



INDUSTRIAL CONTROL SOLUTIONS

Handy-Grips® Ergo-Grips® Joystick Bases

P.O. Box 23801
Portland, Or 97281-3801

7943 SW Cirrus Dr.
Beaverton, Or 97008

1-800-621-8754

electronic Joysticks



JOYSTICK series

The Cyber-Tech, Inc. JS Series electronic joystick is a tough highly reliable operator input device designed to control mobile machine work functions. The joystick is available in a single axis spring-return-to-center and dual axis spring-return-to-center configurations. Both versions are available with a plain knob or a P-10 Ergo-Grip Series control installed.

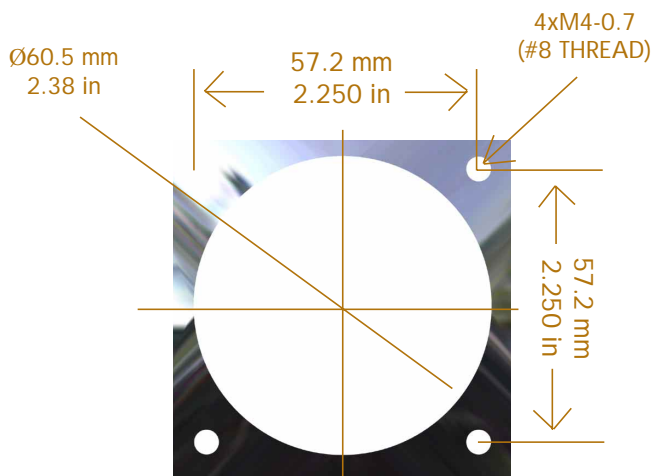
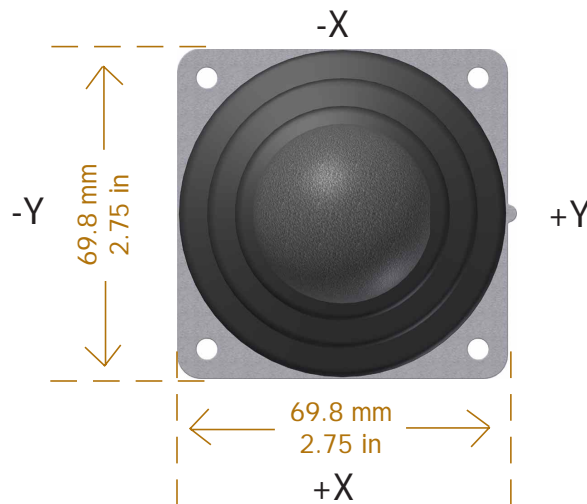
The JS Series design uses non-contact Hall sensor technology to detect and transmit handle position. Two programmable, temperature-compensated Hall sensors are mounted 90° from one another at the equator of a magnetized ball located at the base of the handle. The output of the Hall sensor changes in proportion to changes in the magnetic field caused by handle movement. This electronic design yields a linear relationship between handle position and signal output, with no hysteresis and a stable null over the entire range of handle displacement.

JS Series joysticks are designed to function in control systems as a signal level device. A regulated 5Vdc supply input yields a 0.5 to 4.5 Vdc signal output. The design goal of the JS Series electronic joystick is high reliability at low cost. It is resistant to the levels of temperature, shock, vibration and EMI/RFI typically found in mobile machine operating environments.

