

# RCP2-RTCS/RTCSL

ROBO Cylinder Rotary Small Flat Type 72mm Width Pulse Motor

■ Configuration: **RCP2** —  — **I** — **20P** —  —  —  —  —

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

RTCS : 330 degree rotation  
 RTCSL : Multi-rotational

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

28P : 28 □ size Pulse motor  
 30: 1/30 deceleration ratio  
 45: 1/45 deceleration ratio

330: 330degrees (RTCS only)  
 360: 360degrees (RTCSL only)

P1: PCON  
 P2: RPON  
 P3: PMEC  
 PSEP

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

NM : Reversed-rotation  
 SA : Shaft adapter  
 TA : Table adapter

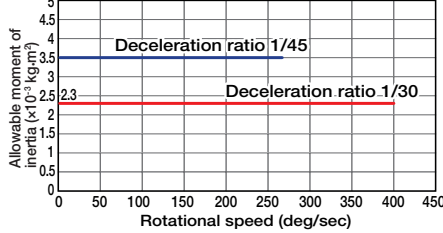
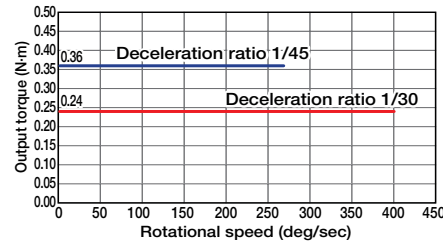
\* See page Pre-35 for an explanation of the naming convention.



Technical References P. A-5

- POINT** Notes on Selection
- (1) The output torque decreases as the rotational speed increases. Check the output torque graph on the right to see whether the speed required for your desired motion is supported.
  - (2) The allowable moment of inertia of the rotated work piece varies with the rotational speed. Check the Allowable Moment of Inertia graph on the right to see if the moment of inertia required for your desired motion is within the allowable range.
  - (3) The rated acceleration while moving is 0.2G.

■ 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

Model	Deceleration Ratio	Max. Torque (N·m)	Allowable Moment of Inertia (kg·m <sup>2</sup> )	Oscillation Angle (deg)
RCP2-RTCS-I-20P-30-330-①-②-③	1/30	0.24	0.0023	330
RCP2-RTCS-I-20P-45-330-①-②-③	1/45	0.36	0.0035	
RCP2-RTCSL-I-20P-30-360-①-②-③	1/30	0.24	0.0023	360
RCP2-RTCSL-I-20P-45-360-①-②-③	1/45	0.36	0.0035	

Legend: ① Compatible controller ② Cable length ③ Options

■ Deceleration Ratio and Max. Speed

Stroke / Deceleration Ratio	330/360 (deg)
1/30	400
1/45	266

(Unit: degrees/s)

**Stroke List**

Type	Oscillation Angle (deg)	Standard Price
RTCS	330	-
RTCSL	360	-

**② Cable List**

Type	Cable Symbol	Standard Price
Standard Type (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-
		-

\* The standard cable is the motor-encoder integrated robot cable.  
 \* See page A-39 for cables for maintenance.

**③ Option List**

Name	Option Code	See Page	Standard Price
Reversed-rotation (*)	NM	→ A-33	-
Shaft adapter	SA	→ A-35	-
Table adapter	TA	→ A-37	-

\* Reversed-rotation option can be selected on the multi-rotational model only.

**Actuator Specifications**

Item	Description
Drive System	Hypoid gear
Positioning Repeatability	±0.05 degrees
Homing Accuracy	±0.05 degrees
Lost Motion	±0.1 degrees
Allowable Thrust Load	30N
Allowable Load Moment	3.6N·m
Weight	0.52kg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

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