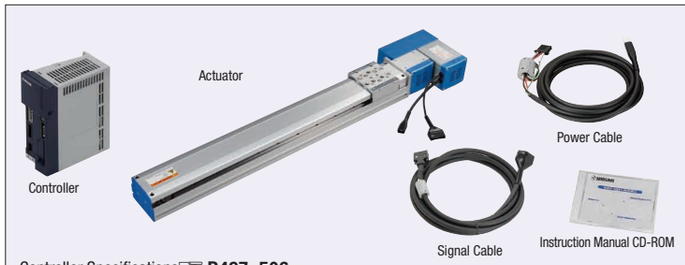
Single Axis Robots RSB1 - Belt Type -

RS
SINGLE AXIS ROBOT

See notes on CE Marking. P.456



Controller Specifications P.497~506

■ **Components:** Actuator, Controller, Cable, (Battery), (Noise Filter)

■ **Accessory**

	Controller I/O Specifications		
A Accessory	NPN, PNP	CC-Link	DeviceNet
	-	CC-Link Connector	DeviceNet Connector
	Instruction Manual (CD-ROM), Power Connector, Dummy Connector		

■ **Robot Material / Surface Treatment**

Components	Guide Rail	Slider	Cover
M Material	Steel	Aluminum	Aluminum
S Surface Treatment	-	Anodize	Anodize

■ **General Specifications**

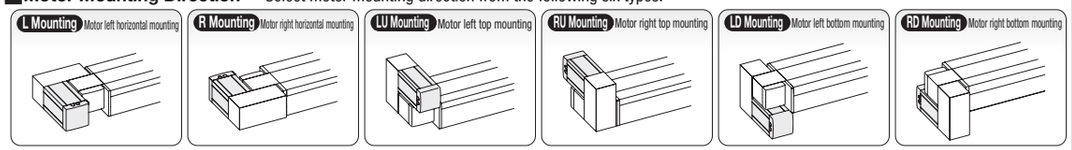
Drive	Motor	Position Detection	Operating Ambient Temperature, Humidity
Belt	AC Servo 100W	Resolver	0~40°C, 35~85%RH (No Condensation)

