

TECHNICAL INFORMATION

Description

The Sure Grip "JSM" Series Electronic Joystick is our second generation joystick, which incorporates the newest Hall sensor technology and advanced internal wire configuration. With all the electronics now relocated in the cap, it improves serviceability and allows us to offer CAN, Proportional, Switched, USB and PWM output options in both single and dual axis spring-return-to-center or friction hold configurations.

The joystick can be configured with our JE, LE, KE and NE control grips. For other options, see the joystick ordering guide.

Electronics

The "JSM" Series joystick incorporates Hall sensor technology, which provides a linear output of the attached handle position. This sensing technology is designed to perform consistency within harsh environments that otherwise would not be feasible to support with mechanical sensing solutions such as potentiometers.

Features

- ▶ Long life -tested to 20 million operations
- ▶ Rugged design
- ▶ Proportional and Switched outputs
- ▶ Operating temperature: -40°C to +85°C
- ▶ Sealing up to IP67 (handle dependent)
- ▶ Fully sealed and encapsulated electronics
- ▶ Supports all Sure Grip handles (best suited for our JE, LE, KE, NE)



TECHNICAL INFORMATION

ELECTRICAL SPECIFICATIONS

Proportional Joystick	Min	Typ	Max	Units
Supply Voltage	4.9	5.0	5.1	Vdc
Supply Current	8	10	12	mA
Output Voltage Low	0.45	0.5	0.7	Vdc
Output Voltage Center	2.3	2.5	2.7	mA
Output Voltage High	4.3	4.5	4.55	Vdc
PWM Joystick	Min	Typ	Max	Units
Supply Voltage	10	-	32	Vdc
Supply Current	-	-	10	A
Number of Outputs	-	4	-	-
Current per Output	-	-	2.5	A
Number of Aux Outputs	-	2	-	Hz
Duty Cycle	5	80	99	%
Frequency	33	200	400	Hz
Switched Joystick	Min	Typ	Max	Units
Supply Voltage (Vs)	10	-	32	Vdc
Number of Outputs	-	4	-	-
Output Voltage	-	-	Vs	Vdc
Current per Output	-	-	2.5	A
CANbus J1939 Joystick	Refer to Doc. # 550.0067			

MECHANICAL SPECIFICATIONS

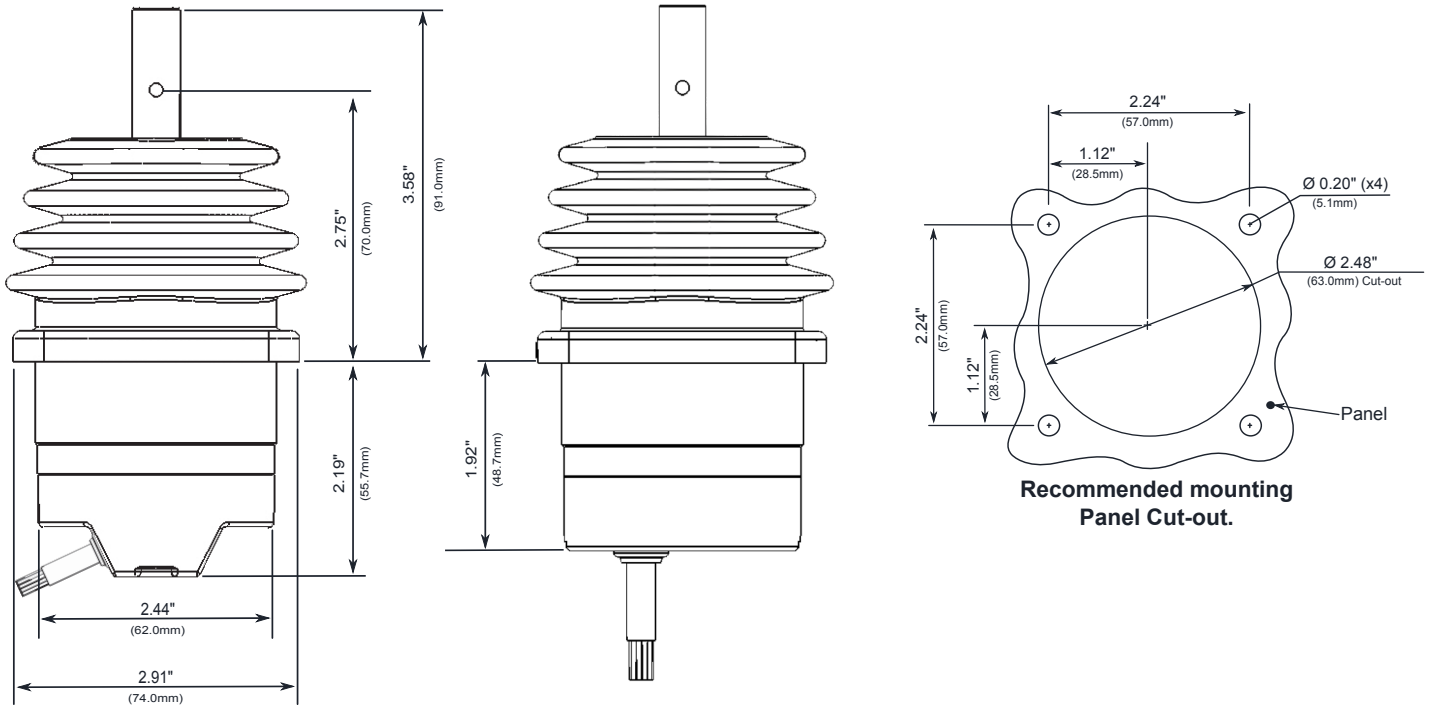
Travel	+/- 20° (on Axis)
Life Expectancy	> 5 million cycles
Functions	Spring Return to Center / Friction Hold

