CS3 JOYSTICK



The CS3 is an extremely rugged joystick in an ultra-compact and versatile design. The durable housing and center pivot design make this device resistant to abuse and ideally suited for high duty cycle applications.

1, 2 and 3 axis control is available as well as a variety of standard and custom handles and grips with push buttons and levers. Both separate and simultaneous operation of each is achieved with standard gate patterns.

SPECIFICATIONS

GENERAL DATA

# of Axis	Single, Dual or Three* *Third axis is achieved via a twist handle function or thumbwheel.
Output Options	Hall-Effect, CANOpen, Basic CAN, J1939 & 4-20mA
Joystick Action	Spring Return
Handle Travel	+/- 20 degrees each axis
Gate	Open or Cross
Handle Compatibility	Round Ball, BH, RH, RHS, FG-3, FG-4, FG-5, G58, MG1, MG13, MG27 & TH30
Life	20 million plus cycles
Materials	High strength, glass filled nylon housing.
Est. Shipping Weight	2 lbs.
Est. Shipping Dimensions	8 in. x 8 in. x 8 in.

MOUNTING DATA

Mounting Style	Drop-in or Panel (From Below)
Mounting Footprint	2.76" x 2.76 Panel mount 3.54" x 3.54" Drop-in mount See literature for additional mounting specifications

ENVIRONMENTAL DATA

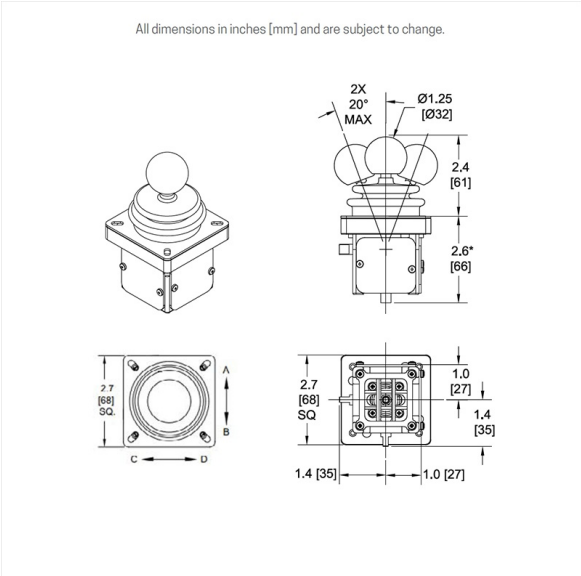
IP Rating	IP54
Operating Temperature	-13 to +158 degrees F [-25 to +70 degrees C]
Storage Temperature	-40 to +158 degrees F [-40 to +70 degrees C]

ELECTRICAL DATA

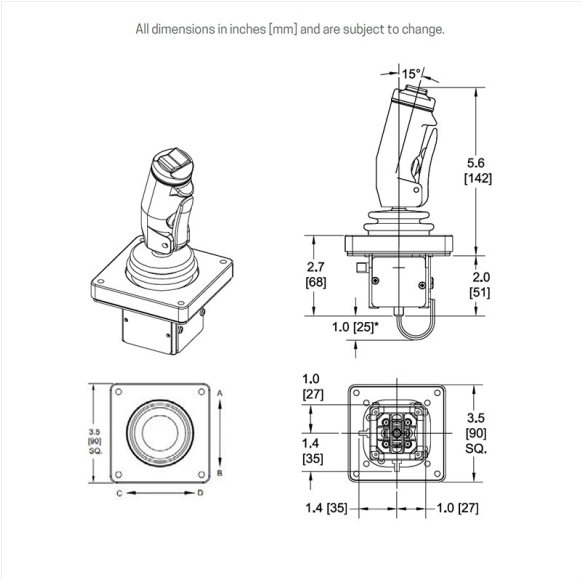
Hall-Effect Specifications	Supply Voltage: 4.5 to 5.5 VDC Output Voltage: Ratiometric 0.5 - 2.5 - 4.5 +/- 0.15V @ 5.0V supply Additional supply and output options available Output Current: 10mA Power Consumption: 20 mA @ full load Termination: 20 AWG wire 6" leads with mini-fit connector EMC Emissions: Complies with EN61000-6-4:2007 Class A Group 1, 80-1000 MHz EMC Immunity: Complies with or exceeds EN61000-6-2:2005, expanded to include: RFI Immunity of 100 V/M @ 80-1000 MHz ESD Immunity of 15Kv air, 8Kv contact
Can Specifications	CANOpen, J1939 or basic CAN protocols 4 analog inputs 8 digital inputs 2 digital outputs See a complete listing of CANbus technical data in ESS408 CAN Based Interface Module Board literature
Additional Specifications	Reference product literature for additional specifications

