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
PRO-4B/B 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: Bang/bang
Output Devices: 11A micro-switch

PRO-4B/B Technical Data

Mechanical:
• Mechanical Life: 20 million cycles
• Gear Ratio: 3.5:1
• Detented Positions: Up to 1-0-1 maintained
• Handle Travel: ±20°

Environmental:
• Operating Temperature: -25 to +70°C
• Storage Temperature: -40 to +70°C
• Protection above the panel: IP55

Electrical:
• Contacts: 11A 125,250 VAC Form C V3 micro-switch (4 max.) with .187" quick connect tab

Options:
• Handle: See handle section for a selection of handle options
• Handle Action: Maintained action
• Mounting: See mounting section for a selection of mounting options

Please consult factory for other available options not listed.
MOUNTING STYLE 1
Standard (3) holes w/Ø1.380 [Ø35.0] center hole
Ø1.378 [Ø35.0]  2X Ø.212 [Ø5.4]
.433 [11.0]  .433 [11.0]
1.890 [48.0]

MOUNTING STYLE 2
Standard (3) holes w/Ø1.630 [Ø41.0] center hole
Ø1.630 [Ø41.0]  2X Ø.212 [Ø5.4]
.433 [11.0]  .433 [11.0]
1.890 [48.0]

MOUNTING STYLE 3
Standard (3) holes w/Ø1.700 [Ø43.0] center hole
Ø1.700 [Ø43.0]  2X Ø.212 [Ø5.4]
.433 [11.0]  .433 [11.0]
1.890 [48.0]

OPTIONAL MOUNTING HOLES
6X M5 Thds
.433 [11.0]
1.890 [48.0]
(3.39) [86]
.197 [5.0]
(1.73) [44]
.197 [5.0]
.433 [11.0]
2.283 [58.0]
2.598 [66.0]

Remove lever before mounting
Note: BH-104 uses Style 4

CONSULT FACTORY FOR OTHER HANDLE OPTIONS

Stratford, CT • 1-800-333-5762 • www.jrmerritt.com
PRO-4 MOUNTING DIMENSIONS

MOUNTING STYLE 4:
5 Holes With
2.250[35] Center Hole

4X Ø0.188
[Ø4.8]

Ø2.250
[Ø57.1]

2.283
[58.0]
SOL.

2.84 [72]

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

3.000
[76.2]

4x Ø0.220
[Ø5.6]

4.50 [114.3]
Panel cutout

2.63 [66.7]
Panel cutout

3.50 [89]

5.00
[127]

MINIMUM MOUNTING DIMENSIONS WITH POTENTIOMETERS AND 2 MICROSWITCHES

2.36 [60]

(Consult factory for other handle options)
### PRO-4 OVERALL HANDLE OPTION DIMENSIONS

<table>
<thead>
<tr>
<th>Handle Type</th>
<th>Shaft Diameter</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUND BALL 1.57 [Ø40]</td>
<td>4.5 [115] SHAFT</td>
<td>Ø1.57 [Ø40]</td>
</tr>
<tr>
<td>2 PIECE HANDLE</td>
<td>4.5 [115] SHAFT</td>
<td>Ø2.2 [Ø56] or Ø1.8 [Ø46]</td>
</tr>
<tr>
<td>MG27V 4.5 [115] SHAFT</td>
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<td>5.0 [128]</td>
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<tr>
<td>MG27 4.5 [115] SHAFT</td>
<td></td>
<td>5.0 [127] 4.6 [117]</td>
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<tr>
<th>Handle Type</th>
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<tbody>
<tr>
<td>RHN-01 HANDLE 3.7 [95] SHAFT</td>
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<td>Ø2.2 [Ø56] or Ø1.8 [Ø46]</td>
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<tr>
<td>BH HANDLE 3.3 [85] SHAFT</td>
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<td>5.9 [151]</td>
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<tr>
<td>RHS HANDLE 1.57 [Ø40] BOOT</td>
<td>3.4 [87] SHAFT</td>
<td>5.6 [142]</td>
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