



SG Series Hand joystick



■ Features

- Over 25 different handle configurations
- 8 dual independent output options
- With redundant contactless hall effect sensor technology
- Compact footprint (under 25mm below panel depth)
- Standard IP67 above panel protection
- Cable included with mating connector & pigtail wires

■ Applications

- Material handling equipment
- Crane operations
- Construction machinery
- Mobile platform lifts
- Agricultural vehicles
- Forestry machines
- Equipment simulators

■ Description

This hand-operated multi-functional joystick is developed for applications that require an additional level of safety due to its redundant hall effect sensors that are present on each axis. The SG joystick comes with analog dual independent outputs (parallel or cross) and has many different configurations to choose from. All configurations are sealed to IP67 protection and will operate under harsh environments and temperatures.

Available options include a deadman switch, rocker switch, push button switches and even a single-axis proportional thumbwheel or 4-way hat switch on top of the knob. This allows this joystick to be tailored to your specific requirements and application. Each joystick is supplied with all the necessary mounting hardware and an electrical cable.

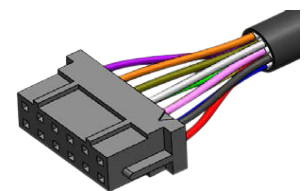
Specification

MECHANICAL (X & Y AXIS)	
Angle Of Movement	40° (20° Each Direction)
Expected Cycle Life	5 Million
Centering	Spring Return
Max. Applied Force	450N (100 lbf)
Material	Glass/Mineral Filled Nylon

ELECTRICAL	
Sensor Type	Hall Effect
Resolution	12 Bit
Supply Voltage	5VDC ± 0.01VDC
Output Voltage	See Options
Return To Center Voltage	± 50MV
Overvoltage Max.	20VDC
Reverse Polarity Max.	-25VDC

ENVIRONMENTAL	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
IP Sealing Above Flange	IP67 Standard
Emc Immunity Level	EN61000-4-3 *Compliance To 30A/m
Emc Emissions Level	EN61000-6-3
Esd Immunity Level	EN61000-4-2 *Compliance To ±15kV/±8kV
Vibration Testing	Per SAE J1455 Section 4.9 & MIL-STD810G 514.6
Mechanical Shock	Per SAE J1455 Section 4.10 & MIL-STD-202G

