

PR3202 ULTRA LOW RANGE DIFFERENTIAL PRESSURE TRANSMITTER



- **ACCURATE AT VERY LOW DP (10 pascal)**
- **HIGH STABILITY and REPEATABILITY**
- **R.F.I. PROTECTION**
- **4-20mA TWO-WIRE OUTPUT**
- **ZERO + SPAN ADJUSTMENT ON-SITE**
- **RANGES 0.1mbar to 1000mbar**
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DESCRIPTION

The ULTRA LOW RANGE air differential pressure transmitter is a 2 wire transmitter with 4-20mA output. Incorporating from 0-10pascal to 0-10mbar the latest capacitive sensing technology and from 20mbar to 1000mbar the latest strain technology. Both sensors are fully temperature compensated for unrivalled stability at very low pressure.

Housed in a RFI shielded wall mounted box giving the transmitter the facility for precise control at very low pressures, with the robustness and flexibility for many industrial applications.

Applications include flow measurement with pitot tubes, orifice plates and mass flow meters, plus static pressure measurement and control in combustion chambers and clean rooms, or any application on air or gas requiring reliable ultra low differential pressure measurement.

Electrical connection is via PG7 cable gland with an option for M20 conduit fitting, access to zero and span adjustment is made by removing front cover for easy on-site adjustment.

Pressure connection is via 4mm I/D hose connections.

Ranges available from 0-10pa (0-0.1mbar) to 0-1000mbar, in DP or gauge reference.

SPECIFICATION

INPUT

Pressure ranges..... -0.1mbar to 0-1000mbar
 Pressure reference..... Gauge/Absolute/Differential
 Overpressure..... Ranges 0.1 to 10mbar. 100 x DP
 Ranges 20 to 1000mbar. 1.2 barg
 Common Mode pressure..... 10bar max (limited by pressure connections)

Reverse polarity protection..... Continuous no damage
 Response time..... Ranges 0.1 to 10mbar...20mSec
 Ranges 20 to 1000mbar...1.5 mSec
 Load driving capability..... 1150Ω @ 36Vdc
 Insulation resistance..... 100MΩ @ 100Vdc
 Adjustment..... Zero ±10%FS Span ±10%FS

OUTPUT

Signal..... 4-20mA 2 wire
 Repeatability..... <±0.1% FSO

ENVIRONMENTAL

Pressure media..... Non corrosive gas
 Temperature range..... -20 to +70°C
 Thermal sensitivity..... ±0.05%/°C
 Vibration tolerance..... 5g's to 50Hz
 Operating humidity..... 20% - 95% RH
 Enclosure RFI attenuation..... better than 50 to 90dB between 5-1800 MHZ

ACCURACY

Zero offset..... <± 1% FSO
 Span error..... <± 1% FSO
 Linearity /hyst..... <± 0.5% FSO
 Common mode pressure error <± 0.05% FSO / 4 x DP range
 Long term stability..... <± 0.2% FSO / 6 months

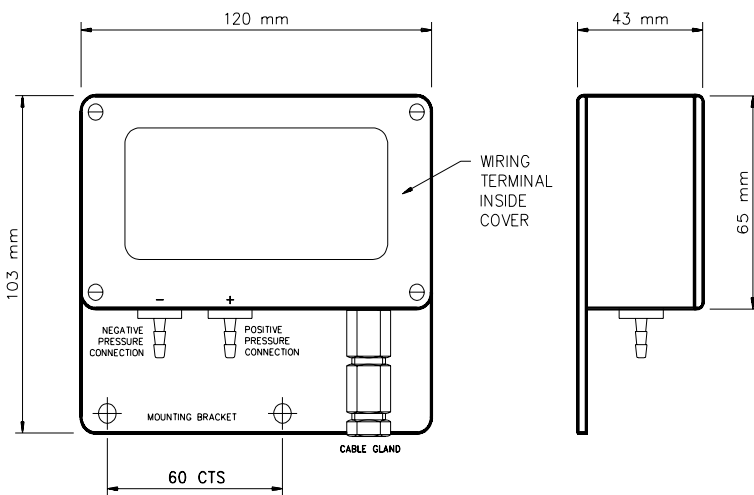
PHYSICAL

Pressure connections..... 4mm/D hose (other on request)
 Electrical conn..... Screw terminal via PG7 gland
 Enclosure..... IP54 RF shielded
 Weight..... 325g max

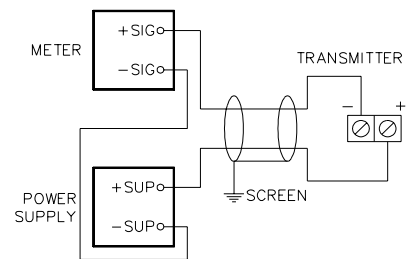
ELECTRICAL

Supply voltage..... 13-36Vdc

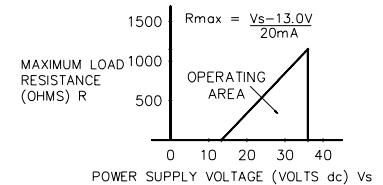
DIMENSIONS / WIRING DETAILS



TRANSMITTER WIRING DIAGRAM



LOAD DRIVING CHART



ORDERING INFORMATION

STATE MODEL NUMBER AND PRESSURE RANGE REQUIRED:-
 i.e. PR3202 0-10mbar

| MODEL NO. | DESCRIPTION |
|-----------|---|
| PR3202 | Low Range D.P. Transmitter 0-0.1 to 0-1000mbar |

PRESSURE RANGES

| | |
|---------------|---------------|
| 0 - 0.1 mbar | 0 - 30 mbar |
| 0 - 0.25 mbar | 0 - 50 mbar |
| 0 - 0.50 mbar | 0 - 80 mbar |
| 0 - 1 mbar | 0 - 100 mbar |
| 0 - 2 mbar | 0 - 150 mbar |
| 0 - 5 mbar | 0 - 250 mbar |
| 0 - 10 mbar | 0 - 500 mbar |
| 0 - 20 mbar | 0 - 1000 mbar |