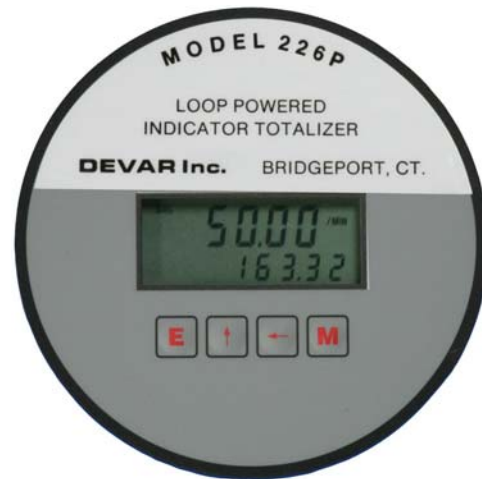


- \* 8-DIGIT TOTALIZER
- \* 4-1/2 DIGIT RATE DISPLAY
- \* LINEAR OR SQUARE ROOT RESPONSE
- \* KEYPAD CALIBRATION CONFIGURATION
- \* REVERSE POLARITY PROTECTED



### GENERAL DESCRIPTION

Flow rate display and totalization in engineering units is provided by the Model 226P, Loop Powered Integrator. The unit accepts a 4 to 20 mA signal, integrates, totalizes, and displays the instantaneous rate signal with a 3-1/2 or 4-1/2 digit display. Operational power is derived from the input signal, therefore no external power is required. An 8-digit total display is updated every 2 seconds with the value maintained for 10 years. 16-bit A to D conversion provides accurate readings for linear or square root response.

### APPLICATION

The Model 226P is ideally suited for totalizing and indicating rate of liquid or gas flows. A 4 to 20 mA loop signal from an orifice plate line is proportional to flow after the square root of the signal is extracted. This is easily accomplished via keypad configuration.

Flow rate is also indicated via the 0.35" high (3-1/2 or 4-1/2 digit) display.

### CALIBRATION

Input scaling is provided by the push button keypad. This features min/max engineering units setting, 4 to 20 mA self calibration, square root/linear response selection, 3-1/2 or 4-1/2 digit rate display, decimal point and count rate selection (per second, minute, hour).

# SPECIFICATIONS

**Power:**

Power: Derived from Loop  
 Internal Battery (memory only): 3 Volts, 250 mA-H  
 Lithium: (Calc. 10 yr. life)

**Display:**

Rate Display: 4.5 Digits Max. (19,999) 0.35" high  
 Totalizer Display: 8 digits (99,999,999) 0.2" high  
 Low Battery Error Detection  
 Under/Over Range Indication; Display Flashes

**Input:**

Standard Input: 4 to 20 mA  
 Operating Range: 3.8 to 21 mA  
 Loop Voltage Drop: 6V Max.  
 Reverse Polarity Protected  
 Over Current Protection to 60 mA  
 16-Bit Resolution: 1 sample every 2 seconds

**Temperature:**

14° to 131°F (-10° to 55°C)

**Accuracy:**

0.1% Full Scale, ± 1 Count

**Note:** For best accuracy use as many digits as possible when setting the "HI" value.

*Example:* If 20 mA = 30, enter 30.00 for "HI" value

**Temperature Drift:**

50 PPM/°C Typical  
 200 PPM/°C worst case

**Low Cutoff:**

A flow rate below 1% of selected scale (10% square root) will assume the "SET LO" value

**Reset Input:**

via front keypad or remote dry contact closure

**Initialize Input:**

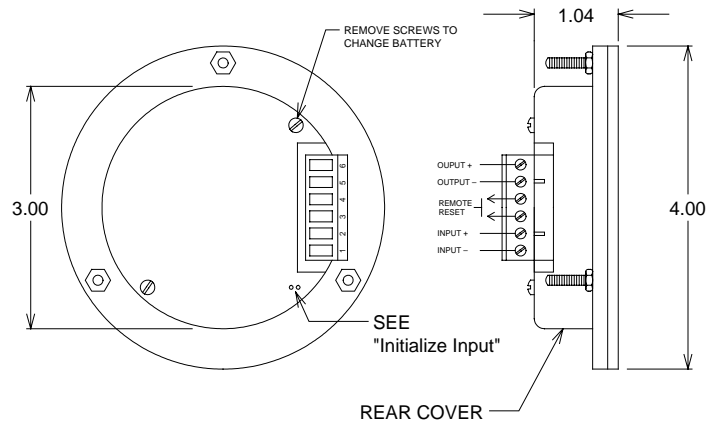
Momentary jumper on PC board; Set menu and calibration to default values. Use only after battery replacement.

**WARNING:** The Initialized jumper should not be applied without loop power. This will shorten the battery life and void warranty.

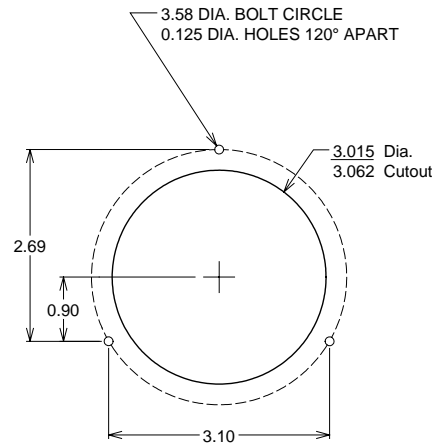
**Operation:** When running, unit displays the rate and total. Totalizer updates once every 2 seconds. Totalizer can be reset by a contact closure between terminals 3 and 4. Menu can be accessed by pressing the M key. Display flashes when the loop current goes below the LO CAL value or above the HI CAL value or when the battery is low and memory has been lost during a loop power loss.

**CAUTION!**

This instrument contains CMOS components that can be damaged by static electricity. Even small amounts can damage these devices. Even though damaged components appear to function properly, they exhibit early failure.

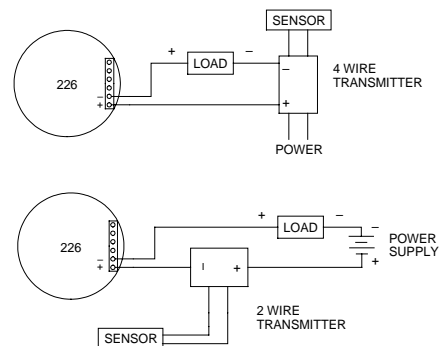


**MECHANICAL DIMENSIONS**



**HOLE PATTERN**

**CAUTION:**  
 DO NOT CONNECT DC POWER SUPPLY DIRECTLY ACROSS INDICATOR



**TYPICAL WIRING**

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