

MERRITT PROXL

HEAVY MILL DUTY JOYSTICK

The PROXL is a heavy-duty, single-axis joystick built for both step and stepless AC/DC control. Designed with a rugged cast body and engineered as a direct replacement for legacy master switches. The PROXL offers durability, easy integration, and in-field adjustability for demanding industrial applications.



HEAVY DUTY
& RUGGED



AC & DC
COMPATIBLE



ENVIRONMENTALLY
SEALED

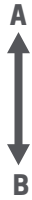
FEATURES

- In field adjustable spring force for easy maintenance.
- It features field-replaceable components.
- Installation is quick and easy.
- Built with durable cast construction.
- IP65 above panel



J.R. MERRITT
CONTROLS 

SINGLE AXIS DRIVE ARRANGEMENT



HANDLE TRAVEL OPTIONS

Custom up to ± 40 degrees

JOYSTICK ACTION



OR



OR



SPRING RETURN

Returns to center

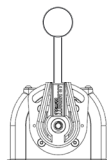
MAINTAINED

Holds at detent steps

FRICTION BRAKE

Holds throughout

HANDLE HEIGHT



OR



6.5" (STANDARD)
[165.1 MM]

12" (STANDARD)
[304.8 MM]

*Handle height shown is an estimated measurement from the panel to the top of the handle and will vary based on handle style.

CONTACT TYPE

STANDARD SPECIFICATIONS

OF CONTACTS:

Up to 7 double pole, snap-in blocks

MAX. SWITCHING CAPACITY

Making - 160 amps

Breaking - (0.7PF) 160 amps 240V

<p>AC RATING</p> <p>Resistive 20 amps @ 240V</p> <p>Inductive 14 amps @ 240V</p>	<p>DC RATING WITH MAGNETIC BLOWOUT</p> <p>Resistive 5 amps @ 250V</p> <p>Inductive 2 amps @ 250V</p>
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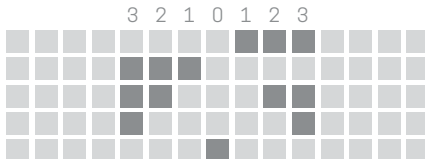
CONTACT SEQUENCES

STEPPED

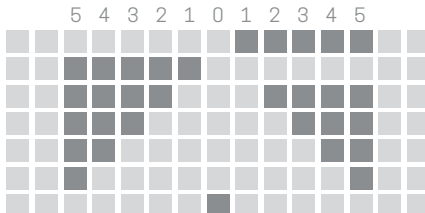
DETENT OPTIONS

- 1-0-1
- 2-0-2
- 3-0-3
- 4-0-4
- 5-0-5
- 6-0-6
- 7-0-7

COMMON STEPPED SEQUENCES



30




50

STEPLESS


DETENT

0 (NULL)

COMMON STEPLESS SEQUENCES



8P1

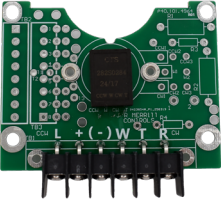
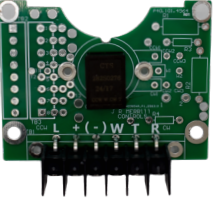




9P1

# of Double Contacts	1	2	3	4	5	6	7	8	9	10
Dimension L1 <small>in. [mm]</small>	2.28 [58]	3.15 [80]	4.02 [102]	4.88 [124]	5.75 [146]	6.61 [168]	7.48 [190]	8.35 [212]	9.21 [234]	10.08 [256]

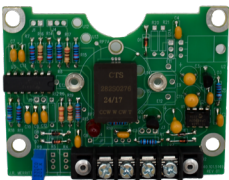
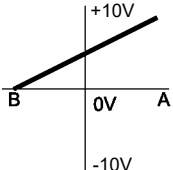
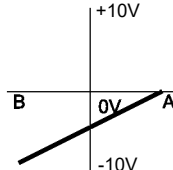
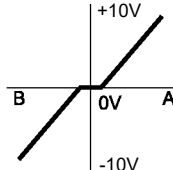
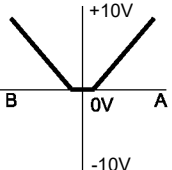
POTENTIOMETERS

