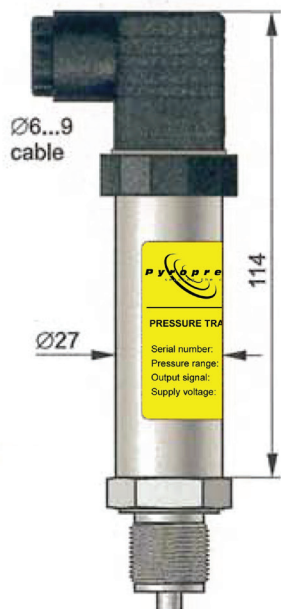


# TYPE PYRP-28 INDUSTRIAL & INTRINSICALLY SAFE PRESSURE TRANSMITTER

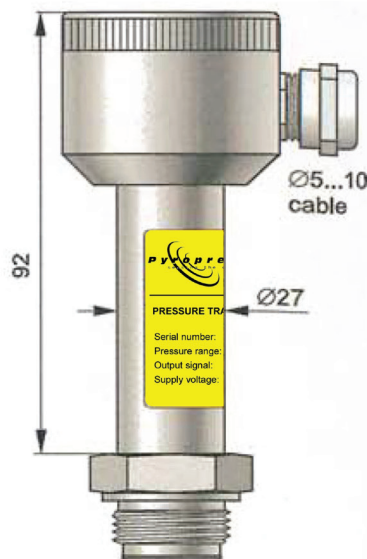


The PYRP-28 pressure transmitter is suitable for the measurement of pressure, vacuum and absolute pressure of gases, vapours and liquids for industrial and hazardous area (Exia) applications for -1 to 1000 Bar.



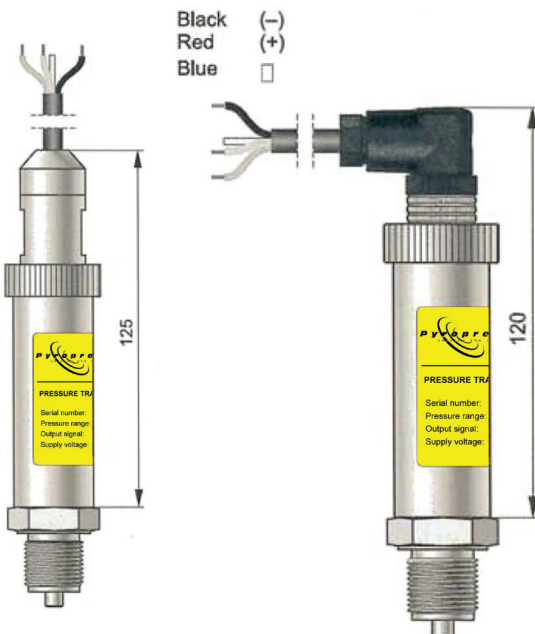
**PYRP-28 transmitter with PD type electrical connection**

- Degree of protection IP-65
- Angle electrical connector DIN 43650
- When the connector is removed both zero point adjustment and range setting potentiometers are accessible



**PYRP-28 transmitter with PZ type electrical connection**

- Degree of protection IP-66
- Stainless steel electrical housing with M20x1.5 packing gland.
- When the box is opened both zero point adjustment and range setting potentiometers are accessible



**PYRP-28 transmitter with PK type electrical connection**

- Degree of protection IP-67
- Cable electrical connection, contact with the atmosphere through the capillary inside the cable. Standard cable length is 3M, (other cable lengths are available)

**PYRP-28 transmitter with PM12 type electrical connection**

- Degree of protection IP-67
- Electrical connection with thread M12x1, contact with the atmosphere through the capillary inside the cable. Standard cable length is 3M (other cable lengths are available)

- Ranges from 0-10 mBar up to 0-1000 Bar
- 4 - 20 mA two-wire or 0 - 10 V output
- ATEX Intrinsically Safe (Gas and Dust) and IECEx certification
- Low-voltage version with ATEX certificate available
- Gold plated diaphragm option > 60 Bar

## Calibration

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

## Construction

The active sensing element is a piezoresistant silicon sensor separated from the medium by a diaphragm.

