

PRO-4 SINGLE AXIS JOYSTICK CONTROLLER

PRO-4 – Single Axis Joystick
PRO-4H – Hall-effect Joystick
PRO-4N – VNSO Contact block
PRO-4B/B – Bang / Bang

Construction:

The ultra-rugged PRO-4 provides precise proportional or discrete control for electro-hydraulic valves and AC/DC variable speed drives. Your specific control requirements can be accommodated by a variety of standard and custom engineered configurations.

Also available with Hall-effect or VNSO contact blocks.

The versatile design of the PRO-4 accommodates a variety of handle options including mechanical interlock and lever actuated deadman as well as proportional and discrete outputs including 11A micro-switches, potentiometers, Hall-effect, PWM, CAN Bus, and bang / bang.

Application:

For use on Scissor Lifts, Work Platforms, Bucket Trucks, Cranes, Agricultural, Mining and Forestry equipment.

Features:

- Versatile design
- Heavy duty construction
- Long life, compression type return spring system
- 20 Million cycle mechanical operating life
- Rugged 10mm diameter handle shaft
- Tooled fixed cams

Options:

- Multiple mounting systems
- Friction held handle
- Large variety of optional handle configurations including; deadman and mechanical interlock options
- Stepped detents
- Large selection of proportional outputs including potentiometer, Hall-effect, PWM and CAN Bus
- Hall-effect, output meets or exceeds CE EMC Requirements



J.R. MERRITT 
CONTROLS, INC.

Pub. # 24.C1

Stratford, CT • 1-800-333-JRMC • www.jrmerritt.com

PRO-4H ORDERING INFORMATION

Drive Arrangement: Single Axis
Basic Assembly: 3.25" shaft length and boot supplied standard
Handle: 1.25" diameter round ball
Handle Action: Spring Return
Output: Proportional
Output Devices: Hall-effect
Immunity: Meets or exceeds CE EMC requirements

PRO-4H Technical Data

Mechanical:

- **Mechanical Life:** 20 million cycles
- **Gear Ratio:** 3.5:1
- **Handle Travel:** $\pm 20^\circ$

Environmental:

- **Operating Temperature:** -25 to +70° C
- **Storage Temperature:** -40 to +70° C
- **Protection above the panel:** IP55
- **Hall effect EMC Emissions:**
Complies with EN61000-6-4:2007
Class A Group 1, 80 – 1000 MHz
- **Hall effect 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 15 Kv air, 8 Kv contact

Electrical:

