

RSD1 / RSDG1

Rod Type Actuator (75–100 N Max.)



CE Compliant

See notes on CE Marking P.513

RSD1 Without Support Guide

RSDG1 With Support Guide

Controller Specification P.510

Instruction Manual CD-ROM

Components: Actuator, Controller, Cable

Accessories

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

Actuator Material / Surface Treatment

Type	Components	Body	Rods	Cover	Shaft	Ball Bushing
RSD1	Material	Aluminum	Steel	ABS Resin	—	—
	Surface Treatment	Acrylic Paint	—	—	—	—
RSDG1	Material	Aluminum	Steel	ABS Resin	Steel	Steel
	Surface Treatment	Acrylic Paint	—	—	—	—

General Specifications

Type	Ball Screws	Motor	Position Detector	Operating Ambient Temperature / Humidity
RSD1	Ø8	Stepping	Resolver (Incremental)	0–40°C, 35–85% RH
RSDG1	(C10 Rolled)	Stepping	Resolver (Incremental)	(No Condensation)

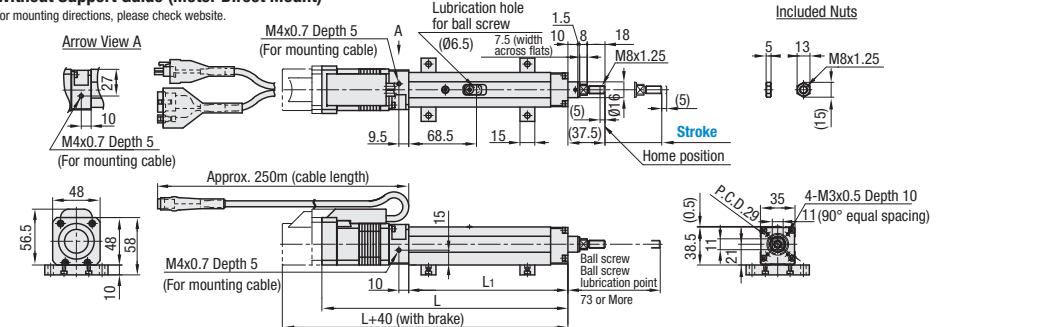
Standard Specifications Terminology P.513

Type	Lead (mm)	Positioning Repeatability (mm)	Maximum Load Capacity (kg)			Maximum Push Force (N)	Rated Running Life ^① (km)	Lost Motion (mm)	Rod Non-Rotational Accuracy (degrees)		Stroke (mm)	Maximum Velocity ^② (mm/sec)	Input Power Supply	Maximum Positioning Points
			Horizontal	RSD1 Vertical	RSDG1 Vertical				RSD1	RSDG1				
RSD1	06	±0.02	~20	~8	~7.5	100	5,000	0.1 or Less	±1.0	±0.05	50–200 (50 Pitch)	~250	DC24V ±10%	255 Points
RSDG1	12	±0.02	~10	~4	~3.5	75	5,000 or More	0.1 or Less	±1.0	±0.05	50–200 (50 Pitch)	~500	DC24V ±10%	255 Points

① Vertical travel service life varies depending on load capacity. Please check Service Life Table. ② Maximum Velocity varies depending on load capacity. Please refer to Velocity – Maximum Load Capacity Table.

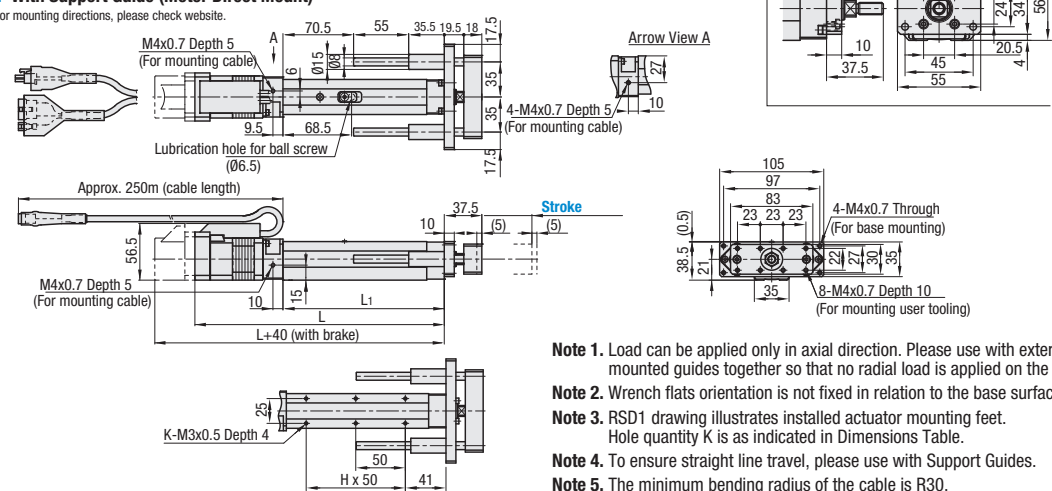
RSD1 Without Support Guide (Motor Direct Mount)

For other motor mounting directions, please check website.



RSDG1 With Support Guide (Motor Direct Mount)

For other motor mounting directions, please check website.



- Note 1.** Load can be applied only in axial direction. Please use with externally mounted guides together so that no radial load is applied on the rods.
- Note 2.** Wrench flats orientation is not fixed in relation to the base surface.
- Note 3.** RSD1 drawing illustrates installed actuator mounting feet. Hole quantity K is as indicated in Dimensions Table.
- Note 4.** To ensure straight line travel, please use with Support Guides.
- Note 5.** The minimum bending radius of the cable is R30.
- Note 6.** Clamp the cables to avoid loads.

