

GE Sensing

Features

- Accuracy: $\pm 0.25\%$ full scale (FS) best fit straight line (BSL)
- Unidirectional or bidirectional operation
- Line Pressure: vacuum to 300 psig (20 bar)
- Outputs: two-wire 4 to 20 mA, three-wire 0 to 5 VDC, 0 to 10 VDC, four-wire 0 to ± 5 VDC
- Gases and liquids compatible with Beryllium Copper, Anodized Aluminum, Brass and Brazing Solder

The LPM/LPX 5000 Series Differential pressure transducers/transmitters are rugged, watertight (Type 4/IP66: when cover is in place and cable is installed properly) for accurate measurement of differential or

relative pressures of gases and liquids, in the ranges between the FS of 0.04 in H₂O (0.2 in (5.08 mm) WCD) and 15 psid (1 bar) in both unidirectional and bidirectional modes with line pressures of up to 300 psig (20 bar).

The cover may be removed allowing access to electrical connections, test ports, and zero and span controls. Both the LPM and LPX may be configured as unidirectional; eg. 0 to 1 psid (0 to 70 mbard), or bidirectional; eg. ± 1 psid (± 70 mbard). Diaphragms are available in Beryllium Copper only.

The LPM/LPX 5000 series wet/wet differential pressure transducers are suitable for precision applications such as Leak Detection, Clean Room Monitoring, Environmental Enclosures, or anywhere critical differential or gauge pressure measurements are required.

LPM/LPX 5000 Series

Druck General Purpose Wet/Wet Differential Pressure Transducers/ Transmitters

LPM/LPX 5000 Series is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



LPM/LPX 5000 Specifications

General

Operating Pressure Ranges

inH₂O (bar)

0.2, 0.4, 0.8, 2, 4, 8, 20, 40, 80 inH₂O
(0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500 mbar)

psi (bar)

7.5, 30, 75, 150 psi (500 mbar, 2, 5, 10 bar)

Overpressure

The rated range can be exceeded by the following multiples causing negligible calibration change:

- 20x Ranges 0.4 to 8 inH₂O (10 to 200 mmH₂O)
- 8x Ranges 20 to 80 inH₂O (500 mm to 20 mH₂O)
- 3x Ranges 7.5 to 150 psi (500 mbar to 10 bar)

Static (line) Pressure

Vacuum to 300 psig (20 bar), all ranges

Static Pressure Effect

<2% FS/1000 psi; effects may be zeroed out at operating line pressure

Pressure Media

Fluids/Gases compatible with Anodized Aluminum (AU4G), beryllium copper, brazing solder (Pb/Sn), and bras

Relative Humidity

0 to 100%

Transduction Principal

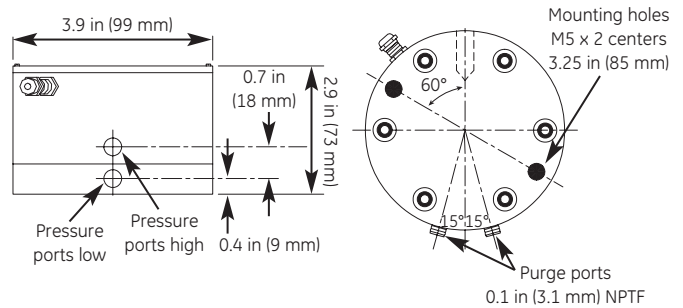
Variable Inductance

Excitation Voltage

- 10 to 30 VDC two-wire, 4 to 20 mA, 12 to ±8 mA
- 18 to 30 VDC four-wire, 0 to 10 VDC
- ±12 VDC four-wire, 0 to ±5 VDC

Supply Sensitivity

<0.5 to 10⁻⁴% FS/Volt



LPM/LPX 5000 Series installation drawing

Insulation Resistance

>100 M Ω @ 50 V

Output-Unidirectional

- LPM 5000: four-wire, 0 to 10 VDC
- LPX 5000: two-wire, 4 to 20 mA

Output-Bidirectional

- LPM 5000: four-wire, 0 to ±5 VDC
- LPX 5000: two-wire, 12 to ±8 mA

Load Impedance

- LPX: 0.05 (V_{supply}-10) K Ω maximum
- LPM: 1 K Ω minimum

Resolution

Infinite

Combined Non-Linearity, Hysteresis, and Non-Repeatability

±0.25% FS BSL all ranges

Long Term Stability

<±0.3% FS/year @ stabilized temperature

Zero Offset Adjustment

-15% to 100% of FSPR

Span Setting Adjustment

-20% to 50% of FSPR

Operating Temperature Range

-20°F to 176°F (-28°C to 80°C)

Compensated Temperature Range

- -4°F to 176°F (-20°C to 80°C)
- 22°F to 122°F (-5°C to 50°C)

LPM/LPX 5000 Specifications

Temperature Effects

- Zero: $\pm 0.012\%$ FS/ $^{\circ}$ F
- Span: $\pm 0.012\%$ FS/ $^{\circ}$ F

Response Time

10 to 500 msecs, adjustable by switches accessible under the cover

Vibration, KHz

50 g up to 2 KHz

Dead Volume

6 \pm 0.1 cc's all ranges

Weight

2.1 lb (0.95 kg)

Mounting Position Effect

Effect on zero only; can be adjusted out with zero potentiometer.

Sensor body

Black Anodized Aluminum (AU4G)

Electronic Cover

Black Anodized Aluminum (AU4G)

Measuring Diaphragm

Beryllium Copper

Environmental Sealing

- Type 4/IP66
- Electrical connection: Cable gland with screw terminal block accessible under housing cover

Pressure Connection

1/8 in NPTF via adapter; supplied with nylon fluted pressure port for 1/4 in (6 mm) in internal diameter tubing.

Options

Mounting Bracket

Associated Products

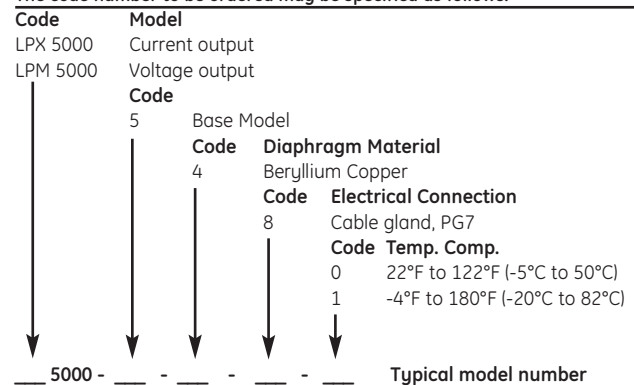
- **Signal Conditioning/Digital Readouts**
Refer to DPI 260 and DPI 280
- **Calibration Instruments**
Refer to DPI 515LP, DPI 605, and DPI 610LP

Ordering Information

- (1) Select model number
- (2) State pressure range
- (3) State output required
- (4) State options (if required).

Continuing development sometimes necessitates specification changes without notice.

The code number to be ordered may be specified as follows:



GE
Sensing



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