Single Axis Robot Controllers - Options

Maintenance Products

Options

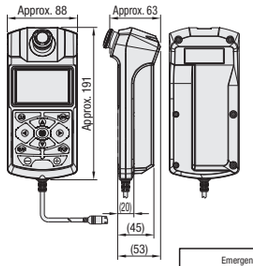
■Handy Terminal

RoHS

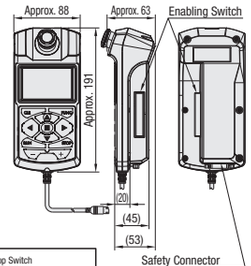
Part Number	EXRS-H1	EXRS-HD1
Emergency Stop Button	Normally Closed Input (with Lock)	
Deadman's Switch	None	Included (3 Position Enable Switches)
Operating Temp.	0°C~40°C	
Operating Humidity	35%~85%RH (No Condensation)	
Body Mass	Approx. 450g	
Cable Length	3.5m	
Applicable Controller	EXRS-C1/C21/C22	

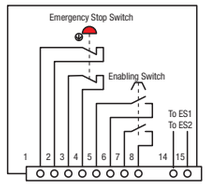
Part Number	Unit Price	Volume Discount Rate	
	1 pc.	2~3 pcs.	4~5 pcs.
EXRS-H1			
EXRS-HD1			

EXRS-H1



EXRS-HD1





Safety Connector
Used to build an external safety circuit with emergency stop and enabling switch.

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 / D-Sub Communication Cable)
Communication Specifications: RS232C (EXRS-ST1/ST2)

Part Number	Communication Cable Length	Applicable Controller	Unit Price	Volume Discount Rate	
			1 pc.	2~3 pcs.	4~5 pcs.
EXRS-ST1	5m	EXRS-C1/C21/C22			
EXRS-ST2					

*The cables are for communications between controller and PC. *Not applicable to Windows 7 (OS).

RoHS

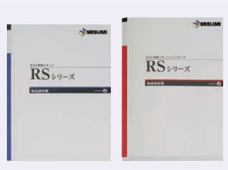
EXRS-ST1

USB Communication Cable

EXRS-ST2

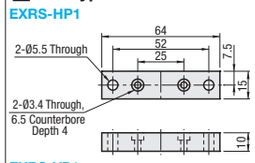
D-Sub Communication Cable

*USB driver is included in Support Software. (EXRS-ST1)

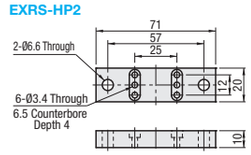


■Rod Type Dedicated Feet and Flanges

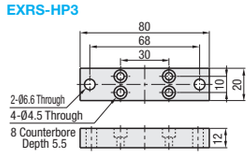
EXRS-HP1



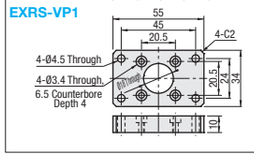
EXRS-HP2



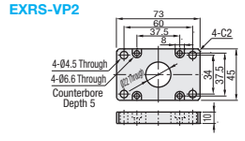
EXRS-HP3



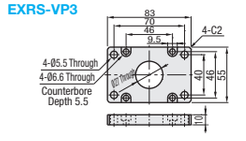
EXRS-VP1



EXRS-VP2



EXRS-VP3



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

Part Number	Unit Price		
	1 set	2 sets	3 sets
EXRS-HP1			
EXRS-VP1			
EXRS-HP2			
EXRS-VP2			
EXRS-HP3			
EXRS-VP3			

