

"JL" Series Joystick

"JL" Joysticks Description

AVAILABLE
4 or 2 BUTTON
FACEPLATE

Sure Grip Controls NEW "JL" Series electronic joystick is a high-reliability extreme duty input device designed to be used in high cycle applications. The joystick is available with switched or proportional outputs in both single and dual axis spring-return-to-center configurations. The joystick comes standard with a basic "J" Series grip. It can also be custom configured with the "S", "C" or "L" Series control grips.

AVAILABLE
IN BLACK OR
GREY

The "JL" joystick also features our innovative "Gimbal" mounting system that allows the operator to easily adjust the orientation and mounting angle of the joystick in order to position it in the most comfortable operating position. This feature provides the ultimate in comfort and ergonomics for the operator and the most flexibility for equipment manufactures when designing the controls and seating arrangement.

The joystick housings are manufactured using high quality zinc alloy castings for strength and durability. The only two moving parts utilize high performance self lubricated polymers for maximum wear life and minimum maintenance.

"Gimbal Mounting" System

The spherical body of the joystick is mounted within a two piece clamp that permits up to 22 degrees of adjustment/rotation in any direction. The operator simply lifts up the rubber boot to expose the adjustable clamp, loosens off the clamping screw and rotates the joystick assembly into the desired position.

GIMBAL
MOUNTING
SYSTEM



"JL" Series JOYSTICK

Features

- + Non-contact, programmable Hall sensors
- + Adjustable gimbal mounting system
- + Long life - lab tested to 20 million cycles
- + Rugged design - die-cast metal housing
- + Infinite resolution
- + Single and dual axis models
- + Switched and Proportional outputs
- + Simple construction: only 3 moving parts
- + EMI/RFI protected
- + Stable null
- + Factory calibrated output range
- + Low power consumption

Specifications

Mechanical

Maximum handle travel:

20 +/- 1 degrees (on axis)

28 +/- 1 degrees (at 45 degrees)

Force measured at bottom of faceplate (typical)
to come out of center:

600 grams (on axis)

750 grams (at 45 degrees)

Force measured at bottom of faceplate (typical)
at end of stroke:

750 grams (on axis)

900 grams (at 45 degrees)

Proportional Voltage Output (Typical)

Supply voltage: 5.0 VDC (+/- 0.1 VDC)

Supply current: 15 mA maximum

Typical Output: 0.5 - 2.5 - 4.5VDC, (+/- 0.1 VDC)

Switch Output Joystick

Momentary Switched:

24 VDC: 5 amps, (3 amps inductive)

120 VAC: 5 amps (3 amps @ 250 VAC)

Movement to Activate:

16 degrees, on axis (+/- 2 degrees)

22 degrees, at 45 degrees (+/- 2 degrees)

Adjustable Mounting Bracket (Patent Pending)

operator adjustable, (9/64" allen wrench)

+/- 20 degrees (all directions)

360 degrees rotation

Electronics

The JL/JM Series proportional configured joysticks incorporate non-contact Hall sensor technology to detect and transmit handle position. Two programmable, temperature-compensated Hall sensors are mounted 90 degrees from one another at the equator of a magnetized ball located in 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.

JL/JM Series joysticks are designed to function in control systems as a signal level device. A regulated 5 VDC supply input yields a 0.5 to 4.5 VDC signal output. A separate electronics valve driver module is available that installs within the joystick housing to drive typical control devices such as solenoid valves. High reliability in extreme duty applications is the product design goal for the JL/JM Series electronic joysticks. 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 failure modes associated with traditional joystick technology.

The switched output configuration uses two (single axis) or four (dual axis) long life 5 amp switches. The switches and wire harness utilize spade connectors for easy servicing.

"JL" Joystick Part Number

JL-P1-JB Single axis proportional joystick c/w J Series Black grip

JL-P2-JB Dual axis proportional joystick c/w J Series Black grip

JL-S1-JB Single axis switched joystick c/w J Series Black grip

JL-S2-JB Dual axis switched joystick c/w J Series Black grip