The electronics are housed in a casing with a degree of protection IP-65 or IP-67 depending on the type of electrical connection provided.

## Installation

The transmitter can be installed directly on the installation. When the pressure of steam or other hot media is measured, a siphon or impulse line should be used.

When special process connections are required for measurement of levels and pressures (e.g. food and chemical industries) the transmitter can be provided with a diaphragm seal. Installing accessories and a full scope of diaphragm seals are detailed in separate literature.

## Transmitters for hazardous area applications

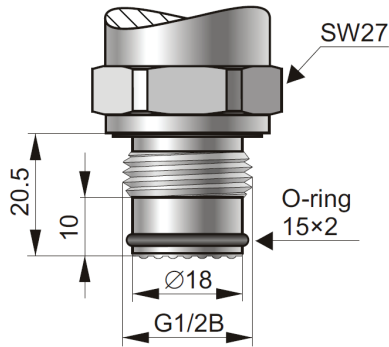
ATEX Intrinsically Safe versions are available for measurements in areas where explosive gases and dusts are present.



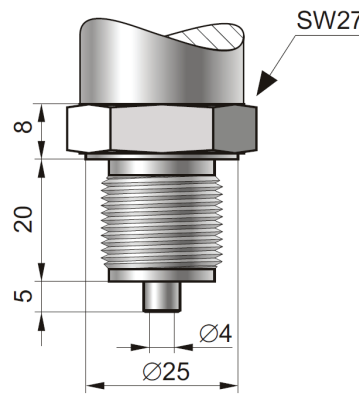
II 1/2G Ga/Gb Ex ia IIC T4/T5/T6  
I M1 Ex ia I  
II 1DEx ia D20 T105C

# PRESSURE TRANSMITTER PYRP-28

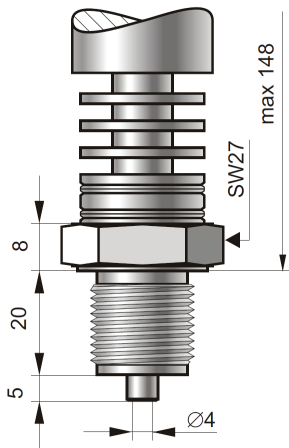
## Process Connections



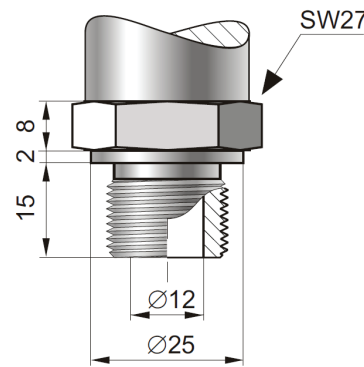
**GF Type**  
G1/2" with flush diaphragm  
Wetted parts material:  
**316 Stainless steel**  
**Application**  
Suitable for measuring the pressure of viscous and contaminated media  
**Min range:** 2.5 Bar  
**Max range:** 40 Bar



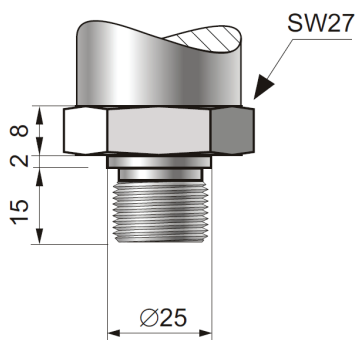
**GB Type**  
G1/2", Ø4 hole  
**M Type**  
M20x1.5, Ø4 hole  
Wetted parts material:  
**316 Stainless steel**  
**Application**  
Suitable for measuring the pressure of uncontaminated gases, vapours and liquids  
**Min range:** 10 mBar  
**Max range:** 1000 Bar



