

ERC2-RA7C

Controller-Integrated Rod Type 68mm Width Pulse Motor Straight Type

■ Configuration: **ERC2** — **RA7C** — **I** — **PM** — — — — —

Series — Type — Encoder — Motor — Lead — Stroke — I/O Type — Cable Length — Option

I: Incremental PM: Pulse motor 16 : 16mm 50: 50mm NP: PIO (NPN) type N : None P : 1m B : Brake
 8 : 8mm 300: 300mm PN: PIO S : 3m M : 5m FT : Foot bracket
 4 : 4mm (50mm pitch increments) (PNP) type X : Custom NM: Reversed-home
 W : Double-ended cable R : Robot cable
 SE : SIO type RW : Double-ended Robot cable

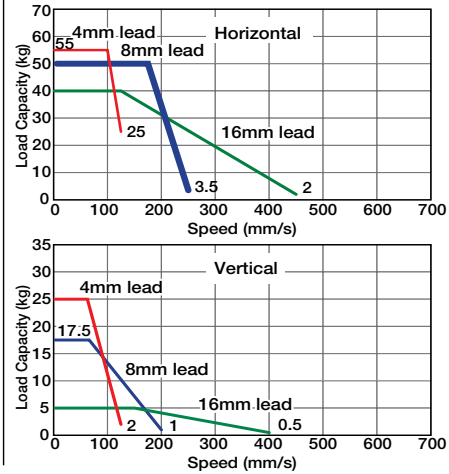
* See page Pre-35 for an explanation of the naming convention.



Technical References P. 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 ERC2 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 4mm-lead model, or when used vertically). This is the upper limit of the acceleration.
 - The value for the horizontal load capacity is with an external guide.

■ Speed vs. Load Capacity
Due to the characteristics of the pulse motor, the ERC2 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)		Maximum Push Force (N)(Note 2)	Stroke (mm)
		Horizontal (kg)	Vertical (kg)		
ERC2-RA7C-I-PM-16-①-②-③-④	16	~ 40	~ 5	220	50~300 (50mm increments)
ERC2-RA7C-I-PM-8-①-②-③-④	8	~ 50	~ 17.5	441	
ERC2-RA7C-I-PM-4-①-②-③-④	4	~ 55	~ 25	873	

Legend ① Stroke ② I/O Type ③ Cable length ④ Options (Note 2) See page A-64 for the pushing force graphs. * The values enclosed in < > apply for vertical usage. (Unit: mm/s)

■ Stroke and Maximum Speed

Lead	Stroke	
	50~300 (50mm increments)	50~300 (50mm increments)
16	450	<400>
8	250	<200>
4	125	

① Stroke List

Stroke (mm)	Standard Price
50	-
100	-
150	-
200	-
250	-
300	-

③ Cable List

Type	Cable Symbol	Standard Price
Standard	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	W01 (1m) ~ W03 (3m)	-
Double-Ended	W04 (4m) ~ W05 (5m)	-
	W06 (6m) ~ W10 (10m)	-
	R01 (1m) ~ R03 (3m)	-
Robot Cable	R04 (4m) ~ R05 (5m)	-
	R06 (6m) ~ R10 (10m)	-
	RW01 (1m) ~ RW03 (3m)	-
Double-Ended Robot Cable	RW04 (4m) ~ RW05 (5m)	-
	RW06 (6m) ~ RW10 (10m)	-

The values in < > apply to the SE type.
* See page A-39 for cables for maintenance.

④ Option List

Name	Option Code	See Page	Standard Price
Brake	B	→ A-25	-
Foot bracket	FT	→ A-29	-
Reversed-home	NM	→ A-33	-

Actuator Specifications

Item	Description
Drive System	Ball screw ø12mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Rod Diameter	ø30mm special SUS type
Non-rotating accuracy of rod	±1.5 deg
Ambient Operating Temp./Humidity	0 ~ 40°C, 85% RH or less (non-condensing)

