

Single Axis Robots RS1 - Straight -



Dedicated Website: http://download.misumi.jp/mol/fa_soft.html
Useful Selection Software and Instruction Manuals can be downloaded.

See notes on CE Marking. P456

Features: Small, Economical Actuators:

Applicable to Remote Command Control, Remote I/O Control (CC-Link / DeviceNet Specification), Parallel I/O Control and Online Command Control (RS232C Specification).



Controller Specifications **P497~506** Clean Room Specifications are available on our website.

Components: Actuator, Controller, Cable

Accessory

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

Robot Material / Surface Treatment

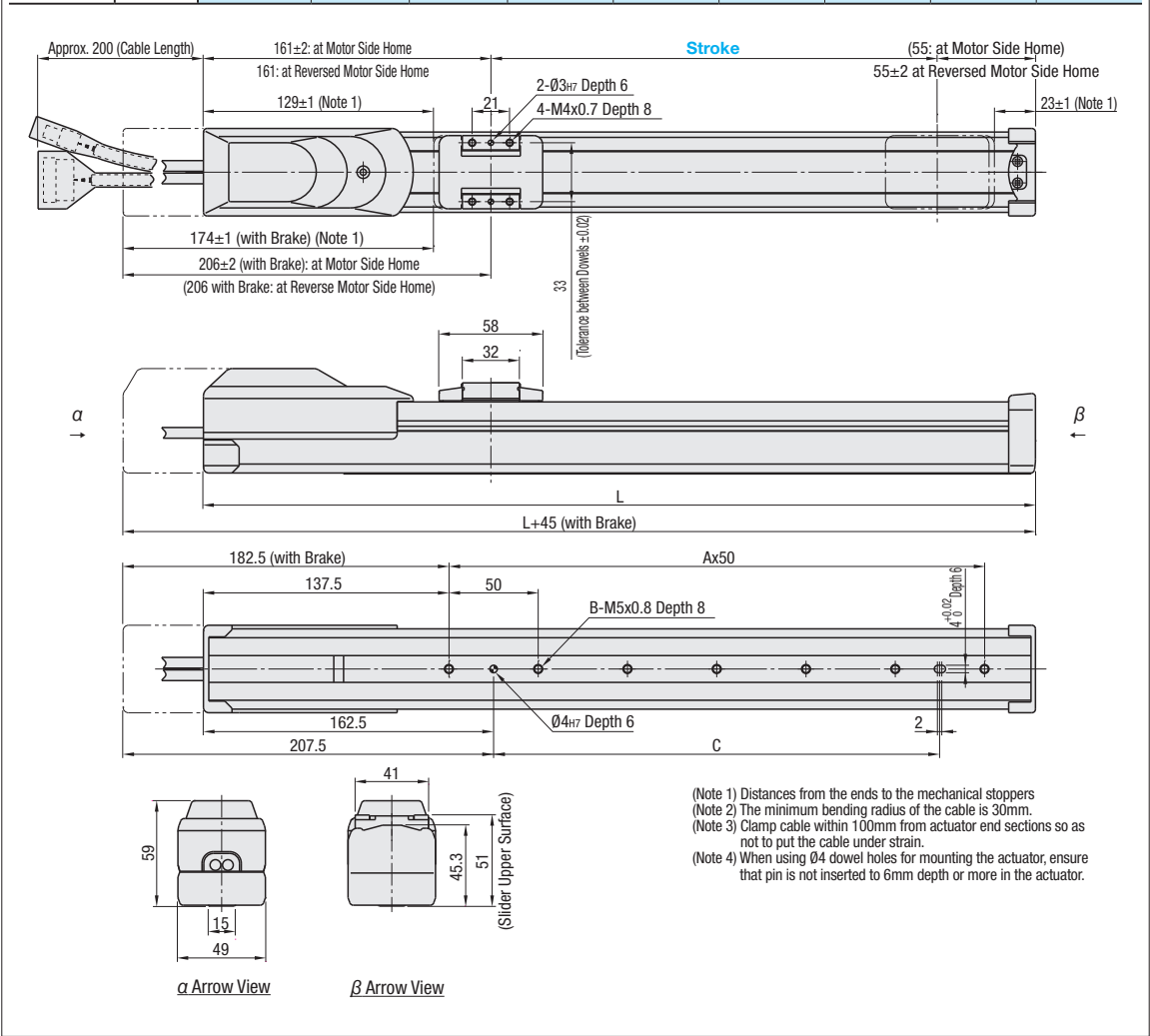
Components	Guide Rail	Slider	Side Cover
M Material	Steel	Aluminum	Aluminum
S Surface Treatment	-	-	Anodize

