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PTX 500 SERIES

Industrial Pressure Transmitters

- **Hastelloy and stainless steel wetted parts**
- **Absolute and gauge configurations**
- **DIN pressure ranges or custom scaled**
- **Electrical and pressure connection options**
- **Intrinsically safe units available**
- **Low cost**

The PTX 500 series combines micro machined silicon diaphragms with fully welded stainless steel and Hastelloy pressure ports to provide a highly accurate, stable pressure transmitter with the materials and environmental protection required for industrial applications.

The silicon sensors incorporate developments derived from aerospace applications to improve output noise, non-linearity and hysteresis and long term stability.

Batch manufacturing ensures optimum pricing, with the ability to custom calibrate to alternate ranges and pressure units prior to completion with the required electrical connection and rapid despatch.

Detachable electrical connectors (not available on submersible units) provide access to the independent zero and span trim controls, and if a configuration change to the electrical or pressure connections are required on-site replacement parts and screw in pressure adaptors are available.

Each transmitter incorporates RFI/EMC and electrical spike protection, and Intrinsically Safe approved units are available as an option.

STANDARD SPECIFICATION

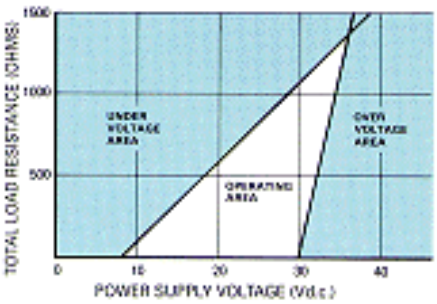
Operating Pressure Range
Any pressure unit and (zero based) span available between 250mbar and 700 bar full scale to gauge and absolute formats: spans down to 100mbar available in gauge format only.

Standard Ranges:
0 to 100, 160mbar (gauge only)
0 to 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, 700 bar sealed gauge and absolute.

Overpressure
The rated pressure can be exceeded by the following multiples without degrading performance:-
2 bar for ranges up to 600mbar
3 x for 1 bar to 40 bar ranges
2 x for ranges above 40 bar.

Pressure Media
Fluids compatible with a fully welded assembly of 316 stainless steel and Hastelloy C276 (NACE compatible grades).

Transmitter Supply Voltage
9-30V d.c.
This voltage must appear across the transmitter terminals.



Output Current
4-20mA (two-wire configuration) proportional for zero to full scale pressure.

Zero Offset and Span Setting
±0.05mA
±5% site adjustable by sealed, non-interacting potentiometers (resolution of potentiometers ±1 uA).
(PTX 530 not adjustable).

Combined Non-Linearity, Hysteresis and Repeatability
Terminal definition: The output will not deviate from the straight line connecting zero and full scale output by more than 0.3% F.S. (Typically 0. 15% F.S.).
Best straight line definition:
±0.2% F.S. (Typically ±0.1% F.S.)

Operating Temperature Range

Ambient:	-20^0 to $+80^0$C
Process media:	-30^0 to $+120^0$C
Storage:	-40^0 to $+125^0$C

Temperature Effects
For ranges of 400mbar and above the output will not deviate from room temperature calibration by more than:
1% F.S. over -10^0 to $+50^0$C
2% F.S. over -20^0 to $+80^0$C
Typically 0.7% F.S., -10^0 to $+50^0$C
1.5% F.S., -20^0 to $+80^0$C.
For ranges below 400mbar these values will increase pro-rata with calibrated span.

Weight
PTX 500 core: 330 gms, excluding optional electrical connections, cable etc.

Pressure Connection
$G^1/_4$ female
Screw-in male/male adaptors available (see accessories).

Electrical Connection
Versions available for IP50 to IP68 ratings (see ordering information).
Mating parts supplied with plug/socket versions (PTX 510 and 560)
1 metre integral cable supplied as standard on PTX 520 and PTX 530 models.
Longer lengths available on request.

Intrinsic Safety (Optional)
These transmitters can be certified for use with barrier systems to EEx is gas group IIC with a T4 rating for ambient temperatures up to 80^0C to BS5501 part 7 and Cenelec EN50 020.

Marine Approval
Certified for use in vessels classed with RINA (certificate 5/438/93).

ACCESSORIES AVAILABLE TO ORDER:
Screw-in Male/Male Adaptors
$G^1/_4$ male (P/N 190-040)
$^1/_4$ NPT male (P/N 190-038)
$^7/_{16}$ UNF male (MS33656-4 compatible) (P/N 190-042)
M14 x 1.5 male (P/N 190-036)
G1/2 (pressure gauge connection) (P/N 190-039)
Adaptors manufactured in 316 stainless steel.
Bonded Seal (P/N 204-053)
To fit between transmitter and screw-in male/male adaptors (Nitrile and zinc plated steel).

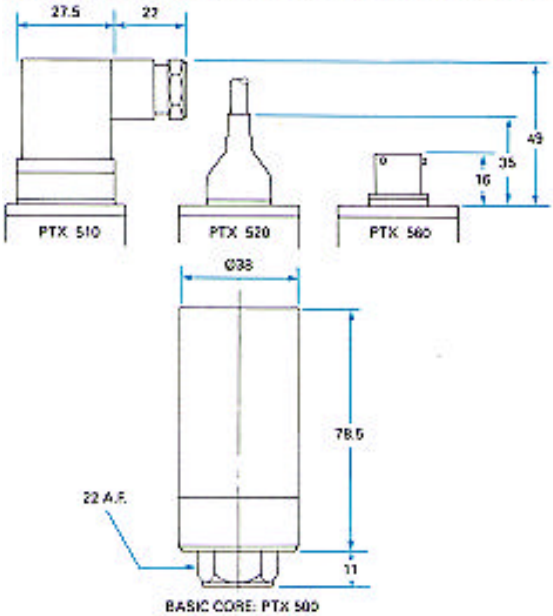
Cable (P/N 192-004)
For gauge ranges of 60 bar and below the PTX 510 requires this 6mm O.D. vented cable.

Continuing development sometimes necessitates specification changes without notice.

INSTALLATION DRAWINGS

Dimensions: mm

DETACHABLE/INTERCHANGEABLE Electrical Connector Versions



ORDERING INFORMATION

Please state the following:-
(1) Type number

PTX 5X X - X

Approvals
0 (or omit) Commercial
I Intrinsically safe

Temperature Effects
0 -10° to +50°C
1 -20° to +80°C

Electrical Connection
0 Solder tags (IP50)
1 DIN 43650 plug/socket (IP65)
2 Integral cable assembly (IP68)
3 Submersible cable assembly IP68 to 700mH$_2$Og
4 Rotatable conduit (IP65)
5 M20 conduit (IP65)
6 MIL-C-26482 plug/socket

(2) Operating pressure range.
(3) Accessories (if required).

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