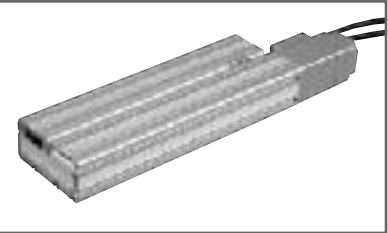


# RCS-F55-100

ROBO Cylinder Rod Width 55mm, 100W, Flat Type



Type	Flat (55 mm wide)	Stroke	50~300mm	Load capacity	18kg
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Model specification items Series Type Encoder type Motor Speed type Stroke Cable length Options  
 (Example) RCS - F55 - A - 100 - H - 300 - S - B

\* Refer to page 37 for the details of model specification items.

## Model/Specifications

Model	Encoder type	Motor (W)	Lead (mm)	Stroke 50mm increments (mm)	Speed (mm/s)	Load capacity (Note 1)		Rated thrust (N)
						Horizontal (kg)	Vertical (kg)	
RCS-F55-O-100-H-***-△-□	Absolute Incremental	100	16	50~300	1~800	Refer to page 125	3.5	105.8
RCS-F55-O-100-M-***-△-□			8		1~400		9	212.7
RCS-F55-O-100-L-***-△-□			4		1~200		18	424.3

\* In the above model names, O indicates the encoder type, \*\*\* the stroke, △ the cable length, and □ the applicable options.

## Options

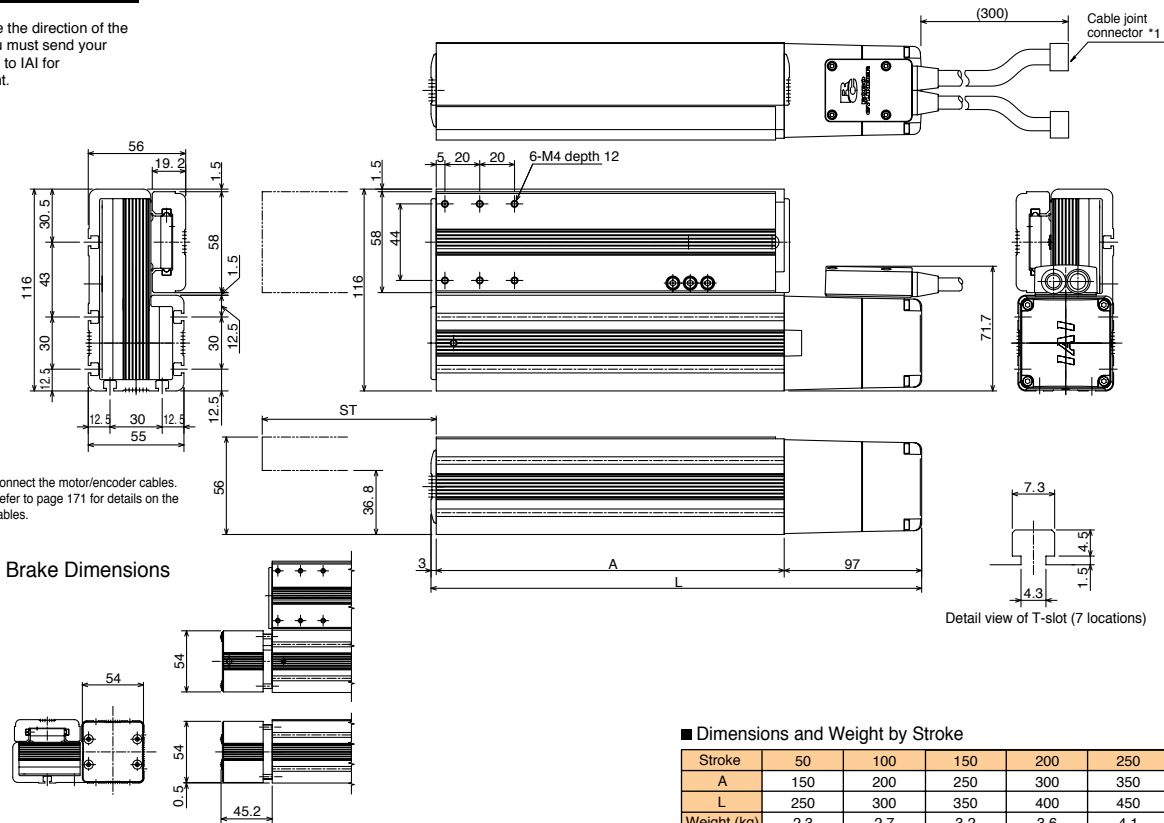
Name	Model	Page
Brake	B	→P137
Reversed-home specification	NM	→P137

## Common Specifications

Drive system	Ball screw Ø12mm, rolled C10
Positioning repeatability	±0.02mm
Backlash	0.05mm or less
Guide	Built-in linear guide
Allowable load moment	Ma: 4.5N · m Mb: 5.4N · m Mc: 4.1N · m
Base	Material: Aluminum with white alumite treatment
Cable length (Note 2)	P: 1m, S: 3m, M: 5m, X□□: Length specification, R□□: Robot cable

## Dimensions

\* To change the direction of the home, you must send your RCS back to IAI for adjustment.



