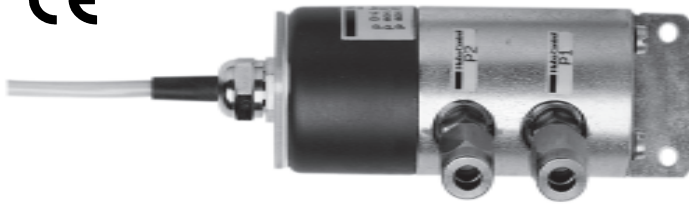




Differential Pressure Transmitter for Liquid and Gases

PLTD

Jan.08



PLTD

Technical Data

Power supply

| | |
|----------|----------------------------|
| 0-10 Vdc | 24Vac(+/- 10%) or 18-33Vdc |
| 4-20 mA | 11-33Vdc (2-wire) |

Power consumption

| | |
|----------|------|
| 0-10 Vdc | 5mA |
| 4-20 mA | 25mA |

Load impedance

| | |
|----------|---------------------|
| 0-10 Vdc | >10 Kohm |
| 4-20 mA | <650 ohm (at 24Vdc) |

Max. overpressure

| | |
|-------------------|---------------------------------|
| 5 x measur. range | PLTD 20, 40, 100, 250 |
| 2x measur. range | PLTD 400, 600, 1000, 1600, 2500 |

Max. system pressure

| | |
|--------|------------------------------------|
| 25 bar | PLTD 10,20,40,100,250,400,600,1000 |
| 32 bar | PLTD 1600 |
| 50 bar | PLTD 2500 |

Accuracy

| | |
|----------------|---|
| < +/- 1,3 % fs | PLTD 10, 20, 40, 100, 250 |
| < +/- 0,8 % fs | PLTD 400 |
| < +/- 0,5 % fs | PLTD 600, 1000, 1600, 2500 (linearity and hysteresis) (model with higher accuracy on request) |

Temperature dependance

0,1 % of measuring range / °C

Ambient temperature

-15...+80°C

Media temperature

-15...+80°C

Dynamic resp. time

<5 msec

Pressure connections

Pressure connection for 6mm copper tube

Cable

3 - or 2 wire cable 1,5 m

Material

| | |
|----------------|------------------|
| sensor housing | Stainless steel |
| membrane | Ceramic material |

Protection

IP65

EMC

EN-50081-1 Emmission
EN-50082-1 Immunitet

Features

- Several measuring ranges up to 2500kPa (25 bar)
- Output signal 0-10Vdc or 4-20mA
- Durable in the majority of environments
- Can withstand overpressure up to 5 times the measuring range
- Accuracy 0.5, 0.8 and 1.3% of measuring range
- Excellent long-term stability

Description

PLTD is a transmitter for measuring differential pressure in liquids and gases.

The measuring method using a ceramic membrane gives a high level of accuracy and stability over a long period.

Ordering Codes

4-20 mA output signal

| | | | |
|---------------|-------------|---------|---------|
| PLTD 010 10 | 0- 10 kPa | 0,1 bar | 0-10Vdc |
| PLTD 010 20 | 0- 20 kPa | 0,2 bar | 0-10Vdc |
| PLTD 010 40 | 0- 40 kPa | 0,4 bar | 0-10Vdc |
| PLTD 010 100 | 0- 100 kPa | 1 bar | 0-10Vdc |
| PLTD 010 250 | 0- 250 kPa | 2,5 bar | 0-10Vdc |
| PLTD 010 400 | 0- 400 kPa | 4 bar | 0-10Vdc |
| PLTD 010 600 | 0- 600 kPa | 6 bar | 0-10Vdc |
| PLTD 010 1000 | 0- 1000 kPa | 10 bar | 0-10Vdc |
| PLTD 010 1600 | 0- 1600 kPa | 16 bar | 0-10Vdc |
| PLTD 010 2500 | 0- 2500 kPa | 25 bar | 0-10Vdc |

