Data sheet DS/LPM200-EN Rev. I

LPM200
Field Indicator

Loop powered digital indicator
K-TEK Products

Introduction

The ABB LPM200EX Loop Powered Digital Indicator provides local process indication from any standard 4-20 mA current loop. No separate power supply connections are required since it is powered from the current loop. The maximum voltage drop across the device is a low value of 2.5 volts. The large 3/4 inch digits are easy to read from relatively long distances.

Features

- Operating Power Derived From Current Loop
- 2.5 Volt Maximum Voltage Drop
- Large 3/4 Inch, 3.5 Digit Liquid Crystal Display
- User Selectable Decimal and Polarity Display
- 2 Ranges of Zero and Span Allows Calibration In Engineering Units
- Compact Design
- NEMA 4X or Explosion Proof Versions
- Designed and Constructed to FM, UL, NEMA and ANSI/ISA Guidelines

Applications

The LPM200EX provides two coarse span and zero ranges, 3 decimal point positions and a polarity sign enable via front panel DIP switches. Both span and zero are fine-tuned with precision multiturn potentiometers. This allows the LPM200EX to be calibrated to read out in virtually any range of engineering units the user may desire. Table 1 illustrates how to configure the DIP switches in order to obtain desired readings with a 4-20 mA input signal.

Table 1	
POLARITY	**SPAN**
S1 = ON = Enable Negative Sign Display S1 = OFF = NO SIGN	S5, S6 = OFF = 1400-1999 Counts S5 = ON, S6 = OFF = 750 - 1999 Counts S5 = ON, S6 = ON = 200 –1999 Counts
DECIMAL LOCATION	**ZERO**
S2 = ON = 1.000 S3 = ON = 10.00 S4 = ON = 100.0 S2, S3, S4 = OFF = 1000	S7, S8 = OFF = 25% of Span S7 =ON, S8 = OFF = 40% of Span S7 = OFF, S8 = ON = 55% of Span S7, S8, = ON = 70% of Span

SPECIFICATIONS	
Display Type	3.5 Digit Liquid Crystal, 0.75 Inch Digits
Signal Input	4-20 mA DC
Voltage Drop	Maximum 2.5 VDC
Protection	Forward: 250 mA Reverse: 0.5 A
Accuracy	±0.1% of Full Scale ± Count
Temperature Drift	Zero: ±0.1 Count/°C Span: ±0.01 Full Scale
Minimum Operating Temperature	32°F (0°C)
Maximum Operating Temperature	140°F (60°C)
Hazardous Area Rating	
LPM200/4X	Loop Powered Digital Meter, NEMA 4X, 1 Volg drop
LPM200/EX	Explosion Proof - Class I, Division 1, Groups B,C,D Dust Ignition Proof - Class II, Division 1, Groups E, F, G NEMA 4 -when installed as per NEC 501-4(a) (b)
Customer Connections:	
All Models	Terminal block (AWG 30 to AWG 12).
LPM200EX	LPM-200/4X: PVD, NEMA 4X LPM-200/EX: Copper Free Aluminum, NEMA 4
Note	Meter assembly is secured in the Explosion Proof Enclosure (/EX version) by “snap-in” hardware. Do NOT disassemble the meter to remove. Grasp the meter assembly firmly and pull it from the enclosure.

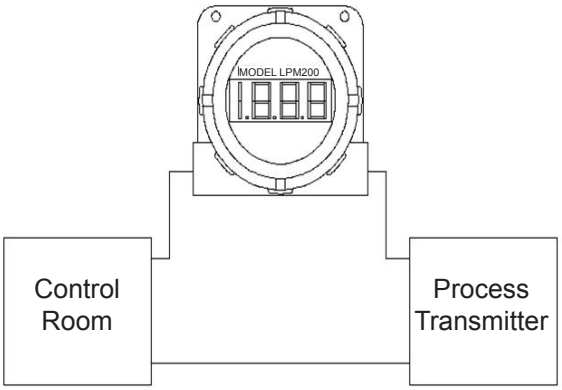

FIGURE 1
Typical application of the
LPM200EX Loop Powered Digital Indicator

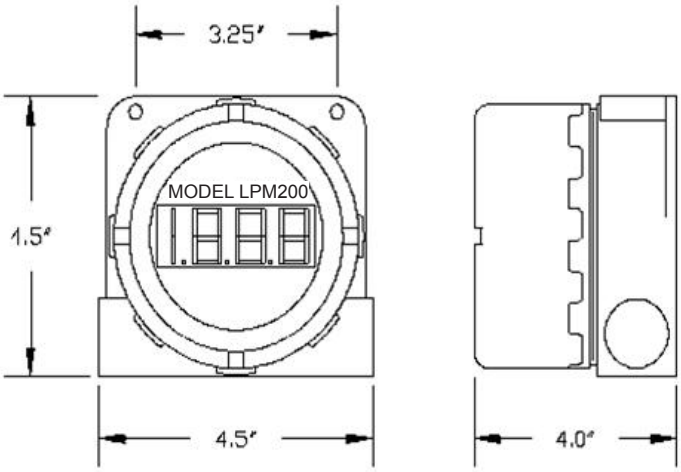

FIGURE 2
Dimensional diagram of the
LPM200EX Loop Powered Digital Indicator

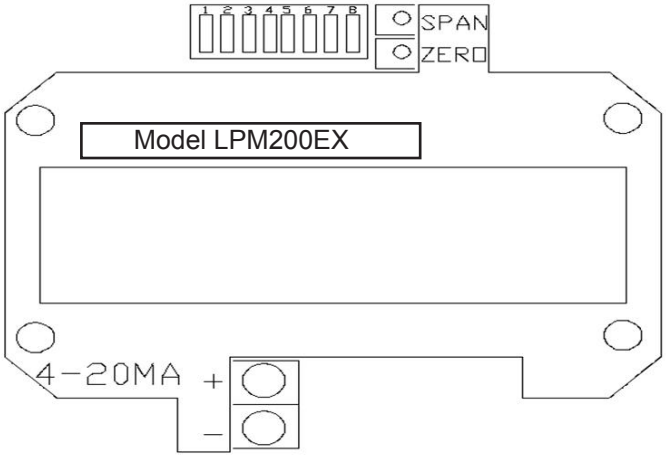

FIGURE 3
Component location diagram of the
LPM200EX Loop Powered Digital Indicator

Contact us

ABB Inc.
18321 Swamp Road
Prairieville, LA 70769 USA
Phone: +1 225 673 6100
Service: +1 225 677 5836
Fax: +1 225 673 2525
Service e-mail: service@us.abb.com

www.abb.com/level

DS/LPM200-EN Rev. I 06.2012

Power and productivity
for a better world™