



Table Type/Arm Type/Flat Type

RCP3

RCA2

RCA

RCS2

RCP3 series 24V Pulse Motor Type	Table type	Width 55mm	RCP3-TA5C	215
		Width 65mm	RCP3-TA6C	217
		Width 75mm	RCP3-TA7C	219

RCA2 series 24V Servo Motor Type	Table type	Width 55mm	RCA2-TA5C	221
		Width 65mm	RCA2-TA6C	223
		Width 75mm	RCA2-TA7C	225

RCA series 24V Servo Motor Type	Arm type	Width 40mm	RCA-A4R	227
		Width 52mm	RCA-A5R	229
		Width 58mm	RCA-A6R	231

RCS2 series 200V Servo Motor Type	Arm type	Width 58mm	RCS2-A4R	233
		Width 68mm	RCS2-A5R	235
		Width 58mm	RCS2-A6R	237
	Flat type	Width 68mm	RCS2-F5D	239

Controller-Integrated

Slider Type

Rod Type

Table Arm/flat

Gripper/ Rotary Type

Clearroom

Splash-resistant

Controller

C Coupling

D Built-in (Direct)

R Reverse-mounted

Pulse Motor 20P

Pulse Motor 28P

Pulse Motor 35P

Pulse Motor 42P

Pulse Motor 56P

Pulse Motor 86P

Servo Motor 10W

Servo Motor 20W

Servo Motor 30W

Servo Motor 60W

Servo Motor 100W

Servo Motor 150W

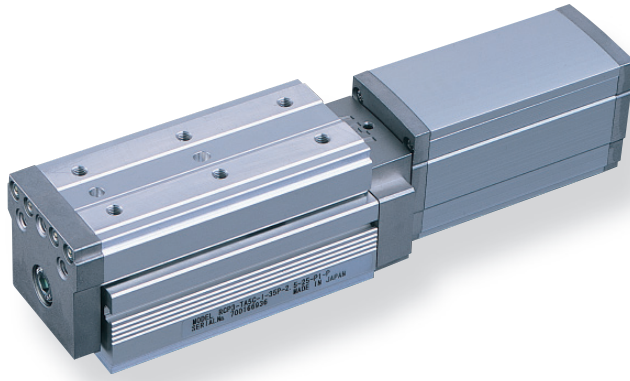
Servo Motor 750W

RCP3-TA5C

ROBO Cylinder, Table Type, Actuator Width 55mm, Pulse Motor, Coupling Specification

Model Description	RCP3	—	TA5C	—	I	—	35P	—		—		—	P1	—		—	
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible Controllers		Cable length		Option
					I: Incremental specification		35P: Pulse motor 35 Size		10: 10mm 5: 5mm 2.5: 2.5mm		25: 25mm to 100: 100mm (Set steps every 25mm)		P1: PCON PSEL		N : None P : 1m S : 3m M : 5m X□□: Length		B : Brake-equipped NM : Reversed-home specification

See preceding section for model descriptions.

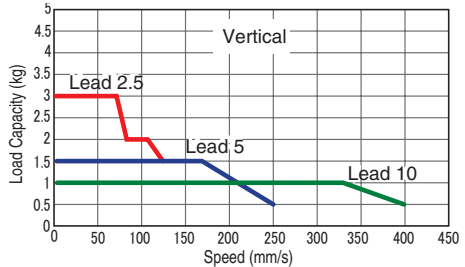
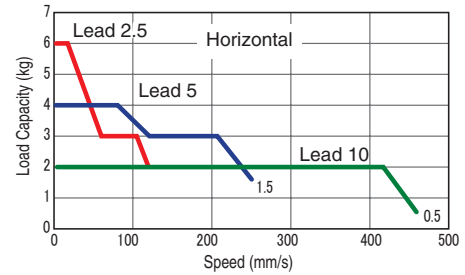


Technical Reference P. 451

- POINT** Notes on selection
- (1) Since the RCP3 Series uses a pulse motor, the payload decreases at high speeds. Confirm the speed at the desired payload in the Speed vs. Payload graph at right.
 - (2) Please note that the maximum speed is different for horizontal use and vertical use.
 - (3) The load capacity is based on operation at an acceleration of 0.3G (or 0.2G if the lead is 3 or the actuator is operated vertically). This is the maximum acceleration.

Speed vs. Payload Graph

The RCP3 Series uses a pulse motor so the load capacity 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

Model	Lead (mm)	Maximum payload		Max. pushing force (N)	Stroke (mm)
		Horizontal(kg)	Vertical(kg)		
RCP3-TA5C-I-35P-10-①-P1-②-③	10	Up to 2	Up to 1	34	25 to 100 (every 25mm)
RCP3-TA5C-I-35P-5-①-P1-②-③	5	Up to 4	Up to 1.5	68	
RCP3-TA5C-I-35P-2.5-①-P1-②-③	2.5	Up to 6	Up to 3	136	

Legend: ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

Lead	Stroke	25 to 100 (every 25mm)
		10
5	250	
2.5	125	

* < > Indicates Vertical Use (Unit=mm/s)

Price List by ① Stroke

① Stroke (mm)	Type code
	Encoder type
	Incremental
25	-
50	-
75	-
100	-

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
		-

*An integrated motor-encoder cable is standard, and is robot cable as standard.

*See P374 about maintenance cables.

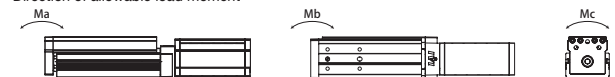
③ Option Price List

Title	Option code	See page	Standard price
Brake-equipped	B	→P437	-
Reversed-home specification	NM	→P442	-

Actuator Specification

Item	Description
Drive System	Ball screw φ8mm, rolled C10
Positioning Repeatability	±0.05mm
Backlash	0.1mm or less
Base	Material: aluminum, special alumite treatment
Allowable load moment	Ma: 6.57N·m, Mb: 9.32N·m, Mc: 14.32N·m
Overhang load length	Allowable load moment
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

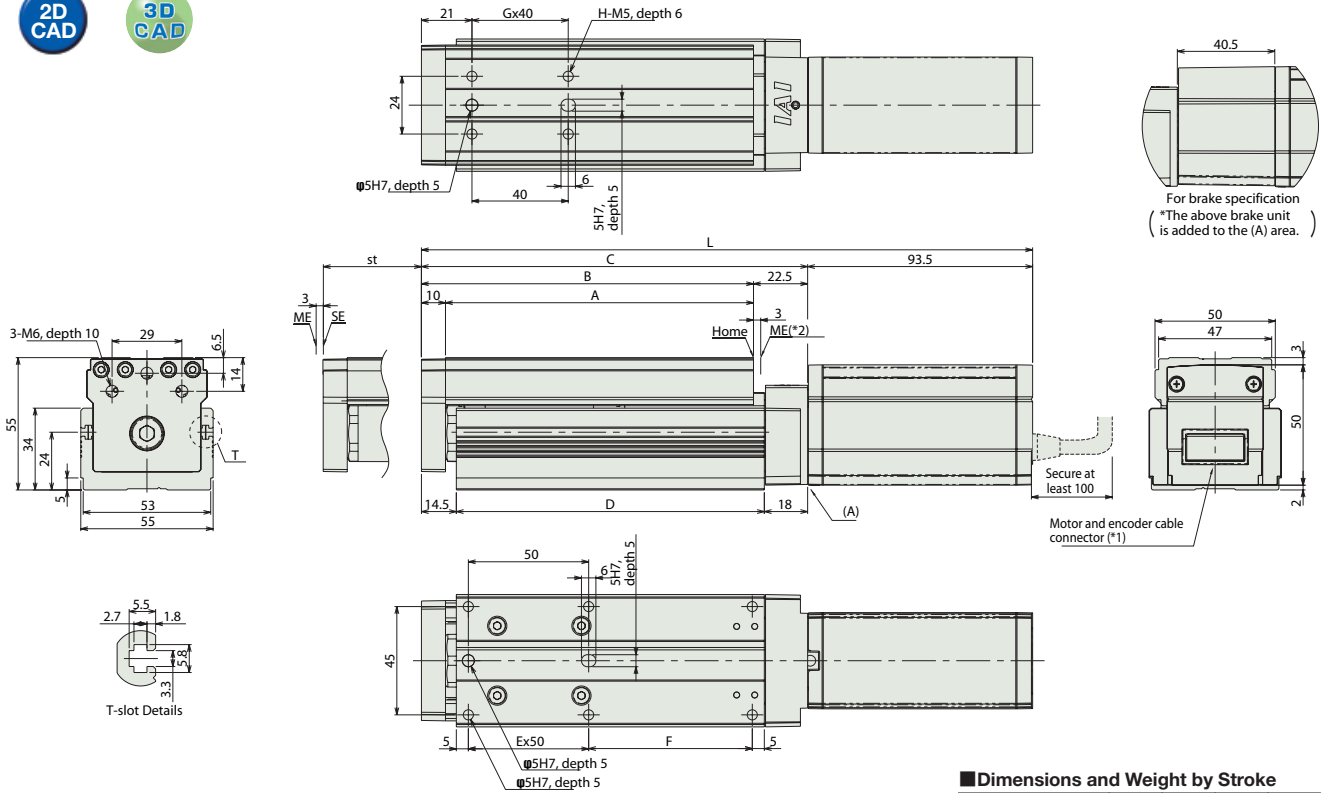
Direction of allowable load moment



Dimensional Drawings

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

Information on special orders P. 454



(*1) Connect the built-in motor/encoder cables (see P374 for cable details).
 (*2) Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
 ME: Mechanical End
 SE: Stroke End

Dimensions and Weight by Stroke

Stroke	L	25	50	75	100
		No brake	229	254	279
Brake-equipped		269.5	294.5	319.5	344.5
A		103	128	153	178
B		113	138	163	188
C		135.5	160.5	185.5	210.5
D		103	128	153	178
E		1	1	2	2
F		43	68	43	68
G		1	1	2	2
H		4	4	6	6
J		6	6	8	8
Weight (kg)		1.2	1.4	1.5	1.7

Compatible Controllers

The RCP3 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-35PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	→P365	
Safety category compatible positioner type		PCON-CG-35PI-NP-2-0					-		
Solenoid valve type		PCON-CY-35PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (Differential line driver specification)		PCON-PL-35PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (Open collector specification)		PCON-PO-35PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-35PI-N-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-35P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-35PI-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P395

*PSEL is for uniaxial specification.

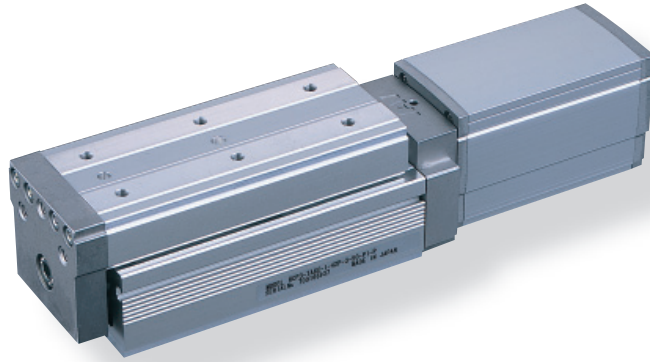
Controller-Integrated
 Slider Type
 Rod Type
 Table Arm/flat
 Gripper/Rotary Type
 Cleanroom
 Splash-resistant
 Controller
 Coupling
 Built-in (Direct) mounted
 Reverse-mounted
 Pulse Motor 20P
 Pulse Motor 28P
 Pulse Motor 35P
 Pulse Motor 42P
 Pulse Motor 56P
 Pulse Motor 86P
 Servo Motor 10W
 Servo Motor 20W
 Servo Motor 30W
 Servo Motor 60W
 Servo Motor 100W
 Servo Motor 150W
 Servo Motor 750W

RCP3-TA6C

ROBO Cylinder, Table Type, Actuator Width 65mm, Pulse Motor, Coupling Specification

Model Description	RCP3	TA6C	I	42P			P1		
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
			I: Incremental specification	42P: Pulse motor 42 Size	12: 12mm 6: 6mm 3: 3mm	25: 25mm to 150: 150mm (Set steps every 25mm)	P1: PCON PSEL	N : None P : 1m S : 3m M : 5m X□□: Length	B : Brake-equipped NM : Reversed-home specification

See preceding section for model descriptions.

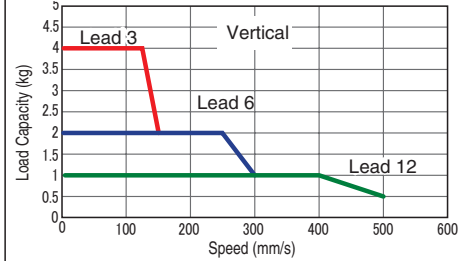
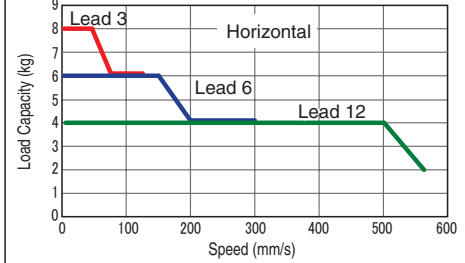


Technical Reference P. 451

- POINT** Notes on selection
- (1) Since the RCP3 Series uses a pulse motor, the payload decreases at high speeds. Confirm the speed at the desired payload in the Speed vs. Payload graph at right.
 - (2) Please note that the maximum speed is different for horizontal use and vertical use.
 - (3) The payload is the value when operated at 0.3G acceleration (or 0.2G if the lead is 3). This is the maximum acceleration.

