

RCP2-RTB/RTBL

ROBO Cylinder, Rotary, Medium Vertical Type, Actuator Width 50mm, Pulse Motor

Model Specification Items	RCP2	I	28P					
	Series	Type	Encoder type	Motor type	Deceleration Ratio	Oscillation Angle	Applicable controller	Cable length
	RTB: 330-deg rotation RTBL: Multiple rotation	I: Incremental rotation * The Simple absolute encoder is also considered type "I".	28P: Pulse motor, 28□ size	20: 1/20 deceleration ratio 30: 1/30 deceleration ratio	330: 330-degrees (RTB only) 360: 360-degrees (RTBL only)	P1: PCON-PL/PO/SE PSEL P3: PCON-CA PMEC/PSEP MSEP	N: None P: 1m S: 3m M: 5m X□: Custom length R□: Robot cable	NM: Non-motor end SA: Shaft adapter TA: Table adapter

* See page Pre-47 for details on the model descriptions.



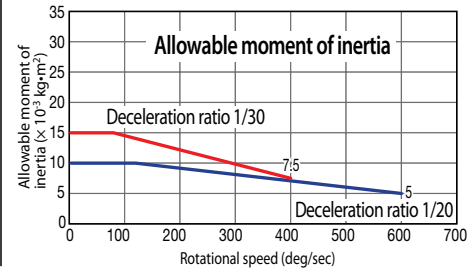
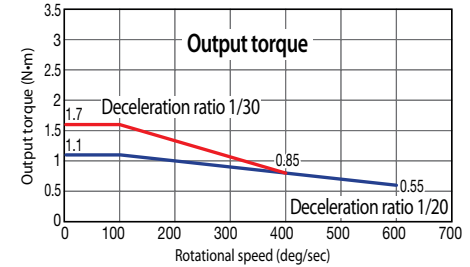
Technical References Appendix P.5



- 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.
- 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.
- The rated acceleration while moving is 0.3G.
- Please note that the PMEC/PSEP controllers cannot be used when performing infinite rotation with the multiple rotation type.

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

Leads and Payload

Model number	Deceleration Ratio	Max. Torque (N · m)	Allowable Movement of Inertia (kg · m ²)	Oscillation Angle (deg)
RCP2-RTB-I-28P-20-330-①-②-③	1/20	1.1	0.01	330
RCP2-RTB-I-28P-30-330-①-②-③	1/30	1.7	0.015	
RCP2-RTBL-I-28P-20-360-①-②-③	1/20	1.1	0.01	360
RCP2-RTBL-I-28P-30-360-①-②-③	1/30	1.7	0.015	

Code explanation ① Applicable Controller ② Cable Length ③ Options

Deceleration Ratio and Max. Speed

Deceleration ratio	Stroke	330/360 (deg)
	1/20	600
1/30	400	

(Unit: degrees/s)

Stroke

Type	Oscillation Angle (deg)	Standard price
RTB	330	—
RTBL	360	—

② Cable Length

Type	Cable symbol	Standard Price
Standard	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	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-59 for cables for maintenance.

③ Options

Name	Option code	See page	Standard price
Reversed-rotation	NM	→ A-52	—
Shaft adapter	SA	→ A-54	—
Table adapter	TA	→ A-56	—

Actuator Specifications

Item	Description
Drive System	Hypoid gear
Positioning repeatability	±0.01 degrees
Homing accuracy	±0.01 degrees (RTB) / ±0.05 (RTBL)
Lost motion	±0.1 degrees
Allowable thrust load	50N
Allowable load moment	3.9 N·m
Weight	0.86kg
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (Non-condensing)

