RCP2W-SA16C

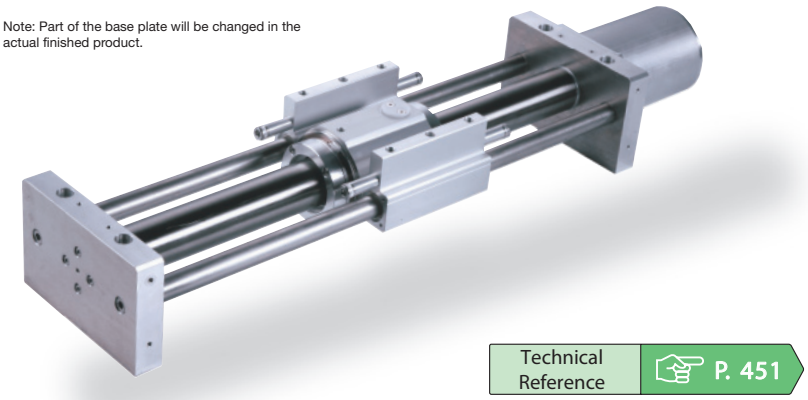
ROBO Cylinder, Waterproof Type, Actuator Width 158mm, Pulse Motor, Straight Type

■Model Description **RCP2W** — **SA16C** — **I** — **86P** — □ — □ — **P2** — □ — □

- Series: RCP2W
- Type: SA16C
- Encoder type: I: Incremental specification
- Motor type: 86P: Pulse motor 86 Size
- Lead: 10: 10mm, 5: 5mm, 2.5: 2.5mm
- Stroke: 50: 50mm to 600: 600mm (Set steps every 50mm)
- Compatible Controllers: P2: PCON-CF, RCP2-CF
- Cable length: N: None, P: 1m, S: 3m, M: 5m, X□□: Length, R□□: Robot cable
- Option: CO: With cover, NM: Reversed-home specification

See preceding section for model descriptions.

Note: Part of the base plate will be changed in the actual finished product.



Technical Reference P. 451

POINT Notes on selection

(1) The mounting for this actuator is horizontal and flat. Do not use in any other mounting orientation (on the side, vertical, reverse). (The same is true when in a protective tube)

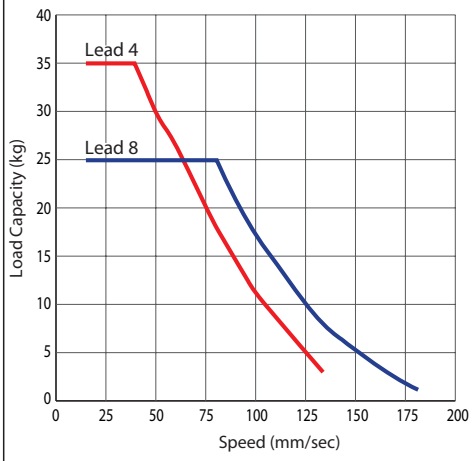
(2) As the stroke length increases, the maximum speed decreases due to hazardous ball screw RPMs. Confirm the maximum desired stroke speed in the Actuator Spec Table below.

(3) Since the RCP2 Series uses a pulse motor, the payload decreases at high speeds. Use the diagram of speed and load capacity on the right to check the load capacity at the speed you desire.

(4) The load capacity is based on operation at an acceleration of 0.2G. 0.2G is the upper limit for acceleration.

■Speed vs. Payload Graph

Because of the characteristics of the pulse motor of the RCP2 series, 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

(Note 1) Please note that the maximum payload decreases as the speed increases.

Model	Lead (mm)	Maximum payload (Note 1) Horizontal (kg)	Maximum payload (Note 1) Vertical (kg)	Stroke (mm)
RCP2W-SA16C-I-86P-8-①-P2-②-③	8	Up to 25	Not Possible	50 to 600 (every 50mm)
RCP2W-SA16C-I-86P-4-①-P2-②-③	4	Up to 35		

Legend: ① Stroke ② Cable length ③ Option

■Stroke and Maximum Speed

Lead \ Stroke	50 to 600 (every 50mm)
8	180
4	133

(Unit = mm/s)

Price List by ① Stroke

① Stroke (mm)	Type code SA16C, Encoder type Incremental: Without cover	With cover
50	-	-
100	-	-
150	-	-
200	-	-
250	-	-
300	-	-
350	-	-
400	-	-
450	-	-
500	-	-
550	-	-
600	-	-

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)	-
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.