0-10 Vdc output signal

| | | | |
|---------------|-------------|---------|--------|
| PLTD 420 10 | 0- 10 kPa | 0,1 bar | 4-20mA |
| PLTD 420 20 | 0- 20 kPa | 0,2 bar | 4-20mA |
| PLTD 420 40 | 0- 40 kPa | 0,4 bar | 4-20mA |
| PLTD 420 100 | 0- 100 kPa | 1 bar | 4-20mA |
| PLTD 420 250 | 0- 250 kPa | 2,5 bar | 4-20mA |
| PLTD 420 400 | 0- 400 kPa | 4 bar | 4-20mA |
| PLTD 420 600 | 0- 600 kPa | 6 bar | 4-20mA |
| PLTD 420 1000 | 0- 1000 kPa | 10 bar | 4-20mA |
| PLTD 420 1600 | 0- 1600 kPa | 16 bar | 4-20mA |
| PLTD 420 2500 | 0- 2500 kPa | 25 bar | 4-20mA |

PLTD can also be delivered with output signal 0-20 mA or 4-20 mA, 3 wire connection.



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Function

The transmitter consists of a sensor housing in stainless steel and a ceramic membrane.

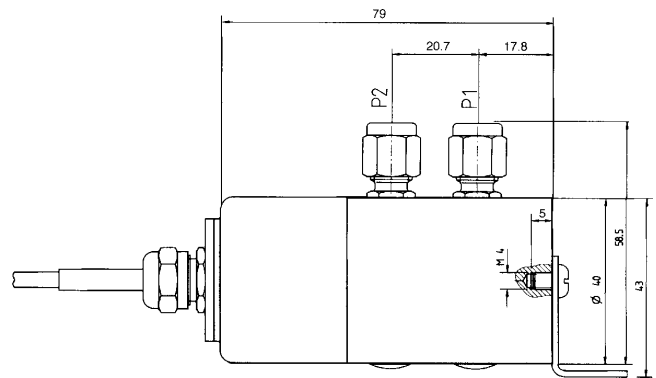
Resistors are applied to the membrane in thick film technology.

The pressure affecting the membrane results in a change of resistance value depending on the bending of the membrane and this is transferred by means of the built-in electronics to a proportional output signal.

The construction with only one moving part and a direct signal from the membrane gives a high level of accuracy and a short response time.

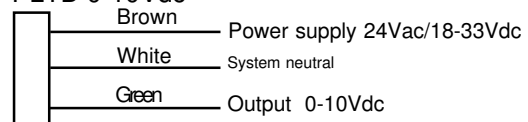
The properties of the membrane also ensure good stability over time and low temperature dependency.

Dimensions

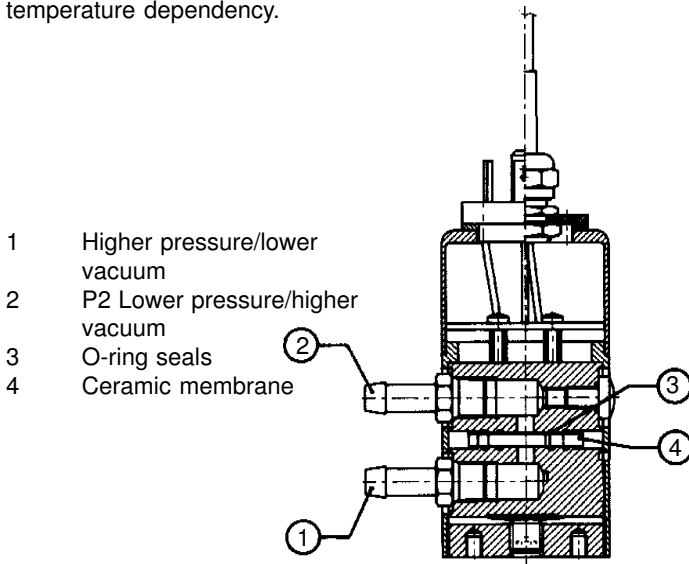
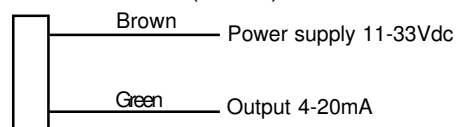


Connections

PLTD 0-10Vdc



PLTD 4-20mA (2-wire)



- 1 Higher pressure/lower vacuum
- 2 P2 Lower pressure/higher vacuum
- 3 O-ring seals
- 4 Ceramic membrane

We reserve the right to make changes and improvements in our products which may effect the accuracy of the information contained in this leaflet.