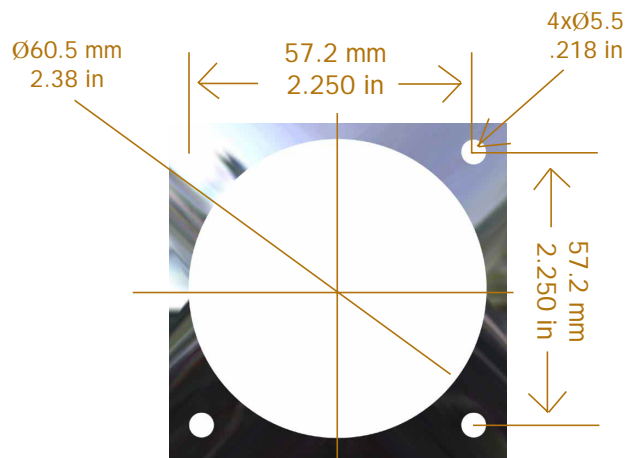
The non-contact Hall sensor technology and low part count eliminates many of the failures associated with traditional joystick technology. The JS Series design has been tested to 15 million cycles with no sign of bearing or boot wear or degradation of electrical performance.

www.cyber-tech.net

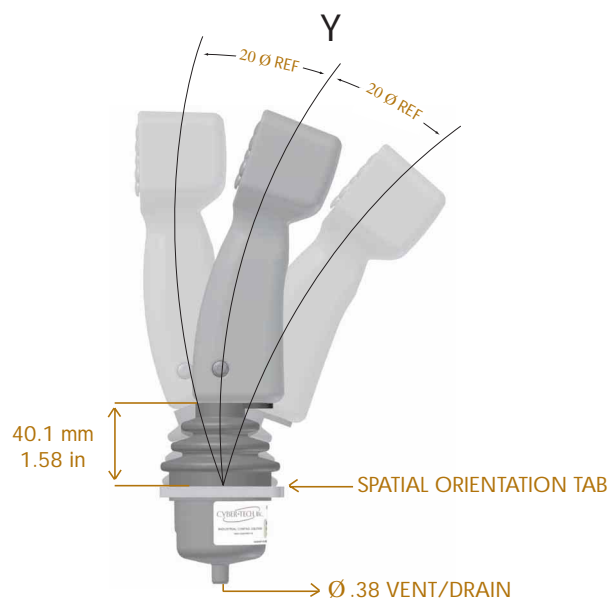
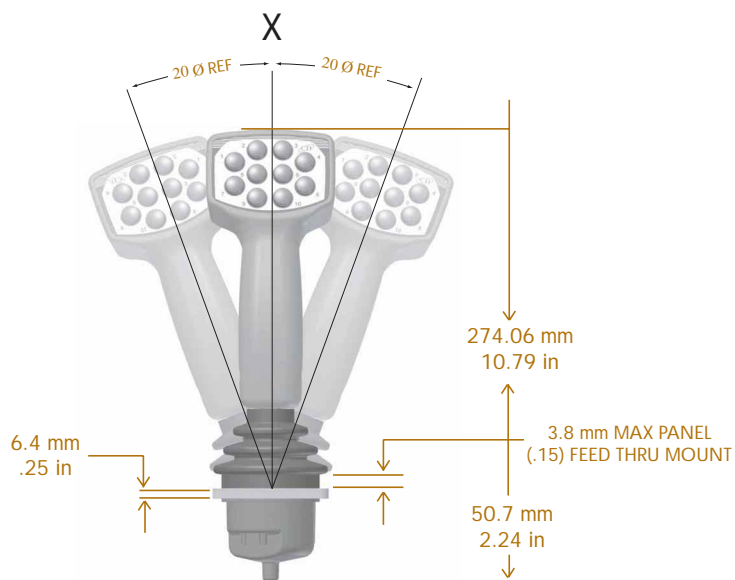
General Dimensions



