LPM/LPX 1000

LPM/LPX 1000 Series

Druck

Ultra Low Differential Pressure Transmitter

- Ranges: ±0.1 to ±6 inH_20
- Accuracy: ±0.5% FS BSL (±0.25% FS optional)
- NIST calibration certificate option
- Gauge or wet/wet differential pressure
- User accessible damping
- Unidirectional or bidirectional operation
- Current or voltage output
- Optional local display

The LP 1000 Series wet/wet differential pressure transmitter is ideally suited for use in clean-room HVAC monitoring and control. The device offers several improvements over traditional sensors such as user accessible damping, excellent long term stability, and wet/wet differential operation where conductive fluids may be exposed to the measurement diaphragms. For applications where the pressure transmitter will be installed within one of the pressure zones, the LPM/LPX 1000 is available in a wet/wet gauge pressure configuration where the second pressure port is eliminated, venting the sensor directly to the atmosphere.

The LP 1000 Series offers a dramatic improvement in reliability with improved stability and the ability to tolerate condensing atmospheres. The design has been field proven for more than 10 years in applications where high humidity and condensing atmospheres are daily occurrences. The damping adjustment feature allows the user to slow the response time to eliminate nuisance trips of alarms when doors are opened and closed.

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STANDARD SPECIFICATION

Nominal measurement Range in inH_2O	Overpressure (psig)	Max line pressure (psig)
0.1	3	30
0.25	3	30
0.5	3	30
0.75	3	30
1	3	30
2	15	30
2.5	15	30
3	15	30
4	15	30
5	15	30
6	15	30

Pressure Media
Fluids compatible with Iridited Aluminum, Beryllium Copper and Brass

Transduction Principle
Variable inductance

Combined Non-linearity, Hysteresis, and Repeatability
±0.5% of calibrated range
Option A, improved performance ±0.25% of calibrated range

Temperature Effects
Temperature effects including both zero and span over the temperature range 32° to 122°F
±0.01 inH_2O for ranges above 0.5 and below
±0.02 inH_2O for ranges above 0.5 inH_2O up to 1inH_2O
±0.06 inH_2O for ranges above 1 inH_2O up to 3 inH_2O
±0.12 inH_2O for ranges above 3 inH_2O up to 6 inH_2O
Note: Typical temperature shift of 10°F results in a typical change in reading of 0.001 inH_2O

Resolution
Infinite

Relative Humidity
0 to 100%; sensor will operate with condensing moisture as well as conductive fluids applied to the measuring diaphragms

Adjustment Range
Unit calibrated in the "wall-mount" orientation with the connector positioned as in the installation drawing below. Zero adjustment is sufficient for all specified conditions via non-interacting, user accessible potentiometers.

Span adjustment - ±5% FS

Operating Temperature Range
-5°F to +185°F Process
+32°F to +122°F Compensated

Long-term Stability
±0.5%FS/YR

Power Supply Effect
±0.05% FS/Vdc

Output / Input

Unidirectional	Supply	Recommended Load
4-20mA, 2-wire	10-30 Vdc	Rc(in KΩ) ≤ (Vs-10) / 20
0-2.5 Vdc, 3-wire	10-30 Vdc	5000 Ohms Min
0-5 Vdc, 3-wire	10-30 Vdc	5000 Ohms Min
0-10 Vdc, 3-wire	15-30 Vdc	5000 Ohms Min
1-5 Vdc, 3-wire	10-30 Vdc	5000 Ohms Min
Bidirectional	**Supply**	**Recommended Load**
12±8mA, 2-wire	10-30 Vdc	Rc(in KΩ) ≤ (Vs-10) / 20
2.5±2.5 Vdc, 3-wire	10-30 Vdc	5000 Ohms Min
5±5 Vdc, 3-wire	15-30 Vdc	5000 Ohms Min

Response Time
User adjustable from 10 msec to 2 seconds

Insulation Resistance
100 Megohms @ 50 Vdc

Mechanical Characteristics

Sensor Housing
Iridited aluminum

Measurement Diaphragm
Beryllium copper with brass target

Pressure Port
10-32 UNF with barbed fitting

Electrical Connection
DIN connector 43650A

Weight
Gauge pressure - 16 oz.
Differential Pressure - 21 oz.

Safety
CE Marked

Ingress
Nema 3 (IP64)

OPTIONS

(A) Improved accuracy ±0.25% of calibrated range
(B) N.I.S.T. calibration cerificate (5 points)

ORDERING INFORMATION

(1) Select model number

Code	Output Type
LPX	Current output
LPM	Voltage output

Code	Series Identifier
10	Base Model

Code	Reference
0	Vented gauge
1	Wet/wet differential

Code	Pressure Port
0	10-32 UNF with barbed fitting

LPX 10 1 0

(2) State pressure range
(3) State output required
(4) Options (if required)

ASSOCIATED PRODUCTS

LDI 1001 - DIN mountable LED local display
DPI 280 Series -Panel mount indicator
LPX 1000 LCD - Low differential pressure transmitter with integral LCD displays
LPM/LPX 2000 -Low pressure differential sensors
LPM/LPX 5000 -Ultra low pressure differential sensors
LPM/LPX 8000 -Low pressure differential sensors
LPM/LPX 9000 -Low pressure high accuracy differential sensors

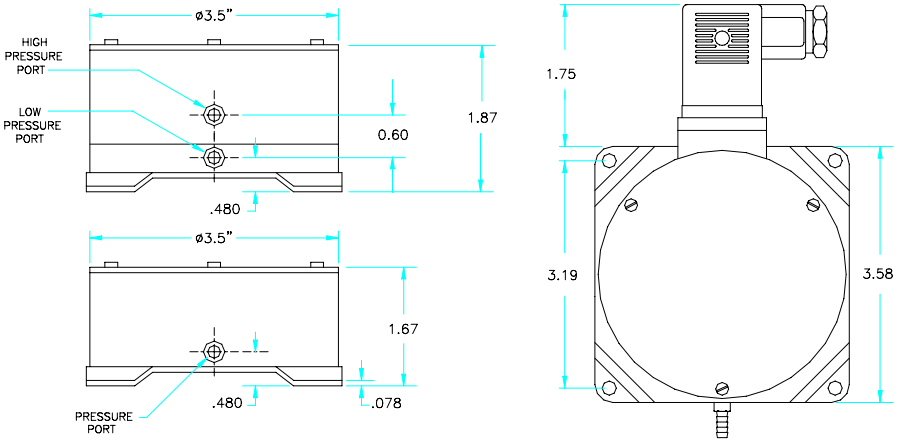
Continuing development sometimes necessitates specification changes without notice.

Druck is an ISO 9001 registered company

INSTALLATION DRAWINGS: Dimensions in inches

DIFFERENTIAL

GAUGE



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