



BRAND
HYDRAULICS Co.

Made in the Heartland of America
 Serving the World

Engineering & Manufacturing Solutions

Electronic Panel Mount Control

EC-12-02



ISO 9001:2008 WITH DESIGN
 Certificate #02.002.1



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EC-12-02

Electronic Panel Mount Control

FEATURES:

- Lightweight in design to minimize panel fatigue.
- Small in size to minimize space requirements.
- Pulse width modulation output to reduce the effects of hysteresis.
- Short circuit protection to guard against over current conditions. (when wired to factory instructions)
- Input protection for transients, load dumps, 2-battery jumps, and reverse polarity hook-ups.
- Terminal block has printed numbers and a hinge cover for easy wiring and accidental short circuit prevention.
- Optional power switch and fuse can be installed separate from the control.
- The circuit board is coated with a special conformal coating to guard against moisture, dust and other contaminants.
- Only three small holes are required for mounting to panel.
- Four predrilled holes may be used to surface mount to panel.



SPECIFICATIONS:

Voltage Supply	12.7-18 VDC
PWM Output Current	1.0 Amps Max Continuous
PWM Output Frequency	100Hz +/- 10 Hertz
Environmental Ratings	IP67 (Model: EC-12-02S)
Operating Temperature	-40°C - 80°C (-40°F - 176°F)
Storage Temperature	-40°C - 80°C (-40°F - 176°F)
Approximate Weight	6.25 oz (178 g).

TERMINAL BLOCK CONNECTIONS:

Terminal #1	Positive 12.7-18 VDC Supply Input
Terminal #2	Ground
Terminal #3	Output to proportional coil
Terminal #4	Output to proportional coil

Note: No polarity between terminals #3 & #4

GENERAL INFORMATION CONTINUED:

The Brand, electronic panel mount control is designed to proportionally adjust the Brand EFC-Series valves and other proportional valves that meet the appropriate solenoid specifications. The panel mount control is designed to mount behind a control panel in an industrial setting, behind the dash panel of mobile equipment, or in any other mounting location.

The main control knob is used to linearly adjust the current going through the solenoid on the valve. A large knob and a single turn potentiometer with a large degree of rotation gives smooth and precise adjustments. The controller is Pulse Width Modulated (PWM), which helps reduce the effects of hysteresis.

Each controller produced is burned-in for 24 hours to assure the controller is operating properly and meets all specifications. There are also many other quality assurance procedures that our controllers go through before they are shipped. All tests are performed with up to date, state of the art test equipment that is calibrated to NIST standards by an independent laboratory on a yearly basis.

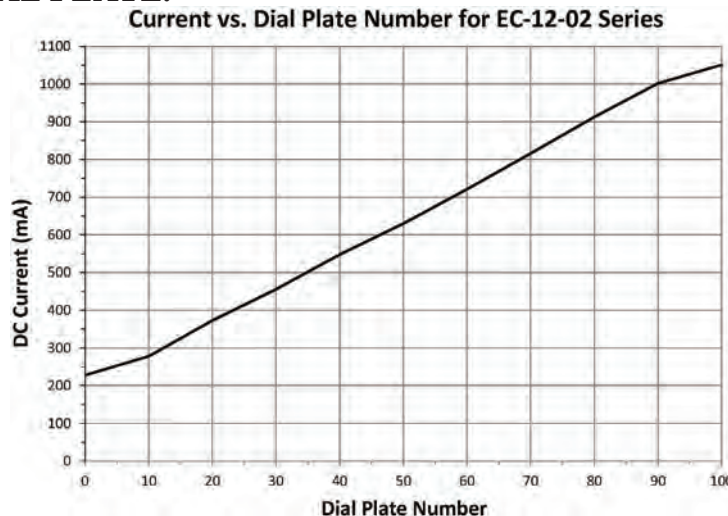
COMMON MODEL CODES:

- EC-12-02.....Electronic panel mount.
- EC-12-02S.....Electronic panel mount control with E1071 and E1130 installed

PARTS LIST:

