

- * LOOP POWERED
- * ENGINEERING UNIT READOUT
- * INTRINSICALLY SAFE
- * LINEAR OR SQUARE ROOT RESPONSE
- * WIDE TEMPERATURE OPERATION



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GENERAL DESCRIPTION

The 18-LPIX is a two-wire digital indicator that provides local process indication on a 3-1/2 digit, liquid crystal display. Deriving its power directly from the input signal, the 18-LPIX can be mounted at any convenient viewing location along the 4 to 20 mA loop.

The 18-LPIX provides a digital readout that is directly proportional to the current input. The indicator is calibrated at the factory to display 0 to 100.0% for a 4 to 20 mA input signal. However, it can easily be recalibrated in the field to read directly in any desired engineering units. A selection of stick-on labels of commonly used engineering units such as GPM, PSI, °F, etc. is provided with each indicator.

Recalibration of the 18-LPIX is accomplished through the use of switches and trim-pots. The span and zero can be configured to display any desired range.

Final adjustments are quickly made using the non-interactive, 15 turn, span and zero potentiometers. Decimal point positions (or no decimal point) are also switch selectable. The 18-LPIX provides negative polarity indication, which appears when displaying quantities such as -300 to 1000°F. The negative sign can be disabled by means of a switch.

An additional feature found on the model 18-LPIX-1V is the internal calibrator. By simply switching into the calibrate mode, the indicator can be field calibrated while installed in a working 4 to 20 mA loop. The indicator can also be calibrated on the bench using a conventional calibrator or by connecting a 1 to 1.5 Volt power source (flashlight battery) across the input terminals and switching to the calibrate mode.

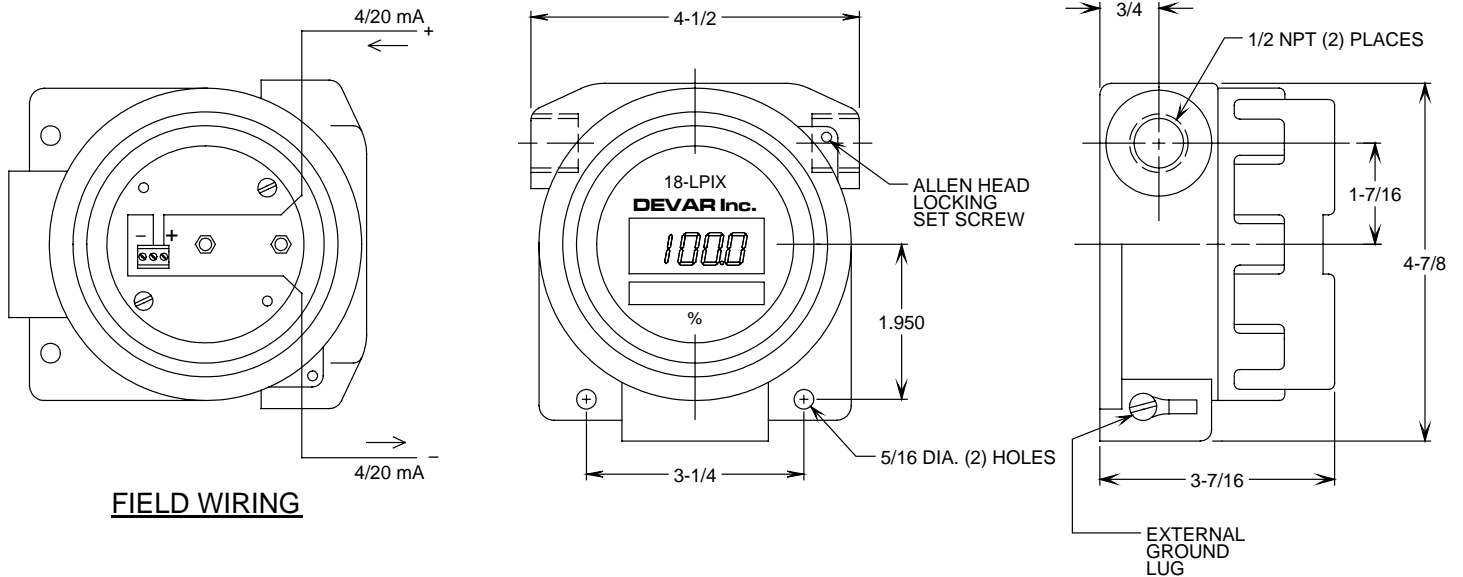
The 18-LPIX is housed in a NEMA-4X explosion proof enclosure.

SPECIFICATIONS

1. Input
 - a. Range: 4 to 20 mA
 - b. Voltage Drop 18-LPIX: 3V @ 20 mA, 25°C
 - c. Voltage Drop 18-LPIX-1V: 1V @ 20 mA, 25°C
 - d. Forward Current over Range: 60 mA max. (18-LPIX-1V: 100 mA max.)
 - e. Reverse Current: 100 mA max.
2. Display
 - a. Type: 3-1/2 Digit LCD, 0.5" High Digits
 - b. Range: -1999 to 1999 counts
 - c. Decimal Point: Switch Selectable
 - d. Polarity Sign: Negative Polarity Indication or none, Switch Selectable
 - e. Over-Range Indication: Display blanks except for most significant "1"
3. Calibration
 - a. Span Range: 0 to 3998 counts, 3 ranges Switch Selectable
 - b. Offset Range: -1999 to +1999 counts, 3 ranges Switch Selectable
 - c. Fine Adjustment: 15 turn trim pots, zero pot non interactive with span pot
4. Performance
 - a. Accuracy: $\pm 0.1\%$ of span counts, ± 1 count
 - b. Temperature Effect: $\pm 0.01\%$ per °C, typical
 - c. Operating Temperature: -20 to 70°C
 - d. Wide Temperature Option: -40 to 85°C
 - e. Ripple Rejection: Less than 1 count with 1 mA peak-to-peak, 60 Hz ripple at input
 - f. Sample Rate: 2 per second
5. Enclosure
 - a. Material: Cast Aluminum
 - b. Finish: Blue Polyester Powder Coat
 - c. Weight: 2 lb. 14 oz.
 - d. Explosion Proof, NEMA-4X
6. Factory Mutual Approvals
 - a. Intrinsically Safe: Class I, Div. 1, Groups A, B, C, D;
 - b. Non-incendive: Class I, Div 2, Groups A, B, C, D
 - c. Explosion Proof Enclosure: Class I, Div 1, Groups B, C, D
 - d. Dust Ignition Proof Enclosure: Class II, III, Div 1, Groups E, F,

Ordering Information:

18-LPIX	Standard Indicator
18-LPIX-1V	One Volt drop
18-LPIX-SR	Square Root Response
Option -WT	Wide Temperature (-40° to 85°F)



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