TPDL

Differential pressure transmitter

for liquids and gases

Transmitter for measuring differential pressure in liquids and gases. The method of measurement using a ceramic membrane gives a high level of accuracy and stability over a long period.

- Several measuring ranges up to 2500 kPa (25 bar)
- Can withstand overpressure of up to 6 times the measuring range (depending on model)
- Accuracy <1.25% of measuring range
- Output signal 0...10 V DC or 4...20 mA
- Highly durable in most environments
- Excellent long-term stability and low temperature dependency

Funzione

The transmitter consists of a sensor housing of stainless steel and a ceramic membrane. Resistors in thick film technology are applied to the membrane. As pressure affects the membrane, it results in a change of resistance depending on the bending of the membrane, and this is then converted into a proportional output signal by means of the built-in electronics.

The construction, incorporating only one moving part and a direct signal from the membrane, offers a high level of accuracy and a short response time. The properties of the membrane also ensure good stability is maintained over time, as well as a low temperature dependency.

Models

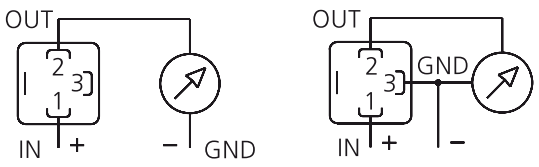
Output signal 0...10 V DC:			Output signal 4...20 mA:			P. max	Accuracy
TPDL10	0...10 kPa	0,1 bar	TPDL10-420	0...10 kPa	0,1 bar	6x	± 1,25% fs
TPDL20	0...20 kPa	0,2 bar	TPDL20-420	0...20 kPa	0,2 bar	6x	± 1,25% fs
TPDL40	0...40 kPa	0,4 bar	TPDL40-420	0...40 kPa	0,4 bar	5x	± 1,25% fs
TPDL100	0...100 kPa	1 bar	TPDL100-420	0...100 kPa	1 bar	5x	± 1,25% fs
TPDL250	0...250 kPa	2,5 bar	TPDL250-420	0...250 kPa	2,5 bar	4,8x	± 1,25% fs
TPDL400	0...400 kPa	4 bar	TPDL400-420	0...400 kPa	4 bar	3x	± 1,75% fs
TPDL600	0...600 kPa	6 bar	TPDL600-420	0...600 kPa	6 bar	2x	± 1,40% fs
TPDL1000	0...1000 MPa	10 bar	TPDL1000-420	0...1000 MPa	10 bar	2x	± 1,40% fs
TPDL1600	0...1600 MPa	16 bar	TPDL1600-420	0...1600 MPa	16 bar	2x	± 1,40% fs
TPDL2500	0...2500 MPa	25 bar	TPDL2500-420	0...2500 MPa	25 bar	2x	± 1,40% fs

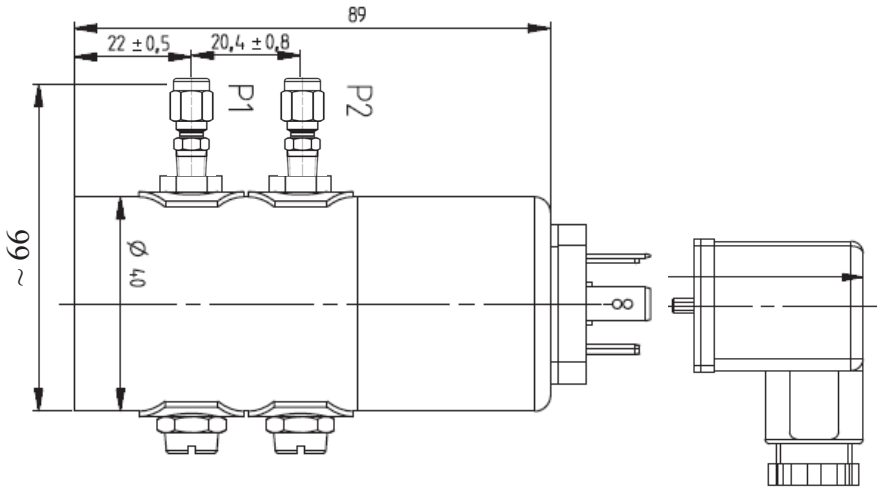
Technical data

Supply voltage	24 VAC / 18...33 VDC ±15% with output signal of 0...10V 11...33 VDC ±15% with output signal of 4...20mA (two wire)
Power consumption	5 mA (0...10 V), 20 mA (4...20 mA)
Output signal	0 ...10 VDC or 4...20 mA
Load impedence	With output signal of 0...10 V: > 10k ohm With output signal of 4...20 mA: < 650 ohm (at 24 V DC)
Max. system pressure	TPDL10...TPDL600: 25 bar TPDL1000...TPDL2500: 50 bar
Temperature dependence, zero point	Max. 0.038 % of measuring range / °C
Temperature dependence, measured value	Max. 0.12 % of measuring range / °C
Ambient temperature	-15...+85 °C
Media temperature	-15...+85 °C
Dynamic response time	< 5 msec
Pressure connections	Pressure connection for 6 mm copper tube
Electrical connection	Connector DIN EN 175301-803-A
Material sensor housing	Stainless steel (Inox 1.4305)
Membrane	Ceramic material
Sealing	EPDM
Weight	about 420 gr
Protection class	IP65
CE	This product conforms with the requirements of European EMC standards CENELEC EN50081-1 and EN50082-1 and carry the CE-mark.

Dimension and wiring

Connector DIN EN 175301-803-A





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