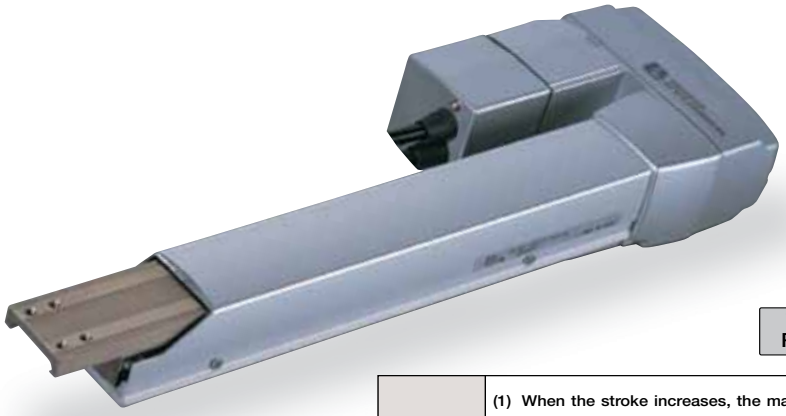
RCS2-A4R

ROBO Cylinder Arm Type Side-Mounted Motor 40mm Width 200V Servo Motor Ball Screw

■ Configuration: RCS2 — A4R — □ — 20 — □ — □ — □ — □ — □ — □ — □

Series	Type	Encoder	Motor	Lead	Stroke	Compatible Controllers	Cable Length	Option
RCS2	A4R	I : Incremental A : Absolute	20 : 20W Servo motor	10 : 10mm 5 : 5mm	50: 50mm 〜 200: 200mm (50mm pitch increments)	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N : None P : 1m S : 3m M : 5m X □□ : Custom R □□ : Robot cable	See Options below * Be sure to specify which side the motor is to be mounted (ML/MR).

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



Technical References P. A-5

POINT Notes on Selection

(1) 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.

(2) The load capacity is based on operation at an acceleration of 0.2G. This is the upper limit of the acceleration.

Actuator Specifications

■ Lead and Load Capacity

Model	Motor Output (W)	Lead (mm)	Max. Load Capacity Horizontal (kg)	Max. Load Capacity Vertical (kg)	Rated Thrust (N)	Stroke (mm)
RCS2-A4R-①-20-10-②-③-④-B-⑤	20	10	–	2.5	39.2	50〜200 (50mm increments)
RCS2-A4R-①-20-5-②-③-④-B-⑤		5	–	4.5	78.4	

Legend: ① Encoder ② Stroke ③ Compatible controller ④ Cable length ⑤ Options

■ Stroke and Maximum Speed

Lead \ Stroke	50 〜 200 (50mm increments)
10	330
5	165

(Unit: mm/s)

Encoder & Stroke List

② Stroke (mm)	Standard Price ① Encoder Incremental I	Standard Price ① Encoder Absolute A
50	–	–
100	–	–
150	–	–
200	–	–

④ Cable List

Type	Cable Symbol	Standard Price
Standard Type	P (1m)	–
	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.

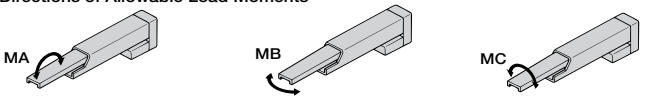
⑤ Option List

Name	Option Code	See Page	Standard Price
Brake (standard)	B	→ A-25	–
Bottom-mounted motor	MB	→ A-33	
Right-mounted motor	MR	→ A-33	
Left-mounted motor	ML	→ A-33	
Reversed-home	NM	→ A-33	

Actuator Specifications

Item	Description
Drive System	Ball screw ø8mm C10 grade (ball screw speed reduced by 1/2 by timing belt)
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Base	Material: Aluminum (white alumite treated)
Allowable Load Moment	Ma: 2.7 N·m Mb: 3.1 N·m Mc: 2.9 N·m
Ambient Operating Temp./Humidity	0〜40°C, 85% RH or less (non-condensing)