Other potentiometers available upon request

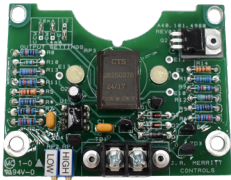
 <p>3-WIRE 5K PART # (W/ BOARD): 04.836</p>	<p>TYPE CTS STYLE Conductive Plastic</p> <p>RATING 0.5 Watt</p>	OR	 <p>4-WIRE 10K PART # (W/ BOARD): 04.821</p>	<p>REVOLUTIONS 2 - 5 Million</p> <p>WIPER CURRENT 0mA to 10mA</p>
 <p>4-WIRE 5K PART # (W/ BOARD): 03.287</p>	<p>TYPE PW55 STYLE Conductive Plastic</p> <p>RATING 3 Watt</p>	OR	 <p>4-WIRE 10K PART # (W/ BOARD): 04.015</p>	<p>REVOLUTIONS 2 - 5 Million</p> <p>WIPER CURRENT 0mA to 10mA</p>

*Lifespan is dependent on the application and environmental conditions

ESS10010 ANALOG AMPLIFIER

	<p>Generates a linear output voltage proportional to the joystick's handle position. Available with 3 or 4-wire pot in the configurations shown below. See ESS10010 literature for more details.</p>	<p>SUPPLY VOLTAGE 18 - 30 VDC</p> <p>STANDARD OUTPUT +/- 10V</p> <p>OUTPUT CURRENT MAX 10 mA</p>	<p>OUTPUT ADJ. RANGE 3.5 - 11VDC</p> <p>OFFSET ADJ. RANGE 0 - +/- 0.1V</p> <p>POTENTIOMETER LIFE 2 - 5 million revolutions</p>
 <p>0V to +V</p>	 <p>-V to 0V</p>	 <p>-V to +V with Center Deadband</p>	 <p>+V with Center Deadband (requires directional contacts)</p>

4-20 mA TRANSMITTER (2-WIRE CIRCUIT)



Acts as a self powered control card with 4-20 mA output. Transmits a current signal which is proportional to the handle position. See **ESS420 literature** for more details.

ESS420

MODEL #:
05.317

SUPPLY VOLTAGE:
12 - 40 VDC

OUTPUT CURRENT

22 mA (max)

ADJUSTMENT RANGE

2-22 mA

SIGNAL CONVERTER

DGO-1 (115/50V)

PART #: 04.024

OR

DGO-2 (220/50V)

PART #: 04.025

OR

DGO-3 (115/30V/30V)

WITH ESS030

AC/DC CONVERTER

DGO-3 PART #: 04.030 & 05.638



High life contactless rotary transformers that are ideal for high duty applications where an AC signal is a requirement. See **DGO literature** for more details and specifications.

ROTATION
+/- 105 degrees

MAX LOAD
3VA

WEIGHT
1.43 LB

Converts AC signal to a DC reference signal that commands a variable drive. See **ESS030 literature** for more details.



ENCODER

Other output types available upon request

8-BIT GRAY ENCODER



Produces a gray code digital output in a completely contactless system with high noise immunity. See **8-bit Gray Encoder literature** for more details.

SUPPLY CURRENT
Typical 100 mA

OUTPUT CURRENT
Max. 20 mA



MAX SWITCHING FREQ
50 kHz



RESOLUTION
255 discrete counts
in each direction

OR

8-BIT BINARY ENCODER

Produces a digital output in a completely contactless system with high noise immunity. See **Encoder literature** for more details.

BASIC HANDLES	BALL HANDLE (DEFAULT)	MECHANICAL INTERLOCK (MI)	PUSH BUTTON (MG21)
	<ul style="list-style-type: none"> ▪ 2" (51 mm) round ball handle for single-axis controllers. 	<ul style="list-style-type: none"> ▪ Mechanical interlock mechanism for operational safety. 	<ul style="list-style-type: none"> ▪ (Top) Recessed Push Button ▪ (Top) Flush Push Button ▪ (Top) Extended Push Button
	HEIGHT: 2" [51]	HEIGHT: 1.31" [33]	HEIGHT: 2.48" [63]

ROCKER HANDLES	RH	BH HANDLE
	<p>Rocker handle with handrest and optional:</p> <ul style="list-style-type: none"> ▪ (Top) Rocker Switch ▪ (Top) Momentary Push Button ▪ (Top) Maintained Push Button ▪ (Side) Momentary Push Button  <p>HEIGHT: 7.3" [186]</p>	<p>Lever handle with optional:</p> <ul style="list-style-type: none"> ▪ (Top) Rocker Switch ▪ (Top) Momentary Push Button ▪ (Side) Lever Actuated Momentary Push Button  <p>HEIGHT: 6.8" [173]</p>

All dimensions in inches [mm] and are subject to change.

