

PTX / PMP 1400 SERIES PRESSURE SENSORS



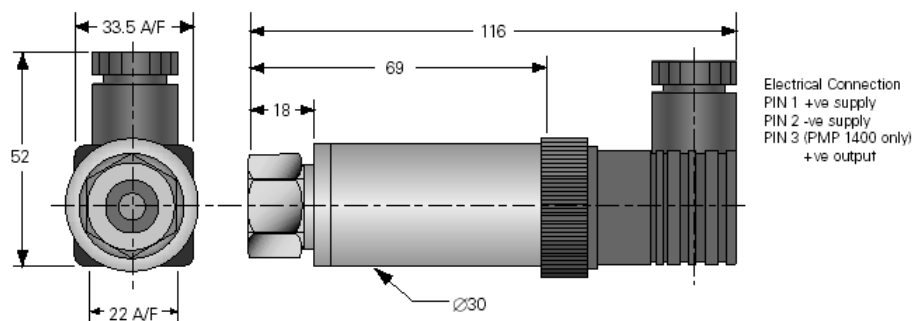
- Pressure ranges to 600 bar
- Gauge and absolute formats
- 0 to 5V or 4-20mA outputs
- 0.15% typical accuracy
- Low cost
- Intrinsically Safe, CE marked, PED compliant

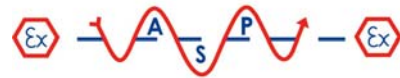
The PTX/PMP 1400 Series of Industrial Pressure sensors have been designed for use with aggressive pressure media found in many industrial and process applications.

The stainless steel isolation diaphragm and fully welded stainless steel pressure module ensures excellent media compatibility without compromising the performance from Druck's own micro-machined silicon pressure diaphragm. Integral electronics provide a 2 wire 4 to 20 mA (PTX 1400) or 3 wire 0 to 5V (PMP 1400) output proportional to applied pressure. Integral non-interactive zero and span controls ensure system interchangeability and ease of calibration.

The PTX/PMP 1400 incorporates developments from aerospace applications and volume manufacturing to achieve high performance with competitive pricing. Ex-stock delivery is provided by holding a stock of compensated and calibrated sensors in DIN pressure ranges. These sensors feature compact, rugged design with field proven electronics to ensure long term reliable measurement and low cost of ownership.

INSTALLATION DRAWINGS - Dimensions in mm





STANDARD SPECIFICATIONS:

Operating Pressure Ranges

0 to 100, 250, 400, 600mbar, 1, 1.6, 2.5, 4, 6,
10, 16, 25, 40, 60 bar gauge and absolute.
0 to 100, 160, 250, 400, 600 bar sealed gauge
and absolute.
Barometric (PTX 1400 only) 800 to 1200mbar abs.
-1 to 1.6 bar gauge (compound)
-1 to 2.5 bar gauge (compound)
-1 to 4 bar gauge (compound)

Overpressure

The rated pressure range can be exceeded by
the following without degrading performance:
1 bar for 100 and 250mbar ranges
2 bar for 400 and 600mbar ranges
2 x (180 bar max) for ranges 1 bar to 100 bar
2 x (900 bar max) for ranges 160 to 600 bar.

Pressure Media

Fluids compatible with a fully welded assembly
of 316 stainless steel and Hastelloy C276.

Supply Voltage

PMP 1400: 9 to 30V d.c.
PTX 1400: 9 to 28V d.c. Min supply voltage
that must appear across transmitter terminals
is 9V and is given by $V_{min} = V_s - (0.02 \times R_L)$
where V_s = supply volts, R_L = total loop ohms

Output Voltage

PMP 1400: 0 to 5V (3 wire pedestal configuration)
(calibrated between 5-100% FS)
PTX 1400: 4-20mA (2 wire configuration)

Load Impedance (PMP version)

Greater than 100k ohms for quoted performance.

Zero Offset and Span Setting

Factory set to 0.5%, then 5% site adjustable
by sealed, non-interacting potentiometers.

Long Term Stability

0.2% FS range per annum typical.

Accuracy

Combined Non-linearity, Hysteresis and Repeatability: 0.15%
typical, 0.25% maximum Best Straight Line Definition.

Operating Temperature Range

-20_ to 80_C.

Temperature Effects

Total Error Band 1.5% typical, 2% maximum,
-20_ to 80_C. For ranges below 400mbar
values increase pro-rata with calibrated span.

Weight: 200 grams nominal

Pressure Connection: G1/4 female.

Electrical Connection

DIN 43650 plug supplied with mating socket.

Ingress Protection

Sealed to IP65

Voltage Spike Protection

Units will withstand 600V spike test to ENV
50142 without damage, applied between
excitation lines and case.

Safety

EMC emissions EN50081-1
EMC Immunity EN50082-1
Certification CE marked.
PED compliant. CE Category 1 Pressure
Accessory to Pressure Equipment Directive
(PED) 97/23/EC. Note: 'Operating Pressure
Range' is equivalent to maximum working
pressure (Ps) as referred to in the PED.

PTX 1400 supplied Intrinsically Safe certified
as standard, for use with barrier systems to
Ex 97D 2058 EEx ia IIC T4 amb 80_C.

(B) Screw-in male/male adaptors with bonded seal

G1/4 male (P/N 190-040)

1/4 NPT male (P/N 190-038)

7/16 UNF male to MS 33656 (P/N 190-042)

M14 x 1.5 male (P/N 190-036)

G1/2 (pressure gauge) (P/N 190-039)

All adaptors 316 stainless steel construction.

(C) Vented 6 core cable (5.7mm) (P/N 192-004)

Specify required length on order.

(D) Pressure snubber adaptor (DA0839-1-02)

Screw in adaptor providing a G1/4 female

thread. Protects against unwanted fast

transient pressure spikes. Refer to

Snubber Product Note for further detail.

Please state the following:

(1) Type number PTX 1400 or PMP 1400

(2) Operating pressure range

(3) Gauge or absolute

(4) Options - As above. Order as separate

line items (supplied unfitted).

Continuing development sometimes

*necessitates specification changes without
notice.*

Supplied by:

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