Dimensions

Type	Dimensions	Stroke (mm)			
		50	100	150	200
RSD1 RSDG1	L ₁ (mm)	161	211	261	311
	L (mm)	249	299	349	391
	H (mm)	2	3	4	5
	K (mm)	6	8	10	12

Mass (kg)

Type	Stroke (mm)			
	50	100	150	200
RSD1	1.1	1.3	1.4	1.6
RSDG1	1.5	1.7	1.9	2.1

① The mass of "With Brake" Type is 0.2 kg heavier.

RSD1 / RSDG1

Rod Type Actuator (75–100 N Max.), continued

Type	Part Number		Motor Mounting Position	Selection			
	Lead (mm)	Brake ^①		Controller ^②	I/O Module	Cable Length (m)	Stroke (mm)
RSD1 RSDG1	06	None: Leave blank Included: B	Direct Mount: Leave blank Right Side Mount: R Left Side Mount: L Top Mount: U	Point Control: C1 Pulse Control: P1 (DC24V ±10%)	NPN: N PNP: P CC-Link: C DeviceNet: D	1 3 5 10 (Flexible Cable)	50–200 (50mm Increment)
	12						

① Choose "with brake" type for use in vertical applications.

② When the pulse train type controller is selected, the I/O type selection is not required.

Motor mounting position R and L are not available for RSDG1.

Part Number Example

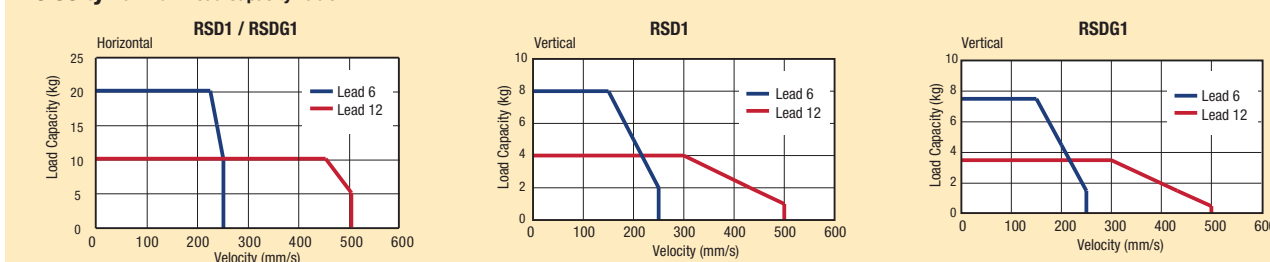
Part Number	Motor Mounting Direction	Controller	I/O Module	Cable Length	Stroke
RSD106B	L	C1	N	3	200
RSD106B		C1	N	3	200
RSD106B	L	P1		3	200

(Motor Mounting Position: L)
(Motor Mounting Position: Direct)
(Motor Mounting Position: L, Controller: P1)

Note

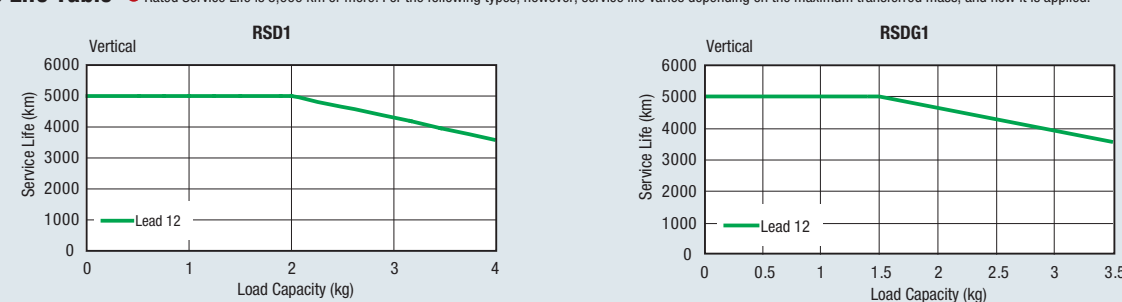
Power interruption circuit is not installed in this controller. Please be sure to provide an external power interruption circuit and form an emergency stop circuit. Circuit Examples P.511.

Velocity Maximum Load Capacity Table



Service Life Table

① Rated Service Life is 5,000 km or more. For the following types, however, service life varies depending on the maximum transferred mass, and how it is applied.



Part Number Alterations

Part Number: RSD106B - Controller Type: C1 - I/O Types: N - Cable Length: 3 - Stroke: 200 - (E, H, etc.): S-MJ

Alterations	Handy Terminal Standard Specification	Handy Terminal with Deadman's Switch	Support Software with USB Communication Cable	Support Software with D-Sub Communication Cable	I/O Cable	Robot Instruction Manual	Controller Instruction Manual	Main Body Plastic Color Alterations	Actuator Mounting Foot Plate	Actuator Mounting Flange
Code	H	D	S	R	T	MJ / ME	KJ / KE	BC	HP	VP
Spec.	Handy Terminal is included. Specifications P.512	Handy Terminal with Deadman's Switch is included. Specifications P.512	Support Software with USB Communication Cable is included. Specifications P.512	Support Software with D-Sub Communication Cable is included. Specifications P.512	I/O Cable is included. Required for NPN / PNP configurations. Specifications P.512	Instruction Manual for robot main structures is included. MJ: Japanese Language ME: English Language	Instruction Manual for Controllers is included. KJ: Japanese Language KE: English Language	Change the actuator plastic parts color to black.	Two plates are included for horizontal mount. Specifications P.512	One plate is included for vertical mount. Specifications P.512

① For optional items, see P.512. ② Optional items can be purchased more economically as Alterations than as single items.

③ Point data requires Handy Terminal or Support Software.

④ Parallel Communication I/O Control requires I/O Cable.