Speed vs. Payload Graph

The RCP3 Series uses a pulse motor so the load capacity 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

Model	Lead (mm)	Maximum payload		Max. pushing force (N)	Stroke (mm)
		Horizontal(kg)	Vertical(kg)		
RCP3-TA6C-I-42P-12-①-P1-②-③	12	Up to 4	Up to 1	47	25 to 150 (every 25mm)
RCP3-TA6C-I-42P-6-①-P1-②-③	6	Up to 6	Up to 2	95	
RCP3-TA6C-I-42P-3-①-P1-②-③	3	Up to 8	Up to 4	189	

Legend: ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

Lead	Stroke	25 to 150 (every 25mm)
		12
6		300
3		150

*< > Indicates Vertical Use (Unit=mm/s)

Price List by ① Stroke

① Stroke (mm)	Type code
	Encoder type
	Incremental
25	-
50	-
75	-
100	-
125	-
150	-

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
		-

*An integrated motor-encoder cable is standard, and is robot cable as standard.

*See P374 about maintenance cables.

③ Option Price List

Title	Option code	See page	Standard price
Brake-equipped	B	→P437	-
Reversed-home specification	NM	→P442	-

Actuator Specification

Item	Description
Drive System	Ball screw ϕ 10mm, rolled C10
Positioning Repeatability	\pm 0.05mm
Backlash	0.1mm or less
Base	Material: aluminum, special alumite treatment
Allowable load moment	Ma: 7.26N·m, Mb: 10.3N·m, Mc: 18.25N·m
Overhang load length	Allowable load moment
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

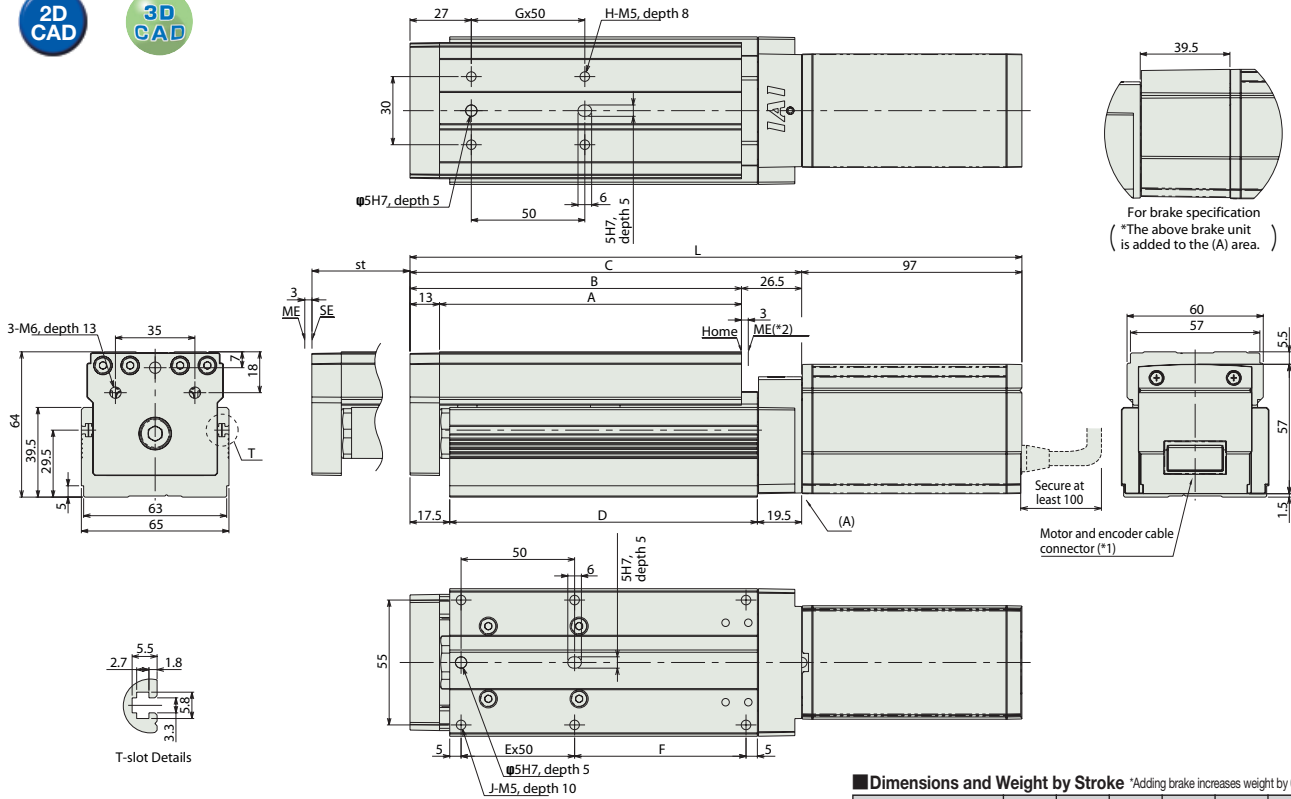
Direction of allowable load moment



Dimensional Drawings

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

Information on special orders P. 454



- (1) Connect the built-in motor/encoder cables (see P374 for cable details).
 - (2) Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
- ME: Mechanical End
SE: Stroke End

■ Dimensions and Weight by Stroke *Adding brake increases weight by 0.4kg.

Stroke	L						
	25	50	75	100	125	150	
L	No brake	244.5	269.5	294.5	319.5	344.5	369.5
	Brake-equipped	284	309	334	359	384	409
A	108	133	158	183	208	233	
B	121	146	171	196	221	246	
C	147.5	172.5	197.5	222.5	247.5	272.5	
D	110.5	135.5	160.5	185.5	210.5	235.5	
E	1	1	2	2	3	3	
F	50.5	75.5	50.5	75.5	50.5	75.5	
G	1	1	2	2	3	3	
H	4	4	6	6	8	8	
J	6	6	8	8	10	10	
Weight (kg)	1.8	2	2.2	2.4	2.6	2.8	

Compatible Controllers

The RCP3 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-42PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	→P365	
Safety category compatible positioner type		PCON-CG-42PI-NP-2-0					-		
Solenoid valve type		PCON-CY-42PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (Differential line driver specification)		PCON-PL-42PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (Open collector specification)		PCON-PO-42PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-42PI-N-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-42P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-42PI-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P395

*PSEL is for uniaxial specification.

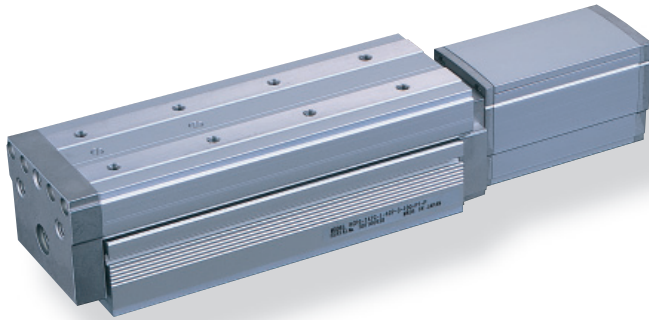
- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct) mounted
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCP3-TA7C

ROBO Cylinder, Table Type, Actuator Width 75mm, Pulse Motor, Coupling Specification

Model Description	RCP3	—	TA7C	—	I	—	42P	—	□	—	□	—	P1	—	□	—	□
	Series		Type		Encoder type		Motor type		Lead		Stroke		Compatible Controllers		Cable length		Option
					I: Incremental specification		42P: Pulse motor 42 Size		12: 12mm 6: 6mm 3: 3mm		25: 25mm to 200: 200mm (Set steps every 25mm)		P1: PCON PSEL		N : None P : 1m S : 3m M : 5m X□□: Length		B : Brake-equipped NM : Reversed-home specification

See preceding section for model descriptions.

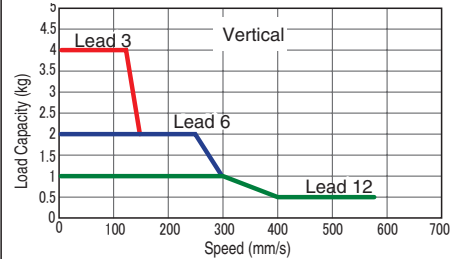
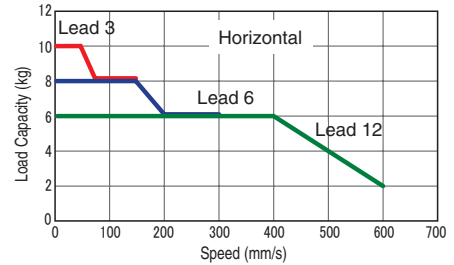


Technical Reference P. 451

- POINT** Notes on selection
- (1) Since the RCP3 Series uses a pulse motor, the payload decreases at high speeds. Use the correlation diagram of speed and load capacity below to check the load capacity at the speed you desire.
 - (2) Please note that the maximum speed is different for horizontal use and vertical use.
 - (3) The payload is the value when operated at 0.3G acceleration (or 0.2G if the lead is 3). This is the maximum acceleration.

Speed vs. Payload Graph

The RCP3 Series uses a pulse motor so the load capacity 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

Model	Lead (mm)	Maximum payload		Max. pushing force (N)	Stroke (mm)
		Horizontal(kg)	Vertical(kg)		
RCP3-TA7C-I-42P-12-①-P1-②-③	12	Up to 6	Up to 1	47	25 to 200 (every 25mm)
RCP3-TA7C-I-42P-6-①-P1-②-③	6	Up to 8	Up to 2	95	
RCP3-TA7C-I-42P-3-①-P1-②-③	3	Up to 10	Up to 4	189	

Legend: ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

Lead	Stroke	25 to 200 (every 25mm)
		12
6		300
3		150

* < > Indicates Vertical Use (Unit=mm/s)

Price List by ① Stroke

① Stroke (mm)	Type code		
	TA7C	Encoder type	Incremental
25	-	-	-
50	-	-	-
75	-	-	-
100	-	-	-
125	-	-	-
150	-	-	-
175	-	-	-
200	-	-	-

③ Option Price List

Title	Option code	See page	Standard price
Brake-equipped	B	→P437	-
Reversed-home specification	NM	→P442	-

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
		-

*An integrated motor-encoder cable is standard, and is robot cable as standard.

*See P374 about maintenance cables.

Actuator Specification

Item	Description
Drive System	Ball screw ϕ 10mm, rolled C10
Positioning Repeatability	\pm 0.05mm
Backlash	0.1mm or less
Base	Material: Aluminum special alumite treatment
Allowable load moment	Ma: 9.91N·m, Mb: 14.13N·m, Mc: 28.65N·m
Overhang load length	Allowable load moment
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

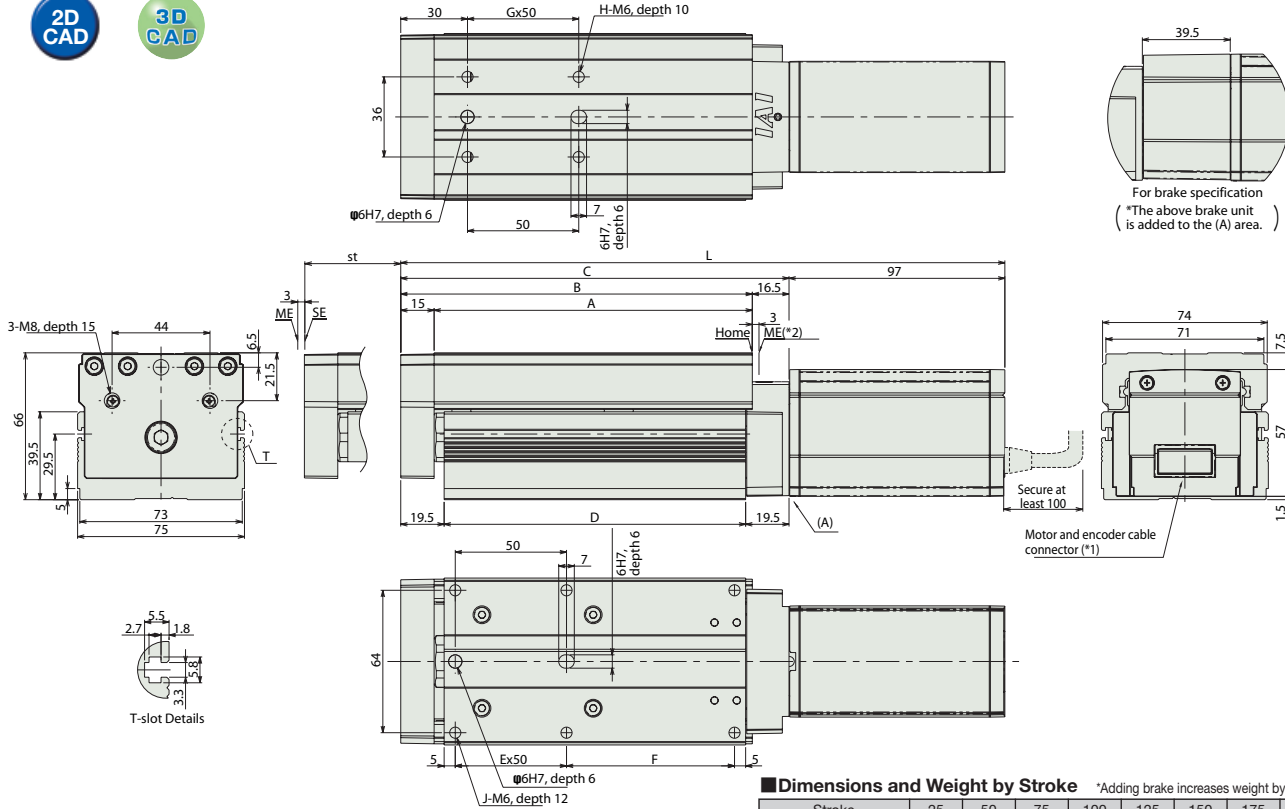
Direction of allowable load moment



Dimensional Drawings

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

Information on special orders P. 454



Dimensions and Weight by Stroke

Stroke	*Adding brake increases weight by 0.4kg.								
	25	50	75	100	125	150	175	200	
L	No brake	246.5	271.5	296.5	321.5	346.5	371.5	396.5	421.5
	Brake-equipped	286	311	336	361	386	411	436	461
A	118	143	168	193	218	243	268	293	
B	133	158	183	208	233	258	283	308	
C	149.5	174.5	199.5	224.5	249.5	274.5	299.5	324.5	
D	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5	
E	1	1	2	2	3	3	4	4	
F	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5	
G	1	1	2	2	3	3	4	4	
H	4	4	6	6	8	8	10	10	
J	6	6	8	8	10	10	12	12	
Weight (kg)	2.1	2.3	2.5	2.8	3	3.2	3.4	3.6	

