

# RS Actuator Controllers

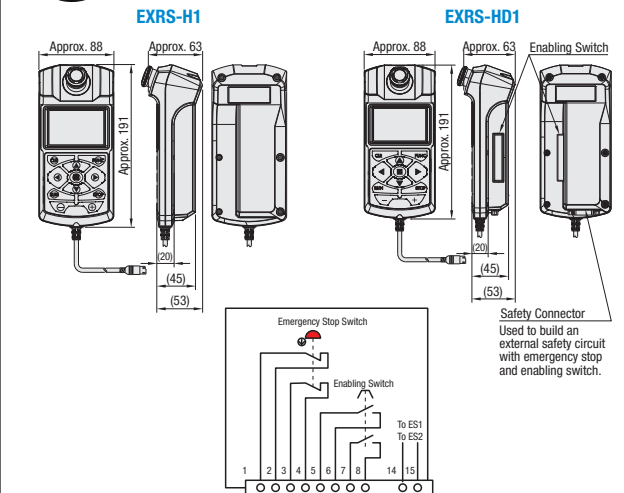
## Specifications / Accessories

### Options

#### Handy Terminal



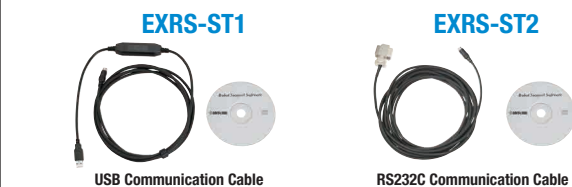
Part Number	EXRS-H1	EXRS-HD1
Emergency Stop Button	Normally Closed Input (with lock)	
Deadman's Switch	Without	With 3 Position Enable Switch
Operating Temp.	0-40°C	
Operating Humidity	35-85% RH (No Condensation)	
Main Body Mass	Approx. 450 g	
Cable Length	3.5 m	
Applicable Controllers	EXRS-C1/C21/C22	



When using a handy Terminal within the Area of Motion for the Actuator, please use EXRS-HD1 to build safety circuits outside.

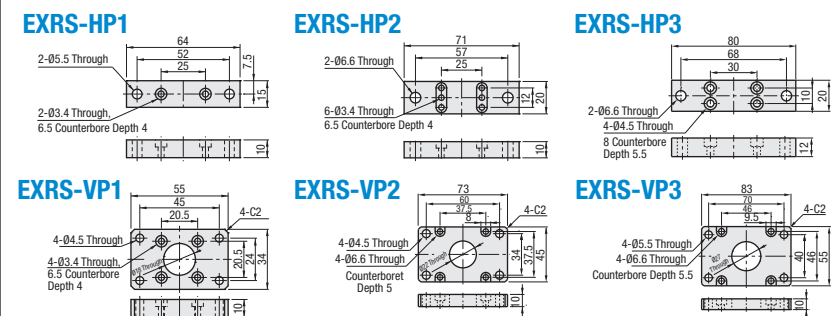
#### Support Software (with USB Communication Cable / RS232C Communication Cable)

Part Number	Communication Cable Length	Applicable Controller
EXRS-ST1	5 m	EXRS-C1/C21/C22
EXRS-ST2		



\*The cables are for communications between controller and PC. \*USB driver is included in Support Software.

#### Rod Type Dedicated Feet & Flanges

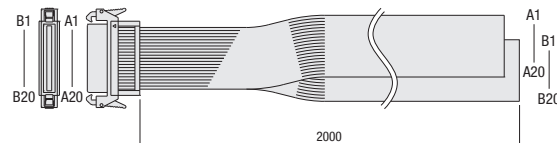


Part Number	Applicable Models	Specifications	Components (1 Set)
EXRS-HP1	RSD1 RSDG1	Foot Plate	Mounting Plate 2 pcs.
EXRS-VP1	RSD1	Flange	Mounting Plate 1 pc.
EXRS-HP2	RSD2 RSDG2	Foot Plate	Mounting Plate 2 pcs. Square Nuts 12 pcs.
EXRS-VP2	RSD2	Flange	Mounting Plate 1 pc.
EXRS-HP3	RSD3 RSDG3	Foot Plate	Mounting Plate 2 pcs. Square Nuts 8 pcs.
EXRS-VP3	RSD3	Flange	Mounting Plate 1 pc.

