



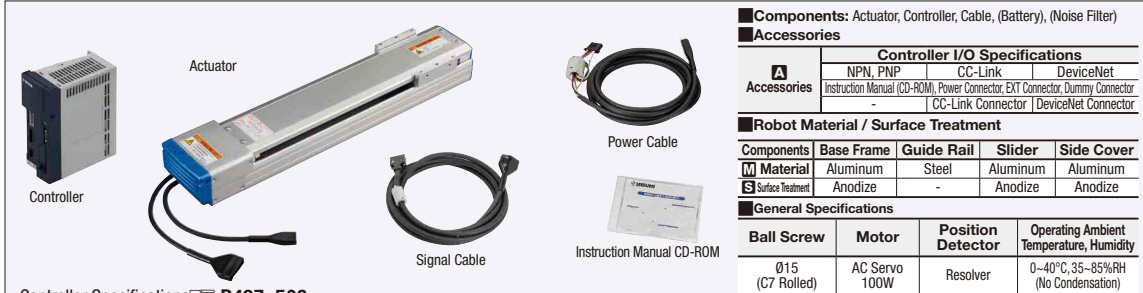
Single Axis Robots RSH4 - Linear -



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

CE Compliant

See notes on CE Marking. P.456

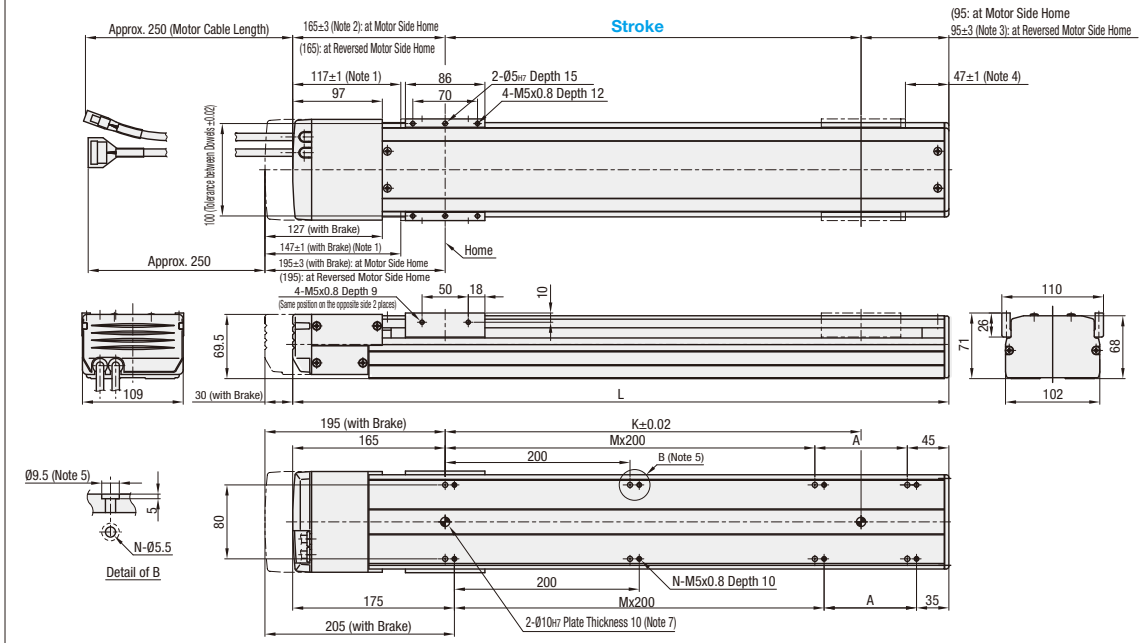


Controller Specifications P.497~506

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
			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.

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.

Part Number	Selection											
	Type	Lead (mm)	With or w/o Brake (1)	Controller			I/O Module	W/ or w/o Nose 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	Cable Length (m)		150~1050 (50mm Increment)	RGT Always select this option when using 700mm or more strokes in vertical applications.
	10			Absolute Encoders (w/ Data Storage Battery)					Standard 3.5m: R3 5m: R5 10m: R10	Flexible 3.5m: R3 5m: R5 10m: R10		
	20			Incremental Type								
	30			Power Supply								

(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** Days to Ship [Configure Online](#)

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										

I/O Type	Unit Price 1 ~ 5 pc(s).		Cable (Standard)	Unit Price 1 ~ 5 pc(s).	Cable (Flexible)	Unit Price 1 ~ 5 pc(s).	W/ or w/o Nose Filter	Unit Price 1 ~ 5 pc(s).
	C21A/C22A Absolute Encoders (w/ Data Storage Battery)	C21B/C22B Incremental Type						
N	3	R3	3		R3	None: F0		
P	5	R5	5		R5	Included: F1		
C	10	R10	10		R10			
D								

(Robot Body Price) + (Controller Price) + (Cable Price) + (Noise Filter) = Total Price
 <Ex.> For RSH420-C22A-N-F1-3-200,

[Configure Online](#)

Allowable Overhang Load

Lead	Mass	Horizontal Use			Wall Mounted Use			Vertical Use			
		A	B	C	A	B	C	A	B	C	
05	30kg	419	19	20	10kg	107	54	1410	10kg	105	146
	50kg	0	0	0	20kg	22	0	540	15kg	51	93
	60kg	0	0	0	30kg	0	0	0	20kg	25	66
10	15kg	389	71	74	10kg	105	53	550	4kg	338	380
	30kg	179	17	20	20kg	22	0	230	8kg	142	183
	40kg	106	0	0	30kg	0	0	0	10kg	102	144
20	5kg	937	282	259	5kg	250	213	905	1kg	600	600
	10kg	487	121	116	10kg	99	51	438	2kg	649	691
	20kg	236	40	44	20kg	21	0	149	4kg	306	347
30	5kg	491	273	215	5kg	206	209	480			
	15kg	223	61	63	15kg	45	0	177			

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

Allowable Static Moment

Moment Diagram showing MY, MP, MR. **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

	MY	MP	MR
	131	131	115

Max. Velocity (mm/sec)

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.

Alterations: **RSH420B - C22A - N - F1 - 3 - 200 - G-E** (Grease Type Alteration) + (Change of Home Position) = Total Price

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
Grease Type Alteration	Motor	Motor	Motor	Communication Specifications: RS232C	Communication Specifications: RS232C	Length: 300mm	Length: 300mm	MJ5: Body KJ3: Controller (C1)
Code	G	E	H	S	R	T	C	MJ5/KJ3
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

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