- (*1) Connect the built-in motor/encoder cables (see P374 for cable details).
- (*2) Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
- ME: Mechanical End
- SE: Stroke End

Compatible Controllers

The RCP3 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		PCON-C-42PI-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 2A	-	→P365	
Safety category compatible positioner type		PCON-CG-42PI-NP-2-0					-		
Solenoid valve type		PCON-CY-42PI-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (Differential line driver specification)		PCON-PL-42PI-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (Open collector specification)		PCON-PO-42PI-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		PCON-SE-42PI-N-0-0	Serial communications special type	64 points			-		
Field network type		RPCON-42P	Field network dedicated type	768 points			-		→P343
Program control type		PSEL-C-1-42PI-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P395

*PSEL is for uniaxial specification.

Controller-Integrated
Slider Type
Rod Type
Table Arm/flat
Gripper/Rotary Type
Cleanroom
Splash-resistant
Controller
Coupling
Built-in (Direct) mounted
Reverse-mounted
Pulse Motor 20P
Pulse Motor 28P
Pulse Motor 35P
Pulse Motor 42P
Pulse Motor 56P
Pulse Motor 86P
Servo Motor 10W
Servo Motor 20W
Servo Motor 30W
Servo Motor 60W
Servo Motor 100W
Servo Motor 150W
Servo Motor 750W

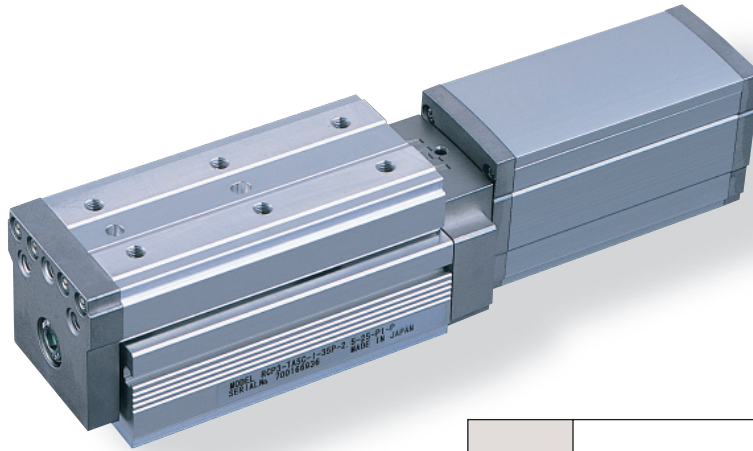
RCA2-TA5C

ROBO Cylinder, Table Type, Actuator Width 55mm, Servo Motor, Coupling Specification

Model Description	RCA2	TA5C	I	20			A1		
Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option	
		I: Incremental specification	20: Servo Motor 20W	10: 10mm 5: 5mm 2.5: 2.5mm	25: 25mm to 100: 100mm (Set steps every 25mm)	A1: ACON ASEL	N : None P : 1m S : 3m M : 5m X□□: Length	B : Brake-equipped LA : Power saving NM : Reversed-home specification	

See preceding section for model descriptions.

Power saving



Technical Reference P. 451

POINT
Notes on selection

(1) As a function of ballscrew lead chosen but not wrt to payload.
 (2) The load capacity is based on operation at an acceleration of 0.3G (or 0.2G if the lead is 3). This is the maximum acceleration.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal(kg)	Vertical(kg)		
RCA2-TA5C-I-20-10-①-A1-②-③	20	10	2	1	34	25 to 100 (every 25mm)
RCA2-TA5C-I-20-5-①-A1-②-③		5	3.5	2	68	
RCA2-TA5C-I-20-2.5-①-A1-②-③		2.5	5	3	137	

Legend: ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

Lead	Stroke	25 to 100
		(every 25mm)
10		465 <400>
5		250
2.5		125

*< > Indicates vertical use. (Unit = mm/s)

Price List by ① Stroke

① Stroke (mm)	Type code	
	TA5C	Encoder type
		Incremental
25	-	-
50	-	-
75	-	-
100	-	-

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-

*The standard cable for the RCA2 is a robot grade cable.
 *See P384 for maintenance cables.

③ Option Price List

Title	Option code	See page	Standard price
Brake-equipped	B	→P437	-
Power saving	LA	→P442	-
Reversed-home specification	NM	→P442	-

Actuator Specification

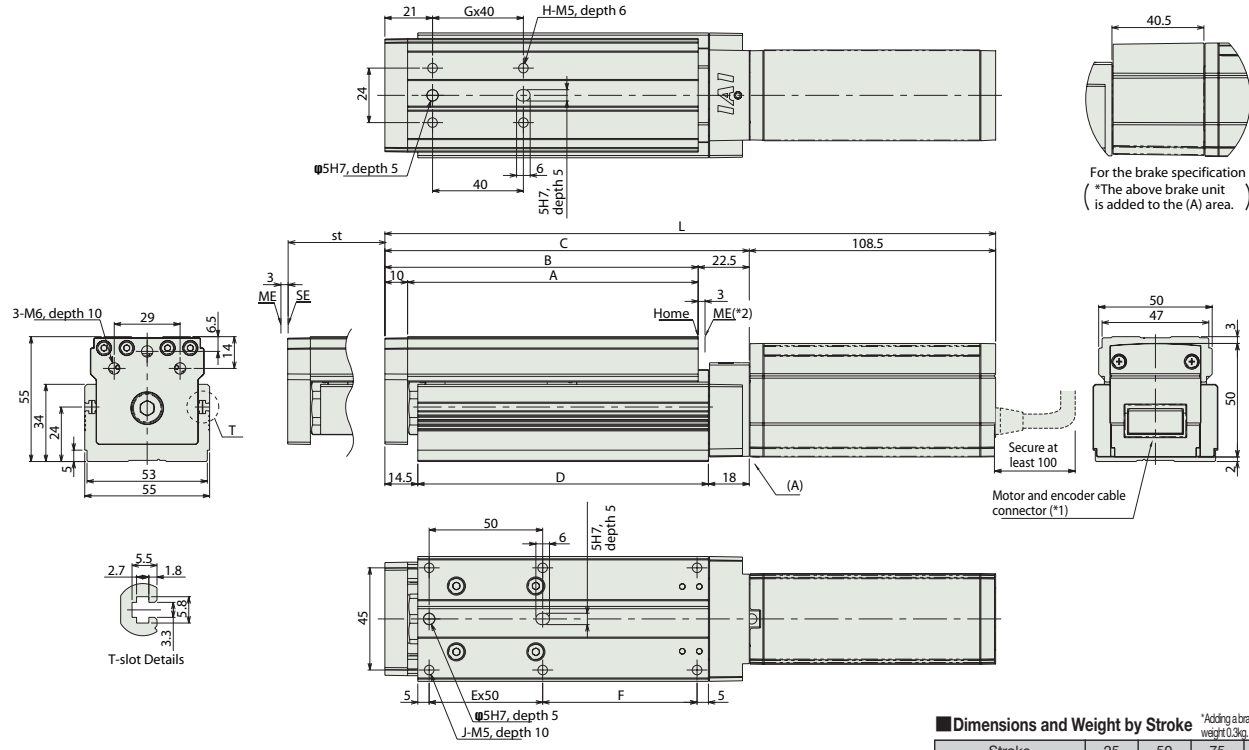
Item	Description
Drive System	Ball screw φ10mm, rolled C10
Positioning Repeatability	±0.05mm
Backlash	0.1mm or less
Base	Material: Aluminum special alumite treatment
Allowable load moment	Ma: 6.57N-m, Mb: 9.32N-m, Mc: 14.32N-m
Overhang load length	Allowable load moment
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/ Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

Dimensional Drawings

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

Information on special orders P. 454



For the brake specification (*The above brake unit is added to the (A) area.)

Motor and encoder cable connector (*1)

(*1) Connect the built-in motor/encoder cables (see P384 for cable details).
 (*2) Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
 ME: Mechanical End
 SE: Stroke End

Dimensions and Weight by Stroke

Stroke	*Adding a brake increases the weight 0.3kg.				
	25	50	75	100	
L	No brake	244	269	294	319
	Brake-equipped	284.5	309.5	334.5	359.5
A	103	128	153	178	
B	113	138	163	188	
C	135.5	160.5	185.5	210.5	
D	103	128	153	178	
E	1	1	2	2	
F	43	68	43	68	
G	1	1	2	2	
H	4	4	6	6	
J	6	6	8	8	
Weight (kg)	1.2	1.4	1.5	1.7	

Compatible Controllers

The RCA2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page				
Positioner type		ACON-C-20S①-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 5.1A (depending on the actuator)	-	-				
Safety category compatible positioner type		ACON-CG-20S①-NP-2-0										
Solenoid valve type		ACON-CY-20S①-NP-2-0	Same as solenoid valve controlled operation enabled	3 points								
Pulse series input type (Differential line driver specification)		ACON-PL-20S①-NP-2-0	Differential line driver compatible pulse series input type	(-)								
Pulse series input type (Open collector specification)		ACON-PO-20S①-NP-2-0							Open collector compatible pulse series input type			
Serial communication type		ACON-SE-20S①-N-0-0	Serial communications special type	64 points								
Field network type		RACON-20S①	Field network dedicated type	768 points					-	-	-	→P343
Program control type		ASEL-C-1-20S①-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points					-	-	-	→P405

*ASEL is for uniaxial specification.
 ① is entered as the code (LA) when designating power saving.

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

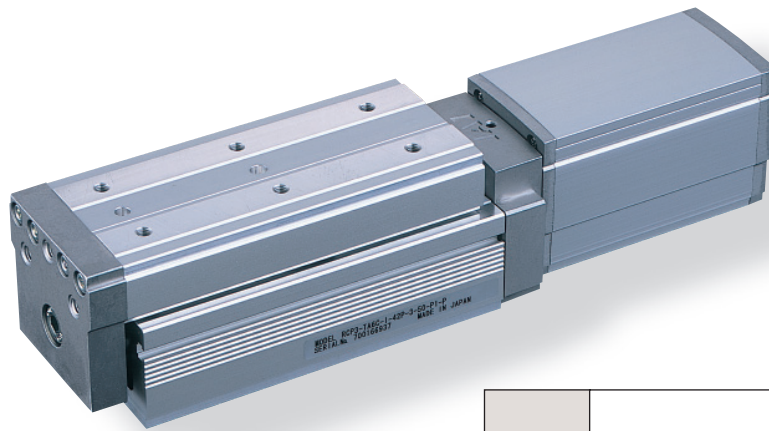
RCA2-TA6C

ROBO Cylinder, Table Type, Actuator Width 65mm, Servo Motor, Coupling Specification

Model Description	RCA2	TA6C	I	20			A1		
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
			I: Incremental specification	20: Servo Motor 20W	12: 12mm 6: 6mm 3: 3mm	25: 25mm to 150: 150mm (Set steps every 25mm)	A1: ACON ASEL	N : None P : 1m S : 3m M : 5m X□□: Length	B : Brake-equipped LA : Power saving NM : Reversed-home specification

See preceding section for model descriptions.

Power saving



Technical Reference P. 451

POINT
Notes on selection

(1) As a function of ballscrew lead chosen but not wrt to payload.
 (2) The load capacity is based on operation at an acceleration of 0.3G (or 0.2G if the lead is 3 or the actuator is operated vertically). This is the maximum acceleration.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal(kg)	Vertical(kg)		
RCA2-TA6C-I-20-12-①-A1-②-③	20	12	2	0.5	17	25 to 150 (every 25mm)
RCA2-TA6C-I-20-6-①-A1-②-③		6	4	1.5	34	
RCA2-TA6C-I-20-3-①-A1-②-③		3	6	3	68	

Legend: ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

Lead	Stroke	25 to 150
		(every 25mm)
12		560 <500>
6		300
3		150

*< > Indicates vertical use.

(Unit = mm/s)

Price List by ① Stroke

① Stroke (mm)	Type code	
	TA6C	Encoder type
		Incremental
25	-	-
50	-	-
75	-	-
100	-	-
125	-	-
150	-	-

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-

*The standard cable for the RCA2 is a robot grade cable.