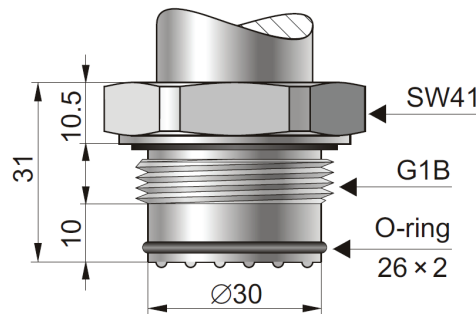
**RG Type**  
G1/2" with radiator  
**RM Type**  
M20x1.5 with radiator  
Wetted parts materials:  
**316 Stainless steel**  
**Application**  
Suitable for measuring the pressure of uncontaminated gases, vapours and liquids at temperatures up to 170°C with no impulse line.  
**Min range:** 160 mBar  
**Max range:** 40 Bar



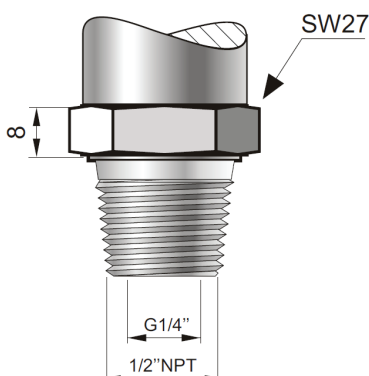
**GC Type**  
G1/2", Ø12 hole  
**P Type**  
M20x1.5, Ø12 hole  
Wetted parts materials:  
**316 Stainless steel or Hastelloy C-276 option**  
**Application**  
Suitable for measuring the pressure of viscous and contaminated media  
**Min range:** 10 mBar  
**Max range:** 400 Bar



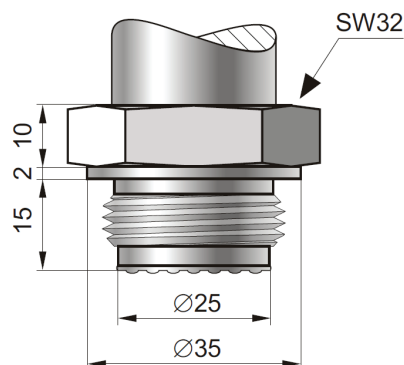
**GA Type**  
G1/4"  
Wetted parts materials:  
**316 Stainless steel**  
**Application**  
Suitable for measuring the pressure of viscous and contaminated media  
**Min range:** 10 mBar  
**Max range:** 1000 Bar



**GD Type**  
G1" with flush diaphragm  
Wetted parts material:  
**316 Stainless steel or Hastelloy C-276 option**  
**Application**  
Suitable for measuring the pressure of viscous and contaminated media  
**Min range:** 100 mBar  
**Max range:** 70 Bar



**N2 Type**  
1/2"NPT, internal thread G1/4"  
Wetted parts materials:  
**316 Stainless steel**  
**Application**  
Suitable for measuring the pressure of uncontaminated gases, vapours and liquids  
**Min range:** 10 mBar  
**Max range:** 1000 Bar



**T Type**  
M30x2 with flush diaphragm  
Wetted parts material:  
**316 Stainless steel or Hastelloy C-276 option**  
**Application**  
Suitable for measuring the pressure of viscous and contaminated media  
**Min range:** 250 mBar  
**Max range:** 70 Bar

