SURE GRIP CONTROLS INC.™
#4 - 1413 McGill Rd. Kamloops BC, Canada V2C 6K7
Ph: 250-374-2278 Fax: 250-374-1099 www.suregripcontrols.com

JM Series Joysticks

JM Joystick Description

JM Series Hall Effect joystick has a compact body but uses the same internal components of the larger JL Series. The JM Series joystick has an IP-66 rating when supplied with the handle as shown.

JM Series Joystick Part Numbers

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

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

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

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

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“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

Specifica tions

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

Electr onics

The JL/JM Series proportional configured joysticks incorporates 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 withinthe 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" J oystic k Part Number s

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