*See P384 for maintenance cables.

③ Option Price List

Title	Option code	See page	Standard price
Brake-equipped	B	→P437	-
Power saving	LA	→P442	-
Reversed-home specification	NM	→P442	-

Actuator Specification

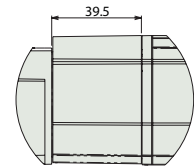
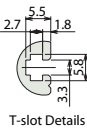
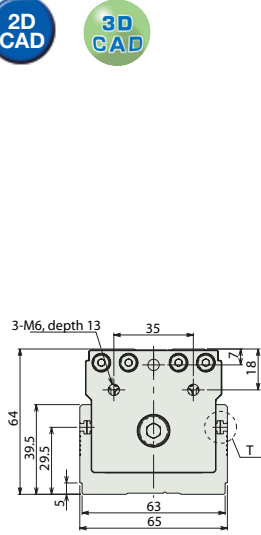
Item	Description
Drive System	Ball screw φ10mm, rolled C10
Positioning Repeatability	±0.05mm
Backlash	0.1mm or less
Base	Material: Aluminum special alumite treatment
Allowable load moment	Ma: 7.26N-m, Mb: 10.3N-m, Mc: 18.25N-m
Overhang load length	Allowable load moment
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

Dimensional Drawings

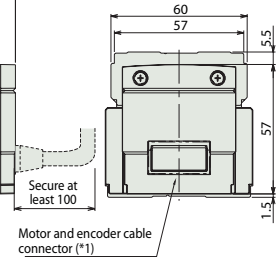
CAD drawings can be downloaded from the website. www.intelligentactuator.com

Information on special orders

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For the brake specification
*The above brake unit is added to the (A) area.



Motor and encoder cable connector (*1)

- (*1) Connect the built-in motor/encoder cables (see P384 for cable details).
 - (*2) Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
- ME: Mechanical End
SE: Stroke End

■ Dimensions and Weight by Stroke *Adding a brake increases the weight 0.3kg.

Stroke	Stroke						
	25	50	75	100	125	150	
L	No brake	244.5	269.5	294.5	319.5	344.5	369.5
	Brake-equipped	284	309	334	359	384	409
A	108	133	158	183	208	233	
B	121	146	171	196	221	246	
C	147.5	172.5	197.5	222.5	247.5	272.5	
D	110.5	135.5	160.5	185.5	210.5	235.5	
E	1	1	2	2	3	3	
F	50.5	75.5	50.5	75.5	50.5	75.5	
G	1	1	2	2	3	3	
H	4	4	6	6	8	8	
J	6	6	8	8	10	10	
Weight (kg)	1.8	2	2.2	2.4	2.6	2.8	

Compatible Controllers

The RCA2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		ACON-C-20I①-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 5.1A (depending on the actuator)	-	→P375	
Safety category compatible positioner type		ACON-CG-20I①-NP-2-0					-		
Solenoid valve type		ACON-CY-20I①-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (Differential line driver specification)		ACON-PL-20I①-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (Open collector specification)		ACON-PO-20I①-NP-2-0	Open collector compatible pulse series input type	(-)			-		
Serial communication type		ACON-SE-20I①-N-0-0	Serial communications special type	64 points			-		
Field network type		RACON-20①	Field network dedicated type	768 points			-		→P343
Program control type		ASEL-C-1-20I①-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P405

*ASEL is for uniaxial specification.
① is entered as the code (LA) when designating power saving.

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct) mounted
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

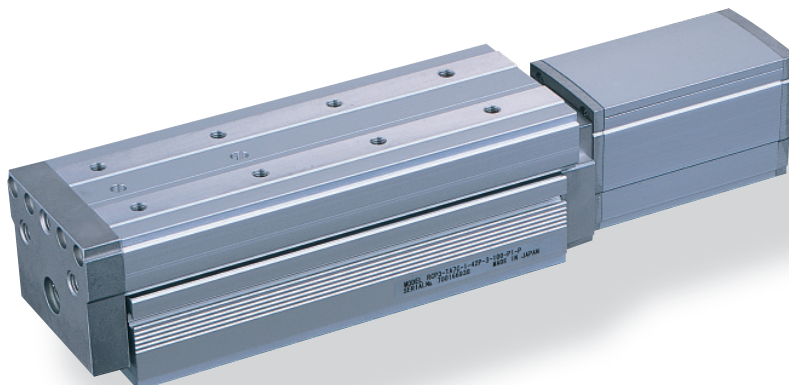
RCA2-TA7C

ROBO Cylinder, Table Type, Actuator Width 75mm, Servo Motor, Coupling Specification

Model Description	RCA2	TA7C	I	30			A1		
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
			I: Incremental specification	30: Servo Motor 30W	12: 12mm 6: 6mm 3: 3mm	25: 25mm to 200: 200mm (Set steps every 25mm)	A1: ACON ASEL	N : None P : 1m S : 3m M : 5m X□□: Length	B : Brake-equipped LA : Power saving NM : Reversed-home specification

See preceding section for model descriptions.

Power saving



Technical Reference P. 451

POINT
Notes on selection

(1) As a function of ballscrew lead chosen but not wrt to payload.
 (2) The load capacity is based on operation at an acceleration of 0.3G (or 0.2G if the lead is 3 or the actuator is operated vertically). This is the maximum acceleration.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal(kg)	Vertical(kg)		
RCA2-TA7C-I-30-12-①-A1-②-③	30	12	4	1	26	25 to 200 (every 25mm)
RCA2-TA7C-I-30-6-①-A1-②-③		6	6	2.5	53	
RCA2-TA7C-I-30-3-①-A1-②-③		3	8	4	105	

Legend: ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

Lead	Stroke	25 to 200 (every 25mm)
		12
6	300	
3	150	

*< > Indicates vertical use. (Unit = mm/s)

Price List by ① Stroke

① Stroke (mm)	Type code	
	TA7C	Encoder type
		Incremental
25	-	-
50	-	-
75	-	-
100	-	-
125	-	-
150	-	-
175	-	-
200	-	-

② Cable Length Price List

Type	Cable symbol	Standard price
Standard type (Robot cable)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-

*The standard cable for the RCA2 is a robot grade cable.
 *See P384 for maintenance cables.

③ Option Price List

Title	Option code	See page	Standard price
Brake-equipped	B	→P437	-
Power saving	LA	→P442	-
Reversed-home specification	NM	→P442	-

Actuator Specification

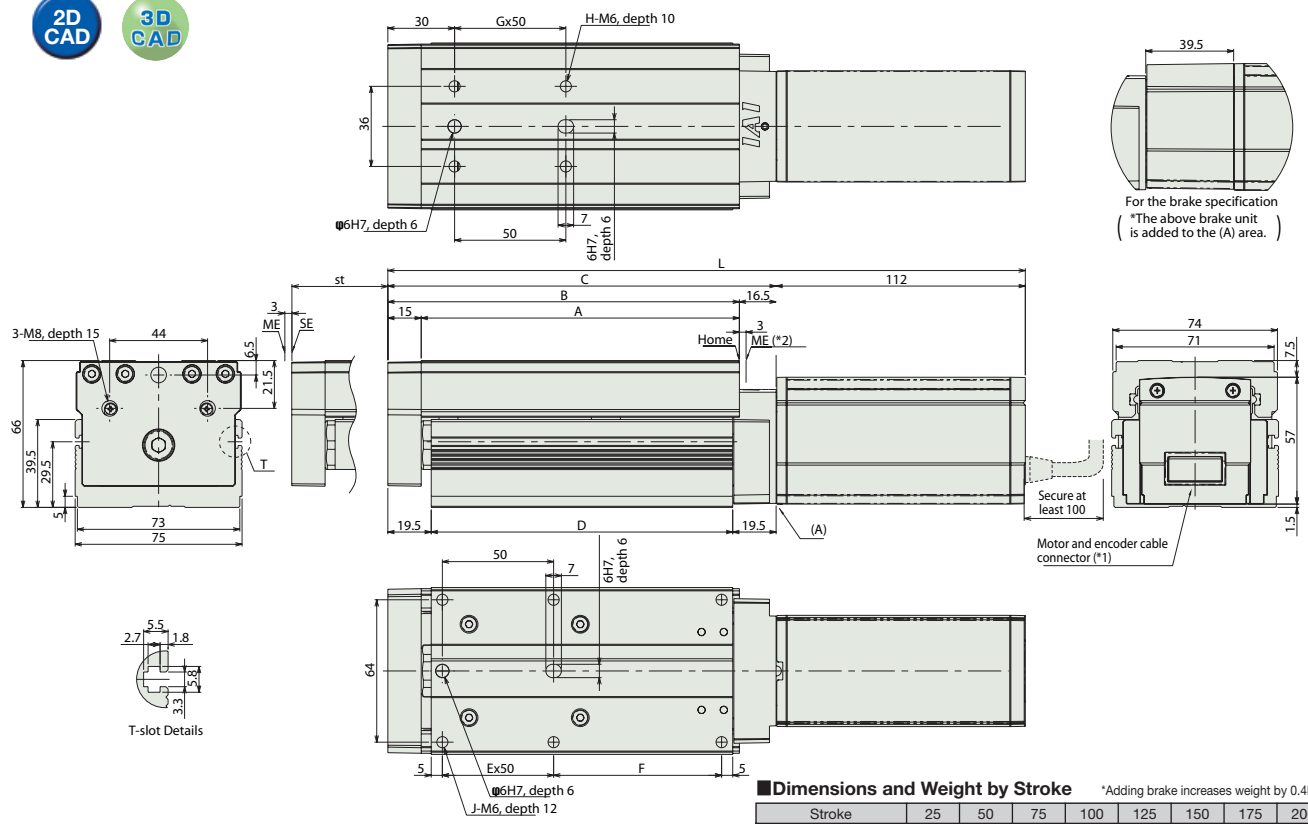
Item	Description
Drive System	Ball screw φ10mm, rolled C10
Positioning Repeatability	±0.05mm
Backlash	0.1mm or less
Base	Material: Aluminum special alumite treatment
Allowable load moment	Ma: 9.91N-m, Mb: 14.13N-m, Mc: 28.65N-m
Overhang load length	Allowable load moment
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

- Controller- Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/ Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

Dimensional Drawings

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

Information on special orders P. 454



(*1) Connect the built-in motor/encoder cables (see P384 for cable details).
 (*2) Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
 ME: Mechanical End
 SE: Stroke End

■ Dimensions and Weight by Stroke *Adding brake increases weight by 0.4kg.

Stroke	Dimensions and Weight by Stroke								
	25	50	75	100	125	150	175	200	
L	No brake	261.5	286.5	311.5	336.5	361.5	386.5	411.5	436.5
	Brake-equipped	301	326	351	376	401	426	451	476
A	118	143	168	193	218	243	268	293	
B	133	158	183	208	233	258	283	308	
C	149.5	174.5	199.5	224.5	249.5	274.5	299.5	324.5	
D	110.5	135.5	160.5	185.5	210.5	235.5	260.5	285.5	
E	1	1	2	2	3	3	4	4	
F	50.5	75.5	50.5	75.5	50.5	75.5	50.5	75.5	
G	1	1	2	2	3	3	4	4	
H	4	4	6	6	8	8	10	10	
J	6	6	8	8	10	10	12	12	
Weight (kg)	2.1	2.3	2.5	2.8	3	3.2	3.4	3.6	

Compatible Controllers

The RCA2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		ACON-C-30①-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Maximum 5.1A (depending on the actuator)	-	→P375	
Safety category compatible positioner type		ACON-CG-30①-NP-2-0					-		
Solenoid valve type		ACON-CY-30①-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (Differential line driver specification)		ACON-PL-30①-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (Open collector specification)		ACON-PO-30①-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		ACON-SE-30①-N-0-0	Serial communications special type	64 points			-		
Field network type		RACON-30①	Field network dedicated type	768 points			-		→P343
Program control type		ASEL-C-1-30①-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P405

*ASEL is for uniaxial specification.
 *① is entered as the code (LA) when designating power saving.

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct) mounted
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

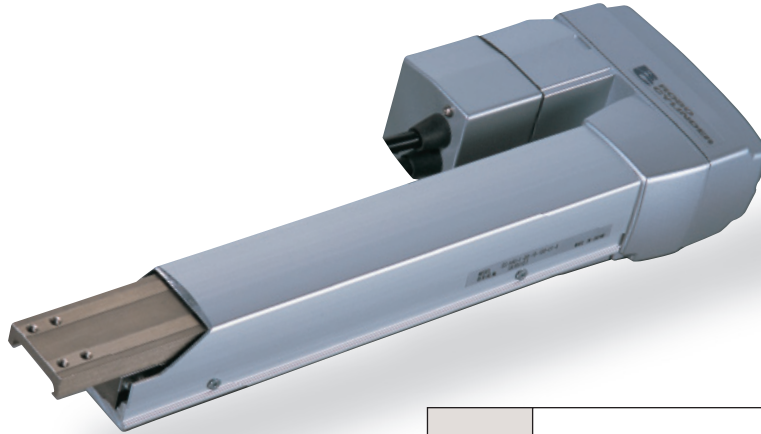
RCA-A4R

ROBO Cylinder, Arm Type, Actuator Width 40mm, 24V Servo Motor, Reverse-mounted Motor Specification

Model Description	RCA	A4R		20				A1		
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option	
			I: Incremental specification A: Absolute specification	20: Servo motor 20W	10:10mm 5: 5mm 2.5:2.5mm	50: 50mm to 400: 400mm (Set steps every 50mm)	A1: ACON ASEL	N : None P : 1m S : 3m M : 5m X□: Length R□: Robot cable	B : Brake (standard) LA : Power saving NM : Reversed-home specification MB : Bottom reverse-mounted motor MR : Right reverse-mounted motor ML : Left reverse-mounted motor	

See preceding section for model descriptions.

