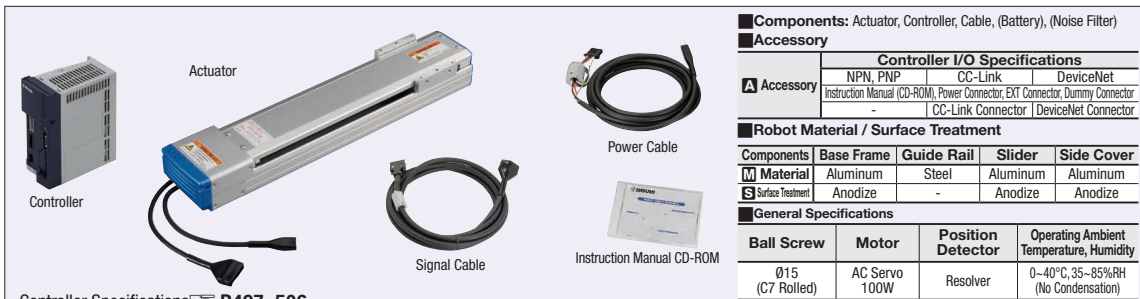


Single Axis Robots RSH4 - Straight -



See notes on CE Marking. P456

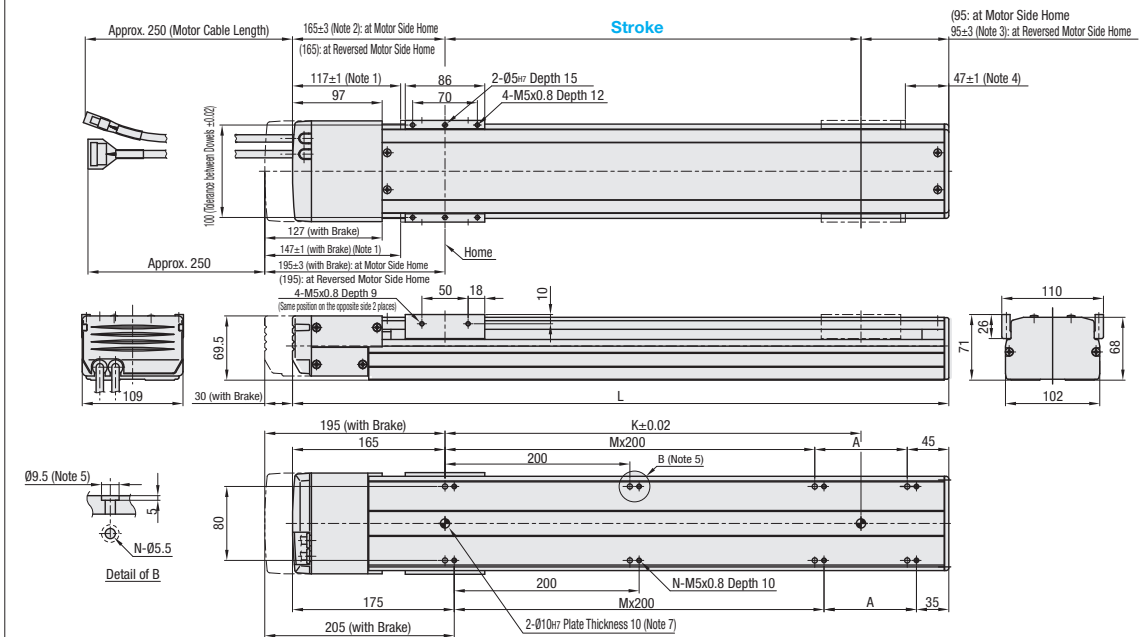


Controller Specifications P497~506

Standard Specifications FAQ P504

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
			Horizontal	Vertical						
RSH4	05	±0.01	60	20	339	~300	150~1050 (50 Pitch)	10,000km or More	Single-phase AC 100~115V 200~230V ±10%	255 points
	10		40	10	169	~600				
	20		20	4	84	~1200				
	30		15	-	56	~1800				

(Note) The maximum velocities may vary depending on the load capacity. Please refer to the "Recommended Maximum Velocities" table.



