

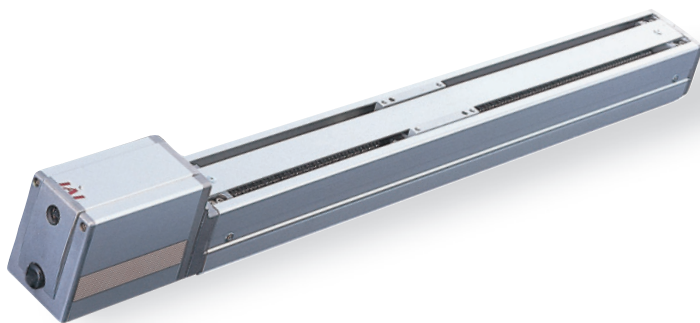
ERC2-SA7C

Controller-Integrated, Slider Type, Actuator Diameter 68mm, Pulse Motor, Straight Type

Model Description **ERC2 - SA7C - I - PM**

Series	Type	Encoder type	Motor type	Lead	Stroke	I/O Type	Cable length	Option
		I: Incremental specification	PM: Pulse motor	16: 16mm 8: 8mm 4: 4mm	50:50mm ~ 600:600mm (set in 50-mm steps)	NP: PLO (NPN) type PN: PLO (PNP) type SE: SIO type	N: None S: 3m X□□: Length designation W□□: Cable with connectors R□□: Robot cable RW□□: Robot cable with connectors	P: 1m M: 5m B: Brake NM: Reversed-home Specification

See preceding section model descriptions.

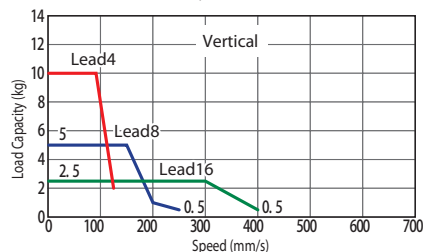
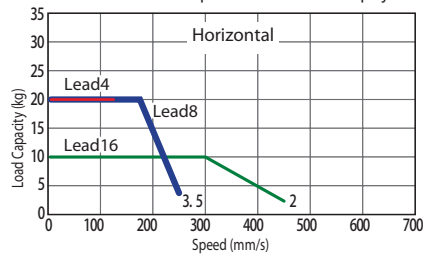


Technical Reference P.451

- POINT** Notes on selection
- (1) As the stroke length increases, the maximum speed decreases due to hazardous ball screw RPMs. Confirm the desirable maximum speed in the Actuator Specification Table below.
 - (2) Since the ERC2 Series uses a pulse motor, the payload decreases at high speeds. Confirm the payload at the desired speed in the speed vs. payload graph at right.
 - (3) The payload is the value when operated at 0.3G acceleration (0.2G acceleration in vertical operation with 4 lead).
- The above values are maximum acceleration.

Speed vs. Payload Graph

A characteristic of the ERC2 Series pulse motor is that the payload decreases as the speed increases. Use the table below to confirm that there is sufficient speed at the desired payload.



Actuator Specification Table

Leads and Payloads

(Note 1) Please note that the maximum payload decreases as the speed increases.

Model	Lead (mm)	Maximum payload (Note 1)		Stroke (mm)
		Horizontal (kg)	Vertical (kg)	
ERC2-SA7C-I-PM-16-①-②-③-④	16	Up to 10	Up to 2.5	50 to 600 (every 50mm)
ERC2-SA7C-I-PM-8-①-②-③-④	8	Up to 20	Up to 5	
ERC2-SA7C-I-PM-4-①-②-③-④	4	20	Up to 10	

Legend ① Stroke ② I/O Type ③ Cable Length ④ Options

Stroke and Maximum Speed

Stroke / Lead	50 to 600 (every 50mm)
16	450 <400>
8	250
4	125

< > indicate vertical service. (Unit = mm/s)

① Price by Stroke and ② I/O Type

① Stroke (mm)	Type code	
	SA7C	
	② By I/O Type	
	NP/PN	SE
50	—	—
100	—	—
150	—	—
200	—	—
250	—	—
300	—	—
350	—	—
400	—	—
450	—	—
500	—	—
550	—	—
600	—	—

④ Option Price List

Title	Option code	See page	Standard price
Brake	B	P437	—
Reversed-home specification	NM	P442	No charge

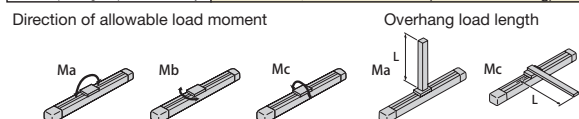
③ Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) - X10 (10m)	—
	W01 (1m) - W03 (3m) W04 (4m) - W05 (5m) W06 (6m) - W10 (10m)	—
Connectors	R01 (1m) - R03 (3m) R04 (4m) - R05 (5m) R06 (6m) - R10 (10m)	—
	RW01 (1m) - RW03 (3m) RW04 (4m) - RW05 (5m) RW06 (6m) - RW10 (10m)	—
	—	—

See P364 for maintenance cables.

