Dedicated Single Axis Robot Position Controllers

Compact, Multiple Functionality and High Performance

For Stepping Motor

Controller Unit price

Part Number	I/O Module	Unit Price	Volume Discount Rate	
		1 pc.	2 ~ 3 pcs.	4 ~ 5 pcs.
EXRS-C1	NPN:N			
	PNP:P			
	CC-Link:C			
	DeviceNet:D			

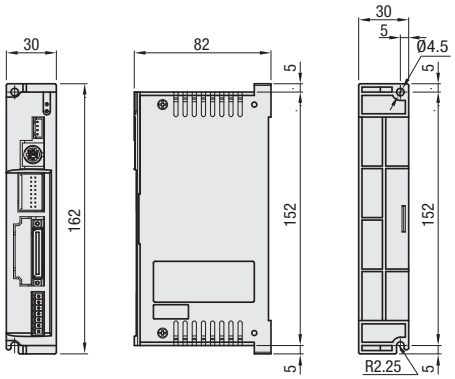
For orders larger than indicated quantity, please request a quotation.

Ordering Example

Part Number	-	I/O Module
EXRS-C1	-	N

Controlled Actuator

- RS 1/2/3
- RS 1C/2C/3C
- RSD 1/2/3
- RSDG 1/2/3



Notes

- External power source DC24V (3A or more) is to be provided by customers.
- I/O cable is not provided. Select as an optional product.
- An external E-Stop circuit is required for service use.
- No need to separately select a controller as controller is included in the purchase of a complete set of Single Axis Robots.
- When purchasing a controller as a single item, the part number of the applicable single axis robot is required.
- The Support Software is required in order to change controller/robot combinations, or address changes due to CC-Link configuration changes.
- No auxiliary power supply available.

For Servo Motor

Controller Unit price

Part Number	I/O Module	Unit Price	Volume Discount Rate	
		1 pc.	2 ~ 3 pcs.	4 ~ 5 pcs.
EXRS- C22A Absolute Encoders (with Data Storage Battery)	NPN:N			
	PNP:P			
	CC-Link:C			
	DeviceNet:D			
EXRS- C22B Incremental Type	NPN:N			
	PNP:P			
	CC-Link:C			
	DeviceNet:D			

For orders larger than indicated quantity, please request a quotation.

Ordering Example

Part Number	-	I/O Module
EXRS-C22A	-	N

Controlled Actuator

- RSH 1/2/3/4/5
- RSH 1C/2C/3C
- RSF4
- RSB 1/2

Notes

- External power source DC24V (3A or more) is to be provided by customers. Required power supplies for brake and I/O communication.
- I/O cable is not provided. Select as an optional product.
- An external E-Stop circuit is required for service use.
- No need to separately select a controller as controller is included in the purchase of a complete set of Single Axis Robots.
- When purchasing a controller as a single item, the part number of the applicable single axis robot is required.
- The Support Software is required in order to change controller/robot combinations, or address changes due to CC-Link configuration changes.
- No auxiliary power supply available.

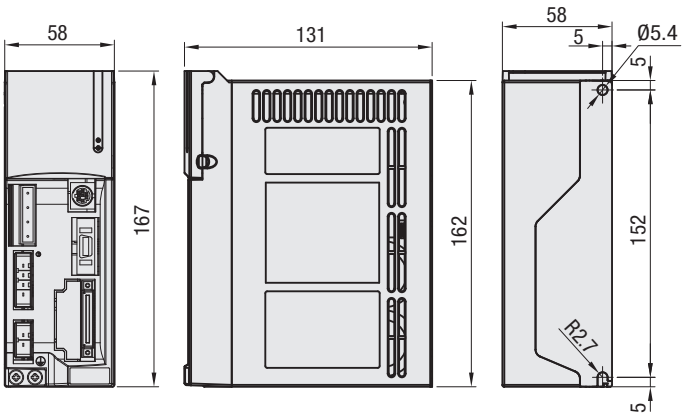


Table of EXT connector signal for EXRS-C21/C22 controller

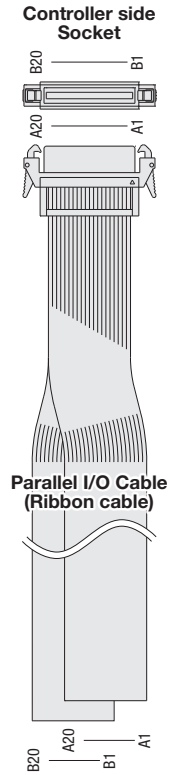
Connectors attached to controllers. Emergency stop circuit structure and Socket for brake power supply.