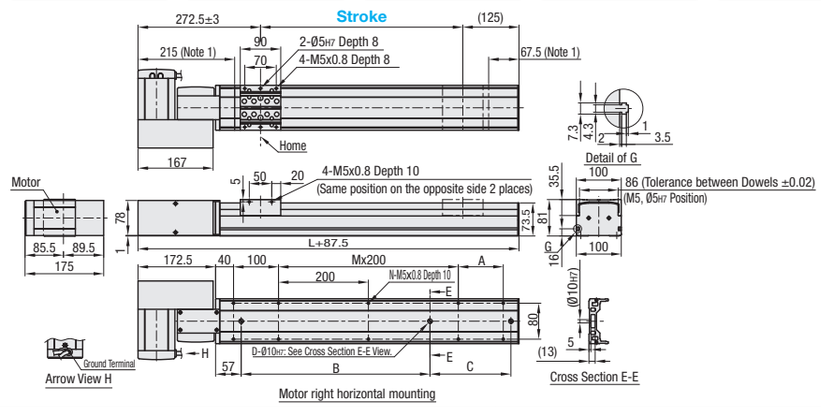
■ **Standard Specifications** FAQ P.504

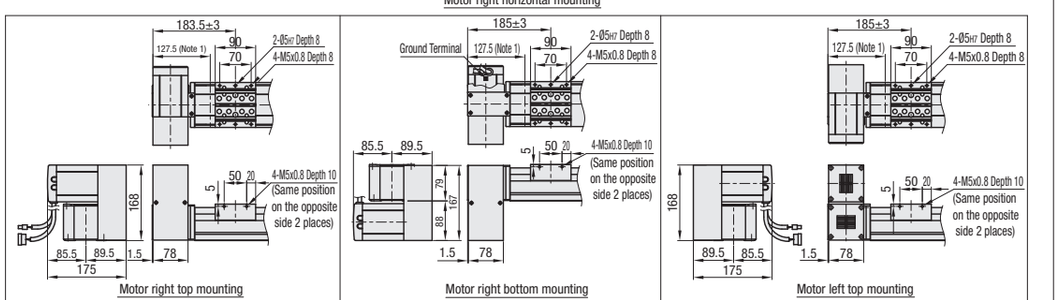
Type	Belt (mm)	Positioning Repeatability (mm)	Max Load Capacity (kg) (Horizontal only)	Stroke (mm)	Rated Running Life (Note)	Input Power Supply	Maximum Positioning Point
RSB1	Lead 25 Equiv.	±0.04	10	150~2550 (50 Pitch)	10,000km	AC100V~115V AC200~230V ±10%	255 points

(Note) Reference running life value with the max. overhang load on the guides.

■ **Motor Mounting Direction** Select motor mounting direction from the following six types:







Note 1. Mechanical stopper position from the ends.

Dimensions / Mass

TYPE	Dimensions / Mass	Stroke (mm) 150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
RSB1	L (mm)	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660
	A (mm)	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
	B (mm)	240			420			600				780					960				1140				1320	
	C (mm)	-																								
	D (mm)	2																								
	M (mm)	-		1				2				3				4				5				6		
	N (mm)	6		8				10				12				14				16				18		
	Mass (kg)	7.4	7.8	8.2	8.6	9	9.4	9.8	10.1	10.5	10.9	11.3	11.7	12.1	12.5	12.9	13.3	13.7	14.1	14.5	14.9	15.3	15.7	16.1	16.5	16.9

TYPE	Dimensions / Mass	Stroke (mm) 1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550
RSB1	L (mm)	1710	1760	1810	1860	1910	1960	2010	2060	2110	2160	2210	2260	2310	2360	2410	2460	2510	2560	2610	2660	2710	2760	2810	2860
	A (mm)	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
	B (mm)	1320																							
	C (mm)	-	240				420				600				780				960				1140			1320
	D (mm)	2	3																						
	M (mm)	7					8				9				10				11				12		
	N (mm)	20					22				24				26				28				30		
	Mass (kg)	17.3	17.7	18	18.4	18.8	19.2	19.6	20	20.4	20.8	21.2	21.6	22	22.4	22.8	23.2	23.6	24	24.4	24.8	25.2	25.6	25.9	26.3

Part Number		Selection					
Type	Motor Mounting Direction	Controller (1)	I/O Module	W/ or w/o Noise Filter (2)	Cable		Stroke (mm)
RSB1	Motor left horizontal: L Motor right horizontal: R Motor left top: LU Motor right top: RU Motor left bottom: LD Motor right bottom: RD	Specifications / Power Supply: Absolute Encoders (w/ Data Storage Battery) / Incremental Type AC100V~: / AC200~230V: C22A / C22B	NPN: N PNP: P CC-Link: C DeviceNet: D	None: F0 Included: F1 Specifications P.508	Standard: 3.5m: 3, 5m: 5, 10m: 10 Flexible: 3.5m: R3, 5m: R5, 10m: R10		150~2550 (50mm Increment)

(1) Controllers are shipped with preset parameters for each type. Data storage batteries are outside the scope of RoHS Directive. (2) A noise filter is required for this product. When the customer is purchasing the noise filter separately, please select "none". Be sure to install a surge absorber on the primary side of a noise filter. For details, please see the Instruction Manual.