\*1 Connect the motor/encoder cables. Refer to page 171 for details on the cables.

### Brake Dimensions

### Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300
A	150	200	250	300	350	400
L	250	300	350	400	450	500
Weight (kg)	2.3	2.7	3.2	3.6	4.1	4.5

## Applicable Controller Specifications

Applicable Controller	Maximum number of controlled axes	Compatible encoder type	Program operation	Positioner operation	Pulse-train control	Power supply voltage	Page
RCS-C	1 axis	Absolute/Incremental	X	O	X	AC100/200V	→P163
E-Con	1 axis		X	O	X	AC100/200V	Refer to the separate catalog.
P-Driver	1 axis	Incremental	X	X	O	AC100/200V	
X-SEL	4 axes	Absolute/Incremental	O	△	X	AC100/200V	

**Caution**

(Note 1) The load capacity is based on operation at the maximum speed and an acceleration of 0.3 G (or 0.2 G for the L type). The horizontal load capacity must not exceed the allowable moment, so refer to page 125.

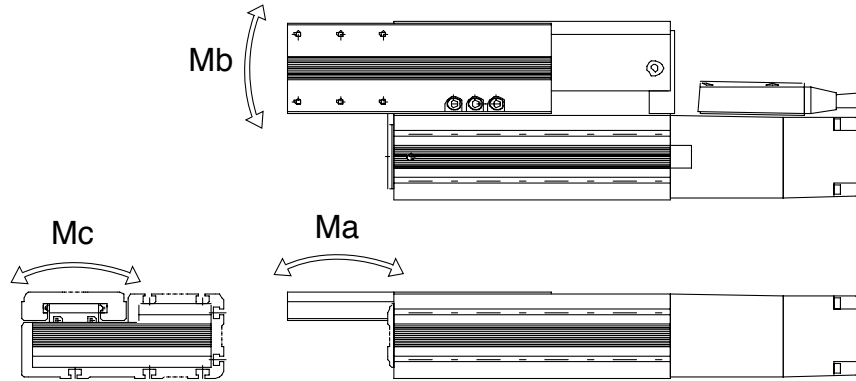
(Note 2) The maximum cable length is 15 m. Specify the desired length in meters (e.g., X08 = 8 m).

\* Refer to page 23 for other points to note.

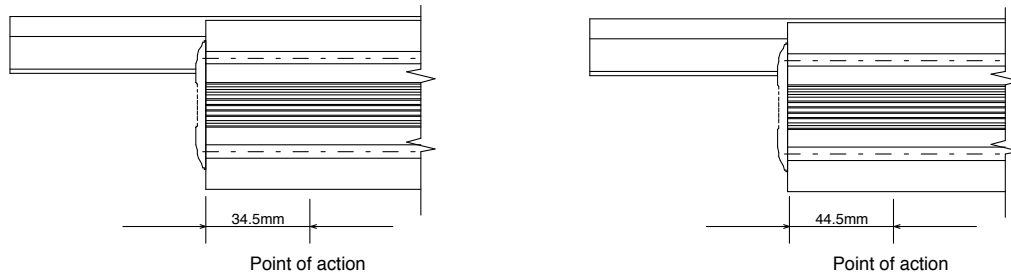
ERC Actuators  
 RCP2 Actuators  
 RCS Actuators  
 Information on Guide Types  
 Actuator Options  
 How to Install Actuator  
 ERC Controllers  
 RCP2 Controllers  
 RCS Controllers

**Moments and Load Capacities of Flat Types (F45, 55)**

On a flat cylinder, moments apply in the directions illustrated below.



The points of action of moments Ma and Mb are as follows.



If you want to use a flat cylinder in a horizontal application, be careful not to allow the load received at the plate tip to exceed moment Ma. Refer to the table below listing the allowable tip loads calculated from the values of moment Ma for respective strokes.

Stroke		50	100	150	200	250	300
F45 type	Distance from point of action (m)	0.06	0.11	0.16	0.21	0.26	0.31
	N	45.0	24.5	16.9	12.9	10.4	8.7
	(kgf)	4.59	2.50	1.72	1.31	1.06	0.89
F55 type	Distance from point of action (m)	0.07	0.12	0.17	0.22	0.27	0.32
	N	64.3	37.5	26.5	20.5	16.7	14.1
	(kgf)	6.56	3.83	2.70	2.09	1.70	1.43

