



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

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 can be easily adapted or our Handy-Grip®, Ergo-Grip® or Mini-Grip Series control grips. Available Joystick adaptors allows for easily mounting to any existing control.

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.

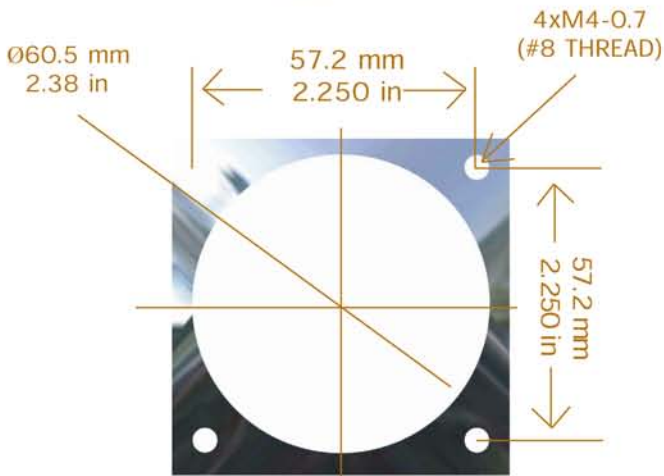
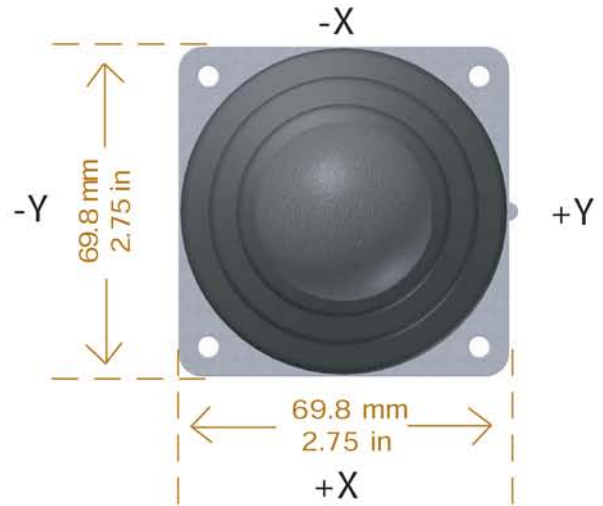
The non-contact Hall sensor technology and low part count eliminates many of the failures associated with traditional joystick technology. The JS Series design has been tested to 15 million cycles with no sign of bearing or boot wear or degradation of electrical performance.

