

RCP3-TA4C

ROBO Cylinder Mini Table Type Motor Unit Coupled 40mm Width Pulse Motor Ball Screw

■ Configuration: **RCP3** — **TA4C** — **I** — **28P** — — — — —

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

I: Incremental 28P: Pulse motor 28 size 6: 6mm 20: 20mm
 * The simple absolute encoder is also considered type "I". 4: 4mm 100: 100mm (10mm pitch increments)

P1: PCON N: None See Options below
 RPCON P: 1m
 PSEL S: 3m
 P3: PMEC M: 5m
 PSEP X : Custom

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

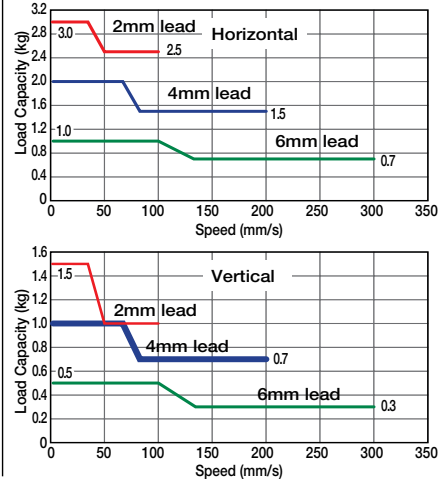


Technical References P. A-5

POINT Notes on Selection

(1) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2mm-lead model, or when used vertically). 0.3G (0.2G for 2mm lead) is the upper limit of the acceleration.

■ Speed vs. Load Capacity
 Due to the characteristics of the Pulse motor, the RCP3 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				Stroke and Maximum Speed		
(Note 1) Please note that the maximum load capacity decreases as the speed increases.						
Model	Feed Screw	Lead (mm)	Max. Load Capacity (Note 1) Horizontal (kg) Vertical (kg)	Maximum Push Force (N) (Note 2)	Positioning Repeatability (mm)	Stroke (mm)
RCP3-TA4C-I-28P-6-①-②-③-④	Ball Screw	6	~ 1 ~ 0.5	15	±0.02	20~100 (10mm increments)
RCP3-TA4C-I-28P-4-①-②-③-④		4	~ 2 ~ 1	22		
RCP3-TA4C-I-28P-2-①-②-③-④		2	~ 3 ~ 1.5	44		
Legend ① Stroke ② Compatible controller ③ Cable length ④ Options (Note 2) See page A-66 for pushing force graphs. (Unit: mm/s)						

Stroke (mm)	Standard Price
20	-
30	-
40	-
50	-
60	-
70	-
80	-
90	-
100	-

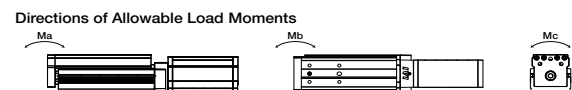
Type	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-

* The RCP3 comes standard with a robot cable.
 * See page A-39 for cables for maintenance.

Name	Option Code	See Page	Standard Price
Brake	B	→ A-25	-
Cable exit direction (Top)	CJT	→ A-25	-
Cable exit direction (Right)	CJR		
Cable exit direction (Left)	CJL		
Cable exit direction (Bottom)	CJB		
Reversed-home	NM	→ A-33	-

Item	Description
Drive System	Ball screw ø6mm C10 grade
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Dynamic Moment (Note 3)	Ma: 4.2 N·m Mb: 6 N·m Mc: 8.2 N·m
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)