Pin No.	Signal Name	Description
1	+V24	Mechanical Brake Power Input (DC power source is to be provided by customers)
2	0V	
3	ES+	Emergency Stop Input Internal Power Supply
4	ES1	Emergency Stop Input 1
5	ES2	Emergency Stop Input 2
6	ES-	Emergency Stop Ready
7	MPRDY1	Main Power Supply Ready Output Contacts (DC24V power source is to be provided by customers)
8	MPRDY2	

I/O Module

Select from the four types matching to the specifications of PLC.
(Common specifications of EXRS-C1 and EXRS-C2)

Type	Descriptions
NPN (Parallel I/O)	16 Inputs (External DC24V±10%, 4mA drain/1 point/+Common) 16 Outputs (External DC24V±10%, 50mA/1 point, 0.4A max. / 8 points, Sinking)
PNP (Parallel I/O)	16 Inputs (External DC24V±10%, 4mA /-Common) 16 Outputs (External DC24V±10%, 50mA/1 point, 0.4A max. / 8 points, Sourcing)
CC-LINK	CC-Link applicable to Ver1.10, Remote Device Station (1)
DeviceNet	DeviceNet Slave 1 Node (PLC settings file is available on MISUMI's website)



■Parallel I/O Control Signal Function Descriptions

Type	Pin No.	Signal Name	Meaning	Description
Input	A1&A2	+COM	I/O Power Supply Input +Common (24V)	· External Power Supply (+) Terminal · DC24±10%
	A3&A4	NC	Not Connected	Not used.
	A5~A12	PIN0~7	Point No. Set (Binary)	· Specify the point No. of the set target position · Specify point No. for current position input (in manual operation mode).
	A13	JOG+	Jog Operation (+)	Inching/Jog moves in + direction (in manual mode)
	A14	JOG-	Jog Operation (-)	Inching/Jog moves in - direction (in manual mode)
	A15	MANUAL	Manual Mode	Switch to Manual Mode
	A16	ORG	Return to Home	Start Homing
	A17	/LOCK	Interlock	External input is allowed. When set to OFF during movement, deceleration is stopped.
	A18	START	Start Operation	Starts positioning operation towards specified point No.
	A19	RESET	Reset	· Reset Alarm · Reset Point No. Output · Clear remaining travel distance in relative positioning operation
	A20	SERVO	Servo ON	Motor ON/OFF
Output	B1~B8	POUT0~7	Output Point No. (Binary)	· Outputs point number to be specified by positioning operation · Outputs alarm No. in the event of alarm occurrence (Enable/Disable setting is available)
	B9	OUT0	Control Output 0	Arbitrarily allocate from the following depending on the "Parameter settings". Zone Output, Individual Zone Output, Manual Mode Status, Completion of Homing, @Hard Stop, Alarm Output, Proximity Output, In Motion
	B10	OUT1	Control Output 1	
	B11	OUT2	Control Output 2	
	B12	OUT3	Control Output 3	
	B13	BUSY	In Operation	ON in operation
	B14	END	Completion of Operation	Sets the Operation result to ON through Output, upon successful completion.
	B15	/ALM	Alarm	ON in normal status, OFF output in the event of alarm status
	B16	SRV-S	Servo Status	Set to ON at the time of power is supplied to the motor.
	B17~B18	NC	Not Connected	Not used.
	B19~B20	-COM	I/O Power Supply Input -Common (0V)	· External power supply (-) terminal · Inputs to External 0V terminal.

Communication Specifications

■CC-Link Network Board Specification

Item	CC-Link Network Specification				
Communication Protocol	CC-Link V1.10				
Station	Remote Device Station				
Number of Stations Occupied	1 Station				
Station Number Setting	1~64				
Communication Speed Setting	156Kbps	625Kbps	2.5Mbps	5Mbps	10Mbps
Total Extended Distance	1200m	900m	400m	160m	100m
Monitor LED	RUN, ERR, SD, RD				

■DeviceNet Network Board Specification

Item	DeviceNet Network Specification		
Compatible DeviceNet Specification	Volume 1 Release2.0/Volume 2 Release2.0		
Device Type	Generic Device		
MAC ID Setting	0~63		
Communication Speed Setting	125kpbs	250kbps	500kbps
Total Extended Distance	500m	250m	100m
Monitor LED	Module, Network		

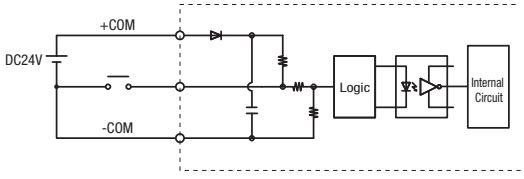
■Standard COM1 port communication specifications (RS232C)

Item	Specifications
Transmission Rate	38400bps
Data Bit Length	8 bits
Stop Bit Length	1 bit
Parity	Odd
Flow control	Not provided
Communication Method	Full-duplex Communications

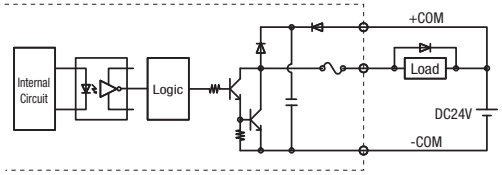
I/O Circuit Diagram

NPN Specifications

■Input Area

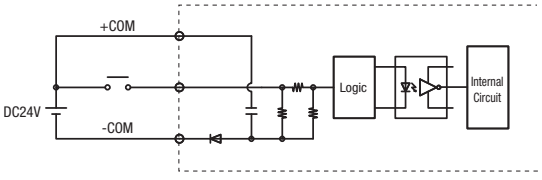


■Output Area



PNP Specifications

■Input Area



■Output Area