electronic Joysticks

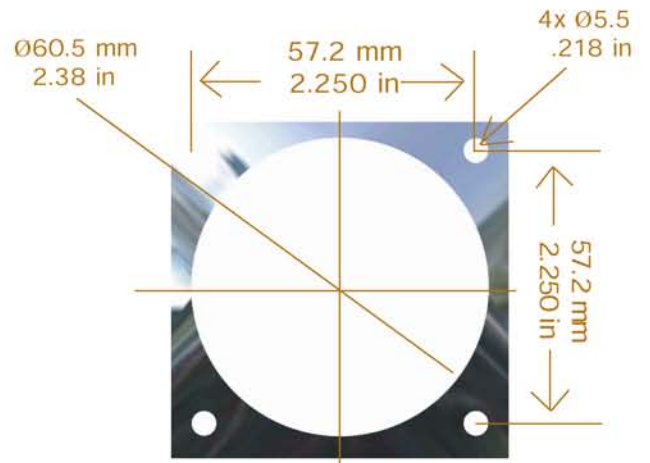


JOYSTICK series

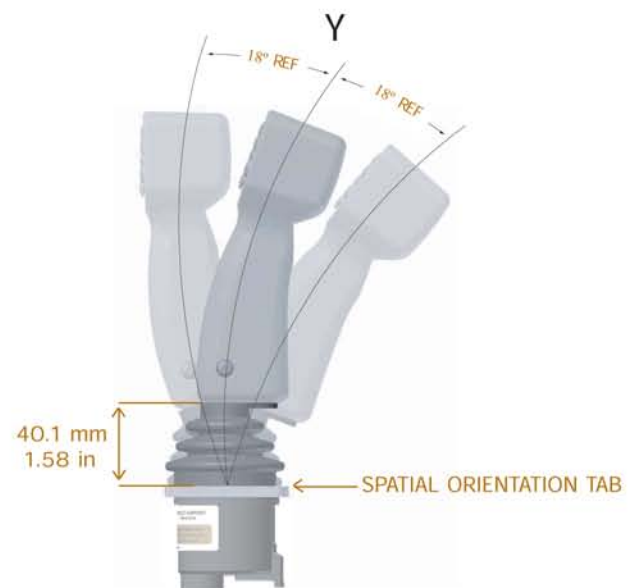
General Dimensions



DROP-IN MOUNTING PATTERN

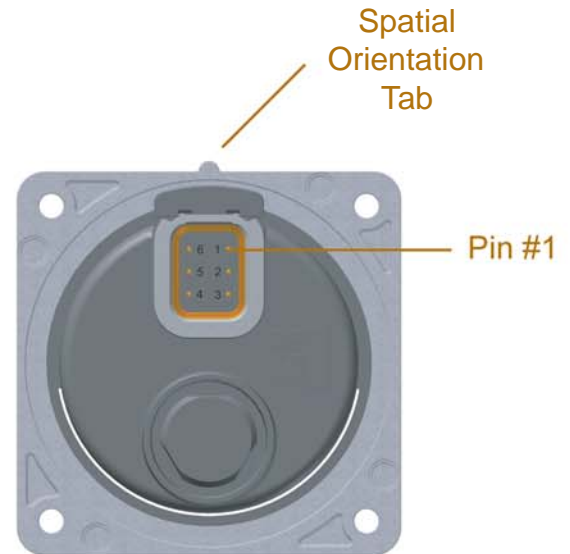


FEED THRU MOUNTING PATTERN
MAX PANEL THICKNESS = 3,8 MM (.15)



Connector/Pin Outputs

WIRING INFORMATION		MATING HARNESS WIRE COLOR
PIN 1	GROUN	BLACK
PIN 2	POWER	RED
PIN 3	X Output Signal	ORGANGE
PIN 4	Y Output Signal	YELLOW
PIN 5	NO Connection	
PIN 6	NO Connection	



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: $8\% \pm 4\%$ of supply voltage



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

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
1	A		6/19/2003	Keith
1	B	Connector Change	5/31/2007	Keith

Supply Voltage: 5.0 Vdc 0.5 Vdc

Supply Current: 15 mA Maximum

X- Y COMPONENTS

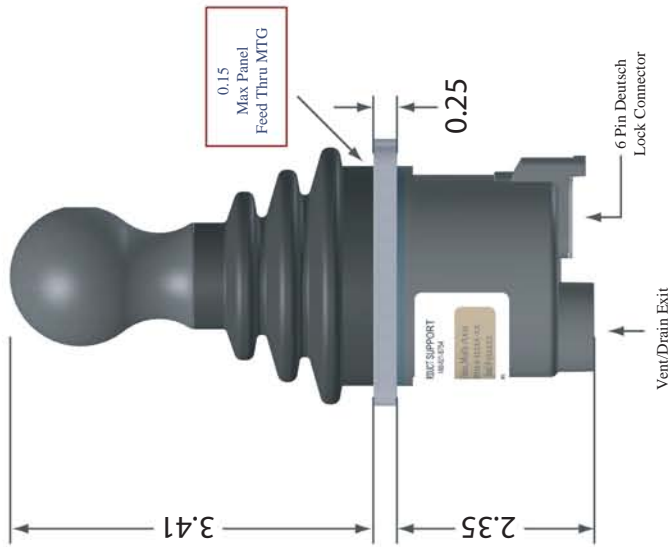
Null Shift over rated temperature: 2% of supply Voltage