CUSTOM HANDLES

Contact us today to learn more about our engineering & design services.




Illustration only - handle not available for purchase.

LASER ENGRAVING

Add custom text on the base mounting plate or top plate of the joystick.

MECHANICAL DETAILS

Mechanical Life

20 million plus life cycles

Handle Travel

Up to ± 40 degrees

Gear Ratio

3:1

Potentiometer Rotation

Up to ± 126 degrees

ENVIRONMENTAL DETAILS

Operating Temperature

-13° to +158° F [-25° to +70°C]

Storage Temperature

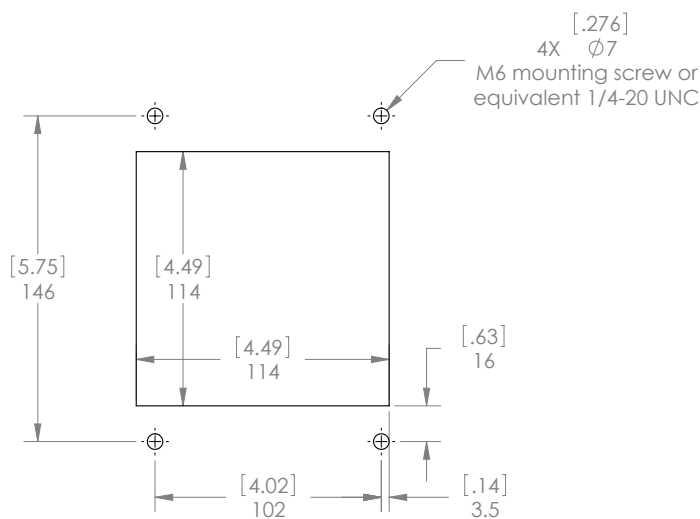
-40° to +158° F [-25° to +70°C]

IP Rating

IP65 (Above Panel)

DROP IN MOUNTING

DEFAULT BOLT PATTERN



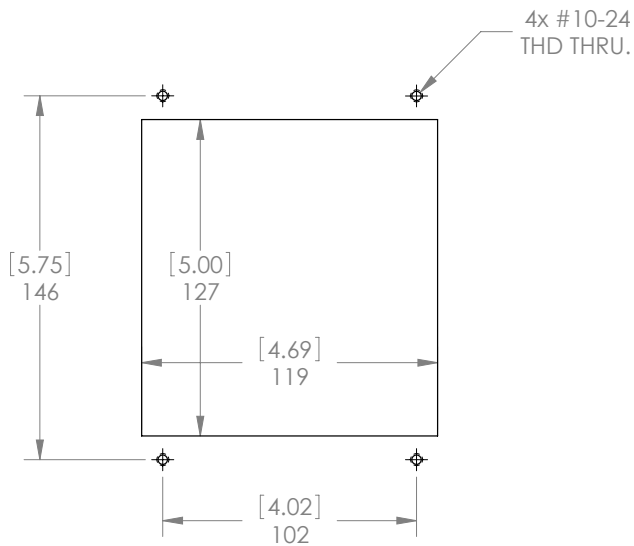
PEDESTAL MOUNTING



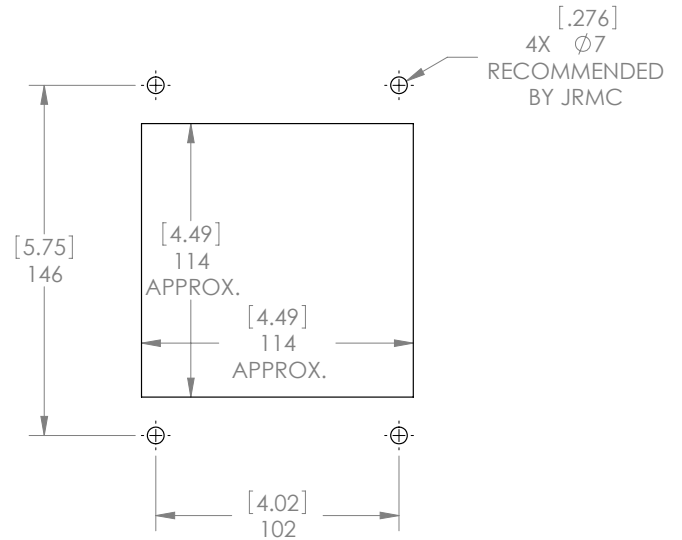
Custom mounting
options available.

