

PTX 120/WL

Wet/Wet Differential Pressure Transmitter

- Ranges from 175mbar to 35 bar
- Standard two wire, 4-20mA format
- $\pm 0.1\%$ accuracy
- Zero and span trim controls
- Intrinsically safe as standard
- Compact and rugged design



The PTX 120/WL is a truly "wet/wet" differential pressure transmitter capable of accepting a wide variety of pressure media on both ports.

The high pressure "positive" port is a fully welded 316 stainless steel assembly and the low pressure "negative" port contains 316 stainless steel, silicon, glass, epoxy, aluminium and a silicon 'O' ring seal.

An advanced micromachined silicon sensor provides accurate and reliable performance in harsh operating environments with high vibration and shock resistance. Outstanding thermal characteristics are achieved by a proprietary temperature compensation process.

Integral two-wire electronics provide excitation and conditioning of the bridge signal to generate a direct 4-20mA output and fine trim potentiometers are accessible for user zero and span adjustment.

Together with field proven electronics and packaging, the PTX 120/WL provides long term, reliable measurements with low cost of ownership.

PTX 120/WL



Wet/Wet Differential Pressure Transmitter

STANDARD SPECIFICATIONS

Pressure Measurement

Operating Pressure Ranges

175 mbar, 350 mbar, 700 mbar, 1, 1.5, 2, 3.5, 5, 7, 10, 15, 20 and 35 bar differential. *Alternative units available, e.g. psi, kPa, etc.*

Maximum Line Pressure

PTX 120/2WL - 2 bar
 PTX 120/7WL - 7 bar
 PTX 120/35WL - 35 bar
75 bar available upon request.

Overpressure

The rated pressure can be exceeded by the following multiples with negligible calibration change:-

Positive side:-

10 x for 175 mbar range
 6 x for 350 mbar range
 4 x for 700 mbar to 20 bar ranges
 35 bar range maximum pressure 100 bar.

Negative side:-

6 x for 175 mbar range
 4 x for 700 mbar range
 1.5 x for 7 bar range

For bi-directional use refer to Druck.

Positive Pressure Media

Fluids compatible with 316 stainless steel.

Negative Pressure Media

Fluids compatible with 316 stainless steel and quartz.

Excitation/Supply Voltage

9-30V d.c.

This voltage must appear across the transmitter terminals.

Supply Sensitivity

0.005% F.S./Volt with excellent 50Hz and 100Hz supply ripple rejection.

Output Current

4mA at zero pressure rising proportionally to 20mA at full range pressure.
Zero suppression can be incorporated to allow for bi-directional use. Refer to Druck.

Performance

Accuracy

±0.1% B.S.L. for the combined effects of Non-Linearity, Hysteresis and Repeatability, each side considered separately.
 ±0.06% B.S.L. available for ranges to 20 bar.
Transmitters are calibrated in the positive direction unless specified. Refer to Druck.

Side to Side Error (Change of slope)

0.5% approximately.

Zero Offset and Span Setting

±5% F.S. sealed potentiometer adjustment.

Operating Temperature Range

-20° to +80°C Standard.
For higher temperature ranges refer to Druck.

Temperature Effects

±0.5% T.E.B. 0° to 50°C
 ±1.5% T.E.B. -20° to 80°C
 175 mbar range ±0.5% total error band 10° to 40°C.

Mechanical Shock

1000g for 1msec in each of three mutually perpendicular axes will not affect calibration.

Acceleration Sensitivity

0.044% F.S.O./g for 350 mbar decreasing to 0.0005% F.S.O./g for 35 bar range.

Intrinsic Safety

Certified for use with barrier systems to EEx ia gas group IIC T4 an ambient temperature of 80°C to BS 5001 part 7 and Cenelec EN50 020. Certificate No. Ex802219X.

Physical

Pressure Connection

G¹/₈B or G¹/₄B (60° Int Cone)
 G¹/₈B or G¹/₄B (Flat End)
¹/₄ " NPT
⁷/₁₆ UNF
 M14 x 1.5mm.
Others available upon request.

Electrical Connection

Integral cable or 6 pin bayonet plug.
See options.

Weight

300 grams nominal.

OPTIONS

Integral connector PTX 120/WL/C. (See Installation drawings below). Mating socket Amphenol-type 62GB-16F10-6S or equivalent (100°C) supplied as standard with integral connector versions.

RELATED PRODUCTS

Druck manufactures a comprehensive range of pressure sensors, indicators, calibrators, controllers and deadweight testers. The range of portable calibrators also covers temperature and electrical parameters.

ORDERING INFORMATION

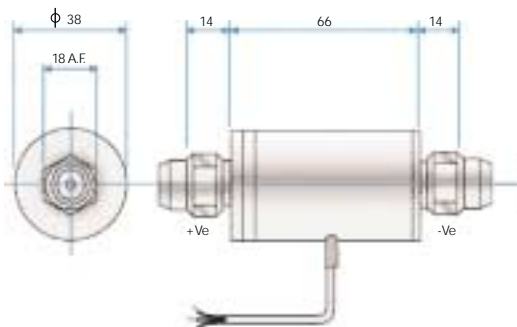
Please state the following:

- (1) Type number e.g. **PTX 120/2WL**
- (2) Differential pressure range
- (3) Maximum line pressure
- (4) Temperature range
- (5) Pressure connection
- (6) Pressure media
- (7) Cable length

Continuing development sometimes necessitates specification changes without notice.

INSTALLATION DRAWINGS - Dimensions in mm

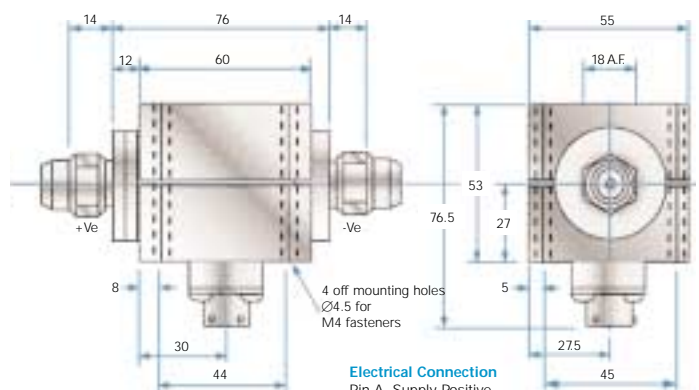
PTX 120/WL



Electrical Connection

2 Core p.t.f.e. shielded cable
 Red Supply positive
 Blue Supply negative
 Screen N/C to transmitter body

PTX 120/WL/C



Electrical Connection

Pin A Supply Positive
 Pin B Supply Negative

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