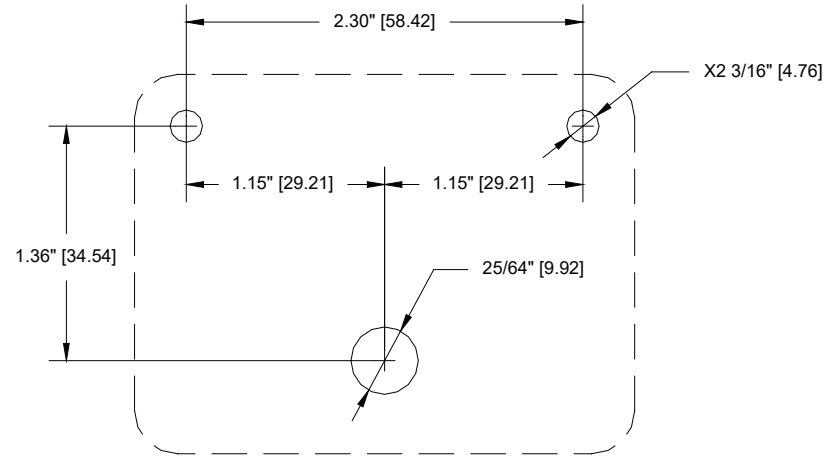
- E1049.....Panel mount fuse holder
- E1050.....Knob, Black
- E1071.....Potentiometer shaft seal
- E1130.....Seal screw, 10-32 threads
- E1726.....Fuse 1.5 amp
- E1747.....Power switch, SPST, screw terminals
- E1758.....Switch boot seal
- E2820.....Wall-mount power supply with 6 ft. cord, w/ loose Spade Terminals

CURRENT VS. DIAL PLATE:

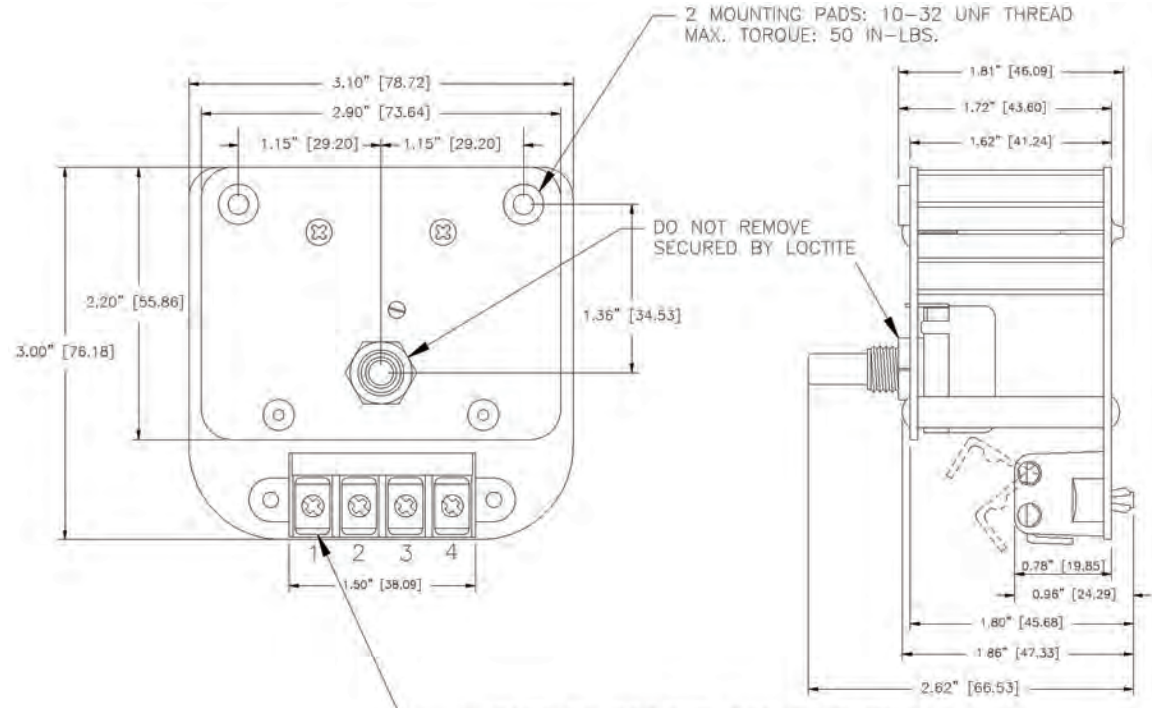


EC-12-02 Electronic Panel Mount Control

MOUNTING HOLES: inches & [millimeters]