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)

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
RS1	02	±0.02	Horizontal	Vertical	150	50~400 (50 Pitch)	100	10,000 km or More	DC24V ±10%	255 points
	06		6	4						
	12		4	2						



Dimensions / Mass

Type	Dimensions / Mass	Stroke (mm)							
RS1	L (mm)	50	100	150	200	250	300	350	400
	A (mm)	266	316	366	416	466	516	566	616
	B (mm)	2	3	4	5	6	7	8	9
	C (mm)	3	4	5	6	7	8	9	10
	Mass (kg)	50	100	150	200	250	300	350	400

The brake adds 0.2kg to the total mass.

Part Number			Selection			
Type	Lead (mm)	With or w/o Brake (1)	Controller (2)	I/O Module	Cable Length (m)	Stroke (mm)
RS1	02	None : Leave blank Included: B	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.



Part Number	Controller	I/O Module	Cable Length	Stroke
RS102B	C1	N	3	400
RS102B	P1	-	3	400

(Controller: P1)

Robot Body Price

Part Number	Unit Price 1 ~ 2 pc(s)							
	Stroke (mm)							
RS1	50	100	150	200	250	300	350	400
RS102B								

Controller Price

Type	I/O Module	Unit Price
C1	N	
	P	
	C	
	D	
P1	-	

Cable Price

Cable Length (m)	Unit Price
1	
3	
5	
10	



Note

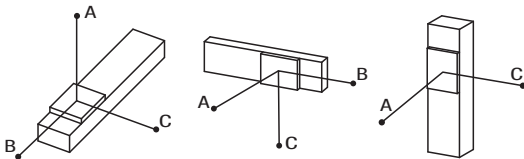
Power interruption circuit is not provided in this controller in order to provide maximum flexibility for customer specific safety scheme. Please be sure to provide an external power interruption circuit and form an emergency stop circuit. For Circuit examples, see P503

Allowable Overhang Load

Horizontal Use

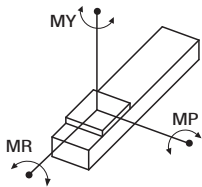
Wall Mounted Use

Vertical Use



Allowable Static Moment

Moment Diagram



N · m			
MY	MP	MR	
16	19	17	

mm					mm					mm				
Lead	Mass	A	B	C	Lead	Mass	A	B	C	Lead	Mass	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	
06	4kg	567	56	84	06	4kg	63	43	507	06	2kg	107	107	
	3kg	556	76	112		3kg	92	62	516		1kg	223	223	
12	2kg	687	116	169	12	2kg	149	102	656	12	1kg	204	204	
	2kg	667	107	152		2kg	133	93	611		0.5kg	407	408	
	1kg	807	218	292		1kg	274	204	776					

Max. Velocity (mm/sec)

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

<Price Example> The prices are for the part numbers on the left.

(Robot Body Price) + (Controller Price) + (Cable Price) +

(Grease Type Alteration Charge) + (Home Position Alteration Charge) = Total Price



Part Number	Controller Type	I/O Type	Cable Length	Stroke	(G, E--etc.)
RS102B	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 D-Sub with 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. Up to 16 controllers can be connected. Specifications P507	Operation Manual is included. For Actuator MJ5: For Controller KJ3: For Controller KJ4: KJ4:	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. Please select the correct I/O cable type for the appropriate controller type.