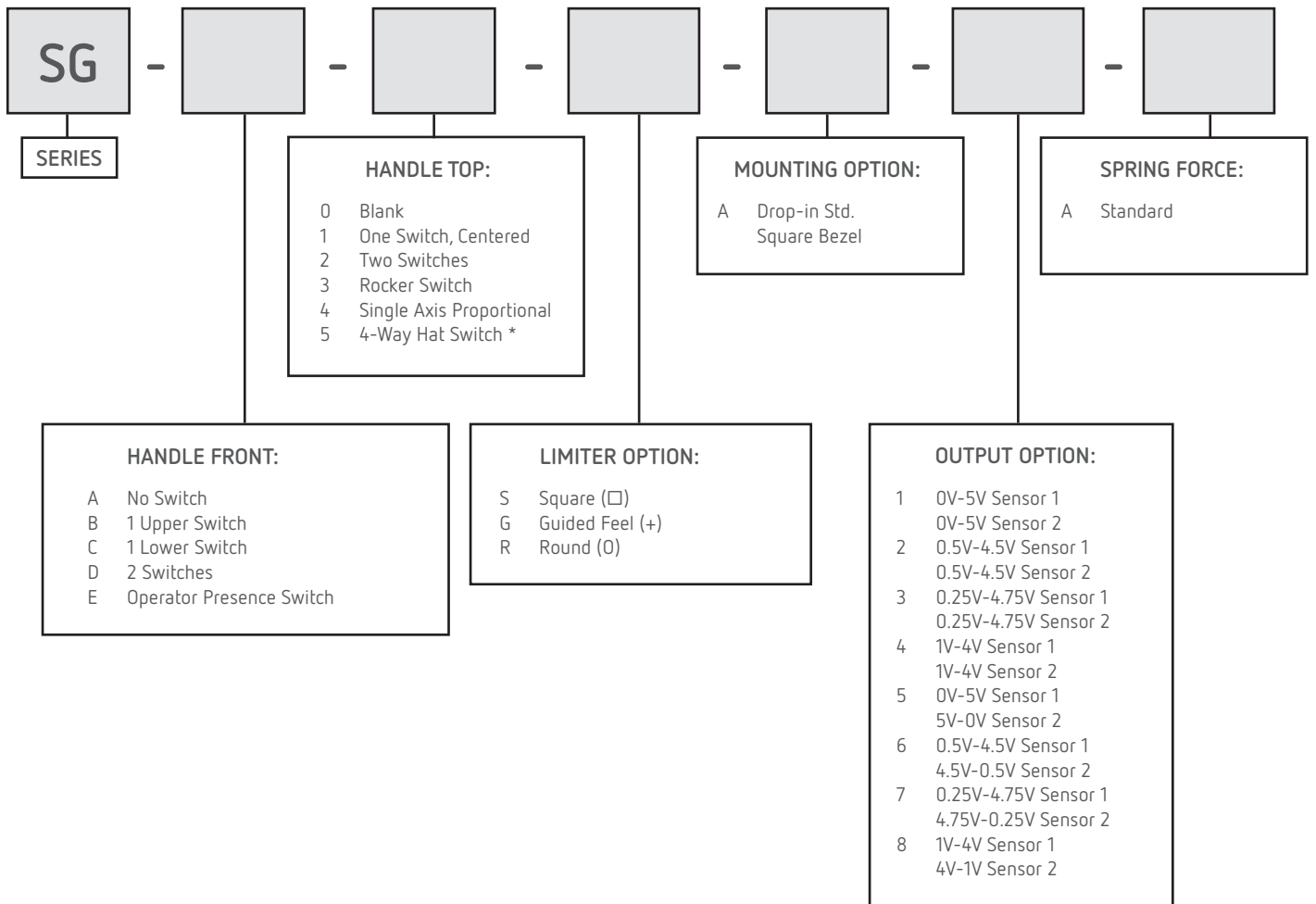
HIROSE DF11-12DP-2DS(24) CONNECTOR (ANALOG)		
PIN #	WIRE COLOR	DESCRIPTION
1	Black	Ground
2	Red	+5V Sensor A
3	Pink	X Axis Sensor B
4	Blue	X Axis Sensor A
5	Grey	Y Axis Sensor B
6	Yellow	Y Axis Sensor A
7	Brown	Functions differ based on configuration. See pinout sheet provided with order.
8	Green	
9	Orange	
10	White	
11	Violet	
12	Yellow/White	+5V Sensor B



