

# Single Axis Robot RSH3 - Straight



Dedicated Website: [http://download.misumi.jp/mol/fa\\_soft.html](http://download.misumi.jp/mol/fa_soft.html)  
Useful Selection Software and Instruction Manuals can be downloaded.

See notes on CE Marking. P.456

Actuator  
Controller  
Power Cable  
Signal Cable  
Instruction Manual CD-ROM

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

**Accessory**

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

**Robot Material / Surface Treatment**

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

**General Specifications**

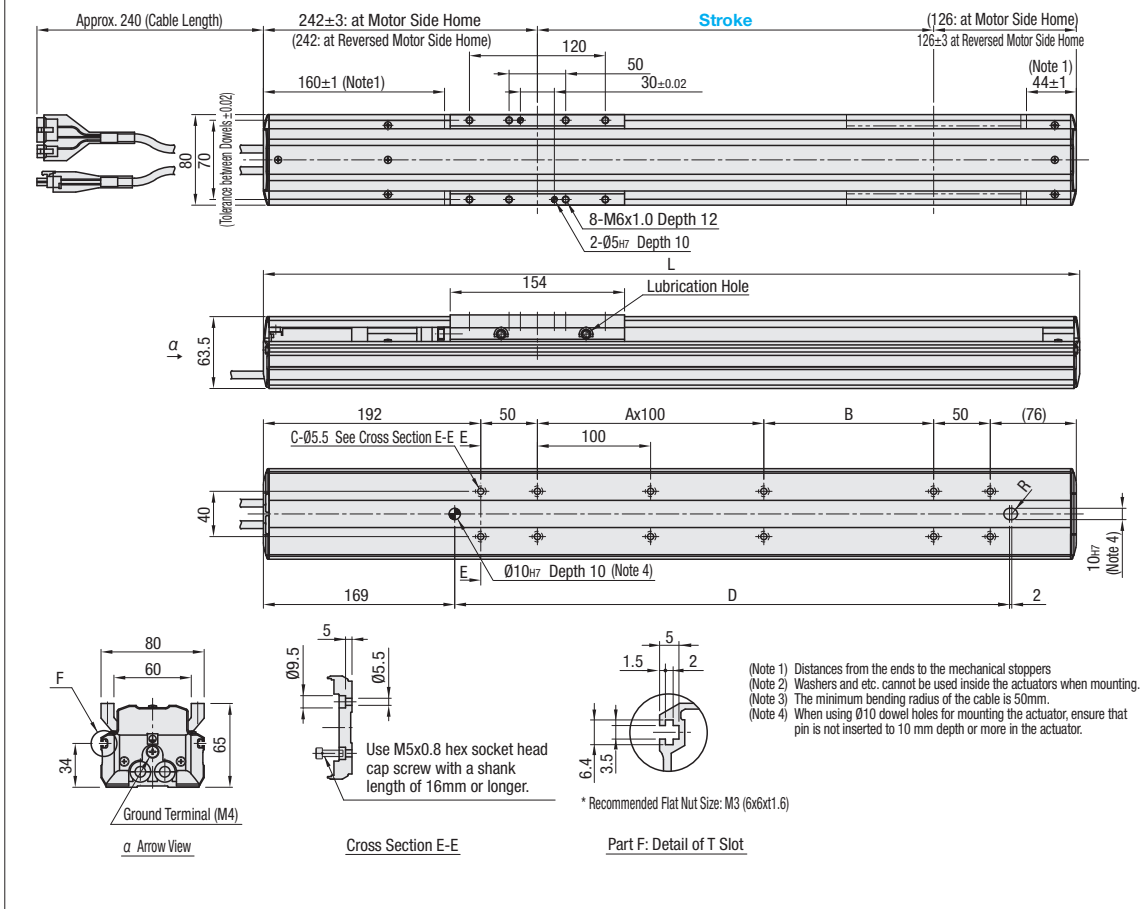
Ball Screw	Motor	Position Detector	Operating Ambient Temperature, Humidity
Ø15 (C7 Rolled)	AC Servo 100W	Resolver	0~40°C, 35~85%RH (No Condensation)

Controller Specifications P.497-506 Cycle Time Graph P.455 Clean Room Specifications are available on our website.