# PRESSURE TRANSMITTER PYRP-28

## Technical Data & Electrical Connections

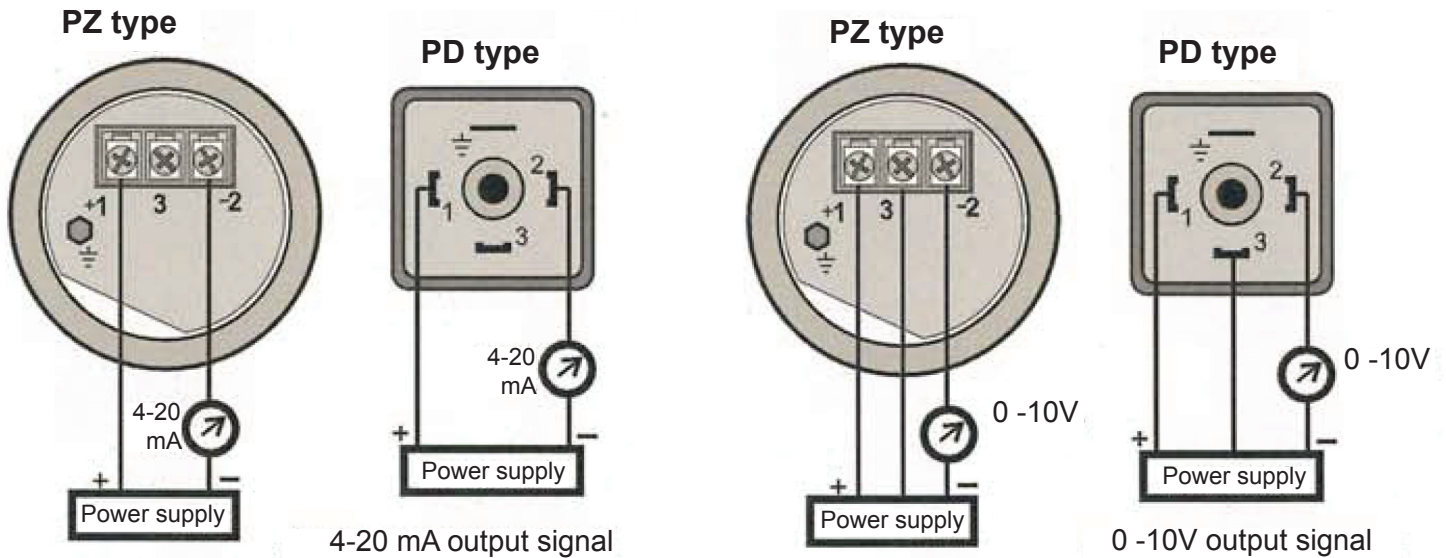


**Technical Data**      0-10 mBar to 0-1000 Bar (pressure, vacuum)  
 400 mBar - 80 Bar (absolute pressure)

**Any measuring ranges within the above spans can be supplied.**

	100 mBar	Measuring range 400 mBar	0-1 bar to 1000 Bar
Overpressure Limit (repeated, without hysteresis)	1 Bar	2.5 Bar	4 x range Max 1200 Bar
Burst pressure	2 Bar	5 Bar	8 x range Max 2000 Bar
Accuracy	0.3%	0.2% (0.16% - special version)	
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 Max 0.3% / 10°C

### Electrical Diagrams



<b>Hysteresis, repeatability</b>	0.05%
<b>Thermal compensation range</b>	-10 to +80°C
<b>Operating temperature range (ambient temp.)</b>	-40 to +80°C
<b>Process temperature range</b>	-40 to +120°C - direct measurement

For process temperatures over 120°C - Impulse line, radiator or diaphragm seal must be used

**CAUTION:** the medium must not be allowed to freeze in the impulse line or close to the pipe stub of the transmitter

<b>Output Signal</b>	4 - 20 mA, two wire transmission 0-10VDC	<b>Power Supply</b>	10.5 - 36VDC (Ex 12 - 28V) 15 - 30VDC (output 0 - 10V)
<b>Material of the wetted parts</b>	316 Stainless steel Hastelloy C-276, Au	<b>Error due to supply voltage changes</b>	0.005%/V)
<b>Material of the casing</b>	304 Stainless steel	<b>Load resistance R [Ω]</b>	$R \leq \frac{U_{sup} [V] - 10.5V}{0.02A}$

