

# Pressure Transmitters

Piezoresistive, Fully Welded

Accuracy  $\pm .5\%$

Model **PTMv**

Pressure Ranges from 0/400 mbar up to 0/160 bar

Pressure transmitters model PTMv are suitable for fluid and gaseous media that do not corrode 316 stainless steel (1.4571 and 1.4435). The fully welded version PTMv has been developed to achieve the highest possible leak tightness and long time stability. The fully welded version is very successfully established in the market, especially for high-purity gas services.

Three basic models are available:

**Sensor for "relative pressure":** Ordering code: **(r)** [0/400 mbar up to 0/25 bar], atmosphere-based measurement, ventilation to the atmosphere

**Sensor for "absolute pressure":** Ordering code: **(a)** [0/400 mbar up to 0/160 bar], absolute zero-based measurement, completely sealed

**Sensor for "overpressure":** Ordering code: **(ü)** [0/10 bar up to 0/160 bar], pressure above atmospheric pressure; (atmospheric pressure = the ambient air pressure during production of the transmitter)

Our pressure transmitters are temperature compensated. Their output signal is calibrated. The piezoresistive sensor is separated from the medium by a thin stainless steel diaphragm. A silicone oil filling behind the diaphragm protects the sensor. The ground connection of the plug is connected to the case.

The transmitters can be attached to chemical seals, e.g. for food and beverage industries (sanitary transmitters), please compare data sheets under catalogue heading 7.

Available Pressure Ranges (PTMv)		
Relative / Over- / Absolute Pressure		Over- / Absolute Pressure
0 / 400 mbar	0 / 4 bar	0 / 40 bar
0 / 600 mbar	0 / 6 bar	0 / 60 bar
0 / 1 bar	0 / 10 bar	0 / 100 bar
0 / 1.6 bar	0 / 16 bar	0 / 160 bar
0 / 2.5 bar	0 / 25 bar	

also all corresponding psi-ranges

**Pressure limitation** depending on pressure range, typically 2 times, but max. 200 bar; details upon request.

## Standard Configuration

### Wetted Parts

Process connection  $\frac{1}{2}$ " BSP, 316 stainless steel (1.4571), Diaphragm 316 stainless steel (1.4435)

### Housing

304 stainless steel (1.4301)

### Protection Class

IP 65 (EN 60529/IEC529)

### Electrical Connection

Plug connection EN 175301-803-A, 3 terminals and ground terminal; To guarantee the electromagnetic conformity (EMC), please use a shielded cable (e.g. LP/LIMYCY). The shielding must be connected to the case.

### Output / Input

Output signal optional 0...20 mA, power supply: 8...28 VDC,  
4...20 mA, power supply: 10...40 VDC,  
0...10 V, power supply: 13...28 VDC.

### Temperature Limitations

Storage temperature -40...+125 °C (-40...+257 °F)  
Operating temperature -10...+ 80 °C (+14... 176 °F)

**Accuracy** Better than  $\pm .5\%$  (overall)

**Fitting Position** Any, without reservation

**Safety Features** Reverse polarity protection

**Electronics** Potted for vibration and humidity protection



## Dimensions and Connection Diagram:

See reverse side

## Special Configurations

- Process Connection: Female connection  $\frac{1}{4}$ " or  $\frac{1}{8}$ " BSP; Male connection  $\frac{1}{4}$ " or  $\frac{1}{8}$ " BSP, M 20x1,5;  
  
Female union nut or male connection 9/16-18 UNF for VCR®-Connections
- Electrical Connection: 2 m cable IP 65 (cable gland IP 67); different cable versions; different plug connections
- Wetted Parts: Diaphragm platinum (body hastelloy and connection 316 stainless steel [1.4571])
- Special Calibration: Upon request

## How to Order

Please specify when ordering:

Model Code:	<b>PTMv</b>
Reference Pressure:	Ordering code <b>(r)</b> , <b>(a)</b> or <b>(ü)</b> (compare above)
Pressure Range:	Compare table on the left side, e.g. <b>0/1 bar</b> or <b>0/600 psi</b>
Output Signal:	<b>0-20 mA</b> , <b>4-20 mA</b> or <b>0-10 V</b>
Process Connection:	$\frac{1}{2}$ " <b>BSP</b> (standard) or others (see above)
Special Configurations:	(If required; compare above.)

### Examples for Ordering Information:

PTMv (r), 0/1 bar, 4-20 mA  
i.e. fully welded pressure transmitter PTMv for atmospheric air pressure ("relative pressure") 0 to 1 bar, output signal 4...20 mA, process connection  $\frac{1}{2}$ " BSP male



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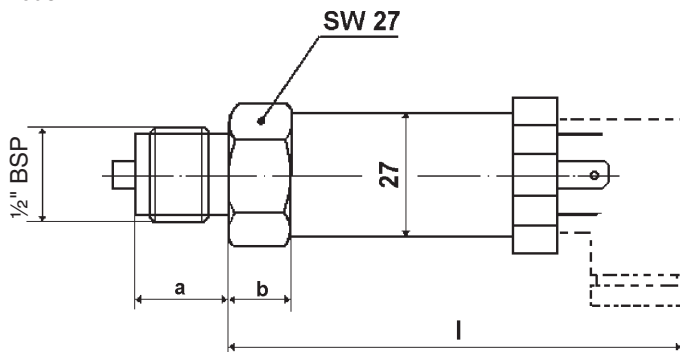


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**9810.2**  
**11/01**

# Dimensional Data and Weight, Connection Diagram

Model **PTMv**



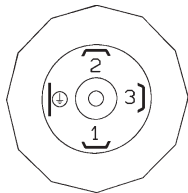
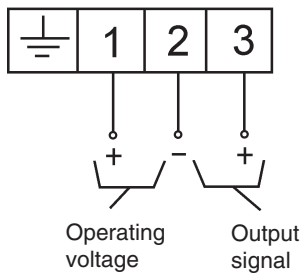
**Dimensions (mm / inches) and Weight (kg / lb)**

l	a	b	Weight (approx.)
95 (100) 3.74"	20 .79	10 .39	0,210 .460

The dimension in parenthesis is valid for versions with output signal 0 ... 20 mA and 0 ... 10 V.

## Connection Diagram:

3 - Wire



2 - Wire