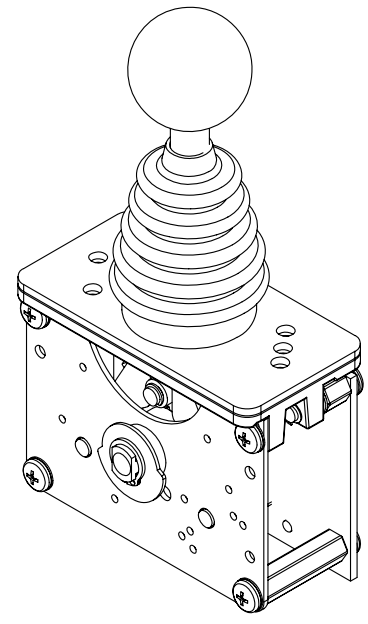
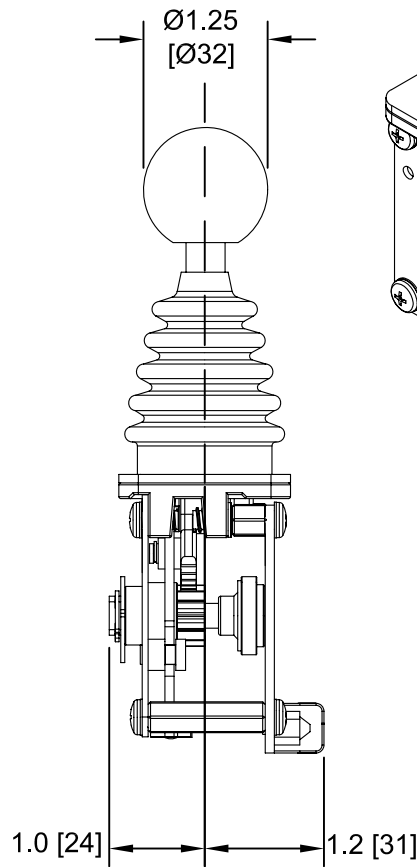
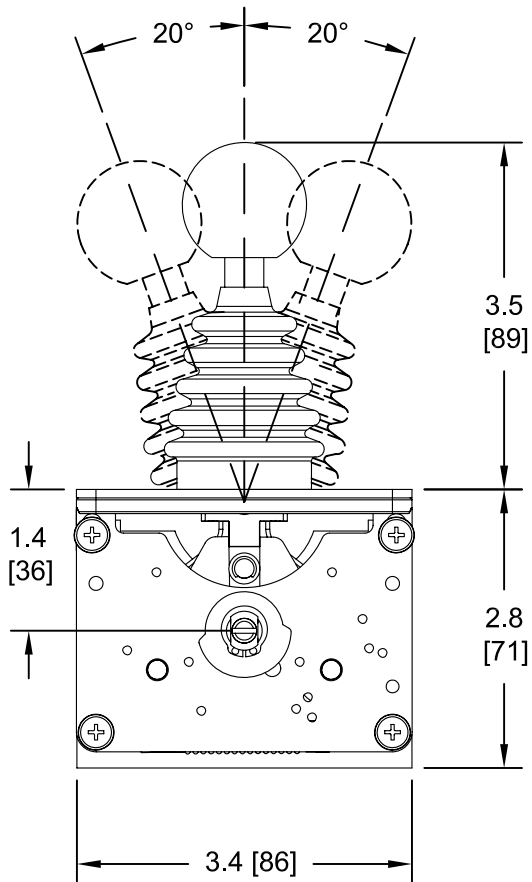
- **Hall Effect:**
Supply Voltage: 4.5 to 5.5VDC
Output Voltage: Ratiometric 0.5 – 2.5 – 4.5V
 $\pm 0.15V$ @ 5.0V supply
Output Current: 10 mA
Power Consumption: 20 mA @ full load
Connections: 4 position terminal block with #6 screw terminal

Options:

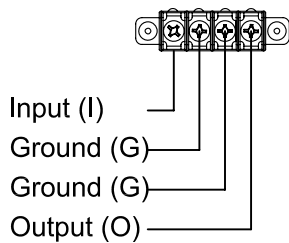
- **Handle:** See handle section for a selection of handle options
- **Handle Action:** Friction Brake
- **Mounting:** See mounting section for a selection of mounting options
- **Hall Effect:**
Option 1: Supply Voltage: 7 to 30VDC
Output Voltage: 0.5 – 2.5 – 4.5V $\pm 0.15V$
Connections: 4 position terminal block with #6 screw terminal
Option 2: Supply Voltage: 4.5 to 5.5VDC
Output Voltage: Redundant - Ratiometric 0.5 – 2.5 – 4.5V $\pm 0.15V$ complementary @ 5.0V supply
Connections: 6 position terminal block with #6 screw terminal
- **Electronics:** CAN Bus
Connections: Varies with product

Please consult factory for other available options not listed.

