

Loop Powered Indicator Model 1862000



Features:

- Large 1 inch Display
- Engineering Unit Readout
- Low 1.00 VDC Drop
- Built-in Calibrator
- FM approved intrinsically Safe

Description:

The 1862000 is a two-wire digital indicator that provides local process indication of a 4-20mA signal on a 3-1/2 digit liquid crystal display. The indicator features 3-1/2, easy to read, 1 inch high active digits and a dummy zero. It is powered directly from the 4 to 20mA input loop, dropping less than 1 volt across the input terminals.

The 1862000 provides a digital readout directly proportional to the current input. It may be calibrated to read 0 to 100% for a 4 to 20mA input or directly in engineering units, such as level and temperature. Each indicator comes with a selection of stick-on labels of commonly used engineering units. These labels may be attached to the display to facilitate indicator readings.

Calibration of the 1862000 is easily accomplished through the use of switches and trim pots. The span can be adjusted from 0 to 3998 counts in three switch selectable ranges and the zero offset can be adjusted from -1999 to +1999 counts also in three switch selectable ranges. Fine adjustment of span and zero is made on two noninteractive 15 turn trim pots.

Another feature of the 1862000 is a nonactive (dummy) zero, which can be enabled or disabled by means of a DIP switch position. This allows display of values up to +19,990. One to four decimal point positions or no decimal point is also DIP switch selectable. The 1862000 provides negative polarity indication, which appears when displaying quantities such as -30° F. The negative sign can also be disabled by means of the DIP switch.

An additional feature of the 1862000 is the internal calibrator. The indicator can be field calibrated while installed in a working 4 to 20mA loop, regardless of the current through the loop, simply by switching to the calibrate mode. The indicator can also be calibrated on the bench by using a conventional calibrator or by connecting a 1 to 1.5 volt D.C. power source across the input terminals and switching to the calibrate mode.

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Specifications:

Input

Range: 4 to 20mA.
Voltage Drop: 0.98V @ 20mA, 25° C.
Forward current overrange: 100mA max.
Reverse current: 100mA max.

Performance

Accuracy: $\pm 0.1\%$ of span counts, ± 1 count.
Temperature effect (zero): ± 0.1 count/ $^{\circ}$ C.
Temperature effect (span): $\pm 0.01\%$ of span counts/ $^{\circ}$ C.
Operating temperature: -30 to +85° C.
Ripple rejection: less than 1 count with 1mA peak-to-peak, 60 Hz ripple at input.
Sample rate: 2 per second.

Display

Type: 3-1/2 digit 1" high LCD, with dummy zero.
Range: -1999 to 1999 counts (-19990 to 19990 display).
Decimal point: four positions or absent, switch selectable.
Polarity sign: negative polarity indication or none, switch selectable.

Action: forward acting (count increases with current), normal calibration; reverse acting (count decreases with current), obtained by appropriate zero setting.

Overrange indication: display blanks except for most significant 1.

Calibration

Span range: 0 to 3998 counts, 3 ranges switch selectable, fine adjustment on 15 turn trim pot, noninteractive with zero pot.
Offset range: -1999 to +1999 counts, 3 ranges switch selectable, fine adjustment on 15 turn trim pot, noninteractive with span pot.
Resolution: better than 1 count.

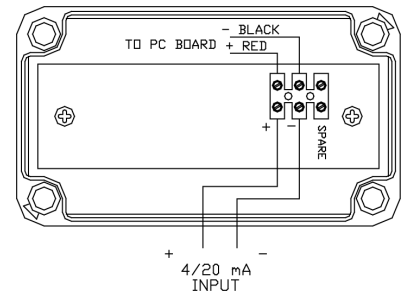
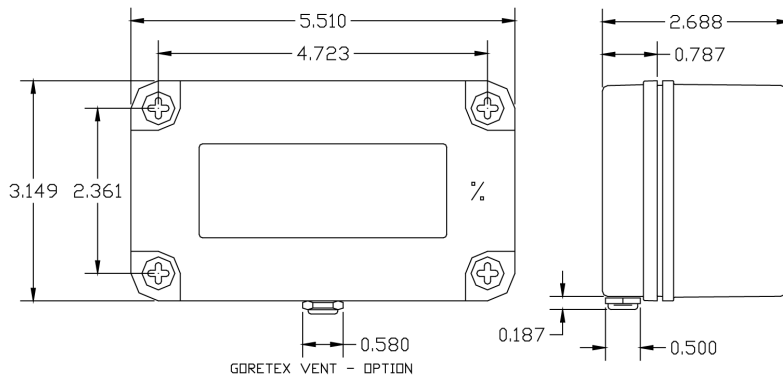
Enclosure

Material: polycarbonate.
Ratings: NEMA 4X, flammability UL 94-5V.
Weight: 1 lb.

Approvals:

FM: Class 1, Division 1, Groups A, B, C, & D.
FM Entity parameters: $V_{max} = 32VDC$,
 $I_{max} = 150mA$, $C_i = 0mfd$, $L_i = 0mH$.

Dimensions:



Notes:

1. Four mounting holes for #6 screws are located directly below the cover screws.
2. Access to the enclosure can be made by drilling, punching or sawing holes into the long sides of the enclosure. Locate center of access holes 7/8 of an inch from the back side of the enclosure.

Disclaimer:

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