Power saving



Technical Reference P. 451

POINT
Notes on selection

(1) This note should be applied to the TA_C units too.
(2) The load capacity is based on operation at an acceleration of 0.2G. This is the maximum acceleration.

Actuator Specification Table

Leads and Payloads							Stroke and Maximum Speed		
Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)	Stroke		
			Horizontal(kg)	Vertical(kg)			Lead	50 to 200 (every 50mm)	
RCA-A4R-①-20-10-②-A1-③-B-④	20	10	-	2.5	39.2	50 to 200 (every 50mm)	10	330	
RCA-A4R-①-20-5-②-A1-③-B-④		5	-	4.5	78.4	5	165		

Legend: ① Encoder type ② Stroke ③ Cable length ④ Option (Unit = mm/s)

Price List by ① Encoder Type/② Stroke

② Stroke (mm)	Type code	
	A4R	
	① Encoder type	
	Incremental	Absolute
	I	A
50	-	-
100	-	-
150	-	-
200	-	-

③ Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P384 for maintenance cables.

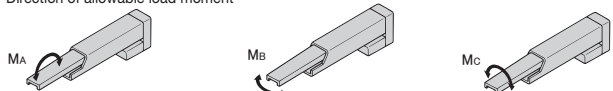
④ Option Price List

Title	Option code	See page	Standard price
Brake (standard)	B	→P437	
Power saving	LA	→P442	
Reversed-home specification	NM	→P442	
Bottom reverse-mounted motor	MB	→P444	
Right reverse-mounted motor	MR	→P444	
Left reverse-mounted motor	ML	→P444	

Actuator Specification

Item	Description
Drive System	Ball screw φ8mm, rolled C10 (ball screw speed reduced to half by means of timing belt)
Positioning Repeatability	±0.02mm
Backlash	0.1mm or less
Base	Aluminum with white alumite treatment
Allowable load moment	Ma: 2.7N·m, Mb: 3.1N·m, Mc: 2.9N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

Direction of allowable load moment



- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/ Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in Direct
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

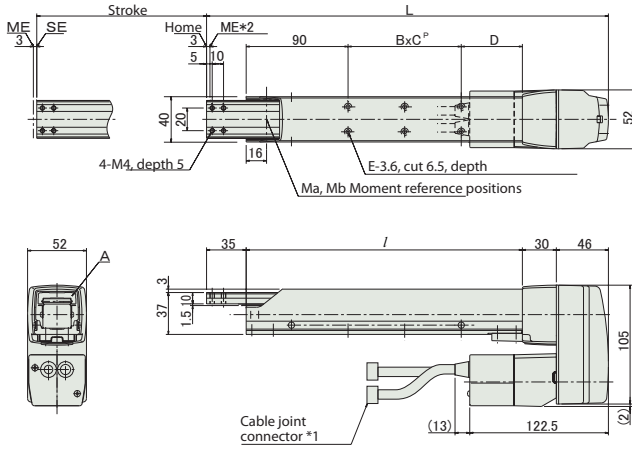
CAD drawings can be downloaded from the website. www.intelligentactuator.com

Information on special orders **P. 454**

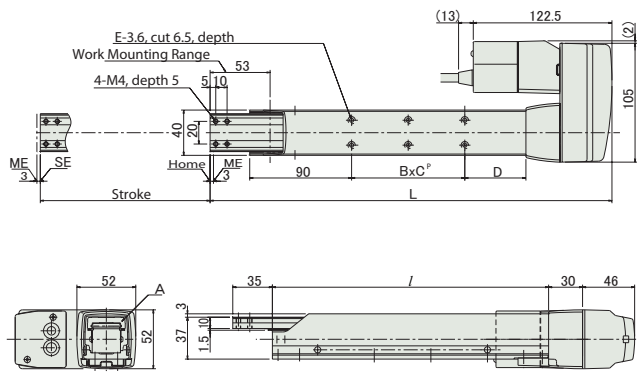


*1 Connect the motor/encoder cables. See P384 for cable details.
 *2 The rod moves to the ME during home return. Pay attention to prevent contact between the rod and the surrounding parts.
 ME: Mechanical End SE: Stroke End

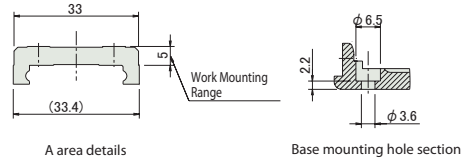
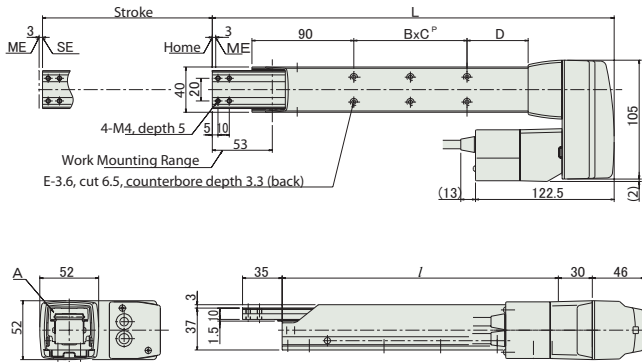
Reverse-mounted Motor, Bottom (Option code: MB)



Reverse-mounted Motor, Right (Option code: MR)



Reverse-mounted Motor, Left (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	1x19	1x50	2x50	2x50
D	35	54	54	104
E	4	4	6	6
Weight(kg)	1.7	1.8	2.0	2.1

Compatible Controllers

RCA series actuators can be operated using the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		ACON-C-20I-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Rating 1.3A Peak 3.7A	-	→P375	
Safety category compatible positioner type		ACON-CG-20I-NP-2-0					-		
Solenoid valve type		ACON-CY-20I-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (differential line driver specification)		ACON-PL-20I-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		ACON-PO-20I-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		ACON-SE-20I-N-0-0	Serial communications special type	64 points			-		
Field network type		RACON-20	Field network dedicated type	768 points			-		→P343
Program control type		ASEL-C-1-20①-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P405

*ASEL is for uniaxial specification.
 ① indicates an encoder type (I: Incremental, A: Absolute)

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCA-A5R

ROBO Cylinder, Arm Type, Actuator Width 52mm, 24V Servo Motor, Reverse-mounted Motor Specification

Model Description **RCA** — **A5R** — — **20** — — — **A1** — —

Series — Type — Encoder type — Motor type — Lead — Stroke — Compatible Controllers — Cable length — Option

I: Incremental specification
A: Absolute specification

20: Servo motor
20W

12: 12mm
6: 6mm

50: 50mm
to
200: 200mm
(Set steps every 50mm)

A1: ACON
ASEL

N : None
P : 1m
S : 3m
M : 5m
X : Length
R : Robot cable

B : Brake (standard)
LA : Power saving
NM : Reversed-home specification
MB : Bottom reverse-mounted motor
MR : Right reverse-mounted motor
ML : Left reverse-mounted motor

See preceding section for model descriptions.

Power saving



Technical Reference P. 451

POINT
Notes on selection

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching a critical 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 maximum acceleration.

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal(kg)	Vertical(kg)		
RCA-A5R-①-20-12-②-A1-③-B-④	20	12	-	2	33.3	50 to 200 (every 50mm)
RCA-A5R-①-20-6-②-A1-③-B-④		6	-	4		

Stroke and Maximum Speed

Lead	Stroke	50 to 200 (every 50mm)
	12	
6		200

(Unit = mm/s)

Legend: ① Encoder type ② Stroke ③ Cable length ④ Option

Price List by ① Encoder Type/② Stroke

② Stroke (mm)	Type code	
	A5R	
	① Encoder type	
	Incremental	Absolute
50	I	A
100	-	-
150	-	-
200	-	-

③ Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P384 for maintenance cables.

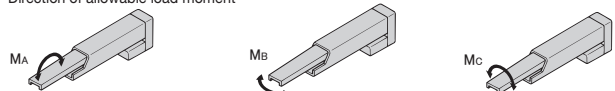
④ Option Price List

Title	Option code	See page	Standard price
Brake (standard)	B	→P437	-
Power saving	LA	→P442	
Reversed-home specification	NM	→P442	
Bottom reverse-mounted motor	MB	→P444	
Right reverse-mounted motor	MR	→P444	
Left reverse-mounted motor	ML	→P444	

Actuator Specification

Item	Description
Drive System	Ball screw φ8mm, rolled C10 (ball screw speed reduced to half by means of timing belt)
Positioning Repeatability	±0.02mm
Backlash	0.1mm or less
Base	Aluminum with white alumite treatment
Allowable load moment	Ma: 4.5N·m, Mb: 5.4N·m, Mc: 4.1N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

Direction of allowable load moment

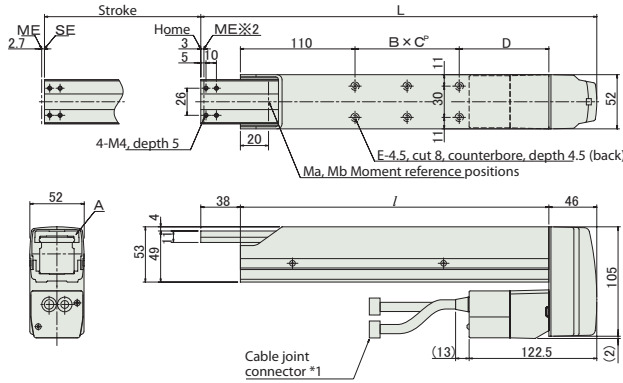


- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/ Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

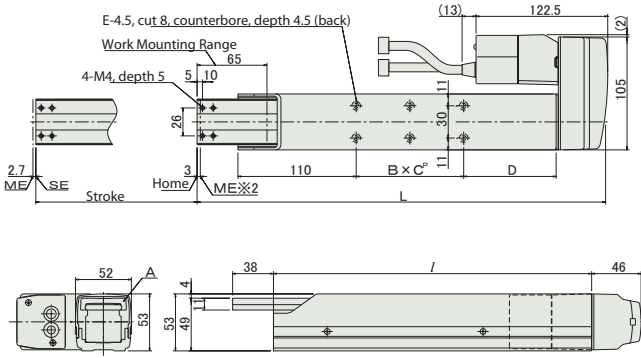


*1 Connect the motor/encoder cables. See P384 for cable details.
 *2 The rod moves to the ME during home return. Pay attention to prevent contact between the rod and the surrounding parts.
 ME: Mechanical End SE: Stroke End

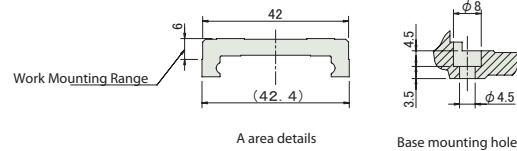
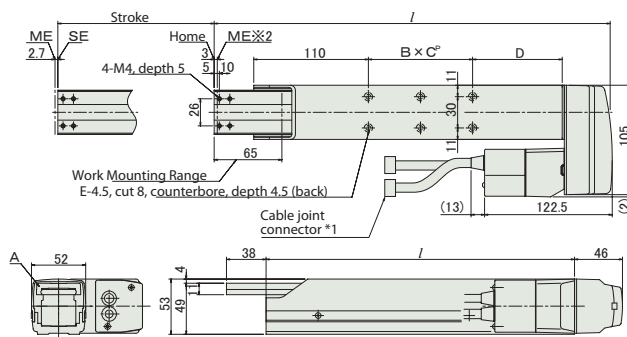
Reverse-mounted Motor, Bottom (Option code: MB)



Reverse-mounted Motor, Right (Option code: MR)



Reverse-mounted Motor, Left (Option code: ML)



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	280	330	380	430
l	196	246	296	346
BxC*	1x30	1x50	2x50	2x50
D	56	86	86	136
E	4	4	6	6
Weight(kg)	2.2	2.4	2.6	2.8

Note: The motor must be reversed at right or left if the stroke is 50. The standard reversing specification is not available with a 50 stroke.