10" CABLE PROVIDED

* Extended Testing Levels

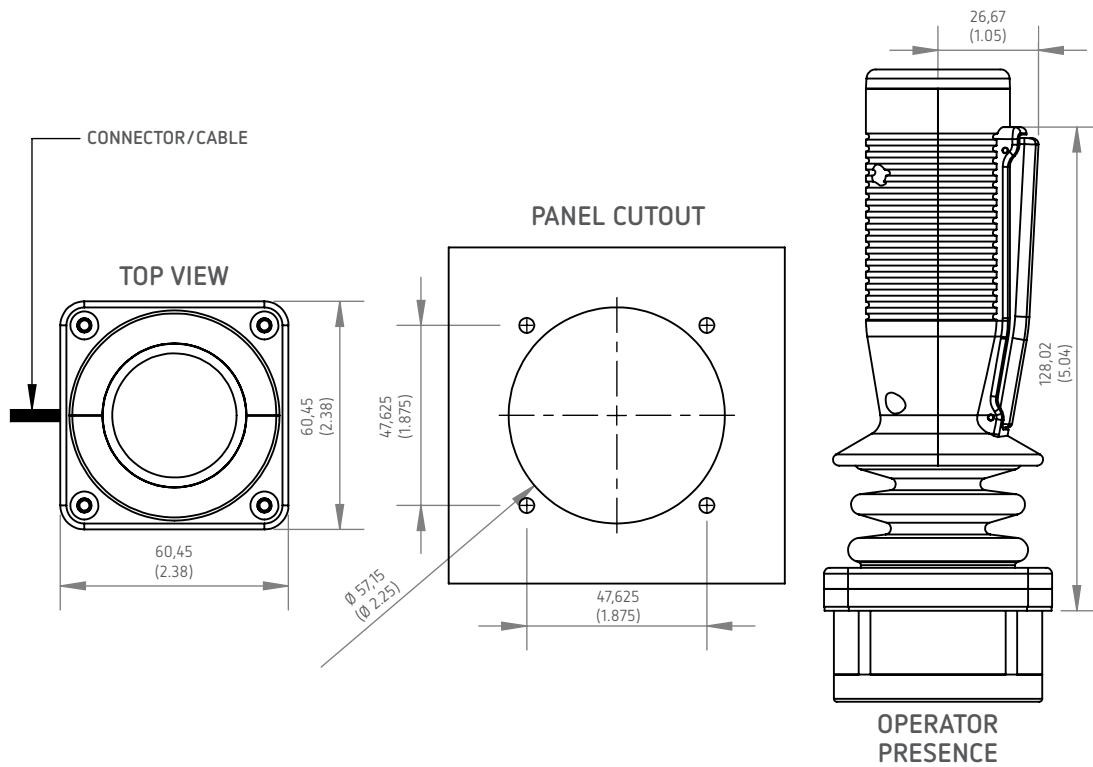
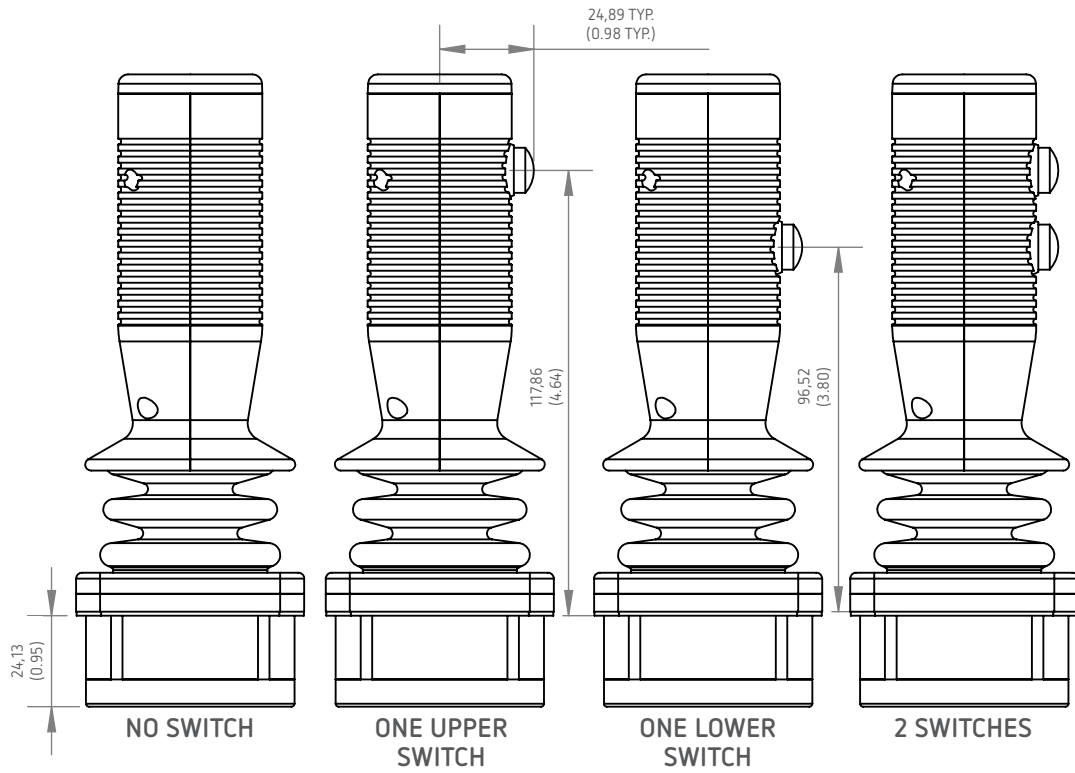
■ Product Configuration Guide



* Not available with switches mounted in handle front (available with handle front option "A" only).

Front Handle Options

Dimensions in millimeters (inches).



■ Top Cap Options

Dimensions in millimeters (inches).

