



Single Axis Robots RS1 - Motor Wrap -



Dedicated Website: <http://www.misumiusa.com/robot/>
Useful Selection Software and Instruction Manuals can be downloaded.

CE Compliant

See notes on CE Marking. P456



■ Components: Actuator, Controller, Cable

■ Accessories

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

■ Robot Material / Surface Treatment

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

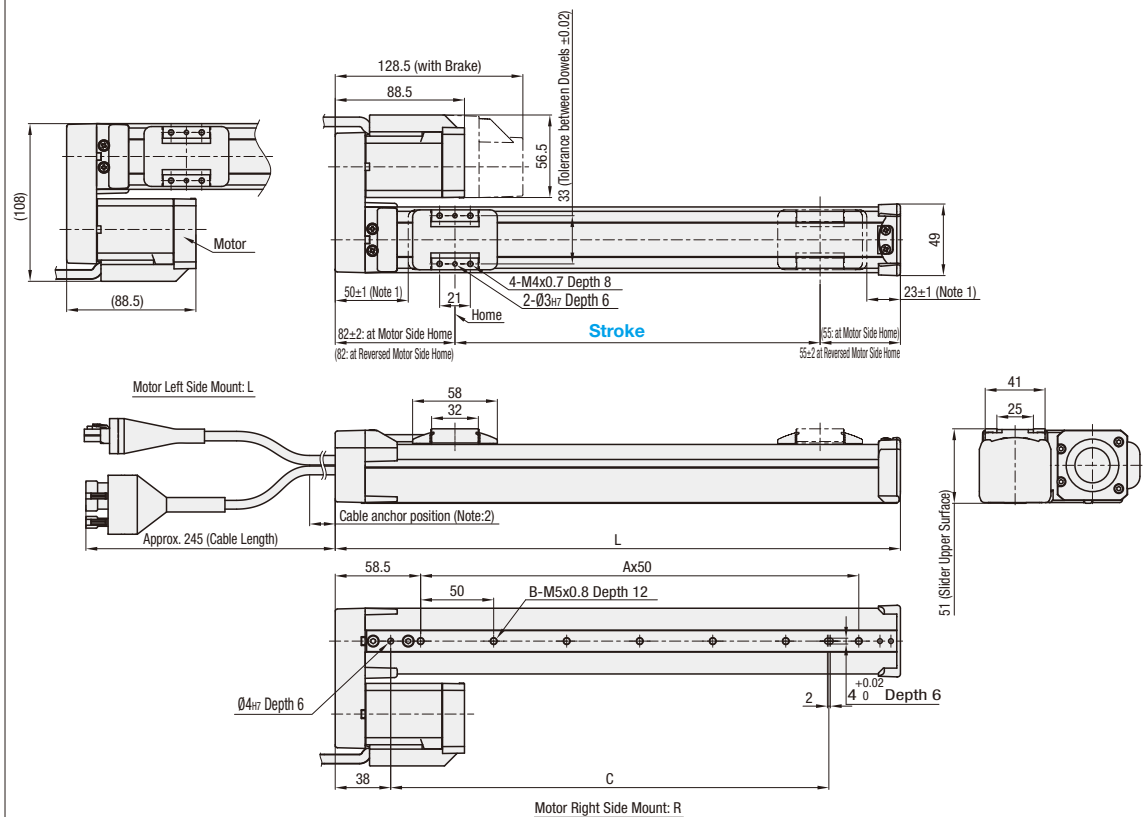
■ General Specifications

Ball Screw	Motor	Position Detector	Operating Ambient Temperature, Humidity
Ø8 (C10 Rolled)	Stepping	Resolver (Incremental)	0~40°C, 35~85%RH (No Condensation)

Controller Specifications P497-506

Standard Specifications FAQ P504

Type	Lead (mm)	Positioning Repeatability (mm)	Max Load Capacity (kg)		Max. Push Force (N)	Stroke (mm)	Max. Velocity (mm/sec)	Rated Running Life	Input Power Supply	Maximum Positioning Point
			Horizontal	Vertical						
RS1	02	±0.02	6	4	150	50~400 (50 Pitch)	100	10,000 km or More	DC24V ±10%	255 points
	06		4	2	90		300			
	12		2	1	45		600			



(Note 1) Distances from the ends to the mechanical stoppers
 (Note 2) The cables should be tied down within 80mm from the ends of the unit avoiding any stress to the cables.
 (Note 3) The minimum bending radius of the cable is 30mm.
 (Note 4) These masses are for units without brakes. With brakes, they are 0.2 kg heavier.
 (Note 5) Belt cover is not right-left symmetrical. If the motor mounting orientation is changed, the belt cover can not be reinstalled.

