



- ACCURATE AT VERY LOW D.P
- HIGH STABILITY AND REPEATABILITY
- R.F.I PROTECTION
- 4-20mA TWO-WIRE OUTPUT
- ZERO + SPAN ADJUSTMENT ON-SITE
- RANGES 0.25mbar TO 1000mbar
- 0-5VDC AND 0-10VDC OUTPUTS AVAILABLE
- ATEX CERTIFIED VERSION: EEx ia IIC T4  
(0-5mbar+ only and 4-20mA output only)

## DESCRIPTION

Our Low Range air differential pressure transmitter provides an accurate solution for low pressure sensing with ranges available from 0- 0.25mbar to 0-1000mbar . Incorporating the latest silicon sensor and electronics technologies, these 4-20mA transmitters are fully temperature compensated for unrivalled stability at very low pressure.

Housed in an RFI shielded wall mountable box for EMC protection, these transmitters combine precise measurement for control at very low pressures, with the robustness and flexibility for industrial and commercial installations. An optional heavy-duty aluminium die-cast housing is available for the harshest environments.

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.

Access to screw terminal electrical connections and to zero span potentiometers is by removing the front covers, making installation and on-site adjustment. Cable entry is through a compression seal gland, or optional M20 conduit fitting. Standard pressure connections are to push-on hose fittings for 4mm ID hose.

Ranges available from 0-0.25mbar to 0-1000mbar, in DP, gauge reference or bi-directional.

# PR3202 LOW RANGE DIFFERENTIAL PRESSURE TRANSMITTER

## SPECIFICATION

### PRESSURE RANGES:

0 to 0.25mbar through to 1000mBar, see table below for list of all standard pressure ranges.

### PRESSURE REFERENCE:

Differential for all ranges. Gauge and absolute versions available.

### OVERPRESSURE:

Unidirectional pressure can exceed rated range up to the proof pressure limits shown below with no damage or change in calibration above  $\pm 0.5\%$ FS.

*For ranges 5mBar and 10mbar*

Proof pressure: 25mbar maximum

*For ranges 20mBar and 100mbar*

Proof pressure: 200mbar maximum

*For ranges 150mBar and 1000mbar*

Proof pressure: 1200mbar maximum

### COMMON MODE PRESSURE:

*For ranges 5mBar and 10mbar*

375mbar maximum equal to both ports

*For ranges 20mBar and 1000mbar*

2 bar maximum equal to both ports

### OUTPUT SIGNAL:

4-20 mA (2 wire configuration) as standard.

Optional outputs available are:

0-5 Vdc (3 wire),

0-10 Vdc (3 wire),

### ZERO OFFSET AND SPAN SETTING:

$\pm 0.16$ mA

$\pm 5\%$ FS zero adjustment with easy access trimming potentiometers.

### SUPPLY VOLTAGE:

Measured across supply terminals on connector. 13-36Vdc for 4-20mA versions

13-30Vdc for 0-5V and 0-10V versions

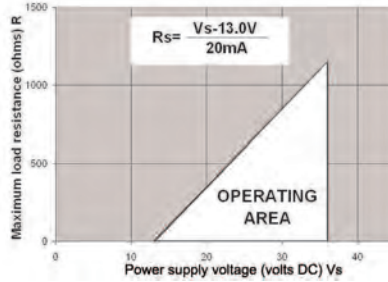
### REVERSAL OF SUPPLY VOLTAGE:

Protected against supply voltage reversal up to 50Vdc

### LOAD DRIVING CAPABILITY

(4-20mA version only):

Calculate maximum load see chart below.



eg with supply voltage load of 36dc, maximum load is 1150ohms.

### COMBINED NON-LINEARITY AND HYSTERESIS:

$\pm 0.30\%$  FS best fit straight line definition.

### REPEATABILITY:

$\pm 0.1\%$  FS defined as maximum error between 3 consecutive pressure cycles.

### LONG TERM STABILITY:

$\pm 0.2\%$  FS/year non-cumulative

### PRESSURE MEDIA:

Dry non corrosive gas only.

### OPERATING TEMPERATURE RANGE:

Ambient:  $-20^{\circ}$  to  $+70^{\circ}$ C

Storage:  $5^{\circ}$  to  $+40^{\circ}$ C

### TEMPERATURE EFFECTS:

$\pm 2.0\%$ FS total error band for  $0^{\circ}$  to  $50^{\circ}$ C

Typical thermal zero and span coefficients

$\pm 0.04\%$ FS/ $^{\circ}$ C

### ELECTROMAGNETIC-COMPATIBILITY:

Emissions EN50081-1

Immunity EN50082-1

Certification CE marked

### PRESSURE CONNECTION:

4mm I.D. hose (others on request)

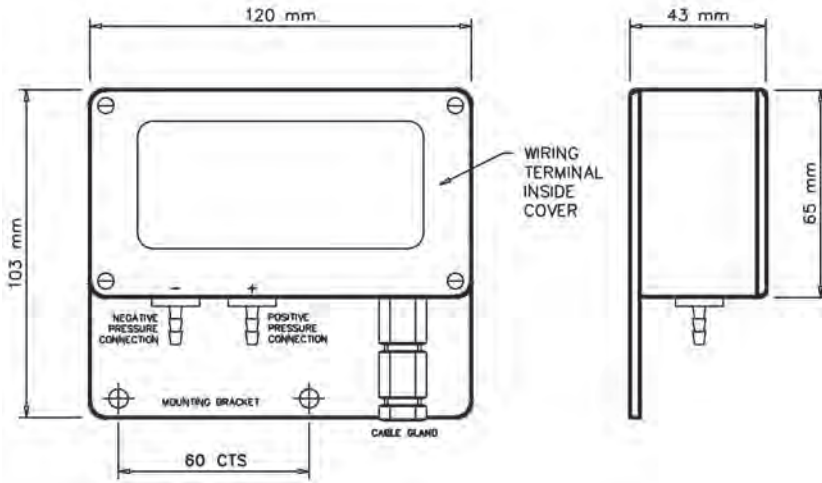
### ELECTRICAL CONNECTION:

Screw terminals for conductor sizes 0.2-2.0mm<sup>2</sup> are located beneath the enclosure lid. Cable entry is through an IP66 cable gland with compression seal for cable sizes 4-8mm. Optional M20 conduit fitting are available.

### WEIGHT:

280 grams for standard unit.

## DIMENSIONS (in mm)



### ELECTRICAL CONNECTION

Pin No.	Designation
1	+supply
2	4-20mA signal
3	earth

### ORDER DETAILS

State model number and pressure range required:-  
e.g. PR3202 0-50 mbar DP

Model No.	DESCRIPTION
PR3202	4-20mA, 2 WIRE

### CALIBRATION

All products are calibrated using precision calibration equipment with traceability to international standards.



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