

LPM/LPX 5000 SERIES

General Purpose Wet/Wet Differential Pressure Transducers/Transmitters

- Accuracy: $\pm 0.25\%$ FS BSL
- Unidirectional, bidirectional operation
- Line Pressure: vacuum to 300 psig
- Outputs: 2-wire 4-20mA, 3-wire 0-5Vdc, 0-10Vdc, 4 wire 0- ± 5 Vdc
- Gases and liquids compatible with Beryllium Copper, Anodized Aluminum, Brazing Solder



The LPM/LPX 5000 Series Differential pressure transducers/transmitters are rugged, watertight (IP66/NEMA 4: 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 full scale ranges of 0.0075psid (0.2"WCD) and 15 PSID in both unidirectional and bidirectional modes with line pressures of up to 300 psig.

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. 0-1 PSID) or bidirectional (eg. ± 1 PSID). 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.

STANDARD SPECIFICATION

Operating Pressure Ranges

in H₂O (mmHg)

0.2(0.4), 0.4(0.8), 0.8(1.5), 2(4), 4(8),
20(40), 40(80), 80(150)

Operating Pressure Ranges

PSI

7.5, 30, 75, 150

Overpressure

The rated range can be exceeded by the following multiples causing negligible calibration change:
20x Ranges 0.4 to 8 inches H₂O
8x Ranges 20 to 80 inches H₂O
3x Ranges 7.5 to 150 psi

Static (line) Pressure

Vacuum to 300 psig, all ranges

Static Pressure Effect

<2% F.S./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)

Relative Humidity

0 to 100%

Transduction Principal

Variable Inductance

Excitation Voltage

10-30 Vdc 2-wire, 4-20 mA, 12±8mA
18-30 Vdc 4-wire, 0-10 Vdc
±12 Vdc 4-wire, 0-±5 Vdc

Supply Sensitivity

<0.5 x 10⁻⁴ F.S./Volt

Insulation Resistance

>100 megOhms @ 50V

Output-Unidirectional

LPM 5000 4-wire, 0-10Vdc
LPX 5000 2-wire, 4-20mA

Output-Bidirectional

LPM 5000 4-wire, 0-±5Vdc
LPX 5000 2-wire, 12±8mA

Load Impedance

LPX: 0.05 (V_{supply}-10) KOHms max
LPM: 1KOHms min

Resolution

Infinite

Combined Non-Linearity, Hysteresis and Non-Repeatability

±0.25% F.S. B.S.L. all ranges

Long Term Stability

<±0.3% F.S./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 +180°F

Compensated Temperature Range

-4°F to +180°F

22 to 122°F

Temperature Effects

Zero: ±0.012% F.S./°F
Span: ±0.012% F.S./°F

Response Time

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

Vibration

50g up to 2 KHz

Dead Volume

6±0.1cm³ all ranges

Weight

2.1 pounds

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

NEMA 4 (IP66)
Electrical connection:
Cable gland with screw terminal block accessible under housing cover

Pressure Connection:

1/8" NPTF via adapter; supplied with nylon fluted pressure port for 1/4" internal diameter tubing.

OPTIONS

Square Root Extractor (LPX only)
Mounting Bracket

ORDERING INFORMATION

(1) Select model number

Code	Model
LPX	Current output
LPM	Voltage output
Code	Model
5	Base Model
Code	Diaphragm Material
4	Beryllium Copper
Code	Electrical Connection
8	Cable gland, PG7
Code	Temp. Comp.
0	22 to 122 °F
1	-4 to 180 °F

LPX 5 4 8 0 - Typical model no.

(2) State pressure range

(3) State output required

(4) State options (if required).

Continuing development sometimes necessitates specification changes without notice.

ASSOCIATED PRODUCTS

Signal Conditioning/Digital

Readouts

Refer to DPI 260 and DPI 280

Calibration Instruments

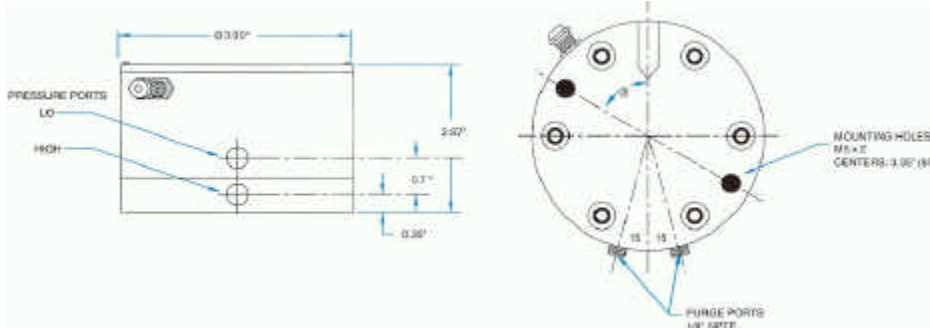
Refer to DPI 510, DPI 602, DPI 605 and DPI 650
Druck/Pressurements
V1600 Series Dead Weight Tester

*Druck in an ISO 9001
registered company*



INSTALLATION DRAWINGS

Dimensions: in inches/mm



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Representative

LPX/LPM 5000 SERIES PDS-A060- 1/00