#### I/O Cable



Part Number	EXRS-CB1
Cable Length	2 m
Applicable Controllers	EXRS-C1/C21/C22



Pin No.	Signal	Cable Color	Pin No.	Signal	Cable Color	Pin No.	Signal	Cable Color	Pin No.	Signal	Cable Color
A1	+COM	BR	A11	PIN6	BR	B1	POUT0	BR	B11	OUT2	BR
A2	+COM	R	A12	PIN7	R	B2	POUT1	R	B12	OUT3	R
A3	(NC)	OR	A13	JOG+	OR	B3	POUT2	OR	B13	BUSY	OR
A4	(NC)	Y	A14	JOG-	Y	B4	POUT3	Y	B14	END	Y
A5	PIN0	G	A15	MANUAL	G	B5	POUT4	G	B15	/ALM	G
A6	PIN1	BL	A16	ORG	BL	B6	POUT5	BL	B16	SRV-S	BL
A7	PIN2	V	A17	/LOCK	V	B7	POUT6	V	B17	(NC)	V
A8	PIN3	GY	A18	START	GY	B8	POUT7	GY	B18	(NC)	GY
A9	PIN4	W	A19	RESET	W	B9	OUT0	W	B19	-COM	W
A10	PIN5	BL	A20	SERVO	BL	B10	OUT1	BL	B20	-COM	BL

\*Connection end to external device is non-terminated.

#### Instruction Manual

Part Number	Language	Type	Applicable Model
EXRS-MJ1	Japanese	For Actuators	RS1/2/3 RSD 1/2/3 RSDG 1/2/3
EXRS-MJ2			RSH1/2/3
EXRS-MJ3			RS1C/2C/3C
EXRS-MJ4	For Actuators (Clean Specifications)	For Actuators (Clean Specifications)	RS1C/2C/3C
EXRS-KJ1			EXRS-C1
EXRS-KJ2	For Controllers	For Controllers	EXRS-C21/C22
EXRS-ME1	English	For Actuators	RS1/2/3 RSD1/2/3 RSDG1/2/3
EXRS-ME2			RSH1/2/3
EXRS-ME3			RS1C/2C/3C
EXRS-ME4	For Actuators (Clean Specifications)	For Actuators (Clean Specifications)	RS1C/2C/3C
EXRS-KE1			EXRS-C1
EXRS-KE2	For Controllers	For Controllers	EXRS-C21/C22



# RS Actuator Maintenance Items

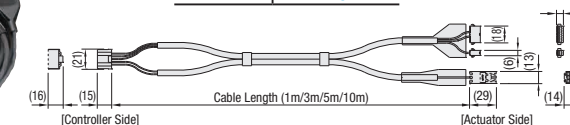
### Maintenance Products

#### Power / Signal-integrated Cables (Flexible)

(Controller EXRS-C1 → For RS1 / 2 / 3 / 1C / 2C / 3C)  
(Controller EXRS-C1 → For RSD1 / 2 / 3, RSDG1 / 2 / 3)



Part Number	Cable Length (m)
EXRS-CT1	1
	3
	5
	10

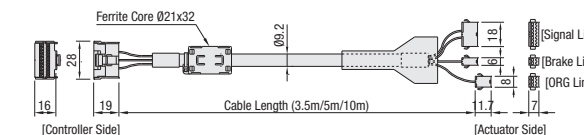
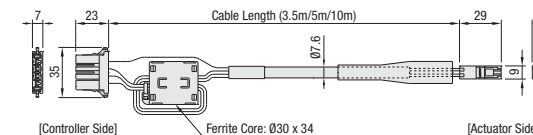