Compatible Controllers

RCA series actuators can be operated using the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		ACON-C-20I-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Rating 1.3A Peak 3.7A	-	→P375	
Safety category compatible positioner type		ACON-CG-20I-NP-2-0					-		
Solenoid valve type		ACON-CY-20I-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (differential line driver specification)		ACON-PL-20I-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		ACON-PO-20I-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		ACON-SE-20I-N-0-0	Serial communications special type	64 points			-		
Field network type		RACON-20	Field network dedicated type	768 points			-		→P343
Program control type		ASEL-C-1-20I-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P405

*ASEL is for uniaxial specification.
 *⓪ indicates an encoder type (I: Incremental, A: Absolute)

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

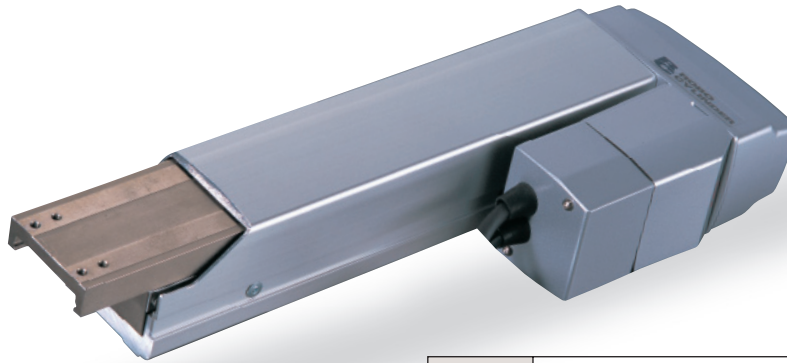
RCA-A6R

ROBO Cylinder, Arm Type, Actuator Width 58mm, 24V Servo Motor, Reverse-mounted Motor Specification

Model Description	RCA	A6R	<input type="checkbox"/>	30	<input type="checkbox"/>	<input type="checkbox"/>	A1	<input type="checkbox"/>	<input type="checkbox"/>
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
			I: Incremental specification A: Absolute specification	30: Servo motor 30W	12: 12mm 6: 6mm	50: 50mm to 400: 400mm (Set steps every 50mm)	A1: ACON ASEL	N : None P : 1m S : 3m M : 5m X□□: Length R□□: Robot cable	B : Brake (standard) LA : Power saving NM : Reversed-home specification MB : Bottom reverse-mounted motor MR : Right reverse-mounted motor ML : Left reverse-mounted motor

See preceding section for model descriptions.

Power saving



Technical Reference P. 451

POINT
Notes on selection

(1) When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching a critical 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 maximum acceleration.

Actuator Specification Table						
Leads and Payloads						
Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
RCA-A6R-①-30-12-②-A1-③-B-④	30	12	Horizontal(kg)	Vertical(kg)	48.4	50 to 200 (every 50mm)
RCA-A6R-①-30-6-②-A1-③-B-④		6	-	6		

Legend: ① Encoder type ② Stroke ③ Cable length ④ Option

Stroke and Maximum Speed		
Lead	Stroke	50 to 200 (every 50mm)
	12	
6		200

(Unit = mm/s)

Price List by ① Encoder Type/② Stroke

② Stroke (mm)	Type code	
	A6R	
	① Encoder type	
	Incremental	Absolute
50	-	-
100	-	-
150	-	-
200	-	-

③ Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

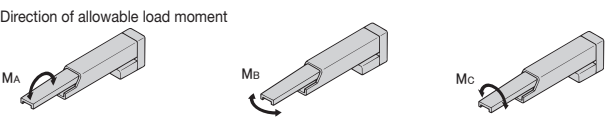
*See P384 for maintenance cables.

④ Option Price List

Title	Option code	See page	Standard price
Brake (standard)	B	→P437	
Power saving	LA	→P442	
Reversed-home specification	NM	→P442	
Bottom reverse-mounted motor	MB	→P444	
Right reverse-mounted motor	MR	→P444	
Left reverse-mounted motor	ML	→P444	

Actuator Specification

Item	Description
Drive System	Ball screw φ10mm, rolled C10 (ball screw speed reduced to half by means of timing belt)
Positioning Repeatability	±0.02mm
Backlash	0.1mm or less
Base	Aluminum with white alumite treatment
Allowable load moment	Ma: 8.1N·m, Mb: 10.0N·m, Mc: 6.5N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km



- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/ Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

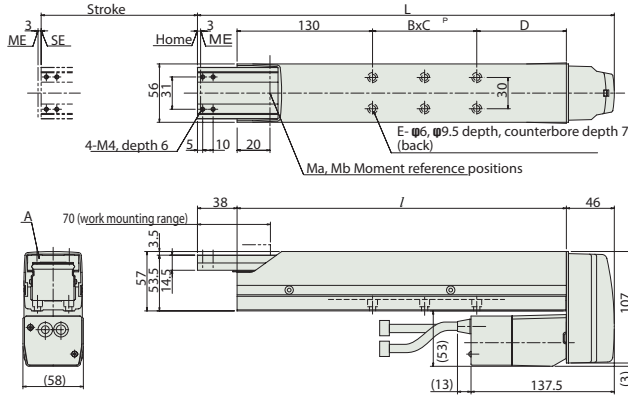
CAD drawings can be downloaded from the website. www.intelligentactuator.com

Information on special orders **P. 454**

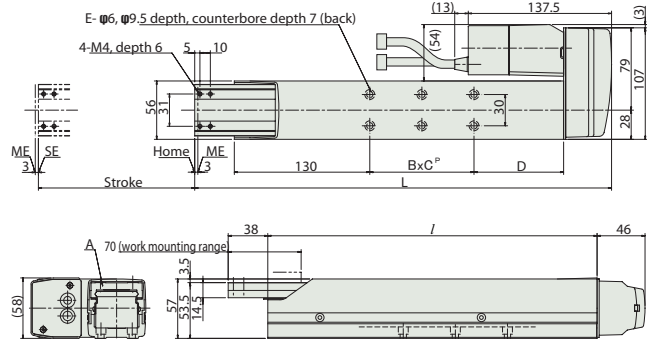


*1 Connect the motor/encoder cables. See P384 for cable details.
 *2 The rod moves to the ME during home return. Pay attention to prevent contact between the rod and the surrounding parts.
 ME: Mechanical End SE: Stroke End

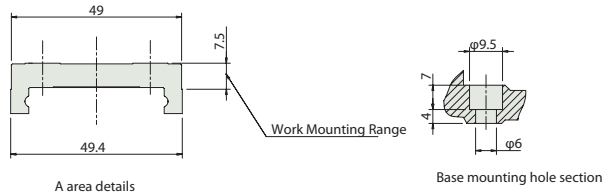
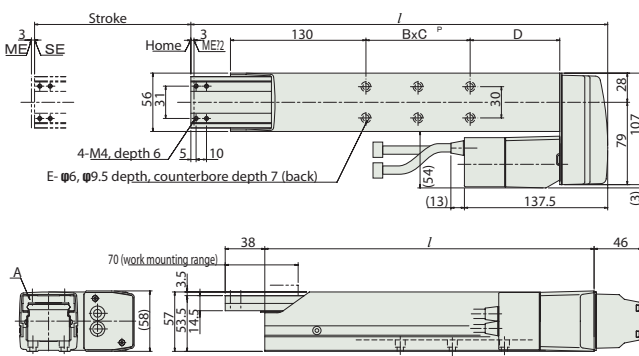
Reverse-mounted Motor, Bottom (Option code: MB)



Reverse-mounted Motor, Right (Option code: MR)



Reverse-mounted Motor, Left (Option code: ML)



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	300	350	400	450
l	216	266	316	366
BxC*	1×30	1×50	2×50	2×50
D	56	86	86	136
E	4	4	6	6
Weight(kg)	3.0	3.3	3.6	3.9

Note: The motor must be reversed at right or left if the stroke is 50. The standard reversing specification is not available with a 50 stroke.

Compatible Controllers

RCA series actuators can be operated using the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page	
Positioner type		ACON-C-30I-NP-2-0	Up to 512-point positioning possible	512 points	DC24V	Rating 1.3A Peak 3.7A	-	→P375	
Safety category compatible positioner type		ACON-CG-30I-NP-2-0					-		
Solenoid valve type		ACON-CY-30I-NP-2-0	Same as solenoid valve controlled operation enabled	3 points			-		
Pulse series input type (differential line driver specification)		ACON-PL-30I-NP-2-0	Differential line driver compatible pulse series input type	(-)			-		
Pulse series input type (open collector specification)		ACON-PO-30I-NP-2-0	Open collector compatible pulse series input type				-		
Serial communication type		ACON-SE-30I-N-0-0	Serial communications special type	64 points			-		
Field network type		RACON-30	Field network dedicated type	768 points			-		→P343
Program control type		ASEL-C-1-30①-NP-2-0	Programmable type. Can be operated for up to 2 axes.	1500 points			-		→P405

*ASEL is for uniaxial specification.
 ① indicates an encoder type (I: Incremental, A: Absolute)

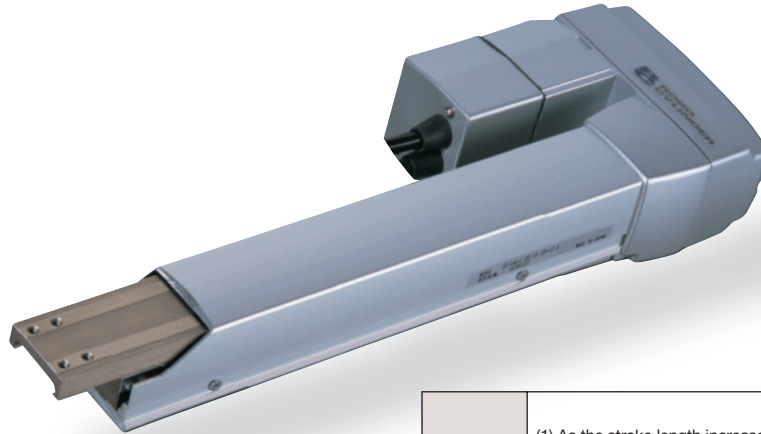
- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCS2-A4R

ROBO Cylinder, Arm Type, Actuator Width 40mm, 200-V Servo Motor, Reverse-mounted Motor Specification

Model Description	RCS2	A4R	<input type="checkbox"/>	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option
	I: Incremental specification A: Absolute specification	20: Servo motor 20W		10: 10mm 5: 5mm	50: 50mm to 200: 200mm (Set steps every 50mm)	T1:XSEL-J/K T2:SCON SSEL XSEL-P/Q	N : None P : 1m S : 3m M : 5m X□□: Length R□□: Robot cable	B : Brake (standard) NM : Reversed-home specification MB: Bottom reverse-mounted motor MR: Right reverse-mounted motor ML: Left reverse-mounted motor	

See preceding section for 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 maximum desired stroke speed in the Actuator Spec Table below.

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

Actuator Specification Table

Leads and Payloads

Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal(kg)	Vertical(kg)		
RCS2-A4R-①-20-10-②-③-④-B-⑤	20	10	-	2.5	39.2	50 to 200 (every 50mm)
RCS2-A4R-①-20-5-②-③-④-B-⑤		5	-	4.5	78.4	

Legend: ① Encoder type ② Stroke ③ Controller ④ Cable length ⑤ Option

Stroke and Maximum Speed

Stroke Lead	50 to 200 (every 50mm)	
	10	330
5	165	

(Unit = mm/s)

Price List by ① Encoder Type/② Stroke

② Stroke (mm)	Type code	
	A4R	
	① Encoder type	
	Incremental	Absolute
50	I	A
100	-	-
150	-	-
200	-	-

④ Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P384 for maintenance cables.

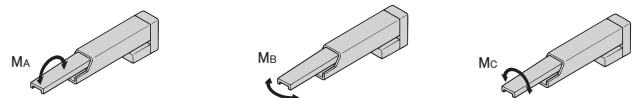
⑤ Option Price List

Title	Option code	See page	Standard price
Brake (standard)	B	→P437	-
Reversed-home specification	NM	→P442	
Bottom reverse-mounted motor	MB	→P444	
Right reverse-mounted motor	MR	→P444	
Left reverse-mounted motor	ML	→P444	

Actuator Specification

Item	Description
Drive System	Ball screw φ 8mm, rolled C10 (ball screw speed reduced to half by means of timing belt)
Positioning Repeatability	±0.02mm
Backlash	0.1mm or less
Base	Material: aluminum white alumite treated
Allowable load moment	Ma: 2.7N-m, Mb:3.1N-m, Mc: 2.9N-m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

Direction of allowable load moment



Dimensional Drawings

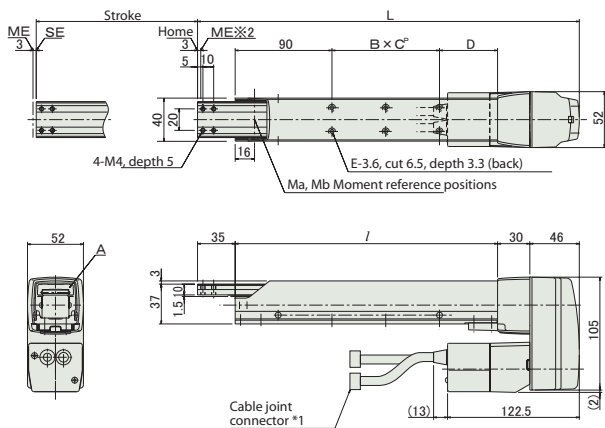
CAD drawings can be downloaded from the website. www.intelligentactuator.com

Information on special orders P. 454

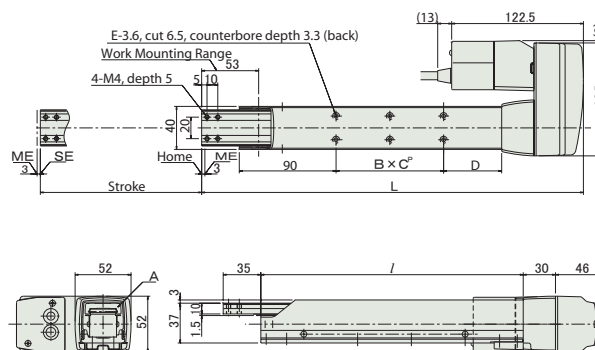


- *1. Connect the motor-encoder cable. See P394 for cable details.
 - *2. Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
- ME: Mechanical End SE: Stroke End