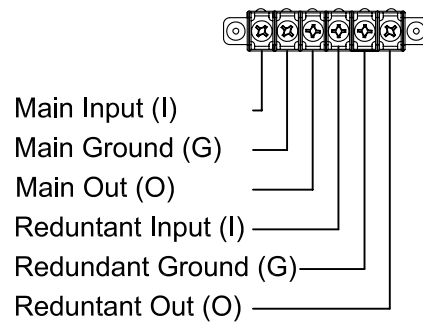
PRO-4H HALL-EFFECT OVERALL DIMENSIONS



SINGLE SENSOR



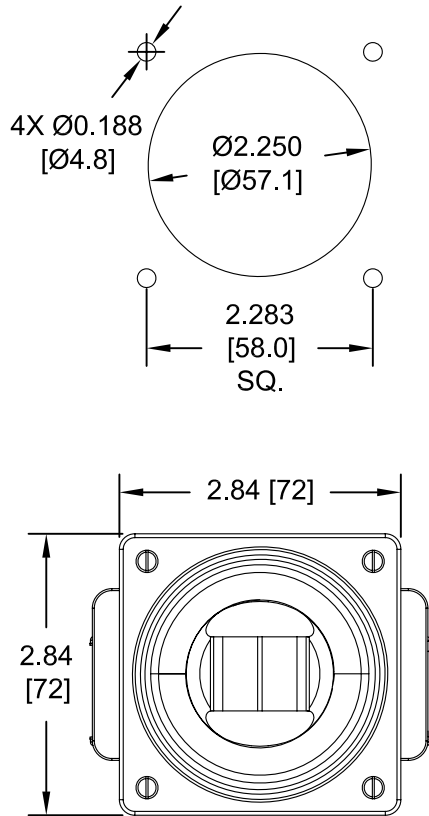
REDUNDANT



PRO-4 MOUNTING DIMENSIONS

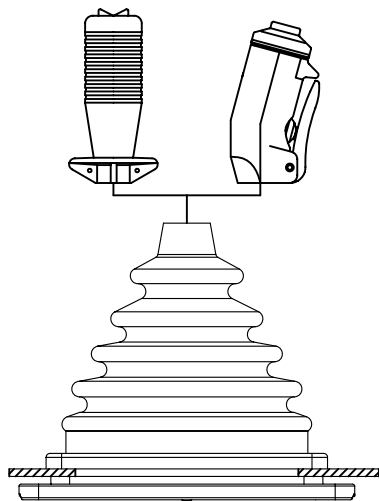
MOUNTING STYLE 4:

5 Holes With
2.250[35] Center Hole



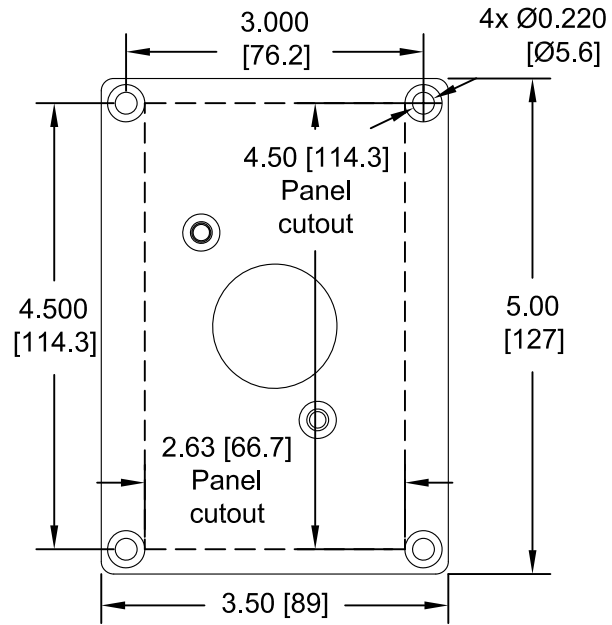
RHN

BH



MOUNTING STYLE 5:

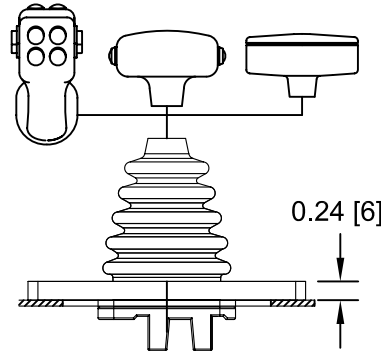
5 Holes With
4.50[114.3] X 2.625[66.7] Center Cut



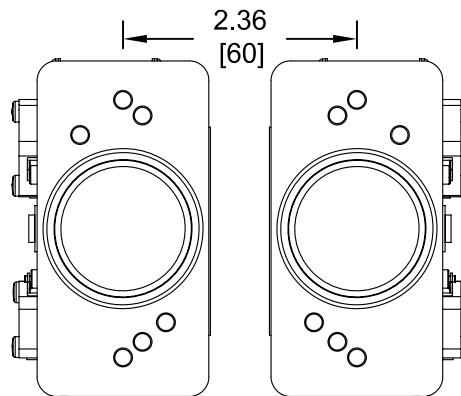
FG3

MG13

MG1



MINIMUM MOUNTING DIMENSIONS WITH POTENTIOMETERS AND 2 MICROSWITCHES

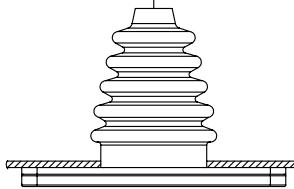
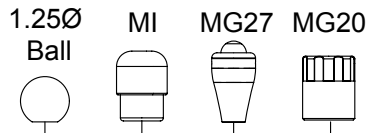
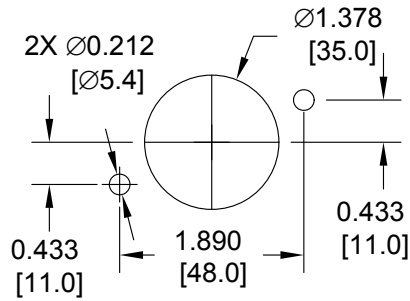


