

# RCP2-SS8C ROBO Cylinder Slider Type 80mm Width Pulse Motor Straight Type Steel Base Coupled

■ Configuration: **RCP2** — **SS8C** — **I** — **56P** — [ ] — [ ] — [ ] — [ ] — [ ]

Series — Type — Encoder — Motor — Lead — Stroke — Compatible Controllers — Cable Length — Option

I: Incremental  
\* The Simple absolute encoder models are labeled as "I".

56P: Pulse motor 56 size

20:20mm  
10:10mm  
5: 5mm

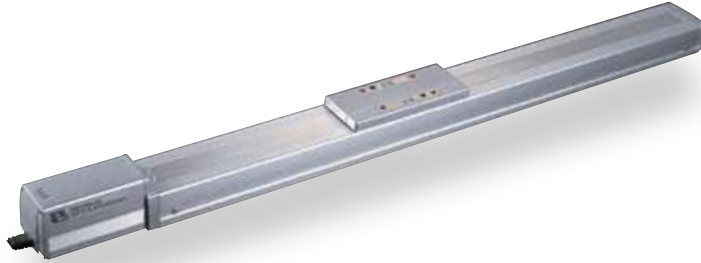
50: 50mm  
1000:1000mm (50mm pitch increments)

P1:PCON  
RPCON  
PSEL  
P3:PMEC  
PSEP

N: None  
P: 1m  
S: 3m  
M: 5m  
X [ ]: Custom Length  
R [ ]: Robot cable

B: Brake  
NM: Reversed-home  
SR: Slider Roller

\* See page Pre-35 for explanation of each code that makes up the configuration name.

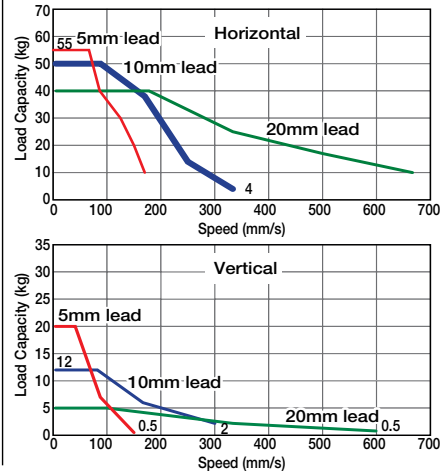


Technical References A-5

**POINT** Notes on Selection

- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
- Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 5mm-lead model, or when used vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity  
Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications				
■ Lead and Load Capacity			(Note 1) Please note that the maximum load capacity decreases as the speed increases.	
Model	Lead (mm)	Max. Load Capacity (Note 1)		Stroke (mm)
		Horizontal (kg)	Vertical (kg)	
RCP2-SS8C-I-56P-20-①-②-③-④	20	~ 40	~ 5	50 ~ 1000 (50mm increments)
RCP2-SS8C-I-56P-10-①-②-③-④	10	~ 50	~ 12	
RCP2-SS8C-I-56P-5-①-②-③-④	5	~ 55	~ 20	
Legend ① Stroke ② Compatible controller ③ Cable length ④ Options				

■ Stroke and Maximum Speed			
Stroke (mm)	Lead		
	50 ~ 800 (50mm increments)	~ 900 (mm)	~ 1000 (mm)
20	666 <600>	625 <600>	515
10	333 <300>	310 <300>	255
5	165 <150>	155 <150>	125

\* The values enclosed in < > apply to vertical setting. (Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price
50/100	-
150/200	-
250/300	-
350/400	-
450/500	-
550/600	-
650/700	-
750/800	-
850/900	-
950/1000	-

③ Cable List

Type	Cable Symbol	Standard Price
Standard	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	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)	-

\* See page A-39 for cables for maintenance.

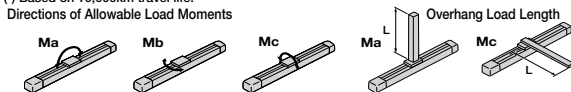
④ Option List

Name	Option Code	See Page	Standard Price
Brake	B	→ A-25	-
Reversed-home	NM	→ A-33	-
Slider Roller	SR	→ A-36	-

Actuator Specifications

Item	Description
Drive System	Ball screw ø16mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Special alloy steel
Allowable Static Moment	Ma: 198.9 N·m Mb: 198.9 N·m Mc: 416.7 N·m
Allowable Dynamic Moment (†)	Ma: 36.3 N·m Mb: 36.3 N·m Mc: 77.4 N·m
Overhang Load Length	Ma direction: 450mm or less; Mb-Mc direction: 450mm or less
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)

(†) Based on 10,000km travel life.

