



# LP420

## LOOP POWERED DISPLAY

### FEATURES

- Provides 3½ Digit Liquid Crystal (LCD) Readout Proportional to a Process Loop Current
- Loop Powered
- Trailing Dummy Zero ( $\pm 19990$ )
- Switch-Selectable Engineering Units/Loop Current Display
- Explosion-Proof Housing
- 5 Year Warranty

### DESCRIPTION

The LP420 Loop Powered Display provides digital indication of a 4/20 mA or 10/50 mA process loop signal. The display takes its operating power from the loop current and requires no other source of power.

Wide-ranging zero and span adjustments plus switch-selectable decimal point location and trailing zero allow the display to be calibrated in engineering units. An

Engineering Units/Loop Current switch permits a quick check of the process signal without recalibration. The LP420 is mounted in an explosion-proof housing and operates from  $-40^{\circ}$  to  $185^{\circ}\text{F}$  ( $-40$  to  $85^{\circ}\text{C}$ ). The circuit boards are conformal coated for protection from humidity and contamination.

### TYPICAL APPLICATIONS

Displaying process variables where line power is NOT available, and in hazardous (explosive) atmospheres.

### SPECIFICATIONS

#### INPUT RANGE

4/20 mA or 10/50 mA

#### INPUT VOLTAGE DROP

3.5 V max  
(equivalent to 175 ohms at 20 mA or 70 ohms at 50 mA)

#### ACCURACY

$\pm(0.05\%$  of reading  
plus 1 digit)

#### DISPLAY

Digit Size  
0.35" LCD,  
3½ digits,  $\pm 1999$   
Switchable Decimal Points and  
Trailing Zero  
 $\pm 1.9.9.9 0$   
Control Range  
Zero  $\pm 1999$   
Span (full scale minus zero)  
min span 10/max span  
3998  
Update 3/sec

#### DISPLAY SWITCH

Allows quick check of loop current (400/1999 or 100/500). Decimal point remains in "Engineering Units" position.

#### OPERATING TEMPERATURE

$-40^{\circ}\text{F}$  to  $185^{\circ}\text{F}$ / $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$

#### TEMPERATURE STABILITY

$\pm(0.01\%$  of span plus 0.01%  
of display zero offset) $^{\circ}\text{C}$

#### POWER

Supplied by input current  
no separate power required

#### HOUSING

Explosion-proof  
(Killark HK Series)

Housing is:

FM Approved and CSA  
Certified for the following  
locations:

Class I, Divisions 1 and 2;  
Groups B, C, and D

Class II, Divisions 1 and 2;  
Groups E, F, and G

Class III,  
Nema 3, 4, 7, and 9

International Approvals (IEC)

\* HK series enclosures are  
designed to meet flameproof  
requirements as defined by  
CENELEC (EURONORM  
Standard 50018)

\* BASEEFA Certified

**ORDERING INFORMATION**

**INPUT**

**Select Units**

- 4/20 mADC
- 10/50 mADC

**DISPLAY**

**Enter Display**

Zero Scale

Full Scale

**Select Display Logic**

- Normal Acting
- Reverse Acting

**TAGS**

**Specify Tag Numbers**

Tag number is typed on product label at no charge.

**Enter Tag Number(s)**

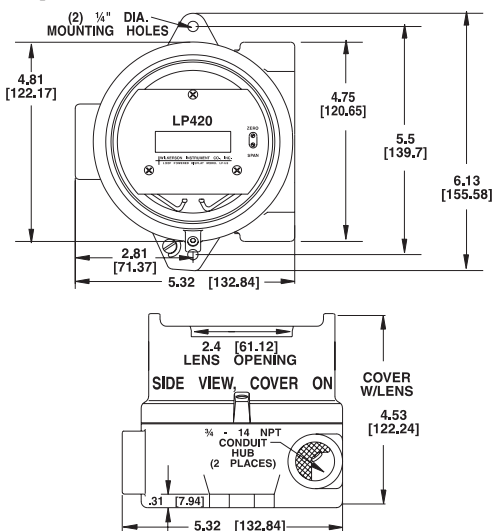
**ACCESSORIES**

**LP420**

No accessories available at this time.

**DIMENSIONS**

Inches [mm]



**CONNECTIONS**

PIN +  
PIN -  
PIN Center Pins

Input +  
Input -  
Tie Points