(Consult factory for other handle options)

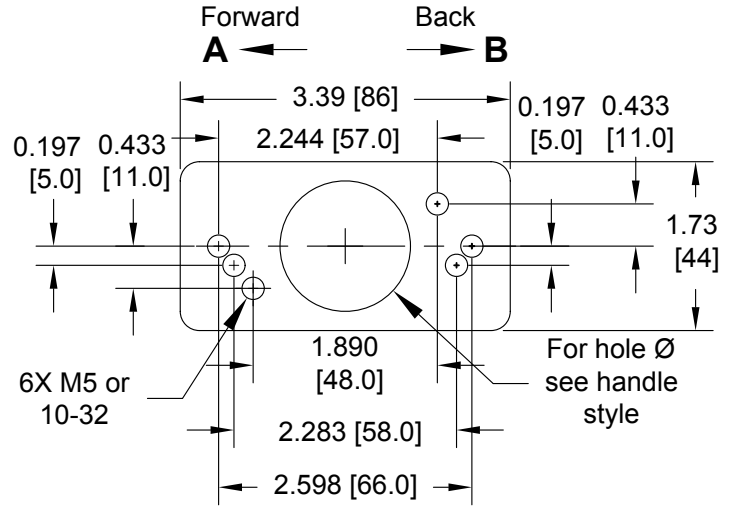
PRO-4 MOUNTING DIMENSIONS

MOUNTING STYLE 1:

Standard 3 holes with
1.38Ø[35] center hole

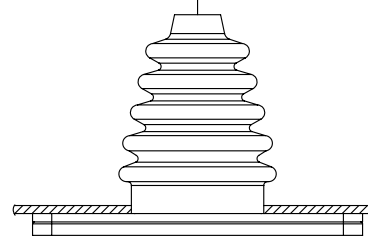
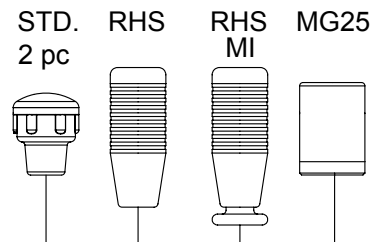
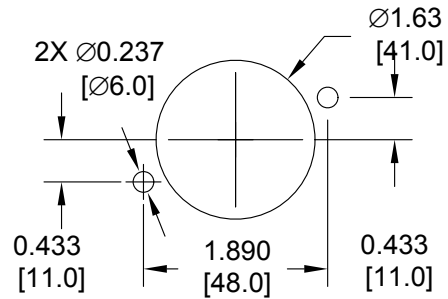


OPTIONAL MOUNTING HOLES



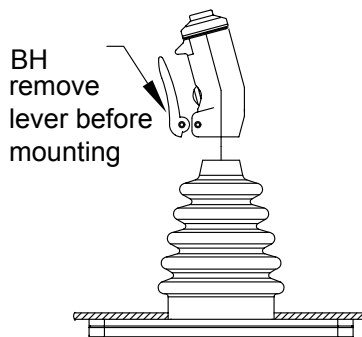
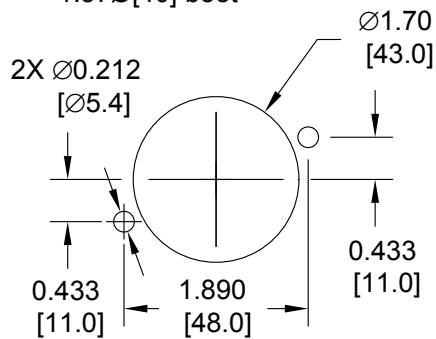
MOUNTING STYLE 2:

