



#4 -1413 McGill Road Kamloops BC Canada V2C 6K7  
Ph: 250-374-2278 Fax: 250-374-1099  
www.suregripcontrols.com

# “JM” Series Joystick Technical Information



# JM Series Joystick

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**SURE GRIP**  
CONTROLS INC.

### Description

JM Series Hall Effect joystick has a compact body but uses all the same internal components of the larger JL Series. With the simplicity of only 3 moving parts, a strong metal housing and Teflon impregnated wear materials; these joysticks are designed for the really tough applications. They are both configurable for single or dual axis, spring return to center, maintained friction positioning, switched outputs, proportional 5 VDC outputs or with an internal high current PWM driver card.

When supplied with the K Series knob they are also suitable for wet or exposed applications. JM Series Hall Effect joystick has a compact body but uses all the same internal components of the larger JL Series. With The Simplicity of only 3 moving parts, a strong metal housing and Teflon impregnated wear materials; these joysticks are designed for the really tough applications. They are both configurable for single or dual axis, spring return to center, maintained friction positioning, switched outputs, proportional 5 VDC outputs or with an internal high current PWM driver card. When supplied with the K Series knob they are also suitable for wet or exposed applications.



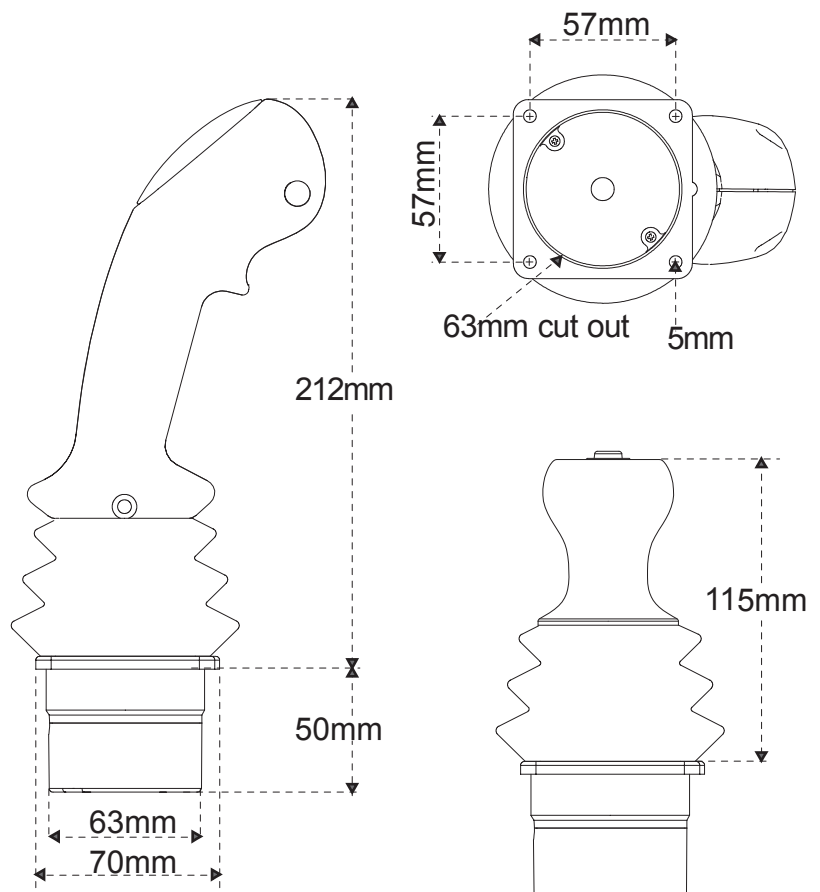
**JM-P2-K1B**

### Feature

- + Single or dual axis
- + Friction maintained
- + Switched outputs
- + Proportional 5 VDC outputs
- + High current PWM driver card
- + Gated action
- + Gated latching