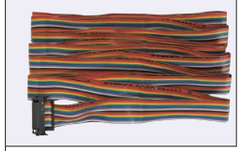
Ordering Example: Part Number EXRS-H1

Days to Ship

Configure Online

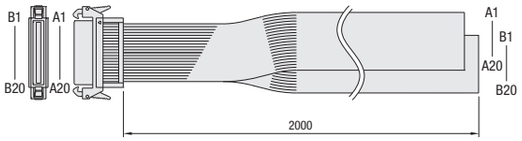
■I/O Cable

RoHS



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

Part Number	Unit Price	Volume Discount Rate	
	1 pc.	2~3 pcs.	4~5 pcs.
EXRS-CB1			



Pin No.	Single	Cable Color
A1	+COM	BR
A2	+COM	R
A3	(NC)	OR
A4	(NC)	Y
A5	PIN0	G
A6	PIN1	BL
A7	PIN2	V
A8	PIN3	GY
A9	PIN4	W
A10	PIN5	BL

Pin No.	Single	Cable Color
A11	PIN6	BR
A12	PIN7	R
A13	JOG+	OR
A14	JOG-	Y
A15	MANUAL	G
A16	ORG	BL
A17	/LOCK	V
A18	START / TEACH	GY
A19	RESET	W
A20	SERVO	BL

Pin No.	Single	Cable Color
B1	POUT0	BR
B2	POUT1	R
B3	POUT2	OR
B4	POUT3	Y
B5	POUT4	G
B6	POUT5	BL
B7	POUT6	V
B8	POUT7	GY
B9	OUT0	W
B10	OUT1	BL

Pin No.	Single	Cable Color
B11	OUT2	BR
B12	OUT3	R
B13	BUSY	OR
B14	END	Y
B15	/ALM	G
B16	SRV-S	BL
(NC)		V
(NC)		GY
-COM		W
-COM		BL
-COM		BL

*Connection end to external device is non-terminated.

■Instruction Manual

Part Number	Language	Type	Applicable Model	Unit Price	Volume Discount Rate	
				1 volume	2~3 volumes	4~5 volumes
EXRS-MJ1	Japanese	Instruction Manual for robot main structures is included	RS1/2/3 RSD 1/2/3 RSDG 1/2/3			
EXRS-MJ2			RSH1/2/3			
EXRS-MJ3		For Actuator (Clean Version)	RS1C/2C/3C			
EXRS-MJ4			RSH1C/2C/3C			
EXRS-KJ1		Instruction Manual for controllers is included	EXRS-C1			
EXRS-KJ2			EXRS-C21/C22			
EXRS-ME1	English	Instruction Manual for robot main structures is included	RS1/2/3 RSD1/2/3 RSDG1/2/3			
EXRS-ME2			RSH1/2/3			
EXRS-ME3		For Actuator (Clean Version)	RS1C/2C/3C			
EXRS-ME4			RSH1C/2C/3C			
EXRS-KE1		Instruction Manual for controllers is included	EXRS-C1			
EXRS-KE2			EXRS-C21/C22			

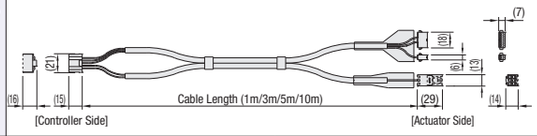
Maintenance Products

■Power/Signal-Integrated Cables (Flex-Resistant)

(Controller EXRS-C1 ◄► For RS1, 2 ,3 ,1C, 2C, 3C)
(Controller EXRS-C1 ◄► For RSD1, 2, 3, RSDG1, 2, 3)

RoHS

Part Number	Cable Length (m)	Unit Price 1 pc.	Volume Discount Rate 2~3 pcs.	4~5 pcs.
EXRS-CT1	1			
	3			
	5			
	10			



■Data Storage Battery

Part Number	Unit Price 1 pc.	Volume Discount Rate 2~3 pcs.	4~5 pcs.
EXRS-BA1			

*Battery for absolute data back-up.
(Applicable Controllers: EXRS-C21/C22)
*Equipped as standard to absolute model controllers.
Replacement cycle is approx. one year.
*This product is outside the scope of RoHS Directive.