Standard 3 holes with
1.63Ø[41] center hole
1.57Ø[40] boot



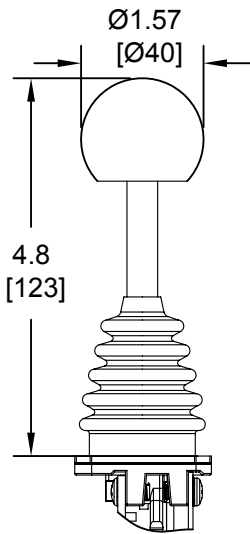
MOUNTING STYLE 3:

Standard 3 holes with
1.70Ø[43] center hole
1.57Ø[40] boot

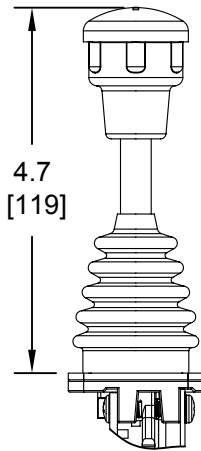


PRO-4 OVERALL HANDLE OPTION DIMENSIONS

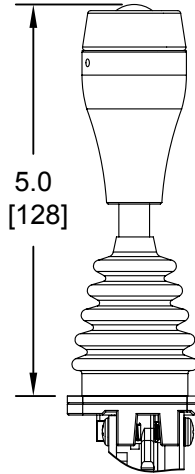
**ROUND BALL 1.57 [40]Ø
4.5 [115] SHAFT**



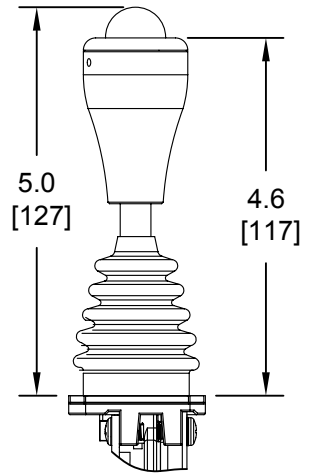
**2 PIECE HANDLE
4.5 [115] SHAFT**



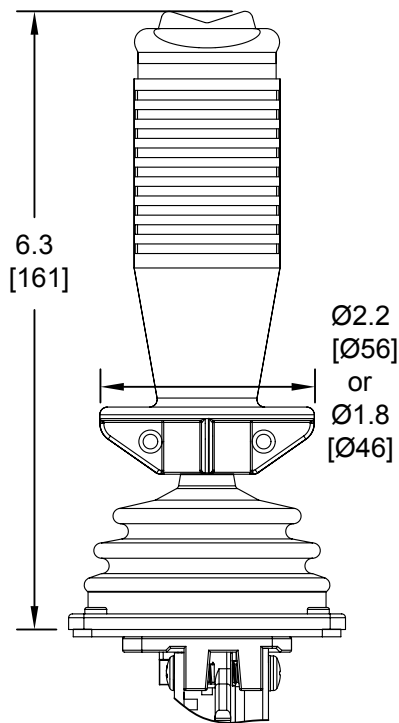
**MG27V
4.5 [115] SHAFT**



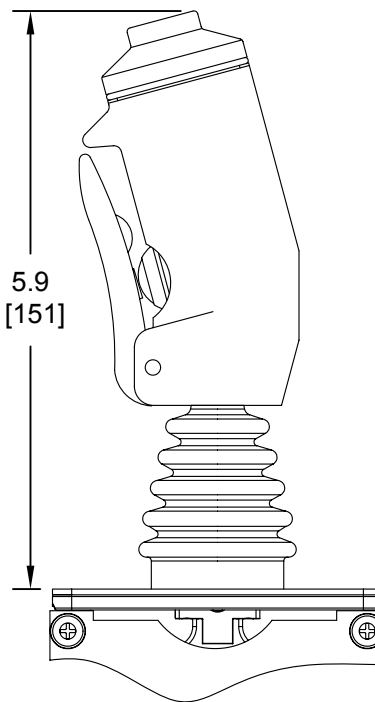
**MG27
4.5 [115] SHAFT**



**RHN-01 HANDLE
3.7 [95] SHAFT**



**BH HANDLE
3.3 [85] SHAFT**



**RHS HANDLE
1.57 [40] Ø BOOT
3.4 [87] SHAFT**

