



Single Axis Robots RS3 - 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. P.456



Components: Actuator, Controller, Cable

Accessories

Controller I/O Specifications			
A	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

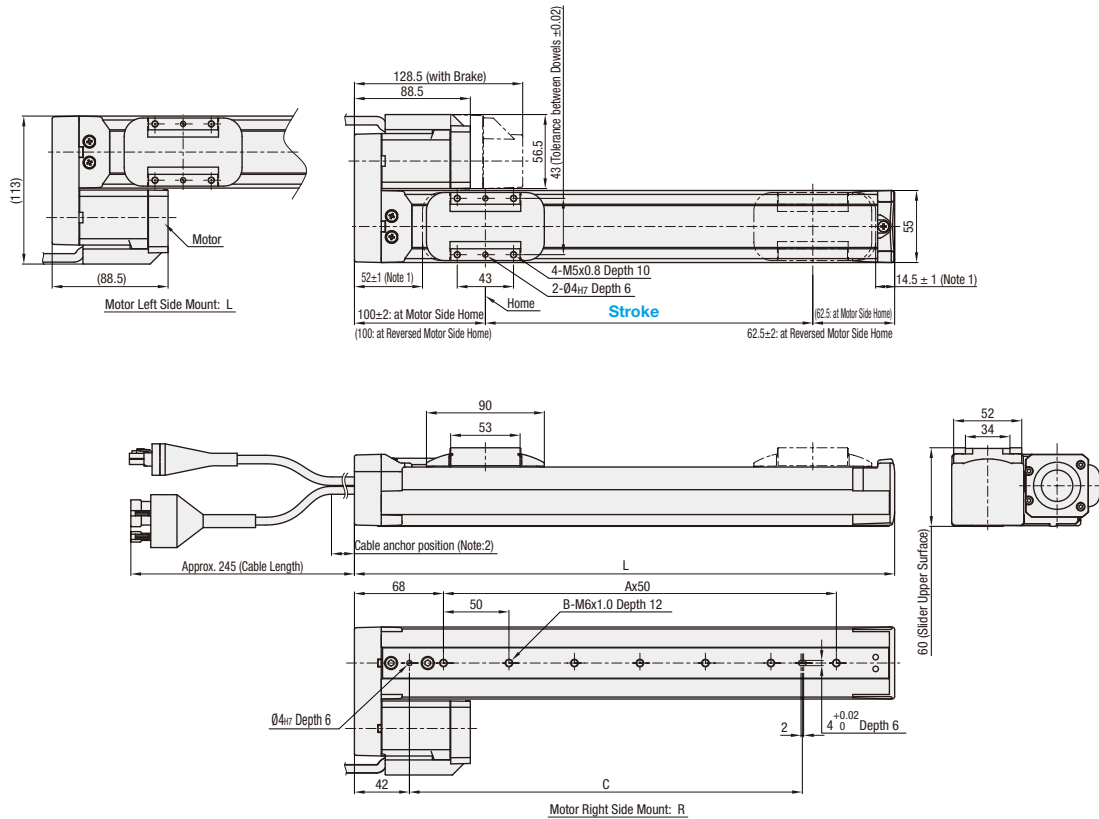
Ball Screw	Motor	Position Detector	Operating Ambient Temperature, Humidity
Ø12 (C10 Rolled)	Stepping	Resolver (Incremental)	0~40°C, 35~85%RH (No Condensation)

Controller Specifications P.497-506

Standard Specifications FAQ P.503

Type	Lead (mm)	Positioning Repeatability (mm)	Max Load Capacity (kg)		Max. Push Force (N)	Stroke (mm)	Max. Velocity (Note) (mm/sec)	Rated Running Life	Input Power Supply	Maximum Positioning Point
			Horizontal	Vertical						
RS3	06	±0.02	12	4	120	50~800 (50 Pitch)	300~190	10,000 km or More	DC24V ±10%	255 points
	12		8	2	60	600~380				
	20		6	-	36	1000~633				

(Note) Maximum velocities allowed may vary depending on the stroke length selected. Please refer to the "Recommended Maximum Velocities" table.



- Note 1. Distances from the ends to the mechanical stoppers
- Note 2. The cables should be tied down within 60mm 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 0.2kg heavier.
- Note 5. When the stroke is 600mm or more, the resonance of ball screws may occur according to the operating area (critical speed). In such cases, reduce the programmed operational speeds by referring to the maximum velocities shown in the table on the left.
- Note 6. 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	450	500	550	600	650	700	750	800
RS3	L (mm)	212.5	262.5	312.5	362.5	412.5	462.5	512.5	562.5	612.5	662.5	712.5	762.5	812.5	862.5	912.5	962.5
	A (mm)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	B (mm)	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	C (mm)	100	150	200	250	300	350	400	450	500	500	500	500	500	500	500	500
	Mass (kg)	1.7	1.9	2.1	2.3	2.5	2.7	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6

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)
RS3		06						
		12	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)	50~800 (50mm Increment)
		20						

(1) Choose the "Brake" option for use in vertical applications. (The brake option is not available for Lead 20) (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

RS306B - L - C1 - N - 3 - 400

RS306B - L - P1 - - 3 - 400 (Controller: P1)

Days to Ship [Configure Online](#)

Robot Body Price

Part Number	Unit Price 1 ~ 5 pc(s)															
	Stroke (mm)															
RS3	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
RS3																

Controller Price

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

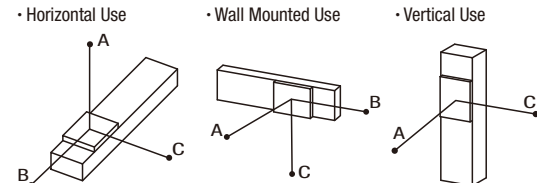
Cable Price

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

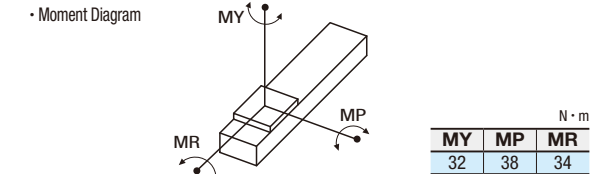
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Note
Power interruption circuit is not provided in this controller in order to provide maximum flexibility for customer specific safety scheme. Please be sure to provide an external power interruption circuit and form an emergency stop circuit. For Circuit examples, see P.503

Allowable Overhang Load



Allowable Static Moment



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)				
		50~600	650	700	800	
RS3	06	300(250)	280(250)	250	220	190
	12	400~600(500)	560(500)	500	440	380
	20	350~1000	933	833	733	633

For stroke ranges 650mm or more, ball screws may resonate in certain operation areas (critical speed). In that case, reduce the operation speed by referring to the Max. Velocity shown in the table above.

Alterations

Part Number - Motor Mounting Direction - Controller Type - I/O Type - Cable Length - Stroke - (G, E...etc.)

RS306B - L - C1 - N - 3 - 400 - G-E

Alterations	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	
Grease Type Alteration								MJ5: Body KJ3: Controller (C1) KJ4: Controller (P1)		
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 refer P.503, 507	Handset Terminal w/ Deadman's Switch is included. Specifications refer P.503, 507	Support Software w/ USB Communication Cable is included. Specifications refer P.503, 507	Support Software w/ D-Sub Communication Cable is included. Specifications refer P.507	I/O Cable is included. Required for NPN/PNP configurations. Specifications refer P.507	A cable to connect multiple controllers. It can connect maximum 16 controllers. Specifications refer P.507	Operation Manual is included.	Change the actuator plastic parts color to black.

- 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
- Please select the correct I/O cable type for the appropriate controller type.