Note 1. Mechanical stopper position from the ends.
 Note 2. For Large Lead Type (Lead 30), 167.5±4.
 Note 3. For Large Lead Type (Lead 30), 95±4.
 Note 4. For Large Lead Type (Lead 30), 44.5±1.
 Note 5. When mounting, washers cannot be used in Ø9.5 counter bored holes.
 Note 6. The minimum bending radius of the motor cable is 50mm.
 Note 7. When using Ø10 dowel holes for mounting the actuator, ensure that pin is not inserted beyond 10mm depth or more in the actuator.

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
Material	Aluminum	Steel	Aluminum	Aluminum
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)

Part Number	Selection											
	Type	Lead (mm)	With or w/o Brake (1)	Controller		I/O Module	W/ or w/o Noise Filter (2)	Cable Length (m)		Stroke (mm)	Regenerative unit	
RSH4	05	None: Leave blank Included: B		Specifications		NPN: N PNP: P CC-Link: C DeviceNet: D	None: F0 Included: F1 Specifications: P508	Standard		150~1050 (50mm Increment)	RGT Always select this option when using 700mm or more strokes in vertical applications.	
	10			Power Supply	Absolute Encoders (w/ Data Storage Battery)			Incremental Type	3.5m: R3			Flexible
	20			AC100~115V	C22A			C22B	5m: R5			
	30			AC200~230V					10m: R10			

(1) Choose the "Brake" option for use in vertical applications. (W/ brake type is not available for Lead 30)
 (2) Controllers are shipped with preset parameters for each type. Data storage batteries are outside the scope of RoHS Directive.
 (3) 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: RSH420B - C22A - N - F1 - 3 - 200
 To order actuators with regenerative unit, specify -RGT after Stroke.

Robot Body Price

Part Number	Unit Price 1 ~ 5 pc(s).									
	Stroke (mm)									
RSH4□□	150	200/250	300/350	400/450	500/550	600/650	700/750	800/850	900/950	1000/1050
RSH4□□B										

Controller Price

I/O Type	Unit Price 1 ~ 5 pc(s).	
	/C22A Absolute Encoders (w/ Data Storage Battery)	/C22B Incremental Type
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 Noise Filter	Unit Price 1 ~ 5 pc(s).
None: F0	
Included: F1	

Allowable Overhang Load

Horizontal Use, Wall Mounted Use, Vertical Use

Lead	Mass	mm		
		A	B	C
05	30kg	419	19	20
	50kg	0	0	0
	60kg	0	0	0
10	15kg	389	71	74
	30kg	179	17	20
	40kg	106	0	0
20	5kg	937	282	259
	10kg	487	121	116
	20kg	236	40	44
30	5kg	491	273	215
	15kg	223	61	63
	10kg	206	209	480

Allowable Static Moment

Moment Diagram

N-m		
MY	MP	MR
131	131	115

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)							
		150~700	750	800	850	900	950	1000	1050
RSH4	05	300	240	195	150	135			
	10	600	480	390	300	270			
	20	800~1200	960	780	600	540			
	30	800~1800	1440	1170	900	810			

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

Alterations	Part Number	Controller Type	I/O Type	Noise Filter Presence	Cable Length	Stroke	(G, E, etc.)
Grease Type Alteration	RSH420B	C22A	N	F1	3	200	G-E
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 MJ5: Body KJ3: Controller (C1)							

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 P505.

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
RSH4	L (mm)	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110	1160	1210	1260	1310
	A (mm)	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
	M (mm)	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
	N (mm)	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
	K (mm)	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
	Mass (kg)	5.5	5.7	5.8	6.2	6.5	6.9	7.3	7.7	8.1	8.5	8.8	9.2	9.6	10.0	10.4	10.8	11.1	11.5	11.9

The brake adds 0.6kg to the mass.