■Power / Signal Cables

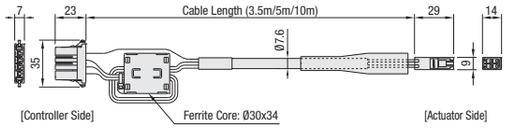
(Controller EXRS-C21/C22 ◄► For RSH1, 2 ,3 ,1C, 2C, 3C)

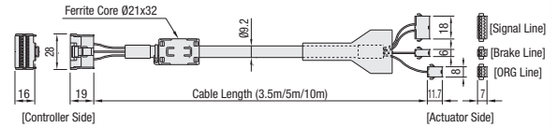
RoHS

Power Cable

Signal Cable

Part Number	Type	Cable Length	Unit Price 1 pc.	Volume Discount Rate 2~3 pcs.	4~5 pcs.
EXRS-CM1	Power	3.5m:3			
		5m:5			
		10m:10			
EXRS-CR1 (Standard)	Single	3.5m:3			
		5m:5			
		10m:10			
EXRS-CR2 (Flexible)		3.5m:3			
		5m:5			
		10m:10			





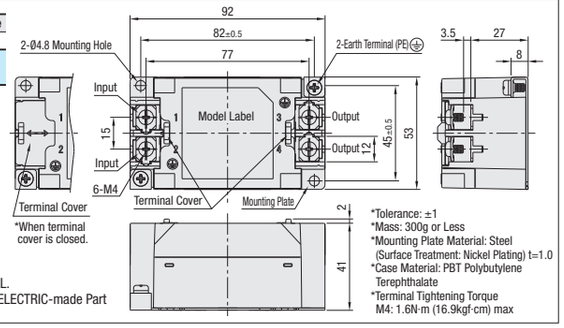
■Noise Filter

RoHS

Part Number	Rated Voltage	Rated Current	Unit Price 1 pc.	Volume Discount Rate 2~3 pcs.	4~5 pcs.
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.

*These listed products are made by COSEL.
*Other Recommended Products: SOSHIN ELECTRIC-made Part Number: NF2010A-UP



*When terminal cover is closed.

*Tolerance: ±1
*Mass: 300g or Less
*Mounting Plate Material: Steel (Surface Treatment: Nickel Plating) t=1.0
*Case Material: PBT Polybutylene Terephthalate
*Terminal Tightening Torque M4: 1.6N·m (16.9kgf·cm) max

Ordering Example: Part Number EXRS-CT1 - Cable Length 5

Days to Ship

Configure Online

Optional items can be purchased more economically as Alterations than as single items.

Terminology

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

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

■Max. 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 workpiece 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 Actuators under the same operating condition will reach without failures.

■Allowable Overhang Load
Indicates offset distance of tool/workpiece C.G. to the slider's guide center.
It depends on the workpiece's load weight and lifetime and running distance of more than 10,000km is achieved when the center of gravity is within allowable overhung.
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 into consideration.

■Lost Motion
A difference in position values when positioning moves are made to a specified coordinate from positive direction to 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 actuator built-in device or equipment (finished products). For details, please see the 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 2400 hours of operation whichever comes first

Contact for Inquiry

For inquiries, please contact us at:
MISUMI Corporation FA Standard Assembly Components Division
TEL: 03-3647-7300 FAX: 03-3647-7481

■FAQ

Q1. The actuator does not move.
A1. When activating an actuator using Support Software or Handy Terminal, invalidate Option Parameter (80). (Option Valid = I/O Terminal Valid, Option Invalid = I/O Terminal Invalid) Then turn the servo status "ON" and operate the homing.
After the completion of homing, start the operation by turning on "Operation".

Q2. LED light is on. Is there a controller defect?
A2. Blue: PWR (OFF: Control Power Shutoff, Blink: Servo OFF, ON: Servo ON), Red: ERR (OFF: Control Power Shutoff / No Error Alarm; Blink: Error Alarm On (External Factor); ON: Error Alarm On (Internal Factor))

Q3. Teaching cannot be conducted by via I/O.
A3. To conduct teaching via I/O, the status needs to be ON for MANUAL Input and OFF for Interlock Input. Note that it does not function in the state of incmpletion of homing.

Q4. Is low-speed operation possible?
A4. Possible, however, 10 to 20% of max. velocity is the limit depending on the lead.