# PRESSURE TRANSMITTER PYRP-28

## Ordering Procedure



Model	Description																																																												
PYRP-28	Pressure transmitter																																																												
Measuring range in relation to 4 - 20mA or voltage output	<table border="0"> <tr> <td>-1 .....</td> <td>0 - 10 mBar</td> <td>-10.....</td> <td>0 - 600 mBar</td> <td>-21.....</td> <td>0 - 40 Bar</td> </tr> <tr> <td>-2 .....</td> <td>0 - 16 mBar</td> <td>-11.....</td> <td>0 - 1 Bar</td> <td>-22.....</td> <td>0 - 60 Bar</td> </tr> <tr> <td>-3 .....</td> <td>0 - 25 mBar</td> <td>-12.....</td> <td>0 - 1.6 Bar</td> <td>-24.....</td> <td>0 - 100 Bar</td> </tr> <tr> <td>-4 .....</td> <td>0 - 40 mBar</td> <td>-14.....</td> <td>0 - 2.5 Bar</td> <td>-25.....</td> <td>0 - 160 Bar</td> </tr> <tr> <td>-5 .....</td> <td>0 - 60 mBar</td> <td>-15.....</td> <td>0 - 4 Bar</td> <td>-26.....</td> <td>0 - 250 Bar</td> </tr> <tr> <td>-6 .....</td> <td>0 - 100 mBar</td> <td>-16.....</td> <td>0 - 6 Bar</td> <td>-28.....</td> <td>0 - 400 Bar</td> </tr> <tr> <td>-7 .....</td> <td>0 - 160 mBar</td> <td>-18.....</td> <td>0 - 10 Bar</td> <td>-29.....</td> <td>0 - 600 Bar</td> </tr> <tr> <td>-8 .....</td> <td>0 - 250 mBar</td> <td>-19.....</td> <td>0 - 16 Bar</td> <td>-30.....</td> <td>0 - 1000 Bar</td> </tr> <tr> <td>-9 .....</td> <td>0 - 400 mBar</td> <td>-20.....</td> <td>0 - 25 Bar</td> <td>-51.....</td> <td>0 to -1 Bar</td> </tr> <tr> <td>-X .....</td> <td colspan="5">Customer specified - select nearest range and suffix "X"</td> </tr> </table>	-1 .....	0 - 10 mBar	-10.....	0 - 600 mBar	-21.....	0 - 40 Bar	-2 .....	0 - 16 mBar	-11.....	0 - 1 Bar	-22.....	0 - 60 Bar	-3 .....	0 - 25 mBar	-12.....	0 - 1.6 Bar	-24.....	0 - 100 Bar	-4 .....	0 - 40 mBar	-14.....	0 - 2.5 Bar	-25.....	0 - 160 Bar	-5 .....	0 - 60 mBar	-15.....	0 - 4 Bar	-26.....	0 - 250 Bar	-6 .....	0 - 100 mBar	-16.....	0 - 6 Bar	-28.....	0 - 400 Bar	-7 .....	0 - 160 mBar	-18.....	0 - 10 Bar	-29.....	0 - 600 Bar	-8 .....	0 - 250 mBar	-19.....	0 - 16 Bar	-30.....	0 - 1000 Bar	-9 .....	0 - 400 mBar	-20.....	0 - 25 Bar	-51.....	0 to -1 Bar	-X .....	Customer specified - select nearest range and suffix "X"				
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Options List if more than one	<ul style="list-style-type: none"> <li>- IS: 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</li> <li>- AB: Absolute pressure available on ranges from 0 - 400mBar to 0 - 80 Bar</li> <li>- OXY: For oxygen service - Fluorolube filled (only available with process connection GB &amp; M)</li> <li>- H: Version with high overload pressure and intergrated circuit offering over voltage protection</li> <li>- D: Internal pressure snubber</li> <li>- A: Accuracy &lt;0.16% (available for ranges &gt;400 mBar)</li> <li>- VDC: 0 - 10 V DC - Power supply 15 - 36 VDC</li> <li>- GP: Gold plated diaphragm with GB and M process connections &gt; 60 Bar</li> <li>- HA: Hastelloy wetted parts with GC, GD, P and T process connections</li> <li>- SIL: Suitable for use within SIL1 systems</li> <li>- PC: Wall mounting bracket</li> </ul>																																																												