DROP-IN MOUNTING PATTERN

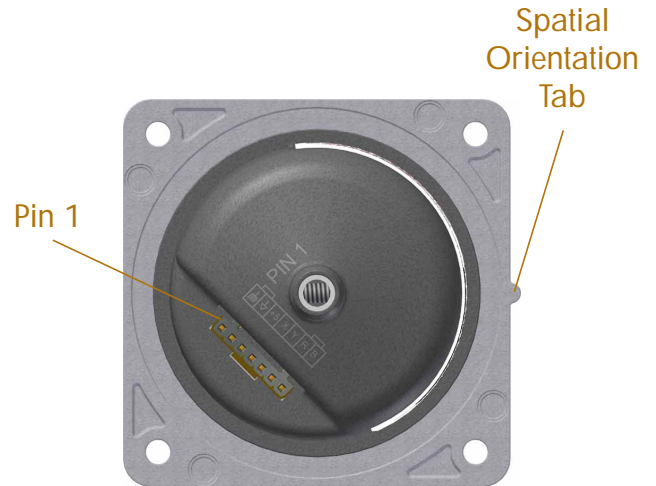


FEED THRU MOUNTING PATTERN
MAX PANEL THICKNESS = 3,8 MM (.15)



Connector/ Pin Outputs

WIRING INFORMATION	MATING HARNESS WIRE COLOR	
PIN 1	CHASSI GROUND	GREEN
PIN 2	5 VDC GROUND	BLACK
PIN 3	5 VDC POWER	RED
PIN 4	X OUTPUT	WHITE
PIN 5	Y OUTPUT	GRAY
PIN 6	NO CONNECTION	BLUE
PIN 7	NO CONNECTION	BROWN



Electrical Specifications

Supply Voltage: 5.0 Vdc 0.5 Vdc

Supply Current: 15 mA Maximum

X- Y COMPONENTS

Null shift over rated temperature: 2% of supply voltage

Span shift over rated temperature: 2% of supply voltage

Linearity: 1% maximum deviation of voltage vs. shaft angle

Output at maximum negative X or Y displacement: 8% ± 4% of supply voltage



Tampering with joystick will void the factory calibration and may cause inaccurate outputs.



standard P-10 Ergo-Grip

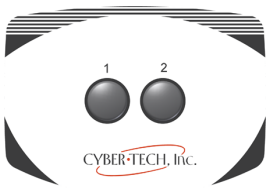
JS series



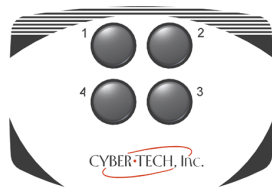
Note:
Available with
up to 11 functions

Function	Electrical Symbol	Wire Color
SW-1	COM N.O.	BLK
CTI Pushbutton SPDT		
SW-2	COM N.O.	ORG
CTI Pushbutton SPDT		
SW-3	COM N.O.	YEL
CTI Pushbutton SPDT (MOM)		
SW-4	COM N.O.	BRN
CTI Pushbutton SPDT (MOM)		
SW-5	COM N.O.	BLU
CTI Pushbutton SPDT (MOM)		
SW-6	COM N.O.	GRY
CTI Pushbutton SPDT		
SW-7	COM N.O.	WHT
CTI Pushbutton SPDT		
SW-8	COM N.O.	VIO
CTI Pushbutton SPDT		
SW-9	COM N.O.	w/RED
CTI Pushbutton SPDT (MOM)		
SW-10	COM N.O.	w/BLK
CTI Pushbutton SPDT (MOM)		
T-1	COM N.O.	w/BRN
CTI Pushbutton SPDT (MOM)		
Common		RED
		(30 vDC 3 Amp Max)
Ground		GRN

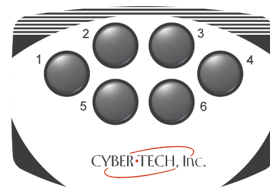
Standard P-10 Faceplates



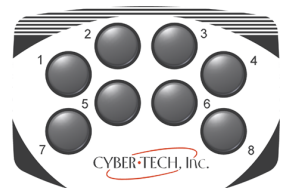
P-10-2



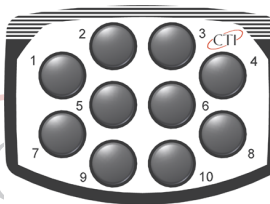
P-10-4



P-10-6



P-10-8



P-10-10

Reference:
P-10 Datasheets for standard
and custom options

CYBER-TECH

Ordering Information

JS-JOYSTICK

JS-002

JS Series electronic joystick, single axis, plain knob, spring-return-to-center with connector interface.

