Controllers Integrated Roc Type Mini

BA6/BA6U

ROBO Cylinder Belt Type 58mm Width Pulse Motor Top-Mounted Motor / Bottom-Mounted Motor

42P RCP2 — 54 Motor Lead I: Incremental

* The Simple
absolute encoder
models are
labeled as "I". BA6 :Belt type Top-mounted motor BA6U:Belt type Botom-mounted P1: PCON RPCON PSEL P3: PMEC N : Non P : 1m S : 3m M : 5m 42P: Pulse motor 54:54mm 500: 500mm 42 Size equivalent 1000:1000mm (50mm pitch **PSEP** Custom Length Robot cable * See page Pre-35 for explanation of each code that makes up the configuration name.



Technical References



(1) Operating the belt type actuator at low speeds may cause vibration and/or resonance. Therefore, please set the speed at 100mm/s or faster.

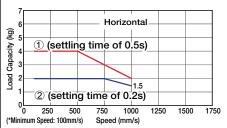
(2) Since the RCP2 series use a pulse motor, the load capacity decreases at high speeds.

Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.

(3) The load capacity is based on operation at an acceleration of 0.5G. 0.5G is the upper limit 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.



Note:

Graph ① is for standard specifications, with settling time of 0.5s for calculating the positioning time.

Graph 2 reflects some changes in the controller settings. The load capacity is lower, however the settling time is decreased to 0.2s.

If the load capacity is lower than graph 2, and you want to shorten the positioning time, change the controller settings. (See the manual for details.)

(Vertical operation is not possible.)

Actuator Specifications ■ Stroke and Maximum Speed ■ Lead and Load Capacity (Note 1) Please note that the maximum load capacity decreases as the speed increases Motor Mounting Max. Load Capacity (Note 1) 500 ~ 1000 Lead Stroke Vertical (kg) Direction Horizontal (RCP2-BA6-I-42P-54-1 -2 -3 -4 $500 \sim 1000$ 54 54 equivalent Not Allowed (50mm 1000 equivalent RCP2-BA6U-I-42P-54-1 - 2 - 3 - 4 increments) Bottom (Unit: mm/s) Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

① Stroke List Stroke (mm) Standard Price 500 550 600 650 700 750 800 850 900 950

Option List			
Name	Option Code	See Page	Standard Price
Reversed-home	NM	→ A-33	-

3 Cable List

Туре	Cable Symbol	Standard Price		
	P (1m)	-		
Standard	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.

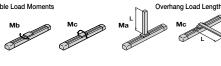
Actuator Specifications

Item	Description				
Drive System	Timing Belt				
Positioning Repeatability	±0.1mm				
Lost Motion	0.1mm or less				
Allowable Dynamic Moment (*)	Ma: 8.9 N·m Mb: 12.7 N·m Mc: 18.6 N·m				
Overhang Load Length	Ma direction: 150mm or less; Mb·Mc direction: 150mm or less				
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (Non-condensing)				

(*) Based on 5,000km travel life

Directions of Allowable Load Moments





RCP2-BA6/BA6U

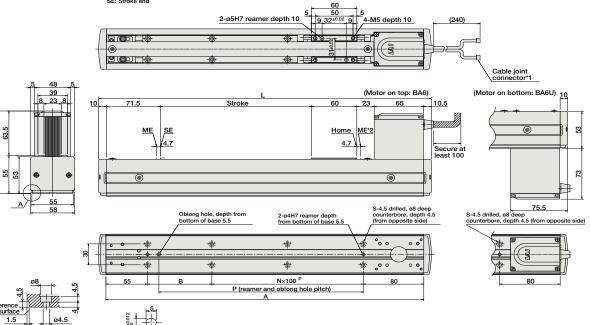
1000





*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

Details for Oblong Hole



■ Dimensions/Weight by Stroke

Stroke	500	550	600	650	700	750	800	850	900	950	1000
L	740	790	840	890	940	990	1040	1090	1140	1190	1240
Α	720	770	820	870	920	970	1020	1070	1120	1170	1220
В	85	35	85	35	85	35	85	35	85	35	85
N	5	6	6	7	7	8	8	9	9	10	10
P	570	620	670	720	770	820	870	920	970	1020	1070
S	14	16	16	18	18	20	20	22	22	24	24
Weight (kg)	2.8	2.9	3.0	3.2	3.3	3.4	3.5	3.7	3.8	3.9	4.1

② Compatible Controllers

Details of A (mounting hole and reference surface)

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Pa
Solenoid Valve Type	1188	PMEC-C-42PI-NP-2-①	Easy-to-use controller, even for beginners		AC100V AC200V	See P481	-	→ P4
Solenoid valve Type		PSEP-C-42PI-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types.	3 points			-	→ P4
Splash-Proof Solenoid Valve Type	1	PSEP-CW-42PI-NP-2-0	No homing necessary with simple absolute type.				-	→ P4
Positioner Type		PCON-C-42PI-NP-2-0	Positioning is possible for up to 512 points	512 points			-	
Safety-Compliant Positioner Type		PCON-CG-42PI-NP-2-0	1 contouring to possible for up to 312 points				-	
Pulse Train Input Type (Differential Line Driver)	Ó	PCON-PL-42PI-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	2A max.	-	→ P!
Pulse Train Input Type (Open Collector)		PCON-PO-42PI-NP-2-0	Pulse train input type with open collector support	(-)			-	
Serial Communication Type	1	PCON-SE-42PI-N-0-0	Dedicated to serial communication	64 points			-	
Field Network Type		RPCON-42P	Dedicated to field network	768 points			-	→ P!
Program Control Type	E	PSEL-C-1-42PI-NP-2-0	Programmed operation is possible Can operate up to 2 axes	1500 points			-	→ P :

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

IAI

RCP2-BA6/BA6U



Controllers

PMEC AMEC
PSEP ASEP
ROBO NET
ERC2
PCON
ACON
SCON
PSEL
ASEL