DIFFERENTIAL PRESSURE TRANSMITTER

PYRD-28 INDUSTRIAL & INTRINSICALLY SAFE DIFFERENTIAL PRESSURE TRANSMITTER

The PYRD-28 transmitter is suitable for the measurement of differential pressure of gases, vapours and liquids.

Construction

The active element is a piezoresistance silicon sensor separated from the medium by a 316L Stainless Steel diaphragm. The special design of the active sensing element ensures it can withstand the pressure surges and overloads of up to 320 Bar. The electronics are housed with a degree of protection to IP65 or IP67 depending on the type of electrical connection supplied.

Calibration

Potentiometers can be used to adjust the zero position and the range by up to 10% without altering the settings.

Installation

The transmitter with P type process connection can be installed directly onto impulse lines or wall or pipe mounted (25mm Ø) using BF mounting bracket.

The C type process connection can be fitted directly to a 3 or 5 valve manifold. Transmitters without a valve manifold can be fitted in any position on a 2" pipe or on a wall using the BCZ or BCS mounting bracket.

Materials:

Wetted parts:	Type P process conn. 316 Stainless Steel Type C process conn. 316 Stainless Steel
Diaphragm:	316L Stainless Steel (Hastelloy C276 or gold plated options)
Casing:	304 Stainless Steel (316 Stainless Steel Option)

Technical Data

Hysteresis, repeatability: 0.05%

Thermal compensation range: 0 - 70°C

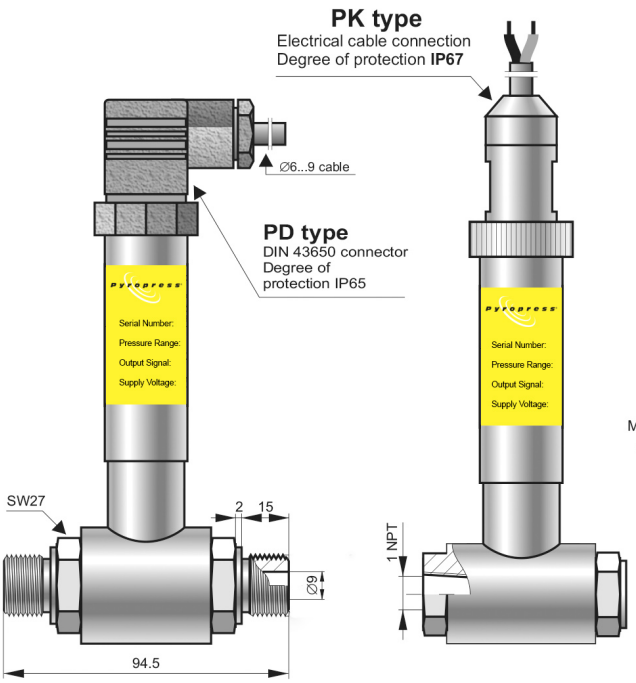
Operating temperature range: -25 to +80°C

Medium temperature range: -25 to +120°C (direct measurement)

Over 120°C - measurement with the use of impulse line or diaphragm seals

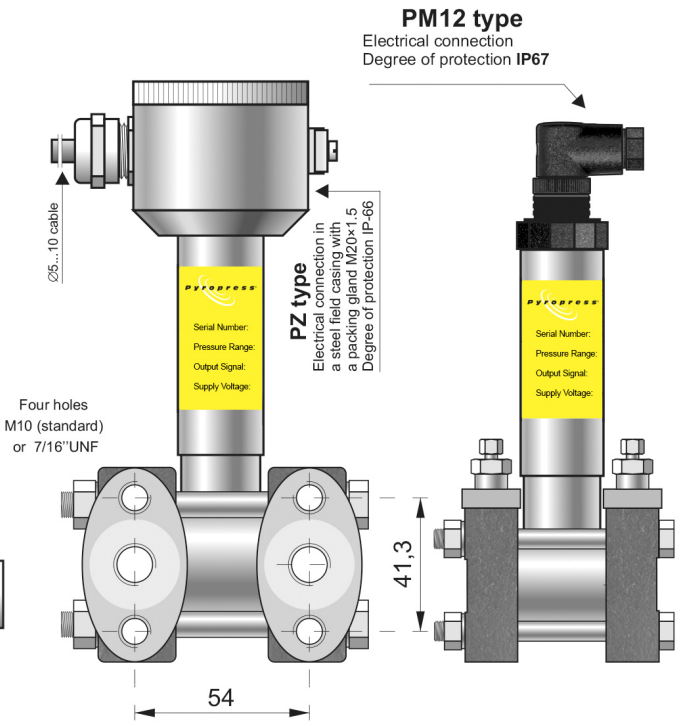
FEATURES

- Overloads up to 420 Bar total pressure
- Any range from 0-25 mbar up to 0-25 Bar
- Accuracy 0.25%
- ATEX Intrinsically safe (Gas and Dust)



Transmitter **PYRD-28**
Process connection **GA type**
1/4" BSPP male conns
Static pressure limit 40 bar

Transmitter **PYRD-28**
Version with **N4 type** process connection. Static pressure limit 40 bar



Transmitter **PYRD-28** – version with **type C** and **CR** process connection to be mounted together with a valve manifold. Static pressure limit 250 or 320 bar