Technical Drawings

Dimensional

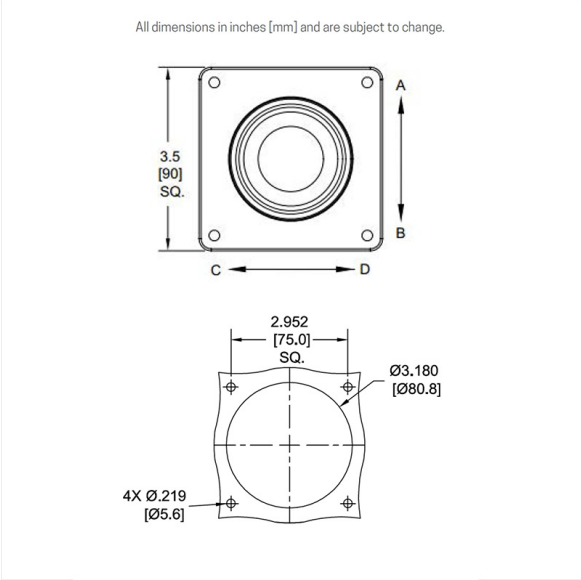


Panel mounting style 1 (P1). Shown will round ball handle.

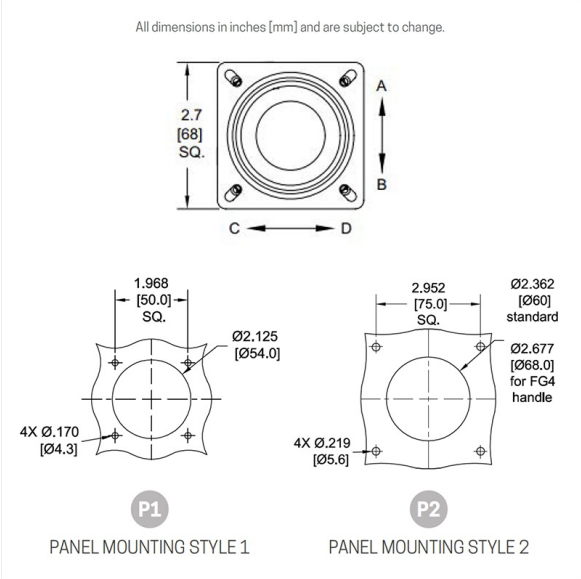


Drop-in mounting & panel mounting style 2 (P2). Shown with BH handle.

Mounting

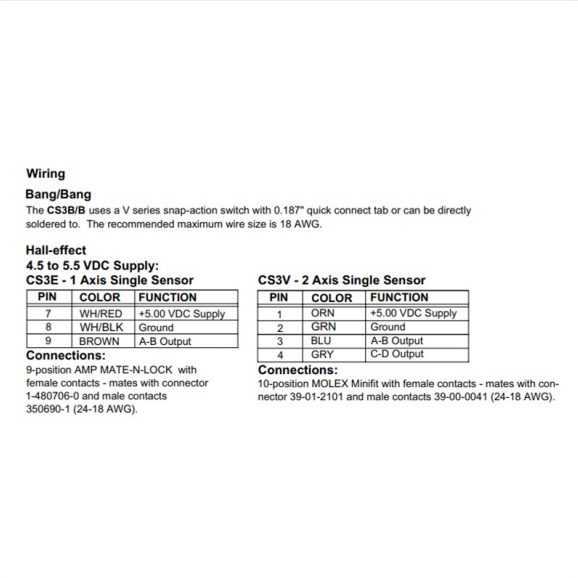


CS3 drop-in mounting (mounts from above).



CS3 panel mounting (mounts from below). P2 mounting pattern uses larger (drop-in) CS3 body.

Wiring



Wiring

Bang/Bang

The **CS3B/B** uses a V series snap-action switch with 0.187" quick connect tab or can be directly soldered to. The recommended maximum wire size is 18 AWG.

Hall-effect

4.5 to 5.5 VDC Supply:

CS3E - 1 Axis Single Sensor

PIN	COLOR	FUNCTION
7	WH/RED	+5.00 VDC Supply
8	WH/BLK	Ground
9	BROWN	A-B Output

Connections:

9-position AMP MATE-N-LOCK with female contacts - mates with connector 1-480706-0 and male contacts 350690-1 (24-18 AWG).

CS3V - 2 Axis Single Sensor

PIN	COLOR	FUNCTION
1	ORN	+5.00 VDC Supply
2	GRN	Ground
3	BLU	A-B Output
4	GRY	C-D Output

Connections:

10-position MOLEX Minifit with female contacts - mates with connector 39-01-2101 and male contacts 39-00-0041 (24-18 AWG).

Wiring & connecting details