③ Option Price List

Title	Option code	See page	Standard price
With cover	**CO**	→P437	-
Reversed-home specification	**NM**	→P442	-

Actuator Specification

Item	Description
Drive system	Ball screw φ12mm, rolled C10
Positioning repeatability	±0.08mm
Backlash	0.1mm or less
Guide	φ20 Non-lubricated, straight sliding guide
Allowable load moment	20.0N·m
Overhang load length	Max. 200mm in Ma direction
Protective structure	IP67
Ambient operating temperature, humidity	0 to 40℃, 85% RH or less (non-condensing)
Service life	5000km

CAUTION

The SA16C is structurally unable to receive dynamic moment. When something is mounted to the slider, install it so that it does not exert a moment in the Mb or Mc direction, and its weight is evenly distributed on the slider.

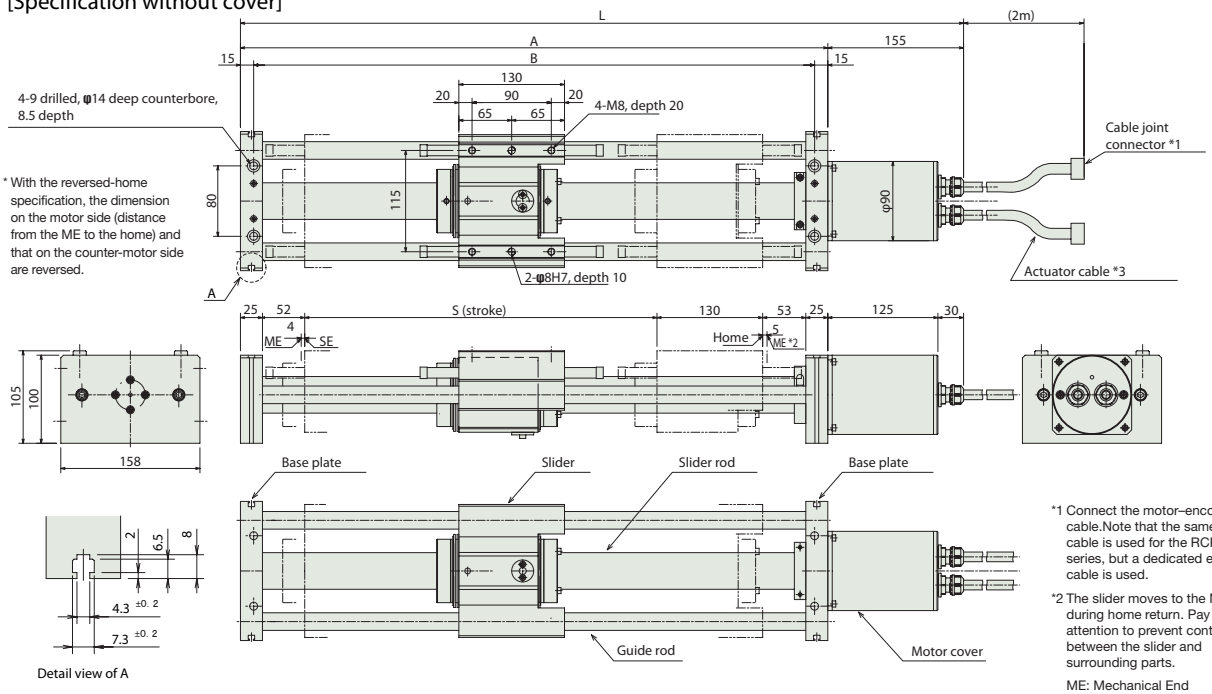
Dimensional Drawings

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

2D CAD 3D CAD

Information on special orders P. 454

[Specification without cover]



*1 Connect the motor–encoder cable.Note that the same motor cable is used for the RCP2 series, but a dedicated encoder cable is used.