JS-004

JS Series electronic joystick, dual axis, plain knob, spring-return-to-center with connector interface.



P-10 CONTROL HANDLE

P-10-0

Blank P-10 No Switches

P-10-2

P-10 with 2 mom thumb PB rated 3amp with 10 ft cable

P-10-4

P-10 with 4 mom thumb PB rated 3amp with 10 ft cable

P-10-6

P-10 with 6 mom thumb PB rated 3amp with 10 ft cable

P-10-8

P-10 with 8 mom thumb PB rated 3amp with 10 ft cable

P-10-10

P-10 with 10 mom thumb PB rated 3amp with 10 ft cable



P-10 TRIGGER OPTIONS

T

P-10 mom PB rated 3amp

TRIGGER OPTIONS

P-10 CONTROL HANDLE

JS-JOYSTICK

JS- [] P-10- [] - []



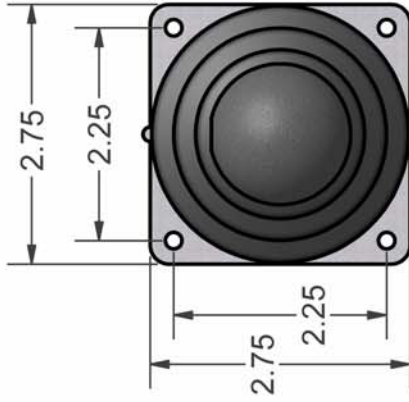
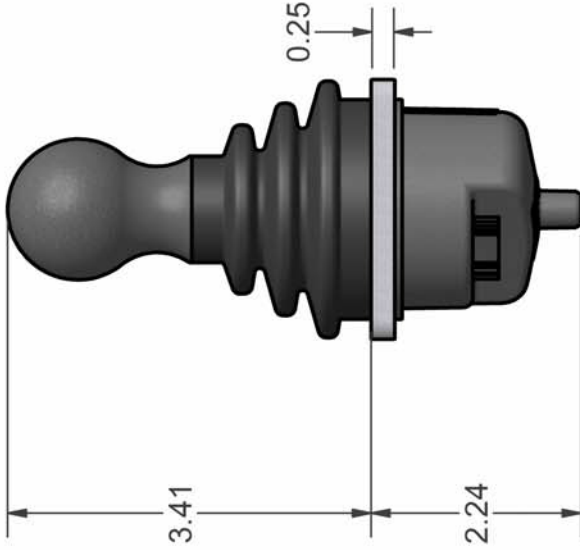
EXAMPLE
JS-0040-P-10-10-T

CYBER·TECH, Inc

1

2

REVISION HISTORY			
ZONE	REV	DESCRIPTION	DATE
1	A		6/19/2003
			keith



Supply Voltage: 5.0 Vdc 0.5 Vdc
 Supply Current: 15 mA Maximum

X- Y COMPONENTS

- Null Shift over rated temperature: 2% of supply Voltage
- Span shift over rated temperature: 2% of supply Voltage
- Linearity: 1% maximum deviation of voltage vs. shaft angle
- Output at maximum negative X or Y displacement: 8% ± 4% of supply voltage