Ordering Example

Part Number	-	Motor Mounting Direction	-	Controller Type	-	I/O Type	-	Noise Filter	-	Cable Length	-	Stroke
RSB1	-	L	-		-	N	-	F1	-	5	-	2550

■ **Robot Body Price**

Part Number	Unit Price 1 ~ 5 pc(s). Stroke (mm) 150	200/250	300/350	400/450	500/550	600/650	700/750	800/850	900/950	1000/1050	1100/1150	1200/1250	1300/1350
RSB1													
	1400/1450	1500/1550	1600/1650	1700/1750	1800/1850	1900/1950	2000/2050	2100/2150	2200/2250	2300/2350	2400/2450	2500/2550	-
													-

■ **Controller Price**

I/O \ Type	Unit Price 1 ~ 5 pc(s). /C22A Absolute Encoders (w/ Data Storage Battery)	/C22B Incremental Type Specifications
N		
P		
C		
D		

■ **Cable Price**

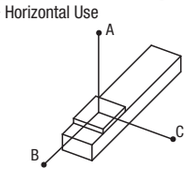
Cable (Standard)	Unit Price 1 ~ 5 pc(s).	Cable (Flexible)	Unit Price 1 ~ 5 pc(s).
3		R3	
5		R5	
10		R10	

■ **Noise Filter Price**

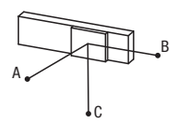
W/ or w/o Nose Filter	Unit Price 1 ~ 5 pc(s).
None: F0	
Included: F1	

■ **Allowable Overhang Load**

・Horizontal Use



・Wall Mounted Use



mm

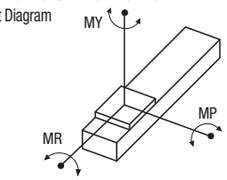
	A	B	C
3kg	1800	1392	1084
5kg	1574	826	696
8kg	1221	509	474
10kg	1171	403	407

mm

	A	B	C
3kg	1144	1005	1734
5kg	724	576	1199
8kg	493	333	918
10kg	414	254	869

■ **Allowable Static Moment**

・Moment Diagram



Note

Power interruption circuit is not provided in this controller in order to provide maximum flexibility for customer specific safety scheme. An external main power shutoff circuit to form an emergency stop circuit must be provided. Circuit Examples P.503

(Unit: N · m)

MY	MP	MR
188	188	165

■ **Max. Velocity (mm/sec)** Please confirm the details of the Max. Speeds based on various strokes with MISUMI Web Simulator.

Part Number	Stroke (mm) 150~350	450~2250
RSB1	~1750	1875

Alterations

Part Number	-	Motor Mounting Direction	-	Controller Type	-	I/O Type	-	W/ or w/o Nose Filter	-	Cable Length	-	Stroke
RSB1	-	L	-		-	N	-	F1	-	5	-	2550

<Price Example> The prices are for the part numbers on the left: JPY399,400.
(Actuator) + (Controller) + (Cable) + (Noise Filter) + (Grease Type Alteration) + (Change of Home Position)

Alterations	Grease Type Alteration	Change of Home Position	Handset Terminal Standard Specification	Handset Terminal w/ Deadman's Switch	Support Software w/ USB Communication Cable	Support Software w/ D-Sub Communication Cable	I/O Cable	Cable for daisy-chain connection	Instruction Manual
		Motor			Communication Specifications: RS232C	Communication Specifications: RS232C		Length: 300m	MJ5: Body KJ3:Controller (C21/C22)
Code	G	E	H	D	S	R	T	C	MJ5/KJ3
Spec.	Grease is changed to low particle generation grease. (NSK LG2)	The home position is relocated to the opposite side of the motor.	Handset Terminal is included. Specifications P.503, 507	Handset Terminal w/ Deadman's Switch is included. Specifications P.503, 507	Support Software w / USB Communication Cable is included. Specifications P.503, 507	Support Software w/ D-Sub Communication Cable is included. Specifications P.507	I/O Cable is included. Required for NPN/PNP configurations. Specifications P.507	A cable to connect multiple controllers. It can connect maximum 16 controllers. Specifications P.507	Operation Manual is included. For Actuator MJ5: For Controller KJ3:

For optional items, see P.507 It is more economical to order the optional items as alterations than purchasing them individually.
Entering point data requires the handy terminal or the support software. An I/O Cable is required for Parallel Communication I/O Control.
For details on daisy-chain, see P.505