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

REF: 1A



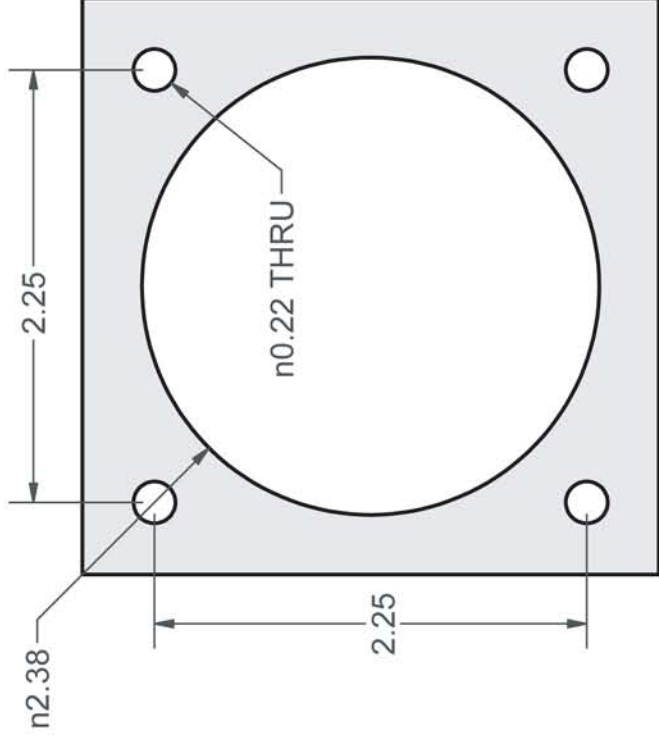
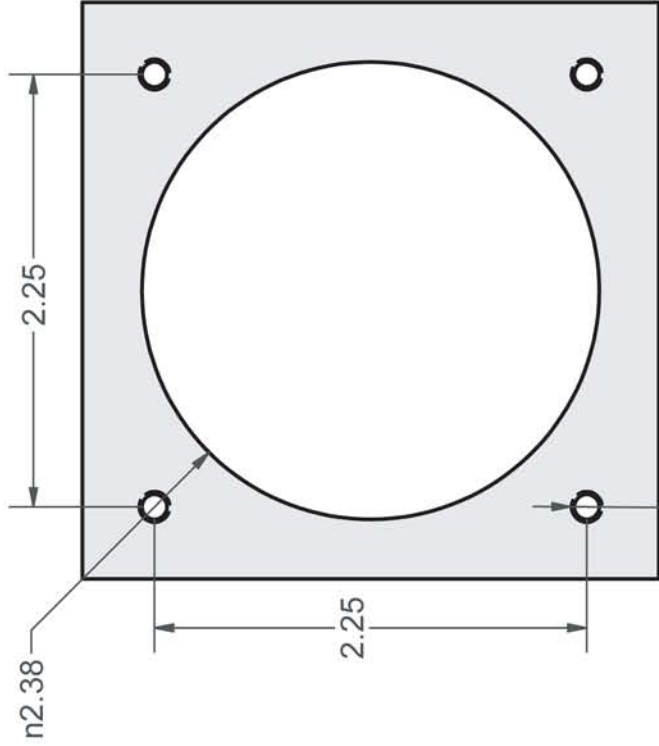
REF: 1A

X Increase	18°
X Decrease	18°
Y Increase	18°
Y Decrease	18°

DRAWN	Keith	6/09/2007
APPROVED		
Phone:	1.800.621.8754	
Phone:	503.620.2285	
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Web:	www.cyber-tech.net	
e-mail	engineering@cyber-tech.net	

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

PANEL CUT DIMENSIONS



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

8-32 UNC - 2B x 0.50

DRAWN	keith	6/19/2003
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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