B

A

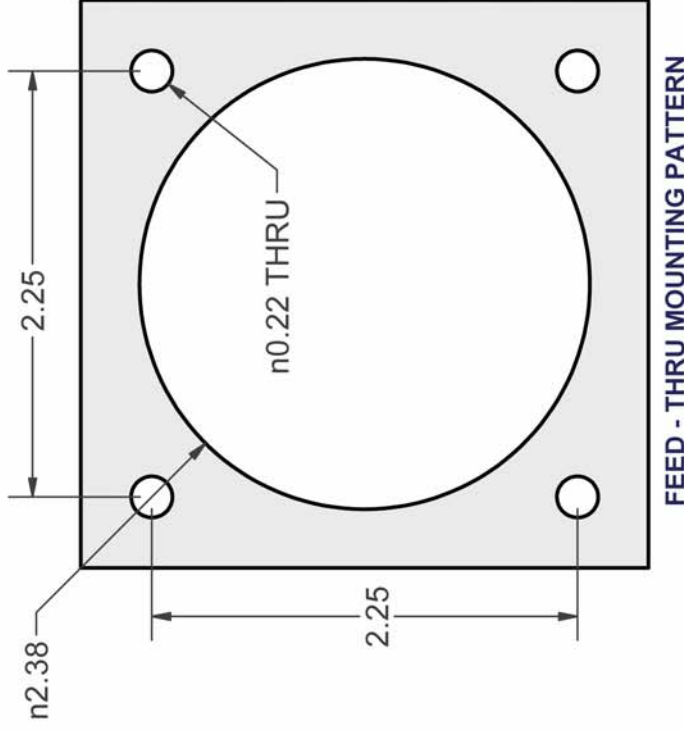
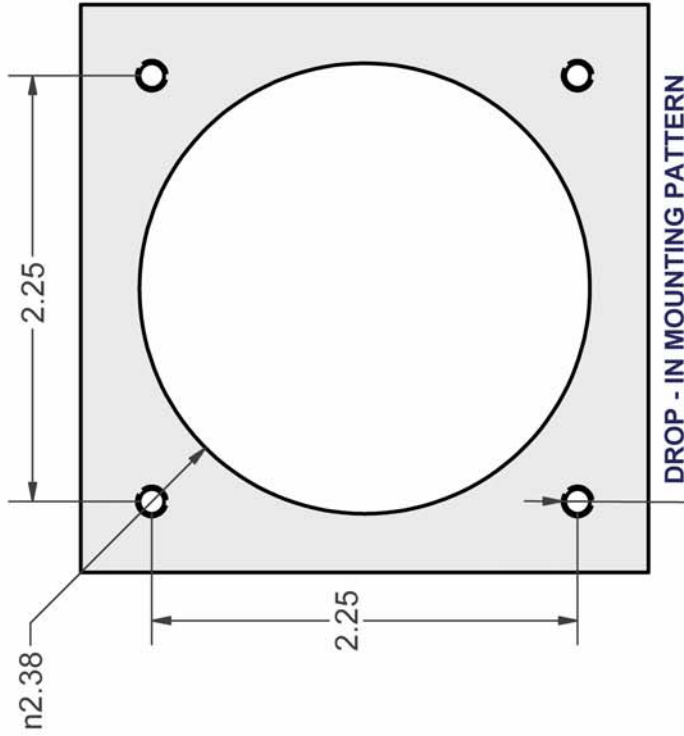
DRAWN	keith	6/19/2003
APPROVED		
Phone:	1.800.621.8754	
Phone:	503.620.2285	
Fax:	503.620.8580	
Web:	www.cyber-tech.net	
e-mail	engineering@cyber-tech.net	

Cyber-Tech, Inc.		TITLE	
JS-002 / JS-004		SIZE	REV
A		DWG NO	A
ELECTRONIC JOYSTICK		SCALE	A
.5/1		SHEET	1 OF 2

1

2

PANEL CUT DIMENSIONS



8-32 UNC - 2B x 0.50

MAX PANEL THICKNESS = 3,8 mm (.15 in)

DRAWN	keith	6/19/2003
APPROVED		
Phone:	1.800.621.8754	
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Cyber-Tech, Inc.		
TITLE JS-002 / JS-004		
SIZE A	DWG NO	REV A
SCALE 1:1	SHEET 2 OF 2	