#### Power & Signal Cables

(Controller EXRS-C21/C22 → For RSH1 / 2 / 3 / 1C / 2C / 3C)



Part Number	Type	Cable Length
EXRS-CM1	Power	3.5 m: 3
		5 m: 5
		10 m: 10
EXRS-CR1 Standard	Signal	3.5 m: 3
		5 m: 5
		10 m: 10
EXRS-CR2 Flexible	Signal	3.5 m: 3
		5 m: 5
		10 m: 10



#### Noise Filter

Part Number	Rated Voltage	Rated Current
EXRS-NF1	AC250V/DC250V	10A

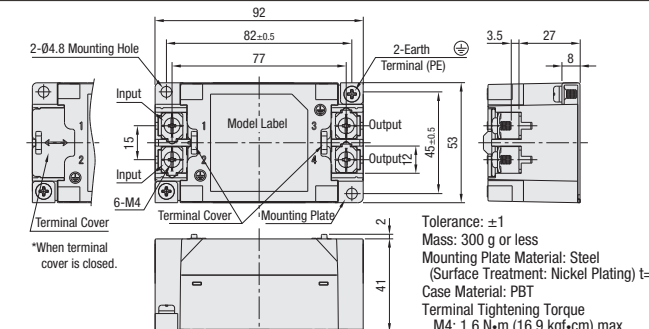
As this product uses push-down type terminal block, it is shipped in the state below.

\*Terminal Cover is stored.

\*Terminal block screws are kept on the upper side.



\*This listed products are made by COSEL.  
\*Other recommended products: SOSHIN ELECTRIC-made Part Number: NF2010A-UP



Part Number Example	Part Number	Cable Length
	EXRS-CT1	5

### Terminology

#### Repeatability

Variations in stop positions when positioning moves approached in one direction from one starting location are made.

#### Maximum Carrying Load Capacity

Maximum load that can be placed on the carriage. A sum of the work and the tooling must not exceed this value. Take Allowable Overhang in consideration if the work C.G. is offset from the table center.

#### Maximum Push Force

Maximum thrust force the slider can generate while not moving. Do not perform push and hold actions with shock loading since that may cause failures. Additionally, do not exceed 60% of the Static Load Capacity when the push point is offset from the slider's guide center.

#### Rated Force

Continuous force that can be generated. For work holding and pushing operations, keep under the Rated Force (approx. 60%)

Do not perform shock loading operations even under the Rated Force as that may cause failures.

Do not exceed 60% of the Static Load Capacity when the static push point is offset from the slider's guide center.

#### Rated Running Life

Total running distance where 90% of the Actuator under the same operating condition will reach without failures.

#### Allowable Overhang Load

Indicates offset distance of tool/work C.G. to the slider's guide center.

It depends on the work load weight and lifetime running distance of more than 10,000 km is achieved when the center of gravity is within permissible overhang. The published values are calculated based on automatically configured acceleration values per given carried mass.

#### Allowable Static Moment

Moment load value applicable on the slider top surface while the Actuator is static. For dynamic applications, overhang value must be determined with running life in consideration.

#### Lost Motion

A difference in position values when positioning moves are made to a specified coordinate from positive direction and negative direction.

#### Rod Non-Rotational Accuracy

Rod play in the rotational direction.

### Notes on CE Marking

MISUMI Robot Series provide parts to be incorporated into customers' device and equipment. According to EC Directive, it is declared that these are supplied in an incomplete state. Therefore, no CE marks are attached.

Please check for EC Directive compatibility with robot built-in device or equipment (finished products) by customers. For details, please see Instruction Manual.

### Warranty

Warranty Terms Comply with "Warranty Standards" printed on "Mechanical Standard Components for Factory Automation" catalog.

Warranty Period One year from shipment date or within the first 2,400 hours of operation whichever comes first