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	- 40°C to +85°C
Sealing	Up to IP67 (handle dependant)

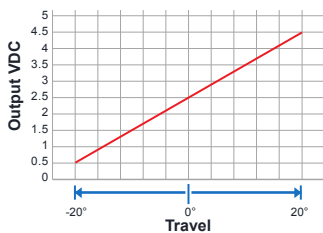
TECHNICAL INFORMATION

Dimensions

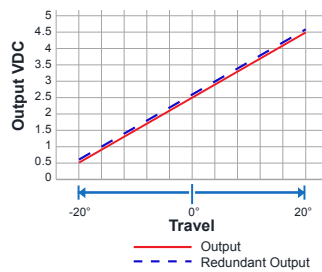


Output Graphs

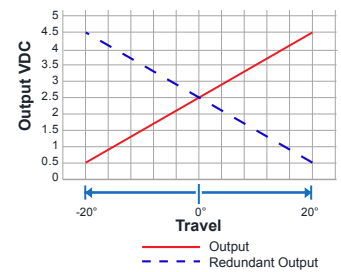
1. Proportional



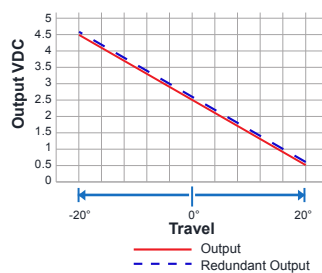
1. Proportional - Parallel Positive



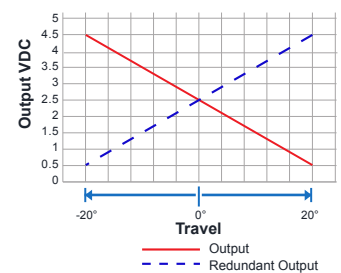
1. Proportional - Mirrored Positive



1. Proportional - Parallel Negative



1. Proportional - Mirrored Negative



Specifications are subject to change without notice

Doc #: 550.0129.2016.12.13

ORDERING GUIDE



Joystick Model
JSM - Medium Size
JSL - Large Size

Axis Options
1 - One Axis
2 - Two Axes

Output Options
A - Analog
R - Analog Redundant*
C - CAN
P - PWM
S - Switched
H - Analog and Switched
D - PVG
U - USB

Output Direction
NN - Standard
PP - Parallel Positive*
MP - Mirror Positive*
PN - Parallel Negative*
MN - Mirror Negative*

Note: * - Analog Redundant option

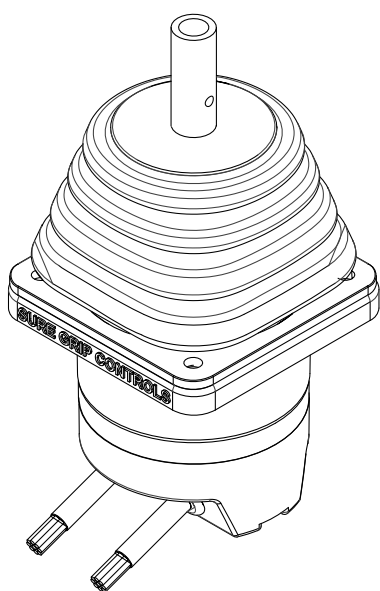
Gate Options
N - None
X - X Axis
Y - Y Axis
D - Y Axis Center Detent
Z - Z Gate
C - Cross Gate

Features
NNNN - No Options
F000 - Friction Hold
L000 - Latch X Positive
0L00 - Latch X Negative
00L0 - Latch Y Positive
000L - Latch Y Negative

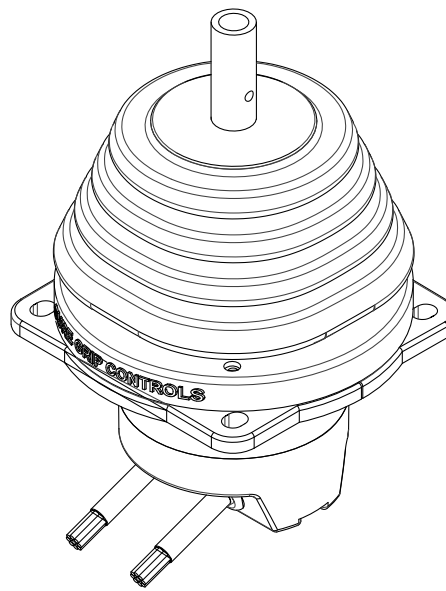
Handle Options
NN - No Handle
JE - JE Handle
LE - LE Handle
KE - Large Knob
NE - Small Knob

Wire Length Options
xxx Inches

Note: CAN Output option includes a standard 6" lead length of wire and a Deutsch (TM-D-TM04-6P) connector



JSM Joystick



JSL Joystick