M3 MINI JOYSTICK

The M3 rugged, finger operated hall-effect joystick is ideally suited for use in portables for remote control systems or for precision control of mobile and industrial machinery. The glass-filled Zytel housing, non-ferrous components and sealed construction make this device suitable for corrosive and hostile environments. Available in single or dual axis operation.



SPECIFICATIONS

GENERAL DATA

# of Axis	Single or Dual
Output Options	Hall-Effect
Joystick Action	Spring Return
Handle Travel	+/- 10 degrees each axis
Gate	Open or Cross
Handle Compatibility	Tapered, 2 piece, push button, or mechanical interlock
Life	20 million cycles
Materials	High strength, glass filled nylon housing.
Est. Shipping Weight	2 lbs.
Est. Shipping Dimensions	8 x 6 x 6 in.

MOUNTING DATA

Mounting Style	Panel (from below)
Mounting Footprint	1.9" x 1.9" See literature for additional mounting specifications

ENVIRONMENTAL DATA

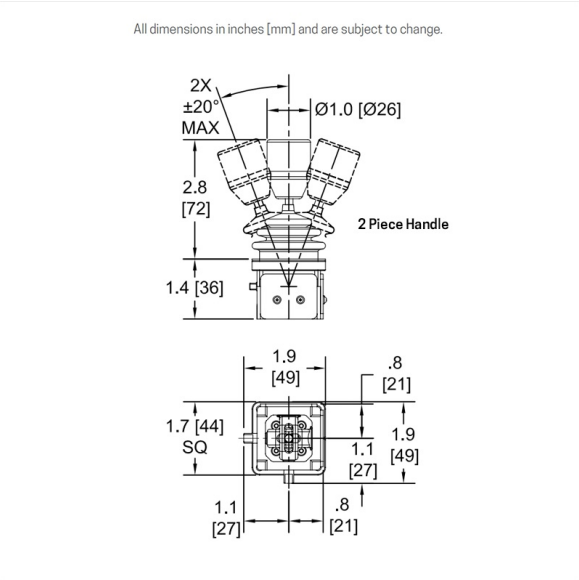
IP Rating	IP55
Operating Temperature	-13 to +158 degrees F [-25 to +70 degrees C]
Storage Temperature	-40 to +158 degrees F [-40 to +70 degrees C]

ELECTRICAL DATA

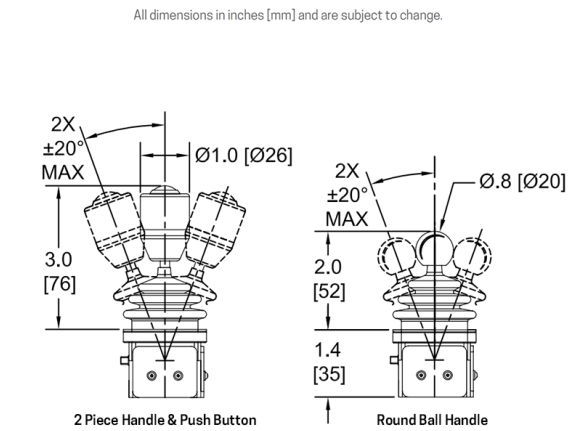
Hall-Effect Specifications	Supply Voltage: 4.5 to 5.5 VDC Output Voltage: Ratiometric 0.5 - 2.5 - 4.5 +/- 0.15V @ 5.0V supply Additional supply and output options available Output Current: 10mA Power Consumption: 20 mA @ full load Termination: 20 AWG wire 6" leads with mini-fit connector EMC Emissions: 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
Additional Specifications	Reference product literature for additional specifications

Technical Drawings

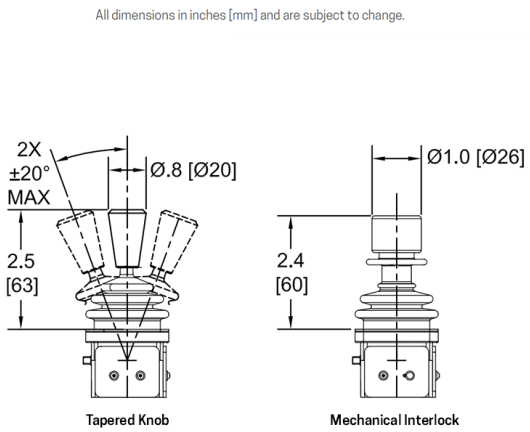
Dimensional



M3 overall dimensions. Shown with 2 piece handle.

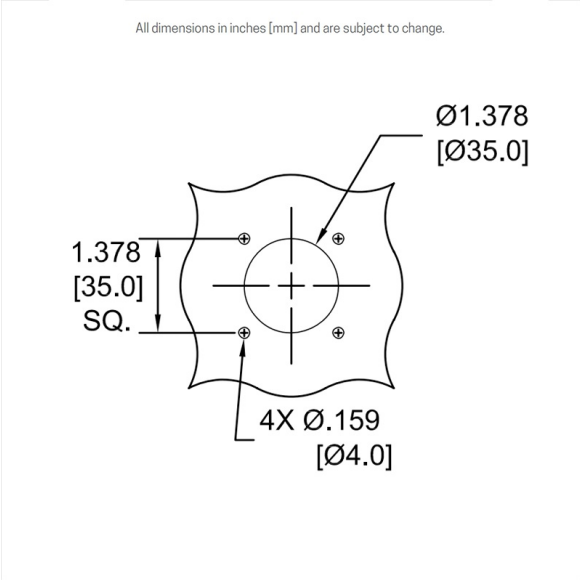


Push Button handle and round ball handle dimensions

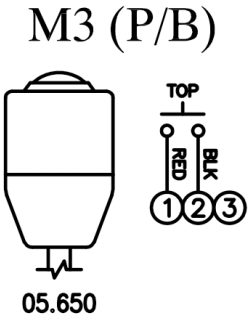


Tapered knob and mechanical interlock handle dimensions

Mounting



Panel mounting details (mounts from below)



Push button wiring details

Wiring
4.5 to 5.5 VDC Supply:

M3E - 1 Axis Single Sensor

PIN	COLOR	FUNCTION
1	ORN	+5.00 VDC Supply
2	GRN	Ground
3	BLU	Output

M3V - 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

M3E - 1 Axis Redundant

PIN	COLOR	FUNCTION	PIN	COLOR	FUNCTION
1	BLU	A-B Main output	4	WH/ORN	+5.00 VDC A-B Redundant supply
2	WH/BLU	A-B Redundant output	5	GRN	A-B Main ground
3	ORN	+5.00 VDC A-B Main supply	6	WH/GRN	A-B Redundant ground

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

M3V - 2 Axis Redundant

PIN	COLOR	FUNCTION	PIN	COLOR	FUNCTION
1	BLU	A-B Main output	7	WH/GRY	C-D Redundant output
2	WH/BLU	A-B Redundant output	8	BLK	C-D Main ground
3	ORN	+5.00 VDC A-B Main supply	9	WH/BLK	C-D Redundant ground
4	WH/ORN	+5.00 VDC A-B Redundant supply	10	RED	+5.00 VDC C-D Main supply
5	GRN	A-B Main ground	11	WH/RED	+5.00 VDC C-D Redundant supply
6	WH/GRN	A-B Redundant ground	12	GRY	C-D Main output

Connections:
12-position MOLEX Minifit with female contacts - mates with connector 39-01-2121 and male contacts 39-00-0041 (24-18 AWG).

Wiring & connecting details