

Dedicated Single Axis Robot Pulse Train Input Controller

Compact, Multiple Functionality and High Performance



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

CE Compliant

See notes on CE Marking. P456

For Stepping Motor



Controller Unit price

Part Number	Unit Price	Volume Discount Rate	
	1 pc.	2-3 pcs.	4-5 pcs.
EXRS-P1			

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



Part Number
EXRS-P1



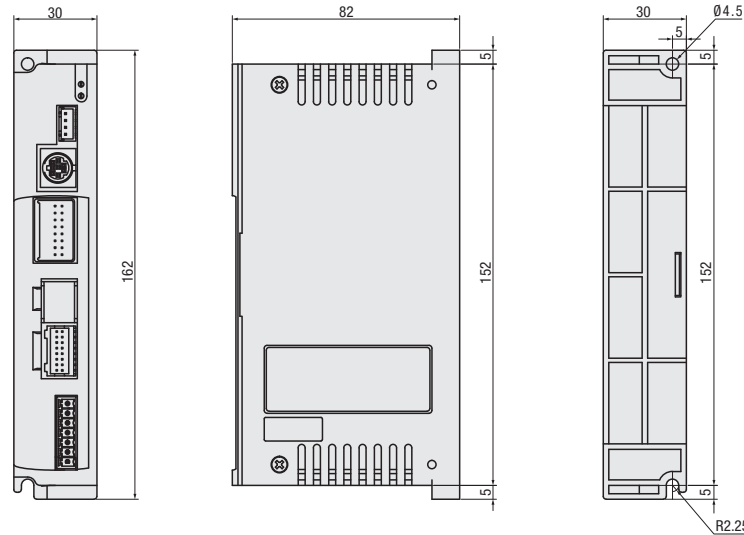
Configure Online

Controlled Actuator

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

Note

- External Power Supply DC24V is to be provided by customers.
- An external E-Stop circuit is required for service use.
- This controller cannot be operated in Handset Terminal (EXRSH1/EXRS-HD).



Five Features of New Pulse Input Driver

1. Highly Reliable Vector Control Method

Closed loop vector control used in our well received MISUMI RS Single Axis Robot Programmable Controllers has been adopted. This enables the pulse control to exhibit excellent control and performance, and similar to our programmable controllers this prevents torque and position losses at high speeds.

2. Feedback through Resolver Type Rotation Angle Sensor

High precision rotation angle sensor information essential to eliminate Stepping Motor stalls is obtained through feedback method same as MISUMI's Programmable Controller. Highly precise positioning is possible through high resolution resolver (20480 pulse/rotation).

3. Pulse Train Inputs are compatible with Open-collector and Line Driver types

Pulse command input method can be changed with simple change of wiring and parameter settings within the controller, matching the specifications of Upstream controller. The Open-collector method supports wide range of input voltages from DC5V to 24V.

4. Editing/Executing of parameters through RS-Manager possible

Various parameter settings, realtime trace function, and backup file outputs of condition settings, etc. that are needed to easily operate Single Axis Robots can be edited and executed through the support software "RS-Manager" just as can be through the Programmable controller.

Handset terminals "EXRS-H1" and "EXRS-HD1" cannot be used in EXRS-P1.

5. Existing RS Robot Series is can be controlled with pulse train inputs

Existing Single Axis Robots with Stepping Motor, too, can be controlled using Pulse Control Controller. There is no need to purchase new robots. Even in case of Upstream control is pulse output, existing Single Axis Robots can be re-used just by changing the controllers.

Input Output Signal Table

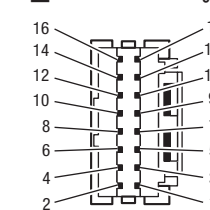
Type	Signal Name	Open Collector	Line Driver	Description
Input	OPC	Power input for Open Collector	(Connection prohibited)	Power input for Open Collector (DC5-24V±10%)
	PULS1	(Connection prohibited)	Command Pulse Input (+)	3 command types can be selected through the parameter changes at pulse command input terminal.
	DIR1	(Connection prohibited)	Direction Command Input (+)	· A phase /B phase Input
	PULS2	Pulse Command Input	Pulse Command Input (-)	· Pulse/Sign Input
	DIR2	Direction Command Input	Direction Command Input (-)	· CW/CCW Input
	ORG	Return to Home		ON signal: Begin Homing. OFF signal: Stop
	RESET	Reset		Alarm Reset
	SREVO	Servo ON		ON signal: Supply motor power. OFF signal: Stop motor power
	Output	ORG-S	Completion of Homing	
IN-POS		Positioning Complete		Outputs ON signal when the accumulated pulse of deviation counter is within the range of specified value.
/ALM		Alarm		ON signal output in normal status, OFF signal output in the event of alarm status
SRV-S		Servo Status		ON signal output during motor power is supplied

- When using with Open collector, do not connect the signal line to PULS1 and DIR1. It may cause erroneous operation and damage to the driver.
- When using with Line Driver, do not connect the signal line to OPC. It may cause erroneous operation and damage the driver.

I/O Signal Table

Pin No.	Signal Name	Meaning
1	+COM	I/O Power Supply Input (DC24V±10%)
2	OPC	Power input for Open Collector
3	PULS1	Pulse Command Input 1
4	PULS2	Pulse Command Input 2
5	DIR1	Direction Command Input 1
6	DIR2	Direction Command Input 2
7	ORG	Return to Home
8	NC	Use prohibited
9	RESET	Reset
10	SERVO	Servo ON
11	ORG-S	Completion of Homing
12	IN-POS	Positioning Complete
13	/ALM	Alarm
14	SRV-S	Servo Status
15	-COM	I/O Power Supply Input (0V)
16	FG	Ground

I/O Connector Pin Arrangement

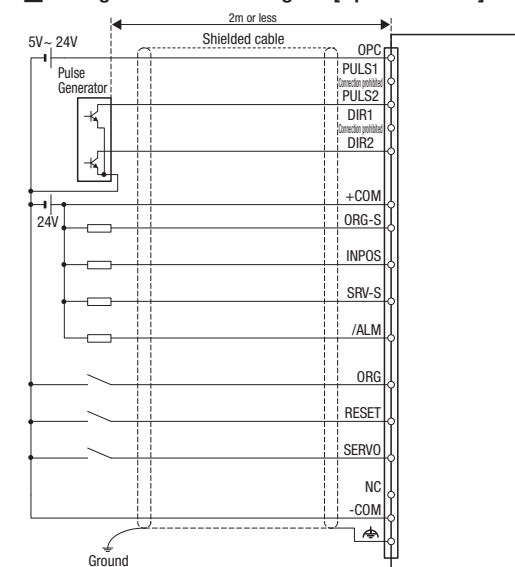


Other Standard Specifications

Protection Functions

Position detection error, Abnormal temperature, Overload, Over voltage, Low voltage, Excessive position error, Low control voltage, Over current, Abnormal motor current, CPU error, Motor lead disconnect, Excess command speed, Excess pulse frequency

I/O Signal Connection Diagram [Open-Collector]



I/O Signal Connection Diagram [Line Driver]