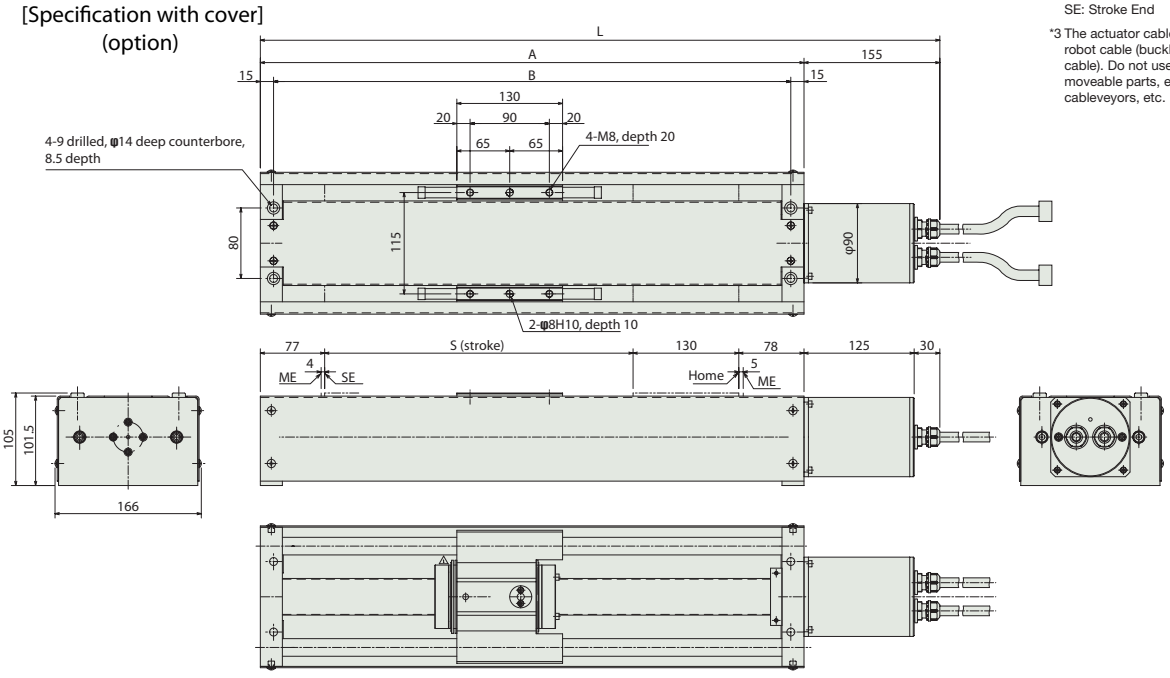
*2 The slider moves to the ME during home return. Pay attention to prevent contact between the slider and surrounding parts.

ME: Mechanical End

SE: Stroke End

*3 The actuator cable is not a robot cable (buckle-resistant cable). Do not use it with moveable parts, e.g., cableveyors, etc.

[Specification with cover] (option)



Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	490	540	590	640	690	740	790	840	890	940	990	1040
A	335	385	435	485	535	585	635	685	735	785	835	885
B	305	355	405	455	505	555	605	655	705	755	805	855
S	50	100	150	200	250	300	350	400	450	500	550	600
Weight w/o cover(kg)	9	9.4	9.9	10.4	10.9	11.3	11.8	12.3	12.7	13.2	13.7	15.1
Weight w/ cover(kg)	10.5	11.1	11.8	12.5	13.2	13.8	14.6	15.3	15.9	16.6	17.3	18.9

Compatible Controller

The following dedicated controller is used for the RCP2W-SA16C type.

Title	External View	Model	Features	Max. positioning p points	Input power	Power-supply capacity	Standard price	See page
Positioner Type		PCON-CF-86PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 6A	-	→P365

CAUTION Please note that a different CF type dedicated encoder cable is used than with the PCON-C/CG/CY/PL/PO/SE controllers.