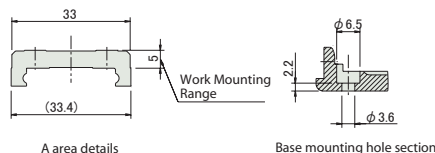
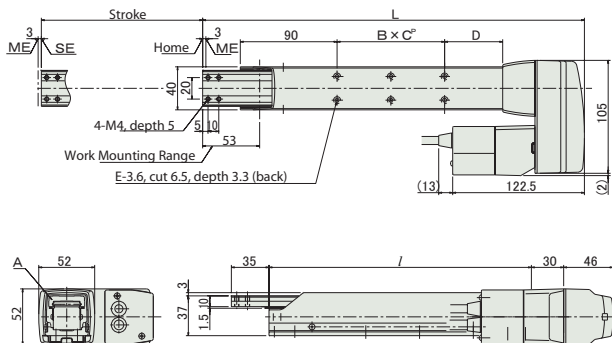
Reverse-mounted Motor, Bottom (Option code: MB)



Reverse-mounted Motor, Right (Option code: MR)



Reverse-mounted Motor, Left (Option code: ML)



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	255	305	355	405
r	144	194	244	294
BxC*	1x19	1x50	2x50	2x50
D	35	54	54	104
E	4	4	6	6
Weight(kg)	1.7	1.8	2.0	2.1

Compatible Controllers

The RCS2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page
Positioner mode		SCON-C-20①-NP-2-②	Up to 512-point positioning possible	512 points	Single-phase AC 100V Single-phase AC 200V Three-phase AC 200V (XSEL-P/Q only)	Maximum 360VA * 1-axis specification operated at 150W	-	→P385
Solenoid valve mode			Same as solenoid valve controlled operation enabled	7 points				
Serial communication type			Serial communications special type	64 points				
Pulse train input control type			Pulse train input type special type	(-)				
Program control 1-2 axis types		SSEL-C-1-20①-NP-2-②	Programmed operation enabled, capable of up to 2-axis operation	20000 points			-	→P415
Program control 1 to 6-axis type		XSEL-③-1-20①-N1-EEE-2-④	Programmed operation enabled 1-6 axis type	4000 points			-	→P425

*SSEL, XSEL are for 1-axis specification.
 ① indicates the encoder type (I: Incremental, A: Absolute).
 ② indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V).
 ③ indicates the XSEL type (J/K/P/Q).
 ④ indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V, 3: Three-phase 200V).

- Controller Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCS2-A5R

ROBO Cylinder, Arm Type, Actuator Width 52mm, 200-V Servo Motor, Reverse-mounted Motor Specification

Model Description **RCS2** — **A5R** — — **20** — — — — —

Series — Type — Encoder type — Motor type — Lead — Stroke — Compatible Controllers — Cable length — Option

I: Incremental specification
 A: Absolute specification

20: Servo motor 20W
 12: 12mm
 6: 6mm

50: 50mm
 to
 200: 200mm
 (Set steps every 50mm)

T1:XSEL-J/K
 T2:SCON
 SSEL
 XSEL-P/Q

N : None
 P : 1m
 S : 3m
 M : 5m
 X□□: Length
 R□□: Robot cable

B : Brake (standard)
 NM : Reversed-home specification
 MB: Bottom reverse-mounted motor
 MR: Right reverse-mounted motor
 ML: Left reverse-mounted motor

See preceding 25 pages for 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 maximum desired stroke speed in the Actuator Spec Table below.

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

Actuator Specification Table						
Leads and Payloads				Stroke and Maximum Speed		
Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
RCS2-A5R-①-20-12-②-③-④-B-⑤	20	12	Horizontal(kg)	Vertical(kg)	33.3	50 to 200 (every 50mm)
RCS2-A5R-①-20-6-②-③-④-B-⑤		6	-	4		6

Legend: ① Encoder type ② Stroke ③ Controller ④ Cable length ⑤ Option

(Unit = mm/s)

Price List by ① Encoder Type/② Stroke

② Stroke (mm)	Type code	
	A5R	
	① Encoder type	
	Incremental	Absolute
50	I	A
100	-	-
150	-	-
200	-	-

④ Cable Length Price List

Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

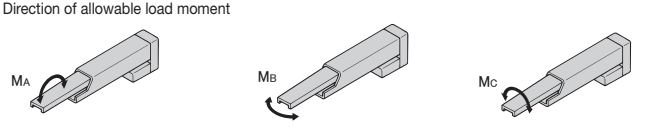
*See P384 for maintenance cables.

⑤ Option Price List

Title	Option code	See page	Standard price
Brake (standard)	B	→P437	-
Reversed-home specification	NM	→P442	
Bottom reverse-mounted motor	MB	→P444	
Right reverse-mounted motor	MR	→P444	
Left reverse-mounted motor	ML	→P444	

Actuator Specification

Item	Description
Drive System	Ball screw φ8mm, rolled C10 (ball screw speed reduced to half by means of timing belt)
Positioning Repeatability	±0.02mm
Backlash	0.1mm or less
Base	Material: aluminum white alumite treated
Allowable load moment	Ma: 4.5N-m, Mb: 5.4N-m, Mc: 4.1N-m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km



- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com

Information on special orders

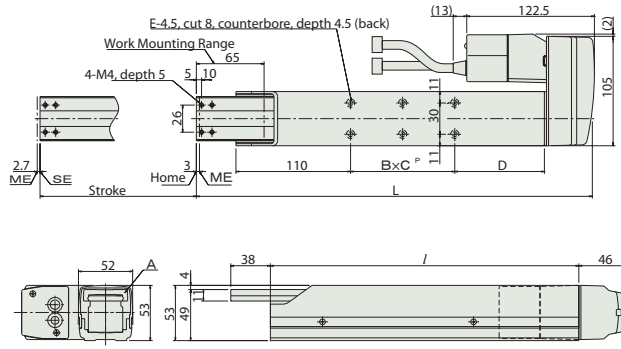
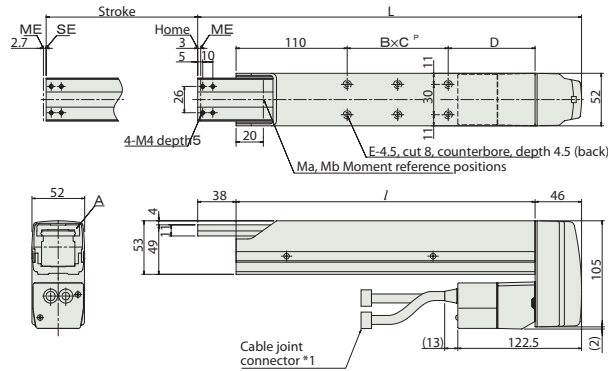
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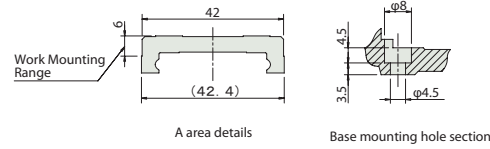
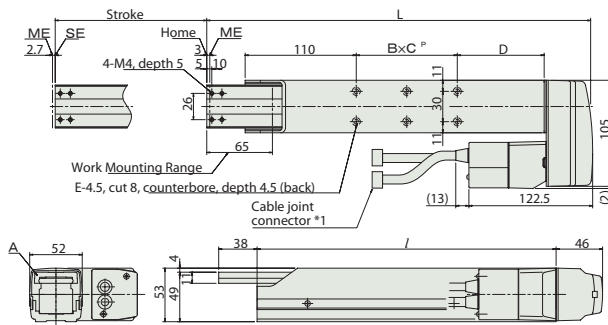
- *1. Connect the motor-encoder cable. See P394 for cable details.
 - *2. Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
- ME: Mechanical End SE: Stroke End

Reverse-mounted Motor, Bottom (Option code: MB)

Reverse-mounted Motor, Right (Option code: MR)



Reverse-mounted Motor, Left (Option code: ML)



Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	280	330	380	430
r	196	246	296	346
BxC*	1x30	1x50	2x50	2x50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	2.2	2.4	2.6	2.8

Note: The motor must be reversed at right or left if the stroke is 50. The standard reversing specification is not available with a 50 stroke.

Compatible Controllers

The RCS2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page
Positioner mode		SCON-C-20①-NP-2-②	Up to 512-point positioning possible	512 points	Single-phase AC 100V Single-phase AC 200V Three-phase AC 200V (XSEL-P/Q only)	Maximum 360VA * 1-axis specification operated at 150W	-	→P385
Solenoid valve mode			Same as solenoid valve controlled operation enabled	7 points				
Serial communication type			Serial communications special type	64 points				
Pulse train input control type			Pulse train input type special type	(-)				
Program control 1-2 axis types		SSEL-C-1-20①-NP-2-②	Programmed operation enabled, capable of up to 2-axis operation	20000 points			-	→P415
Program control 1 to 6-axis type		XSEL-③-1-20①-N1-EEE-2-④	Programmed operation enabled 1-6 axis type	4000 points			-	→P425

*SSEL, XSEL are for 1-axis specification.
 ① indicates the encoder type (I: Incremental, A: Absolute).
 ② indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V).
 ③ indicates the XSEL type (J/K/P/Q).
 ④ indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V, 3: Three-phase 200V).

- Controller Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCS2-A6R

ROBO Cylinder, Arm Type, Actuator Width 58mm, 200-V Servo Motor, Reverse-mounted Motor Specification

Model Description	RCS2	A6R		30						
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option	
			I: Incremental specification A: Absolute specification	30: Servo motor 30W	12: 12mm 6: 6mm	50: 50mm to 200: 200mm (Set steps every 50mm)	T1:XSEL-J/K T2:SCON SSEL XSEL-P/Q	N : None P : 1m S : 3m M : 5m X□□: Length R□□: Robot cable	B : Brake (standard) NM : Reversed-home specification MB: Bottom reverse-mounted motor MR: Right reverse-mounted motor ML: Left reverse-mounted motor	

See preceding section for 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 maximum desired stroke speed in the Actuator Spec Table below.

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

Actuator Specification Table						
Leads and Payloads				Stroke and Maximum Speed		
Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal(kg)	Vertical(kg)		
RCS2-A6R-①-30-12-②-③-④-B-⑤	30	12	-	3	48.4	50 to 200 (every 50mm)
RCS2-A6R-①-30-6-②-③-④-B-⑤		6	-	6		200

Legend: ① Encoder type ② Stroke ③ Controller ④ Cable length ⑤ Option

(Unit = mm/s)

Price List by ① Encoder Type/② Stroke			
② Stroke (mm)	Type code		
	A6R		
	① Encoder type		
	Incremental	Absolute	
	I	A	
50	-	-	
100	-	-	
150	-	-	
200	-	-	

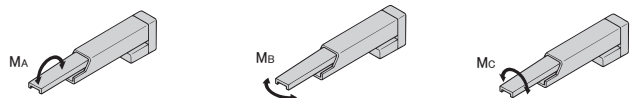
④ Cable Length Price List		
Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P384 for maintenance cables.

⑤ Option Price List			
Title	Option code	See page	Standard price
Brake (standard)	B	→P437	-
Reversed-home specification	NM	→P442	
Bottom reverse-mounted motor	MB	→P444	
Right reverse-mounted motor	MR	→P444	
Left reverse-mounted motor	ML	→P444	

Actuator Specification	
Item	Description
Drive System	Ball screw φ10mm, rolled C10 (ball screw speed reduced to half by means of timing belt)
Positioning Repeatability	±0.02mm
Backlash	0.1mm or less
Base	Material: aluminum white alumite treated
Allowable load moment	Ma: 8.1N·m, Mb: 10.0N·m, Mc: 6.5N·m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (non-condensing)
Service life	5000km

Direction of allowable load moment



- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/ Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- C Coupling
- D Built-in (Direct)
- R Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

Dimensional Drawings

CAD drawings can be downloaded from the website.

www.intelligentactuator.com

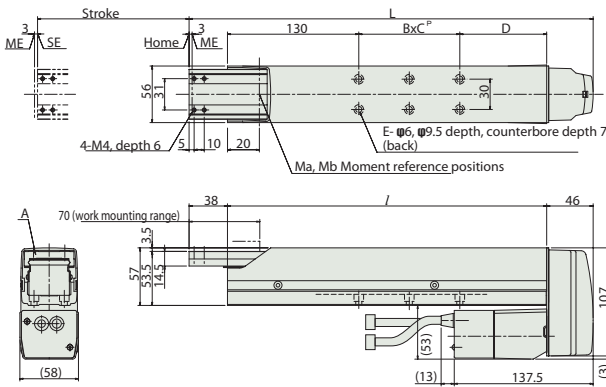
Information on special orders

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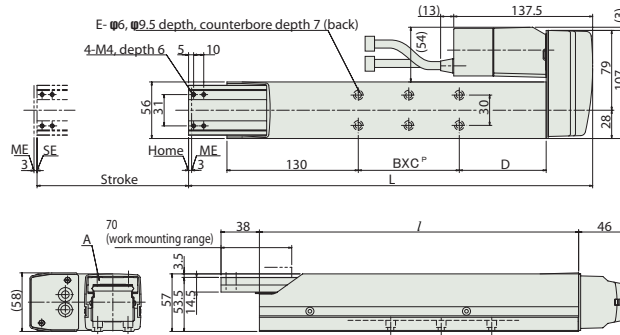


- *1. Connect the motor-encoder cable. See P394 for cable details.
 - *2. Watch out for interference with peripheral objects since the slider moves as far as the ME when returning home.
- ME: Mechanical End SE: Stroke End

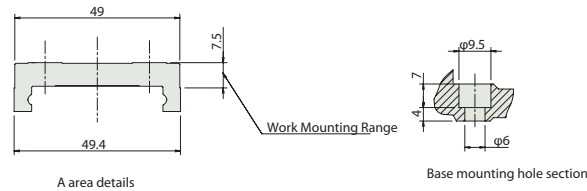
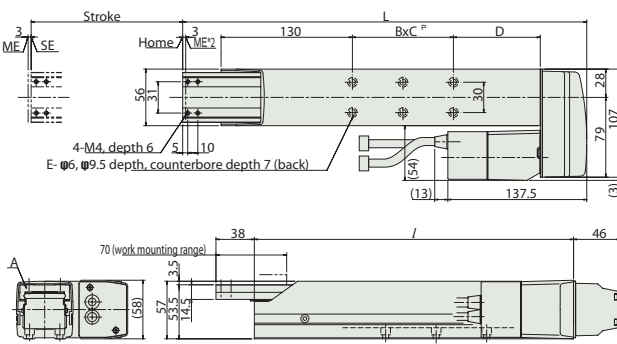
Reverse-mounted Motor, Bottom (Option code: MB)



Reverse-mounted Motor, Right (Option code: MR)



Reverse-mounted Motor, Left (Option code: ML)



■ Dimensions and Weight by Stroke

Stroke	50	100	150	200
L	300	350	400	450
r	216	266	316	366
BxC*	1x30	1x50	2x50	2x50
D	56	86	86	136
E	4	4	6	6
Weight (kg)	3.0	3.3	3.6	3.9

Note: The motor must be reversed at right or left if the stroke is 50. The standard reversing specification is not available with a 50 stroke.