### "JM" Joystick Part Number

- 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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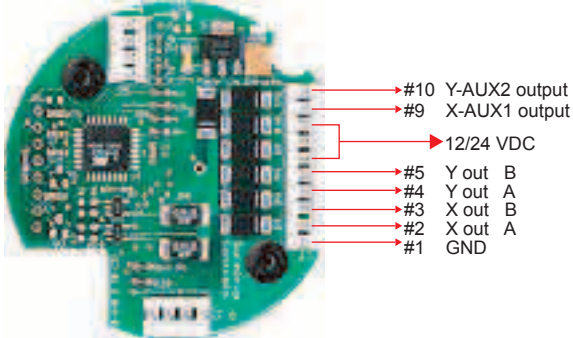
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## Joystick Driver Board

### Joystick Driver Board (Part# JDB-P2)



→ #10 Y-AUX2 output  
→ #9 X-AUX1 output  
→ 12/24 VDC  
→ #5 Y out B  
→ #4 Y out A  
→ #3 X out B  
→ #2 X out A  
→ #1 GND

### Description

Joystick Driver Board (Part#: JDB-P2) is designed to work with our JM and JL Hall effect joysticks when a direct joystick to solenoid valve solution is desired.

The JDB-P2 boards are equipped with two current compensated PWM proportional outputs and one "off neutral" digital output for each axis. Each output is rated for 2.5 amps and is protected against accidental short circuit, over load and inductive kick back. It also includes a 50ma 5 volt supply to power our JL or JM Hall effect joystick.

The board fits inside the lower joystick housing and is easily programmed by plugging in a serial cable and using the standard Windows "Terminal" program. The minimum flow, maximum flow and ramp rate can all be adjusted for each proportional output.

### Features

The Joystick Driver Board is a current compensated output device that is installation and configuration which is provided through the use of a connected designed to proportionally drive 4 solenoids (2 per axis) from a proportional joystick signal. The board has been designed to accommodate ease of computer with no special software required.

### Specifications

Parameter	Min.	Typ.	Max.	Unit
<b>Power Supply:</b>				
Supply voltage	6	-	28	VDC
Supply current (idle)	-	20	-	mA
Supply current (max)	-	12	-	A
Aux. Vout	-	5	-	VDC
Aux. Current (+5V)	20	-	30	mA
<b>Analog Inputs:</b>				
Input range	0.5	-	4.5	VDC
Neutral point	-	2.5	-	VDC
<b>PWM Outputs:</b>				
Frequency	-	200	-	Hz
Min. duty cycle	-	5	-	%
Max. duty cycle	-	99	-	%
Output current	-	-	3	A
<b>Current compensation:</b>				
Correction range	-40	-	+40	%
Max. coil size	-	3000	-	mA



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### Joystick Handle Order Options