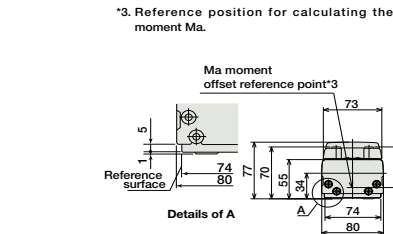
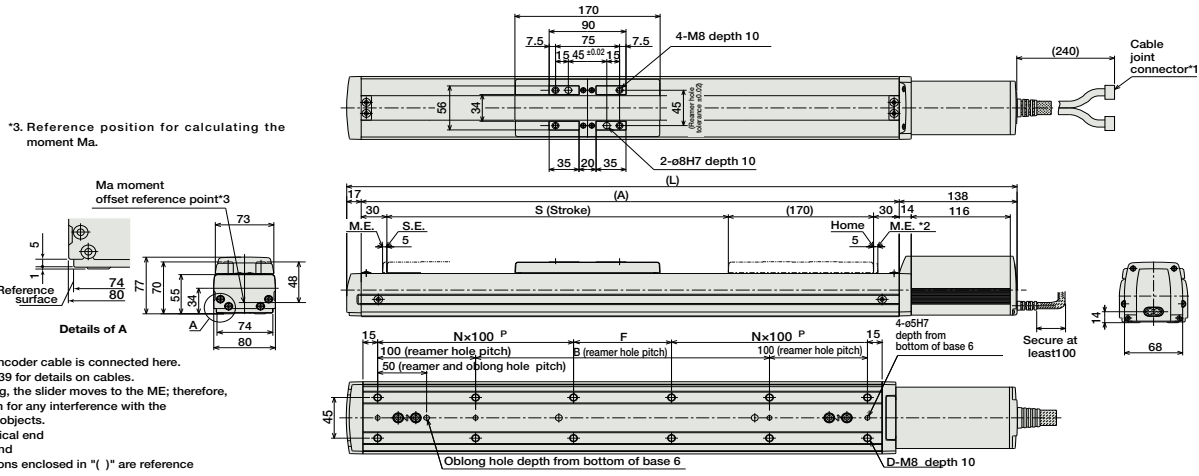


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Dimensions

For Special Orders A-9

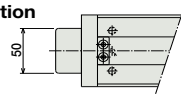
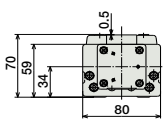
\*For the reversed-home model, the dimensions (distance to home) on the motor-side and that on the opposite side are flipped.



- \*1: The motor-encoder cable is connected here. See page A-39 for details on cables.
- \*2: When homing, the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.  
ME: Mechanical end  
SE: Stroke end  
The dimensions enclosed in "( )" are reference dimensions.

Dimensions of the brake section

\* Adding a brake will increase the actuator's overall length by 26mm, and its weight by 0.5kg.



Details for Oblong Hole

The brake cable is passed through the actuator body and connected to the motor cable.

■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	435	485	535	585	635	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385
A	280	330	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230
B	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
D	8	8	8	10	12	12	12	14	16	16	16	18	20	20	22	24	24	24	24	26
F	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0	50	100	150	0
N	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6
Weight (kg)	6.6	7.1	7.6	8.1	8.6	9.2	9.7	10.2	10.7	11.3	11.7	12.3	12.8	13.4	13.9	14.5	15.0	15.5	16.1	16.6

② 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-56PI-NP-2-①	Easy-to-use controller, even for beginners	3 points	AC100V AC200V	See P481	-	→ P477
Splash-Proof Solenoid Valve Type		PSEP-C-56PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.					
Positioner Type		PCON-C-56PI-NP-2-0	Positioning is possible for up to 512 points					
Safety-Compliant Positioner Type		PCON-CG-56PI-NP-2-0		512 points				
Pulse Train Input Type (Differential Line Driver)		PCON-PL-56PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	-	→ P525
Pulse Train Input Type (Open Collector)		PCON-PO-56PI-NP-2-0	Pulse train input type with open collector support					
Serial Communication Type		PCON-SE-56PI-N-0-0	Dedicated to serial communication	64 points				
Field Network Type		RPCON-56P	Dedicated to field network	768 points				→ P503
Program Control Type		PSEL-C-1-56PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points				→ P557

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



RCP2-SS8C **36**

- 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