Compatible Controllers

The RCS2 series actuators can be operated with the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page
Positioner mode		SCON-C-30D①-NP-2-②	Up to 512-point positioning possible	512 points	Single-phase AC 100V Single-phase AC 200V Three-phase AC 200V (XSEL-P/Q only)	Maximum 360VA * 1-axis specification operated at 150W	-	→P385
Solenoid valve mode			Same as solenoid valve controlled operation enabled	7 points				
Serial communication type			Serial communications special type	64 points				
Pulse train input control type			Pulse train input type special type	(-)				
Program control 1-2 axis types		SSEL-C-1-30D①-NP-2-②	Programmed operation enabled, capable of up to 2-axis operation	20000 points			-	→P415
Program control 1 to 6-axis type		XSEL-③-1-30D①-N1-EEE-2-④	Programmed operation enabled 1-6 axis type	4000 points			-	→P425

*SSEL, XSEL are for 1-axis specification.
 ① indicates the encoder type (I: Incremental, A: Absolute).
 ② indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V).
 ③ indicates the XSEL type (J/K/P/Q).
 ④ indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V, 3: Three-phase 200V).

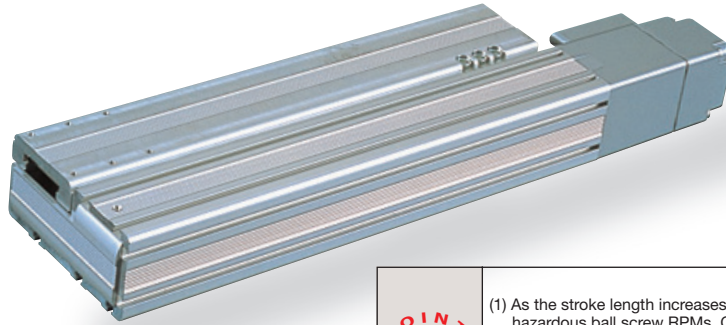
- Controller Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W

RCS2-F5D

ROBO Cylinder, Flat Type, Actuator Width 55mm, 200-V Servo Motor, Built-in (Direct Connection) Specification

Model Description	RCS2	F5D								
	Series	Type	Encoder type	Motor type	Lead	Stroke	Compatible Controllers	Cable length	Option	
I: Incremental specification		60: Servo motor 60W			16: 16mm 8: 8mm 4: 4mm	50: 50mm to 300: 300mm (Set steps every 50mm)	T1:XSEL-J/K T2:SCON SSEL XSEL-P/Q	N : None P : 1m S : 3m M : 5m X□□: Length R□□: Robot cable	B : Brake-equipped NM : Reversed-home specification	
A: Absolute specification		100: Servo motor 100W								

See preceding section for 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 maximum desired stroke speed in the Actuator Spec Table below.

(2) The load capacity is based on operation at an acceleration of 0.3G. (0.2G acceleration in a vertical operation at lead 3). This is the maximum acceleration.

Actuator Specification Table						
Leads and Payloads						
Model	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal(kg)	Vertical(kg)		
RCS2-F5D-①-60-16-②-③-④-⑤	60	16	See P419	2.0	63.8	50 to 300 (every 50mm)
RCS2-F5D-①-60-8-②-③-④-⑤		8		5.0	127.5	
RCS2-F5D-①-60-4-②-③-④-⑤		4		11.5	255.1	
RCS2-F5D-①-100-16-②-③-④-⑤	100	16		3.5	105.8	
RCS2-F5D-①-100-8-②-③-④-⑤		8		9.0	212.7	
RCS2-F5D-①-100-4-②-③-④-⑤		4		18.0	424.3	

Legend: ① Encoder type ② Stroke ③ Controller ④ Cable length ⑤ Option

Stroke and Maximum Speed		
Stroke Lead	50 to 300 (every 50mm)	
	16	800
8	400	
4	200	

(Unit = mm/s)

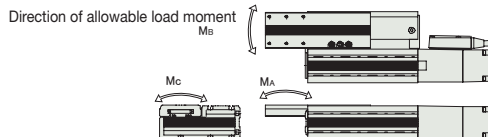
Price List by ① Encoder Type/② Stroke				
② Stroke (mm)	Type code			
	F5D			
	① Encoder type			
	Incremental Motor watts		Absolute Motor watts	
	60W	100W	60W	100W
50	-	-	-	-
100	-	-	-	-
150	-	-	-	-
200	-	-	-	-
250	-	-	-	-
300	-	-	-	-

④ Cable Length Price List		
Type	Cable symbol	Standard price
Standard type	P (1m)	-
	S (3m)	-
	M (5m)	-
Special length	X06 (6m) to X10 (10m)	-
	X11 (11m) to X15 (15m)	-
	X16 (16m) to X20 (20m)	-
Robot cable	R01 (1m) to R03 (3m)	-
	R04 (4m) to R05 (5m)	-
	R06 (6m) to R10 (10m)	-
	R11 (11m) to R15 (15m)	-
	R16 (16m) to R20 (20m)	-

*See P384 for maintenance cables.

⑤ Option Price List			
Title	Option code	See page	Standard price
Brake	B	→P437	-
Reversed-home specification	NM	→P442	-

Actuator Specification	
Item	Description
Drive System	Ball screw φ 12mm, rolled C10
Positioning Repeatability	±0.02mm
Backlash	0.05mm or less
Base	Material: aluminum white alumite treated
Allowable load moment	Ma: 4.5N-m, Mb: 5.4N-m, Mc: 4.1N-m
Ambient operating temperature, humidity	0 to 40°C, 85% RH or less (without condensation)
Service life	5000km



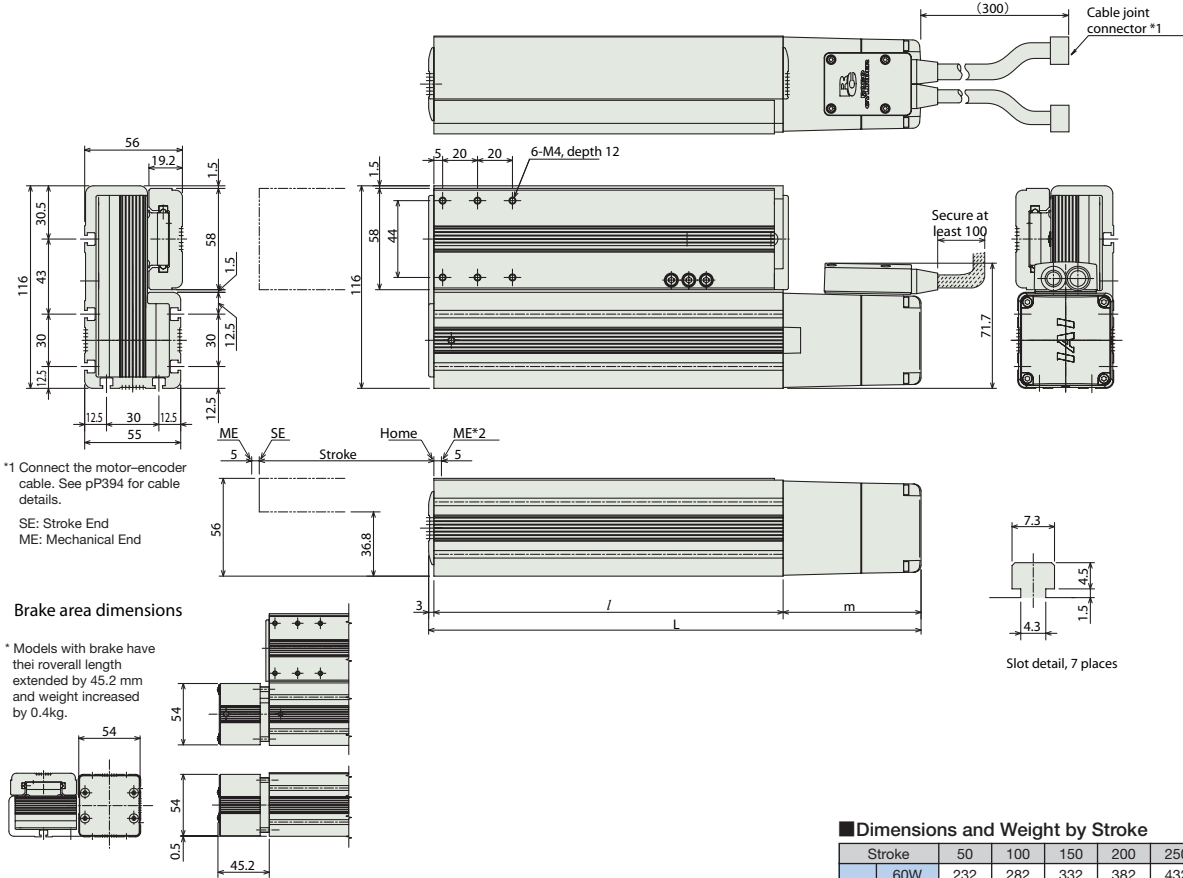
Dimensional Drawings

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

Information on special orders P. 454



* To change the home direction, the actuator must be returned for an adjustment.



*1 Connect the motor-encoder cable. See pP394 for cable details.
SE: Stroke End
ME: Mechanical End

Brake area dimensions

* Models with brake have their overall length extended by 45.2 mm and weight increased by 0.4kg.

■ Dimensions and Weight by Stroke

Stroke	50	100	150	200	250	300	
L	60W	232	282	332	382	432	482
	100W	250	300	350	400	450	500
l	60W	150	200	250	300	350	400
	100W	79					
m	60W	97					
	100W	97					
Weight (kg)	60W	2.1	2.5	3	3.4	3.9	4.3
	100W	2.3	2.7	3.2	3.6	4.1	4.5

Compatible Controllers

RCS2 series actuators can be operated using the following controllers. Select the type that is compatible with your application.

Title	External View	Model	Features	Max. positioning points	Input power	Power-supply capacity	Standard price	See page
Positioner type		SCON-C-60①-NP-2-② SCON-C-100①-NP-2-②	Up to 512-point positioning possible	512 points	Single-phase AC 100V Single-phase AC 200V Three-phase AC 200V (XSEL-P/Q only)	Maximum 360VA * 1-axis specification operated at 150W	-	→P385
Solenoid valve type			Same as solenoid valve controlled operation enabled	7 points				
Serial communication type			Serial communications special type	64 points				
Pulse train input control type			Pulse train input type special type	(-)				
Program control 1-2 axis types		SSEL-C-1-60①-NP-2-② SSEL-C-1-100①-NP-2-②	Programmed operation enabled, capable of up to 2-axis operation	20000 points			-	→P415
Program control 1 to 6-axis type		XSEL-③-1-60①-N1-EEE-2-④ XSEL-③-1-100①-N1-EEE-2-④	Programmed operation enabled 1-6 axis type	4000 points			-	→P425

*SSEL, XSEL are for 1-axis specification.
① indicates the encoder type (I: Incremental, A: Absolute).
② indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V).
③ indicates the XSEL type (J/K/P/Q).
④ indicates the power-supply voltage type (1: 100V, 2: Single-phase 200V, 3: Three-phase 200V).

- Controller-Integrated
- Slider Type
- Rod Type
- Table Arm/flat
- Gripper/Rotary Type
- Cleanroom
- Splash-resistant
- Controller
- Coupling
- Built-in (Direct)
- Reverse-mounted
- Pulse Motor 20P
- Pulse Motor 28P
- Pulse Motor 35P
- Pulse Motor 42P
- Pulse Motor 56P
- Pulse Motor 86P
- Servo Motor 10W
- Servo Motor 20W
- Servo Motor 30W
- Servo Motor 60W
- Servo Motor 100W
- Servo Motor 150W
- Servo Motor 750W