Model	Description		
PYRD-28	**Differential pressure transmitter**		
Measuring range in relation to 4-20mA or voltage output	-3.....0 - 25 mBar -4.....0 - 40 mBar -5.....0 - 60 mBar -6.....0 - 100 mBar -7.....0 - 160 mBar -8.....0 - 250 mBar	-9.....0 - 400 mBar -10.....0 - 600 mBar -11.....0 - 1 Bar -12.....0 - 1.6 Bar -14.....0 - 2.5 Bar -15.....0 - 4 Bar	-16.....0 - 6 Bar -18.....0 - 10 Bar -20.....0 - 25 Bar -X.....Non Standard
Casing and electrical connections	-PD..... -PDS.... -PZ..... -PS..... -PK..... -PM.....	304 Stainless steel housing. IP65 with DIN43650 plug and socket connector 316 Stainless steel housing. IP65 with DIN43650 connector 304 Stainless steel housing. IP66 with M20 electrical connection 316 Stainless steel housing. IP66 with M20 electrical connection 304 Stainless steel housing. IP67 with cable connection. (3 metres standard) If other cable length is required please specify as PK5 for 5 metres etc. 304 stainless steel housing. IP67 with M12x1 thread and connector	
Process connections	-GB... -N4.... -GA... -C 7/16 -CR..... -X.....	G1/2" Male in line type - SS316 wetted parts 1/4" NPT Female in line type - SS316 wetted parts G1/4" Male in line type - SS316 wetted parts Manifold flange, SS316L wetted parts with 316 stainless steel diaphragm and 2 x 1/4" NPT female process connections C 7/16 type process rotated through 90° Diaphragm seal	40 Bar max 40 Bar max 40 Bar max 250 Bar with 320 & 420 Bar option
Options	-IS -BCZ -BCS -BF -VDC -HA -AU	Ex II 1/2G Ga/Gb Ex ai IIC T4/T5/T6, I M1 Ex ia I, II 1D Ex ia D20 T105C Only for transmitters with 4 - 20mA output 2" pipe & wall mounting bracket for process connection "C" zinc plated steel 2" pipe & wall mounting bracket for process connection "C" stainless steel 25mm pipe mounting bracket for attaching for process connection "P" 0 - 10 V DC output - Power supply 15 - 36 V DC Hastelloy C276 Diaphragm Gold Plated Diaphragm	

Any measuring range 0 -25 mBar to 0 - 25 Bar	**Measuring Range**			
	100 mBar	1 Bar	2 Bar	25 Bar
Overpressure Limit Static Pressure Limit (repeated, without hysteresis)	250 Bar (option 320 and 420 Bar) (40 Bar for inline type process connection)			
Accuracy	0.4%	0.25%		
Long term stability	0.2% / year	0.1% / year		
Thermal error	Typically 0.3% / 10°C Max 0.4% / 10°C	Typically 0.2% / 10°C		
Zero shift error for static pressure*	* Applying static pressure & zeroing 0.1% / 10 Bar the transmitter can eliminate this error	0.1% / 10 Bar		

Output signal

4...20 mA, two wire transmission

0...10 V, three wire transmission

Power supply

8 - 36 V DC (Ex 9...28V)

- two wire transmission

13 - 30 V DC - three wire transmission

Load resistance R [Ω] ≤ $\frac{U_{sup}\ [V] - 8V}{0.02A}$

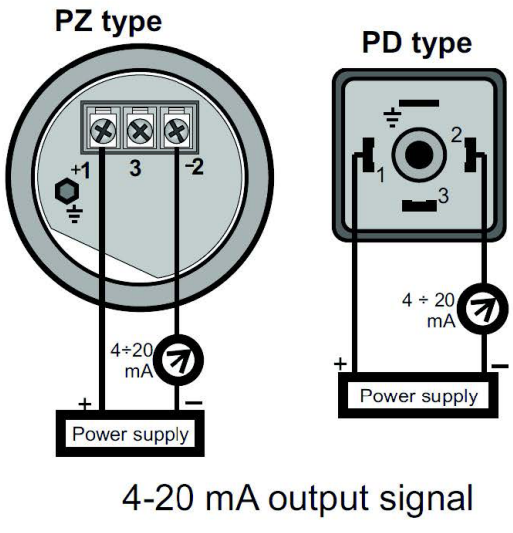
(for current output)

Load resistance R 20 ≥ kΩ

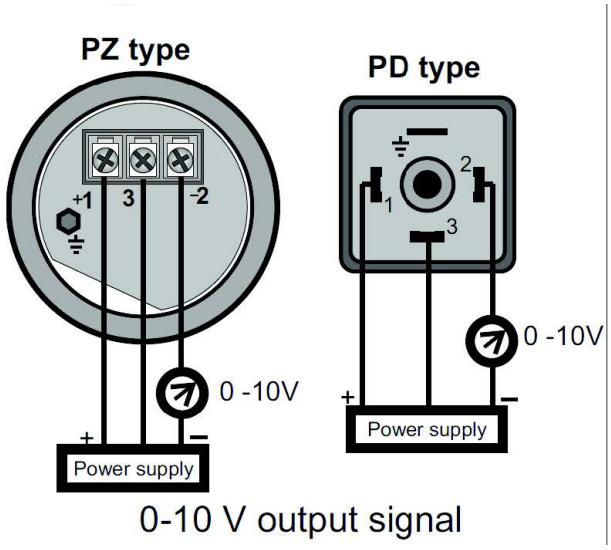
(for supply output)

Error due to supply voltage changes

0.005% (FSO) / 1V



4-20 mA output signal



0-10 V output signal

ABOUT PYROPRESS

Our products are designed to work in demanding and hazardous environments which require fast and cost effective solutions in instrumentation and control.

Pyropress control sensors provide safe and reliable electrical switching of alarm or control circuits in response to changes in temperature, pressure, differential pressure,vacuum, fluid, flow and level conditions.

QUALITY

To support the design of state of the art products the company has invested heavily in the latest CNC technology.

We are able to produce our own components to a high degree of a accuracy assuring a reliable and consistent quality product.

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