Replacing a legacy joystick? Below are the mounting configurations the PROXL supports.

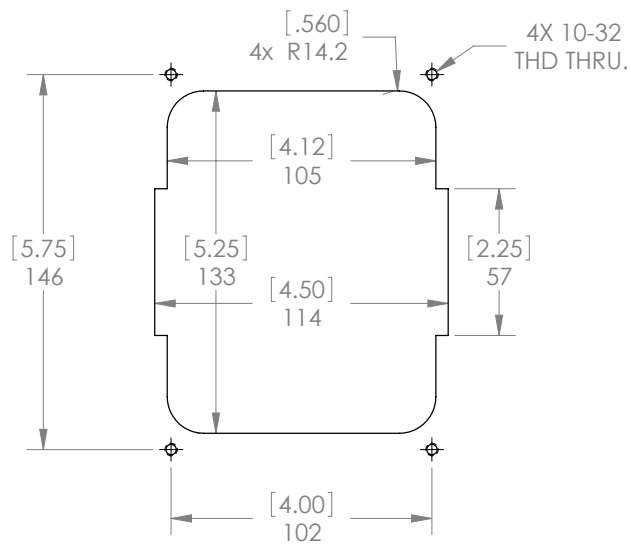
HUBBELL PANEL HOLE DETAIL



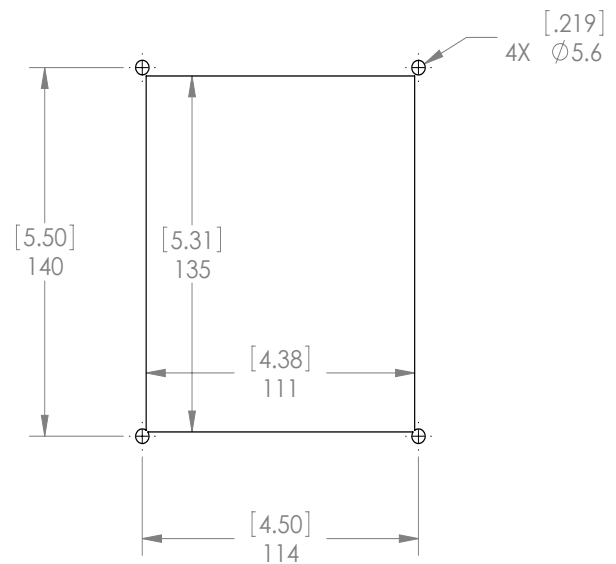
EATON PANEL HOLE DETAIL



CUTLER HAMMER PANEL HOLE DETAIL

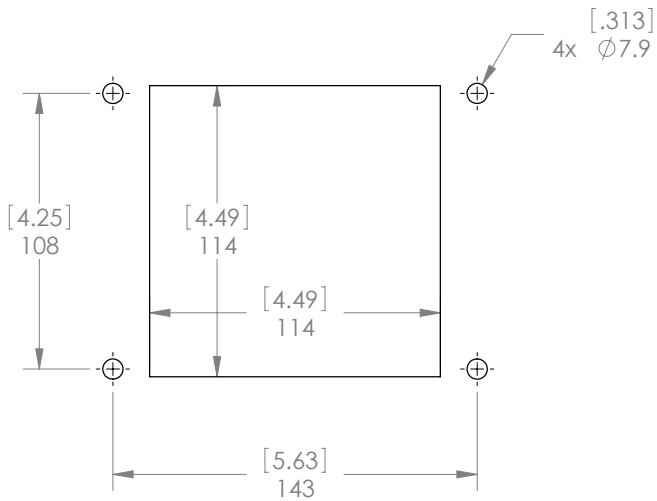


GE PANEL HOLE DETAIL



Replacing a legacy joystick? Below are the mounting configurations the PROXL supports.

WESTINGHOUSE PANEL HOLE DETAIL



EC&M PANEL HOLE DETAIL