Dimensions / Mass

Type	Dimensions / Mass	Stroke (mm)							
		50	100	150	200	250	300	350	400
RS1	L (mm)	187	237	287	337	387	437	487	537
	A (mm)	2	3	4	5	6	7	8	9
	B (mm)	3	4	5	6	7	8	9	10
	C (mm)	100	150	200	250	300	350	400	450
	Mass (kg)	1.2	1.4	1.5	1.6	1.7	1.8	1.9	2.1

Part Number		Selection					
Type	Lead (mm)	With or w/o Brake (1)	Motor Mounting Position	Controller (2)	I/O Module	Cable Length (m)	Stroke (mm)
RS1	02	None : Leave blank Included: B	Right Side Mount : R Left Side Mount : L	Point Control: C1 Pulse Control: P1 (DC24V ±10%)	NPN: N PNP: P CC-Link: C DeviceNet: D	1 3 5 10 (Flexible Cable)	50~400 (50mm Increment)
	06						
	12						

(1) Choose the "Brake" option for use in vertical applications. (2) When the pulse train type controller is selected, the I/O type selection is not required.

Ordering Example

Part Number	Motor Mounting Direction	Controller	I/O Module	Cable Length	Stroke
RS102B	L	C1	N	3	400
RS102B	L	P1		3	400

(Controller: P1)

Days to Ship [Configure Online](#)

Robot Body Price

Part Number	Unit Price 1 ~ 5 pc(s).					
	Stroke (mm)					
	50	100	150	200	250	300
RS1□□						
RS1□□B						

Controller Price

Type	I/O Module	Unit Price 1 ~ 5 pc(s).
C1	N	
	P	
	C	
	D	
P1	-	

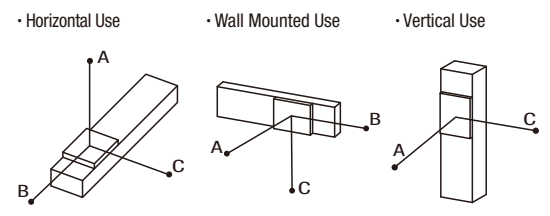
Cable Price

Cable Length (m)	Unit Price 1 ~ 5 pc(s).
1	
3	
5	
10	

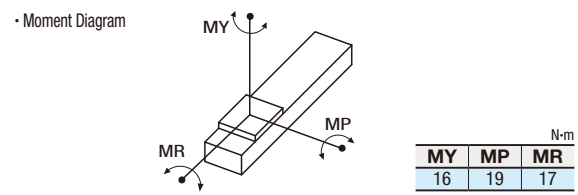
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⚠ Note
Power interruption circuit is not provided in this controller in order to provide maximum flexibility for customer specific safety scheme. Please be sure to provide an external power interruption circuit and form an emergency stop circuit. For Circuit examples, see P503

Allowable Overhang Load



Allowable Static Moment



Max. Velocity (mm/sec)

Lead	Mass	mm			Lead	Mass	mm			Lead	Mass	mm		
		A	B	C			A	B	C			A	B	C
02	6kg	863	40	60	02	6kg	39	26	789	02	4kg	53	53	
	4kg	869	61	92		4kg	72	48	829		2kg	118	118	
	4kg	567	56	84		4kg	63	43	507		2kg	107	107	
06	3kg	556	76	112	06	3kg	92	62	516	06	1kg	223	223	
	2kg	687	116	169		2kg	149	102	656		1kg	204	204	
	2kg	667	107	152		2kg	133	93	611		0.5kg	407	408	
12	1kg	807	218	292	12	1kg	274	204	776					

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

Type	Lead (mm)	Stroke (mm)							
		50	100	150	200	250	300	350	400
RS1	02	100							
	06	300							
	12	400~600							

Alterations [Part Number](#) - [Motor Mounting Direction](#) - [Controller Type](#) - [I/O Type](#) - [Cable Length](#) - [Stroke](#) - (G, E--etc.)
 RS102B - L - C1 - N - 3 - 400 - G-E

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	Main Body Plastic Color Alterations
Code	G	E	H	D	S	R	T/TP	C	MJ5/KJ3/KJ4	BC
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 P503, 507	Handset Terminal w/ Deadman's Switch is included. Specifications P503, 507	Support Software w/ USB Communication Cable is included. Specifications P503, 507	Support Software w/ D-Sub Communication Cable is included. Specifications P507	I/O Cable is included. Required for NPN/PNP configurations. Specifications P507	A cable to connect multiple controllers. It can connect maximum 16 controllers. Specifications P507	Operation Manual is included.	Change the actuator plastic parts color to black.

For optional items, see P507 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 P507 Please select the correct I/O cable type for the appropriate controller type.