**K** Knob with  
0-2 Button  
Faceplate



**S** Handle with  
0-2 Button  
Faceplate



**C** Handle with  
0-4 Button  
Faceplate



**J** Handle with  
0-4 Button  
Faceplate



**L** Handle with  
0-8 Buttons  
10 Function Keypad

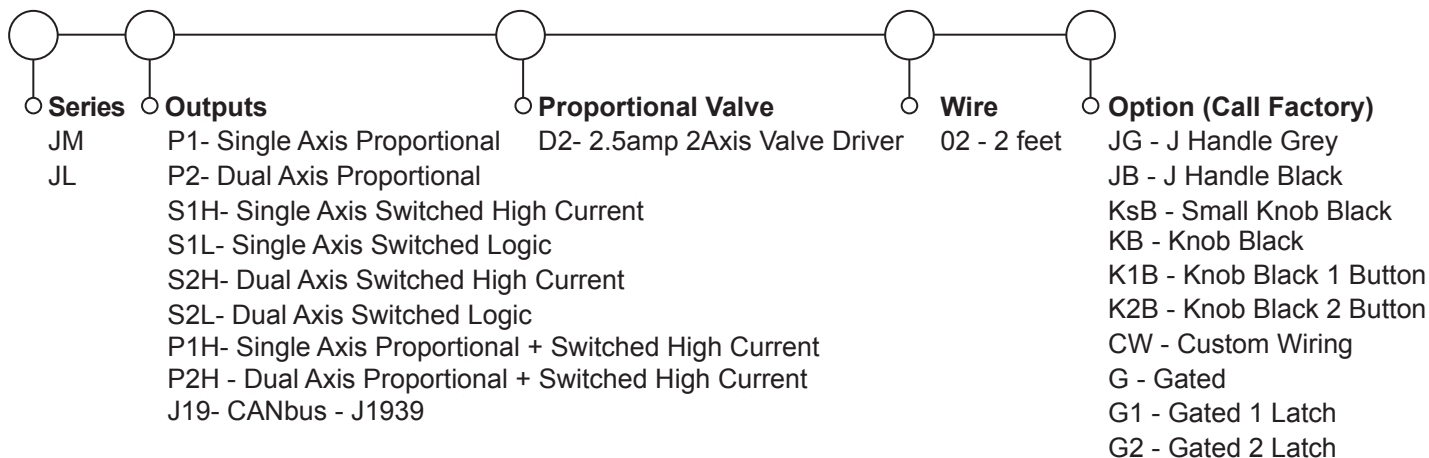


**JM**  
series



JM Joystick shown  
with Small Knob

### Joystick Customer Order Guide

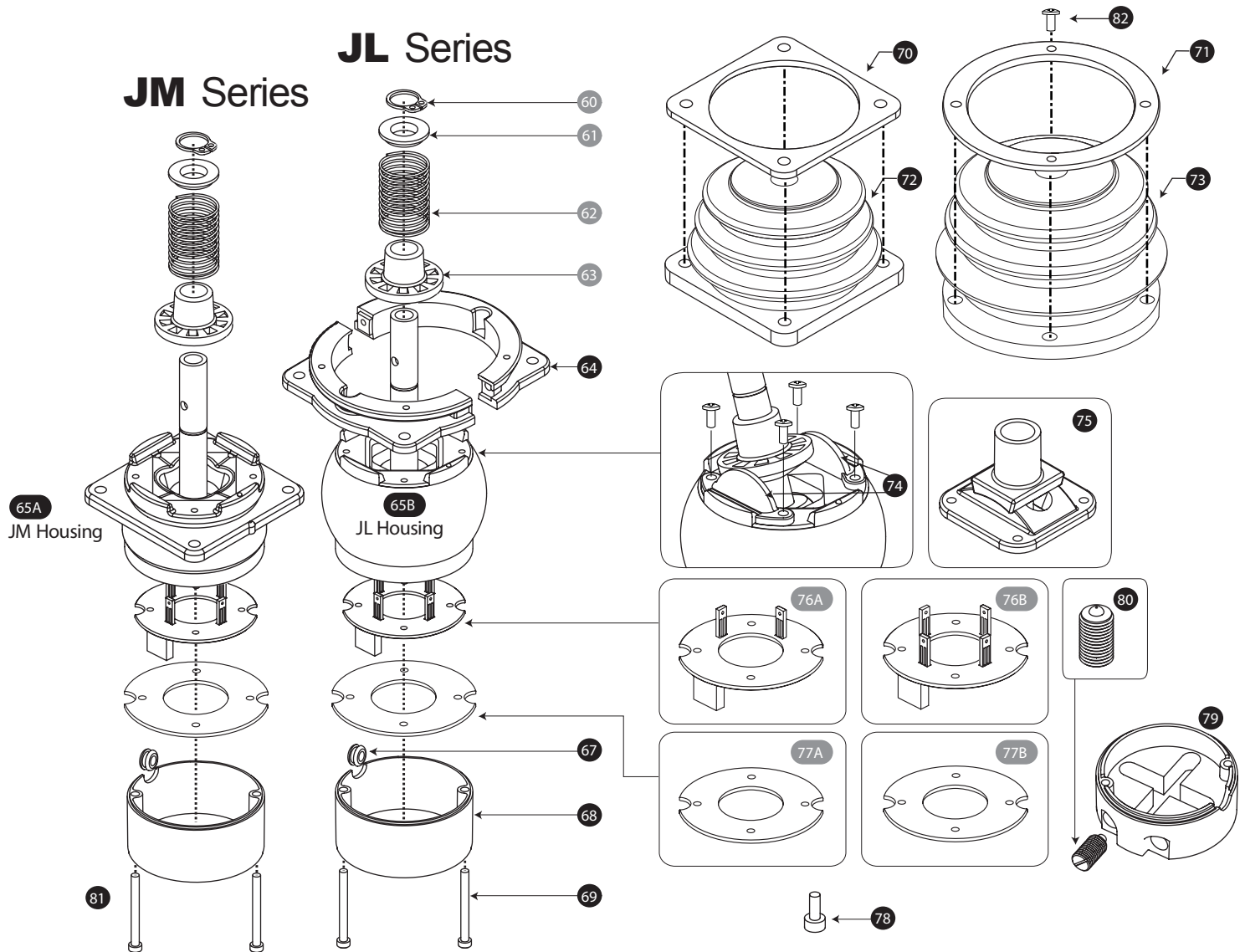


# Joystick Parts List

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● Serviceable at Factory Only    † Used in Assy. Above

FLG	PART#	DESCRIPTION	FLG	PART#	DESCRIPTION
62	SP-07Spring	JM/JL Joystick	71	JL-15	JL Boot Ring
63	JL-108JM/JL	Joystick:CenteringShoe	72	BT-14	JM Joystick Boot R1
64	JL-109-A	JL Joystick: Adjustable Bracket		SC-50	† Washer
65A	JM-110	JM Joystick: 12mm Shaft-Ball Assembly	73	BT-15	JL Joystick Boot R1
	JM-103	† JM Joystick: Lower Housing (Included in Assy.)		SC-50	† Washer
	SC-34	† 6-32 x 3/4" Flat Head Screw, Stainless (Included in Assy.)	74	JL-107-A	Joystick: Single Axis Guide Kit
