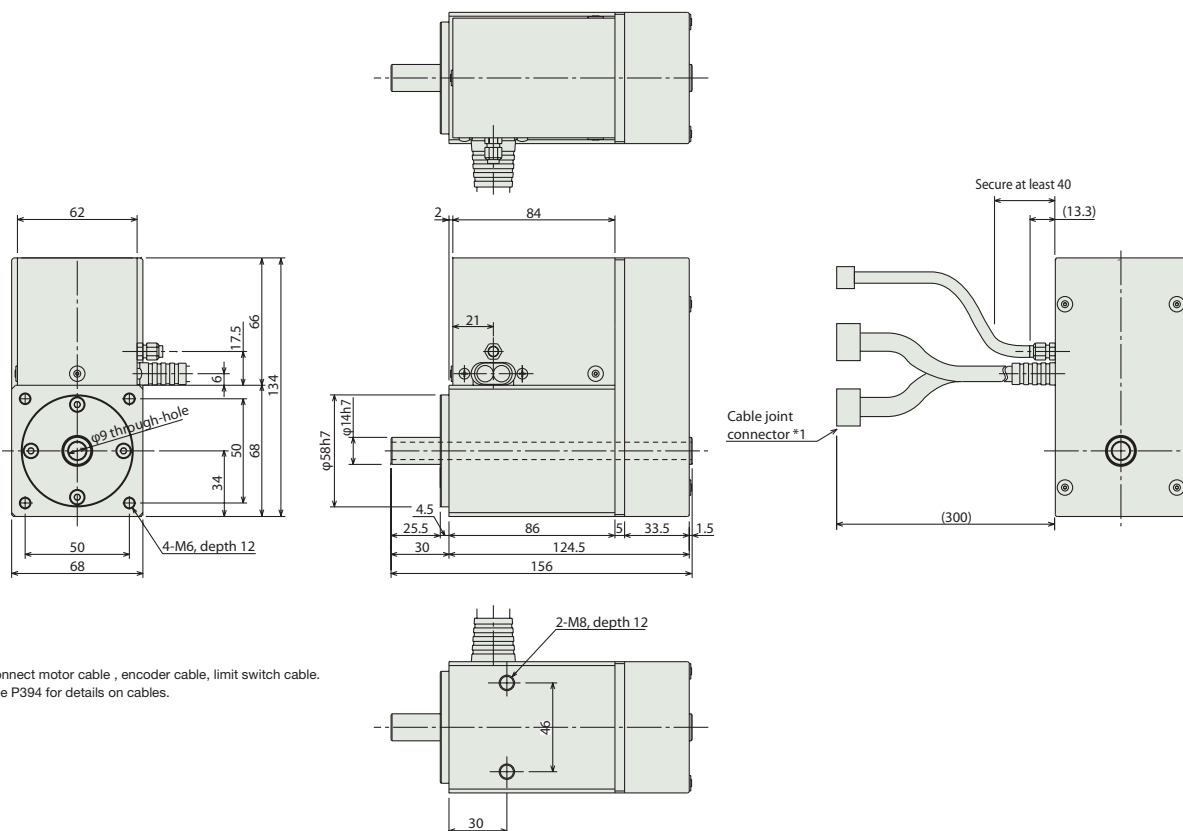
CAD drawings can be downloaded from the website. www.intelligentactuator.com



*See P507 for more on home return.

Information on special orders

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*1 Connect motor cable, encoder cable, limit switch cable. See P394 for details on cables.

Weight (kg) 2.6

Compatible Controllers

The RCS2 Series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	See page
Positioner mode		SCON-C-60①-NP-2-②	Up to 512-point positioning possible	512 points	Single-phase AC 100V Single-phase AC 200V Three-phase AC 200V (XSEL-P/Q only)	Maximum 360VA *1-axis specification for 150W operation	-	P385
Solenoid valve mode			Same as solenoid valve Controlled operation enabled	7 points				
Serial communication type			Serial communications Special type	64 points				
Pulse train input control type			Pulse train input control type Special type	(-)				
Program control, 1 to 2 axis type		SSEL-C-1-60①-NP-2-②	Programmable type capable of operating up to 2 axes	20000 points			-	P415
Program control, 1 to 6 axis type		XSEL-③-1-60①-N1-EEE-2-④	Programmable type capable of operating up to 6 axes	4000 points			-	P425

*The SSEL and XSEL models are based on a 1-axis specification.

*① For entering the encoder type (I: incremental/A: absolute).

*② Indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V).

*③ Indicates the XSEL type (J/K/P/Q).

*④ Indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V, 3: Three-phase 200V).

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/Flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W