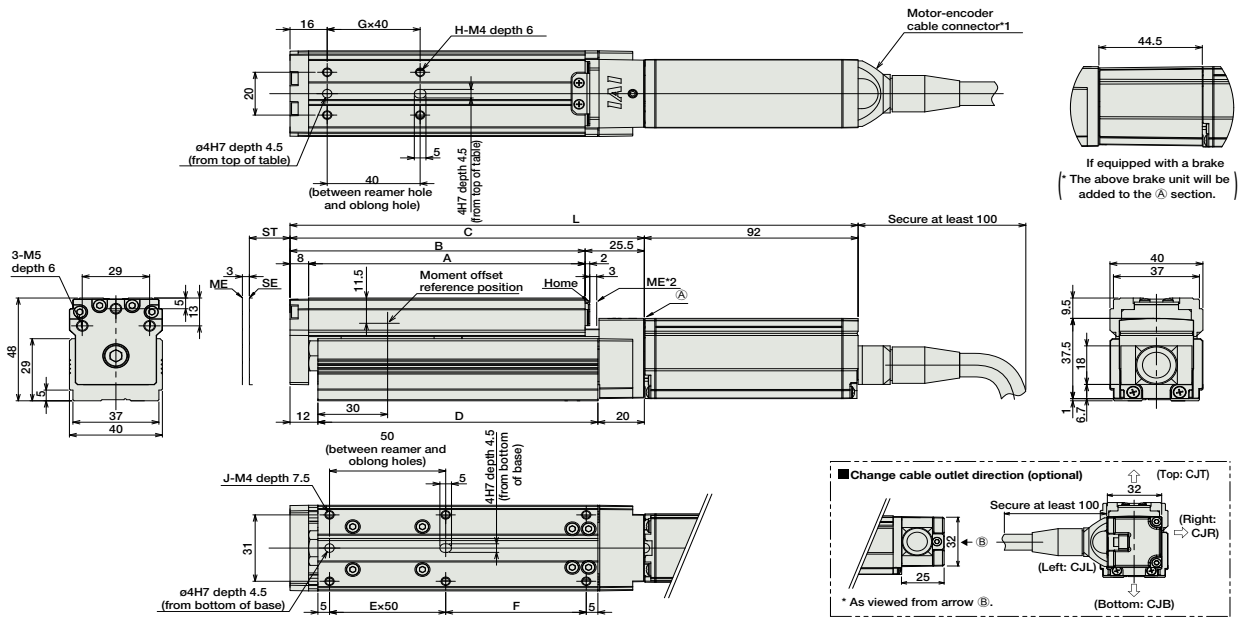
(Note 3) Based on a 5,000km service life.



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Dimensions

For Special Orders P. A-9



- *1 The motor-encoder cable is connected directly to the motor cover of the actuator. See page A-39 for details on cables.
- *2 When homing, the slider moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.

ST : Stroke
ME : Mechanical end
SE : Stroke end

■ Dimensions/Weight by Stroke * Adding a brake will increase the actuator's weight by 0.2kg.

Stroke	20	30	40	50	60	70	80	90	100	
L	No Brake	214.5	224.5	234.5	244.5	254.5	264.5	274.5	284.5	294.5
	Brake-equipped	259	269	279	289	299	309	319	329	339
A	89	99	109	119	129	139	149	159	169	
B	97	107	117	127	137	147	157	167	177	
C	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5	
D	90.5	100.5	110.5	120.5	130.5	140.5	150.5	160.5	170.5	
E	1	1	1	1	2	2	2	2	2	
F	30.5	40.5	50.5	60.5	20.5	30.5	40.5	50.5	60.5	
G	1	1	1	1	2	2	2	2	2	
H	4	4	4	4	6	6	6	6	6	
J	6	6	6	6	8	8	8	8	8	
Weight (kg)	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	

② Compatible Controllers

The RCP3 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-28PI-NP-2-0 ⁽¹⁾	Easy-to-use controller, even for beginners	3 points	DC24V	2A max.	-	→ P477	
	Splash-Proof Solenoid Valve Type		PSEP-C-28PI-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-28PI-NP-2-0	Positioning is possible for up to 512 points					
	Safety-Compliant Positioner Type		PCON-CG-28PI-NP-2-0						
Pulse Train Input Type (Differential Line Driver)		PCON-PL-28PI-NP-2-0	Pulse train input type with differential line driver support	(-)					
Pulse Train Input Type (Open Collector)		PCON-PO-28PI-NP-2-0	Pulse train input type with open collector support						
Serial Communication Type		PCON-SE-28PI-N-0-0	Dedicated to serial communication	64 points					
Field Network Type		RPCON-28P	Dedicated to field network	768 points					→ P503
Program Control Type		PSEL-C-1-28PI-NP-2-0	Programmed operation is possible. Operation is possible on 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).

- 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