	PN-3x16	† Pin: 3mm x 16mm (Included in Assy.)	75	FG-S1	Joystick Friction Guide Set
68	JL-102	† JM Joystick: Housing Cover (Included in Assy.)	76A	CC-J01-A	JM/JL Joystick: Sensor Board, Dual Axis
65B	JL-110	JL Joystick: 12mm Shaft-Ball Assembly	76B	CC-J01-X4-A	JM/JL Joystick: Switched Board, Dual Axis Redundant
	JL-103	† JL Joystick: Lower Housing (Included in Assy.)	77A	CC-J-L2-A	JM/JL Joystick: Switched Board, Low current
	SC-34	† 6-32 x 3/4" Flat Head Screw, Stainless (Included in Assy.)	77B	CC-J-H2-A	JM/JL Joystick: Switched Board, High current
	PN-3x16	† Pin: 3mm x 16mm (Included in Assy.)	78	SC-25	6-32 x 3/8" Socket Cap Screw, Stainless JL-107
68	JL-102	† JL Joystick: Housing Cover (Included in Assy.)	79	JL-102 Gated	JM/JL Gated Joystick Housing Cover
67	GR-01	3/8" x 1/4" Grommet	80	SC-43	† Spring Plunger: 3/8" x 5/8" High Force
69	SC-33	6-32 x 1.25" Cap Screw, Stainless	81	SC-40	† 6-32 x 1 3/8" Cap Screw, Stainless
70	JM-14	JM Boot Ring	82	SC-51	Screw

Prices subject to change without notice.