



Industrial Pressure Transmitter PTX-1400

Function: The PTX-1400 Pressure Transmitter manufactured by Druck has 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 two-wire electronics provide conditioning of the signal from the silicon diaphragm to generate a 4 to 20mA output proportional to applied pressure. In addition, the electronics provide power supply regulation, reverse polarity, over voltage and EMC protection. Integral non-interactive zero and span controls ensure system interchangeability and ease of calibration.

The PTX-1400 incorporates developments from aerospace applications and volume manufacturing advances to achieve good performance with competitive pricing. Industry demands for rapid despatch are met by stock holding fully compensated and calibrated sensors in DIN pressure ranges. This transmitter features a compact, rugged design with field proven electronics to ensure long term reliable measurement and low cost ownership.

INPUTS:

Ranges

0 to 100, 250mbar gauge
0 to 400, 600mbar, 1, 1.6, 2.5, 4, 6, 10, 16, 25, 40, 60 bar gauge and absolute
0 to 100, 160 bar sealed gauge

800 to 1200mbar absolute
(barometric)

-1 to 1.6 bar gauge
-1 to 2.5 bar gauge
-1 to 4 bar gauge

Over Pressure

The rated pressure can be expected by the following without degrading performance:-
1 bar for 100 and 250mbar ranges
2 bar for 400 and 600mbar ranges
2 x for other ranges up to 180 bar max

Pressure Media

Fluids compatible with a fully welded assembly of 316 stainless steel

OUTPUTS:

Current

4 to 20mA

Zero Offset and Span Setting

±0.1mA
±5% site adjustable by sealed, non-interacting potentiometers

Long Term Stability

±0.2%* / annum typical

*Percentage errors are expressed as a % of span, i.e. the difference between the lowest and highest pressure except for the barometric range where span is defined as 1200mbar.

SUPPLY:

Supply Voltage

9 to 28 volt dc
The minimum supply voltage (V_{MIN}) that must appear across the transmitter terminals is 9V and is given by:-

$$V_{MIN} = V_S - (0.02 \times R_L)$$

where

V_S = supply voltage in volts

R_L = total loop resistance in ohms

Voltage Spike Protection

Units will withstand 600V spike test to ENV50142 without damage, applied between excitation lines and case

GENERAL:

Accuracy

±0.15%* typical
±0.25%* maximum of span from best fit straight line. Includes effects of non-linearity, hysteresis and repeatability.

Temperature Effects

±1.5%* Total Error Band typical
±2.0%* Total Error Band max over -20°C to +80°C

For ranges below 400mbar these values will increase pro-rata with calibrated span

Pressure Connection

G¹/₄ female

Electrical Connection

DIN43650 plug with free mating socket supplied as standard

Ingress Protection

IP65

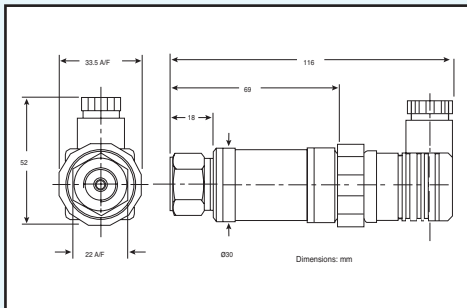
Operating Temperature Range

-20 to +80°C

Weight

PTX-1400 200gms nominal

MECHANICAL DETAILS



ORDERING DETAILS

- Give identification code, i.e. PTX-1400
- Specify operating pressure range (gauge or absolute)

ACCESSORIES-

- Screw-in Male/Male Adaptor G¹/₂ supplied with bonded seal.
- Vented Electrical Cable - to maintain an Ingress Protection of IP65, gauge pressure ranges require vented electrical cable - specify length required - minimum supply of 1m