Directions of Allowable Load Moments



Dimensions

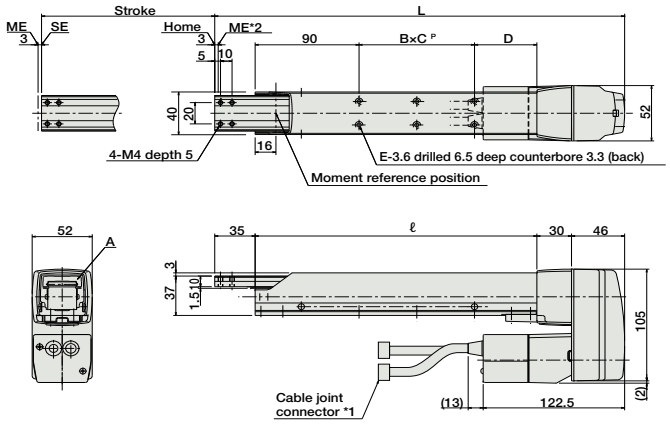
CAD drawings can be downloaded from IAI website. www.intelligentactuator.com

For Special Orders P. A-9

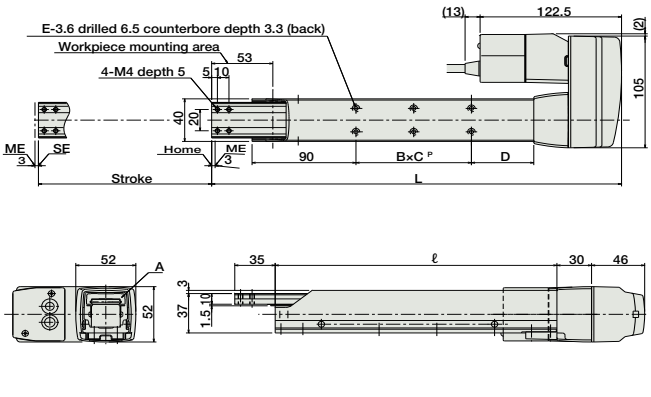
2D CAD 3D CAD

*1 The motor-encoder cable is connected here. See page A-39 for details on cables.
*2 When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.
ME: Mechanical end SE: Stroke end

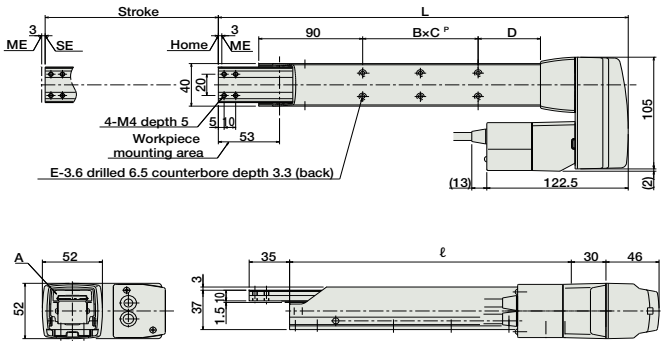
Bottom-mounted motor (option code: MB)

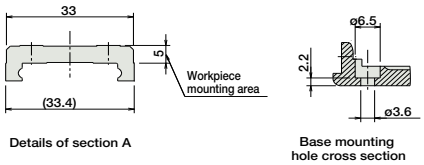


Right-mounted motor (option code: MR)



Left-mounted motor (option code: ML)





Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	255	305	355	405
ℓ	144	194	244	294
BxC P	1×19	1×50	2×50	2×50
D	35	54	54	104
E	4	4	6	6
Weight (kg)	1.7	1.8	2.0	2.1

③ Compatible Controllers

The RCS2 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
Positioner Mode		SCON-C-20①-NP-2-②	Positioning is possible for up to 512 points	512 points	Single-phase AC100V Single-phase AC200V Three-phase AC200V (XSEL-P/Q only)	360VA max. * When operating a 150W single-axis model	–	→ P547
Solenoid Valve Mode			Operable with the same controls as the solenoid valve	7 points				
Serial Communication Type			Dedicated to serial communication	64 points				
Pulse Train Input Control Type			Dedicated to pulse train input	(–)				
Program Control 1-2 Axes Type		SSEL-C-1-20①-NP-2-②	Programmed operation is possible Operation is possible on up to 2 axes	20000 points			–	→ P577
Program Control 1-6 Axes Type		XSEL-③-1-20①-N1-EEE-2-④	Programmed operation is possible Operation is possible on up to 6 axes	20000 points			–	→ P587

* For SSEL and XSEL, only applicable to the single-axis model.
* ① is a placeholder for the encoder type (I: incremental, A: absolute).
* ② is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V).
* ③ is a placeholder for the XSEL type name ("J", "K", "P", or "Q").
* ④ is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V, or 3: three-phase 200V).