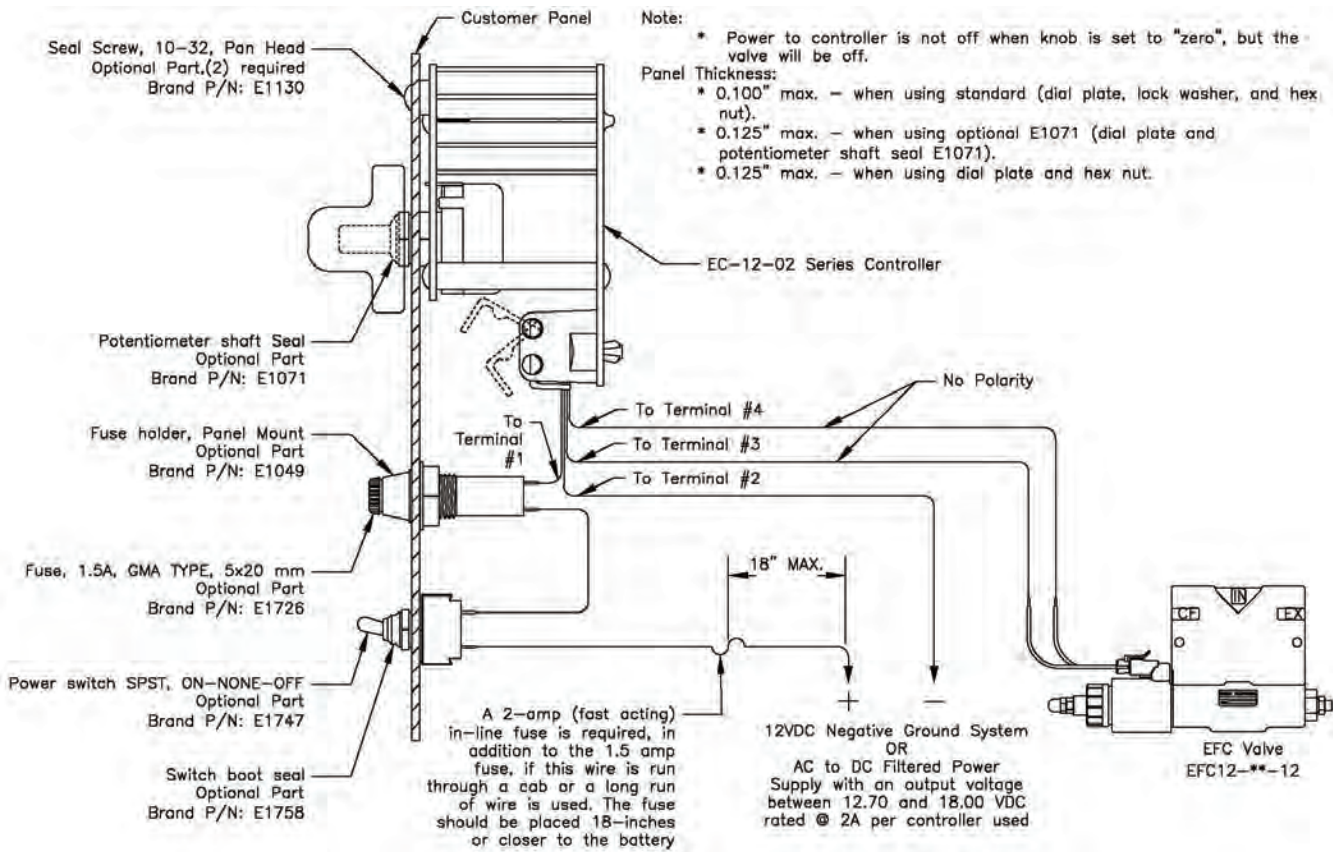


DIMENSIONAL DATA: inches & [millimeters]



- 1=GOES TO POSITIVE SIDE OF BATTERY
- 2=GOES TO NEGATIVE SIDE OF BATTERY
- 3=OUTPUT TO COIL
- 4=OUTPUT TO COIL
- (TERMINALS 3 & 4 HAVE NO POLARITY)
- (MAXIMUM WIRE SIZE IS 12-AWG PER TERMINAL)

WIRING DIAGRAM:



It is the purchaser's responsibility to determine the suitability of any Brand Hydraulics product for an intended application, and to insure that it is installed in accordance with all federal, state, local, private safety, health regulations, and codes and standards. Due to the unlimited variety of machines, vehicles, and equipment on which our products can be used, it is impossible for Brand Hydraulics to offer expert advice on the suitability of a product for a specific application. We believe that it is our customer's responsibility to undertake the appropriate testing and evaluation to prevent injury to the end user.

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.