**Standard Specifications FAQ P.504**

Type	Lead (mm)	Positioning Repeatability (mm)	Max Load Capacity (kg)	Rated Force (N)	Max. Velocity (Note) (mm/sec)	Stroke (mm)	Rated Running Life	Input Power Supply	Maximum Positioning Point
RSH3	05	±0.01	80	339	300~105	150~1050 (50 Pitch)	10,000 km or More	AC100~115V AC200~230V ±10%	255 points
	10		60	169	600~210				
	20		30	84	1200~420				

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



**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
RSH3	L (mm)	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268	1318	1368	1418
	A (mm)	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
	B (mm)	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150	100	150
	C (mm)	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
	D (mm)	290	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190
	Mass (kg)	4.7	5.0	5.3	5.6	5.9	6.2	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.7	10.0	10.3

Part Number	Lead (mm)	Selection							
		Controller (1)			I/O Module	W/ or w/o Noise Filter (2)	Cable	Stroke (mm)	
RSH3	05	Specifications Power Supply AC100~115V AC200~230V	Absolute Encoders (w/ Data Storage Battery) C21A C22A	Incremental Type C21B C22B	NPN: N PNP: P CC-Link: C DeviceNet: D	None: F0 Included: F1 Specifications P.508	Standard 3.5m: R3 5m: R5 10m: R10	Flexible 3.5m: R3 5m: R5 10m: R10	150~1050 (50mm Increment)
	10								
	20								

(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: RSH305 - C22A - N - F1 - 3 - 400

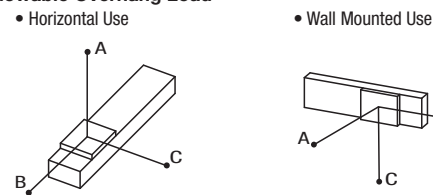
**Note**  
Power interruption circuit is not provided in this controller in order to provide maximum flexibility for customer specific safety scheme. Please be sure to provide an external power interruption circuit and form an emergency stop circuit. For Circuit examples, see P.503.

**Robot Body Price**

Part Number	Unit Price 1 ~ 2 pc(s)									
	Stroke (mm)									
RSH3	150/200	250/300	350/400	450/500	550/600	650/700	750/800	850/900	950/1000	1050

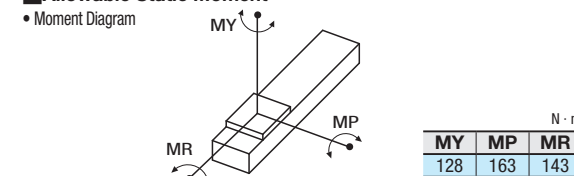
I/O Type	Unit Price		Cable Price		Noise Filter Price	
	C21A/C22A Absolute Encoders (w/ Data Storage Battery)	C21B/C22B Incremental Type	Cable (Standard)	Unit Price	Cable (Flexible)	Unit Price
N			3		R3	
P			5		R5	
C			10		R10	
D						

**Allowable Overhang Load**



Lead	Mass	mm			Lead	Mass	mm		
		A	B	C			A	B	C
05	80kg	601	20	17	05	80kg	0	0	0
	60kg	714	34	29		60kg	0	0	0
	40kg	851	63	54		40kg	22	26	604
10	20kg	1094	148	127	10	20kg	96	112	1005
	60kg	382	30	25		60kg	0	0	0
	40kg	479	57	47		40kg	15	19	270
20	20kg	629	137	111	20	20kg	80	99	545
	30kg	279	70	50		30kg	20	29	160
	20kg	334	116	81		20kg	53	75	255
	10kg	573	256	176		10kg	147	215	515

**Allowable Static Moment**



**Max. Velocity (mm/sec)** Please confirm the details of the Max. Speeds based on various strokes with web-Cycle Time Simulator.

Type	Lead (mm)	Stroke (mm)									
		150-600	650	700	750	800	850	900	950	1000	1050
RSH3	05	300	255	225	195	180	165	150	135	120	105
	10	600	510	450	390	360	330	300	270	240	210
	20	1000~1200	1020	900	780	720	660	600	540	480	420

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.

When the overhang equals 0, use externally mounted linear guides to support the load mass.

Alterations: RSH305 - C22A - N - F1 - 3 - 400 - G-E

(Robot Body Price) + (Controller Price) + (Noise Filter Price) + (Cable Price) + (Grease Type Alteration Charge) + (Home Position Alteration Charge) = Total Price

Alterations	Part Number	Controller Type	I/O Type	Noise Filter Presence	Cable	Stroke	(G, E...etc.)
Grease Type Alteration	RSH305	C22A	N	F1	3	400	G-E

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.