Actuator Specification

Item	Description
Drive System	Ball screw ϕ 12mm rolled C10
Positioning Repeatability	\pm 0.05mm
Backlash	0.1mm or less
Allowable load moment	Ma: 13.8N·m Mb:19.7N·m Mc: 29.0N·m
Overhang load length	Ma direction 150mm or less Mb-Mc direction 150mm or less
Ambient operating temperature humidity	0 to 40°C, 85% RH or less (non-condensing)



Dimensional Drawings

CAD drawings can be downloaded from the website.

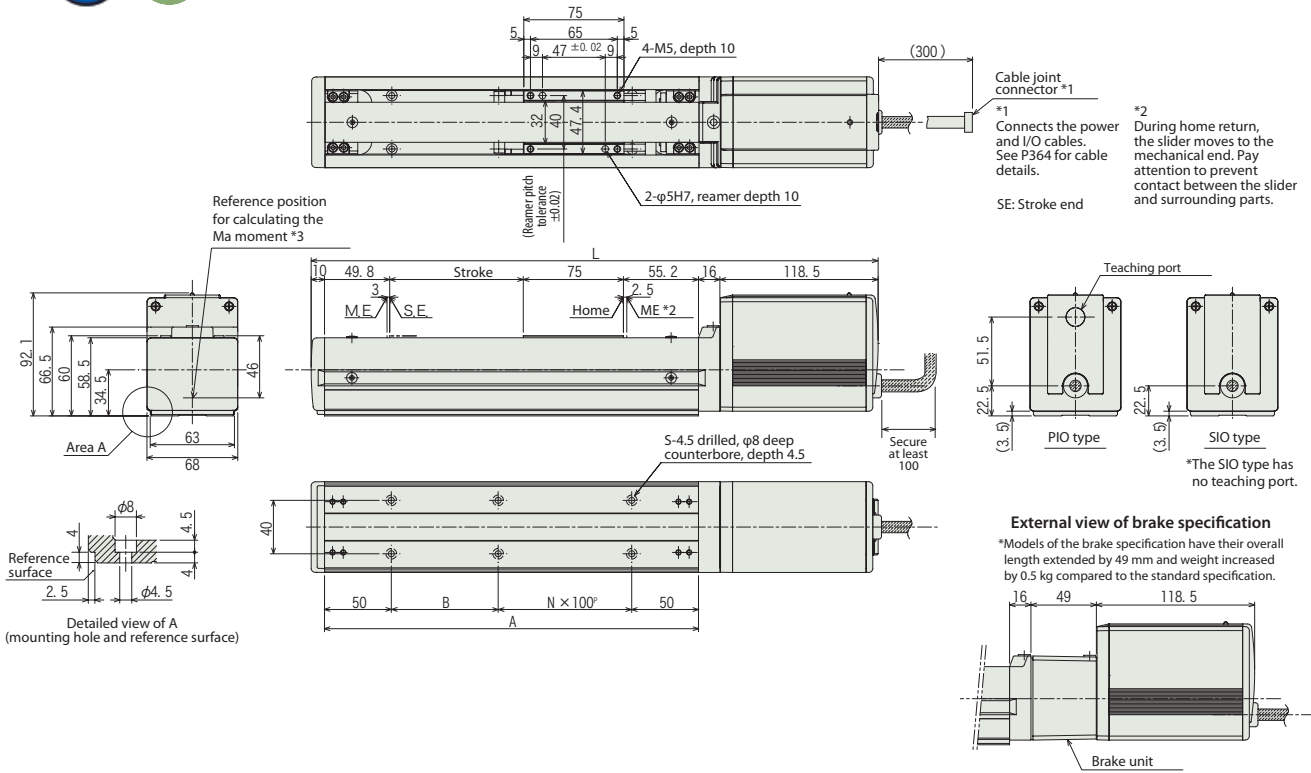
www.intelligentactuator.com



* With the reversed-home specification, the dimension on the motor side (distance from the ME to the home) and that on the counter-motor side are reversed

Information on special orders

P.454



■Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	374.5	424.5	474.5	524.5	574.5	624.5	674.5	724.5	774.5	824.5	874.5	924.5
A	230	280	330	380	430	480	530	580	630	680	730	780
B	30	80	30	80	30	80	30	80	30	80	30	80
N	1	1	2	2	3	3	4	4	5	5	6	6
S	6	6	8	8	10	10	12	12	14	14	16	16
Weight (kg)	3.1	3.2	3.4	3.6	3.7	3.9	4.0	4.2	4.3	4.5	4.6	4.8

I/O Type (Integrated Controller)

I/O Type

The integrated controller in the ERC2 Series can be selected from the following 3 types based on the type of external input and output (I/O). Select the type according to your application

Title	External View	Model	Features	Maximum number of positioning points	Input power	Power-supply capacity	Standard price	See page
PIO Type (NPN Specifications)		ERC2-SA7C-I-PM-□-□-NP-□-□	Simple control type with up to 16-point positioning	16	DC24V	Maximum 2A	(See page at left)	P355
PIO Type (PNP Specifications)		ERC2-SA7C-I-PM-□-□-PN-□-□	This type is compatible with the PNP specification I/O commonly used overseas. This is the PNP specification for the I/O type	16				
SIO Type		ERC2-SA7C-I-PM-□-□-SE-□-□	Field Network Connection Serial Type (Gateway unit used)	64				