



- Several measuring ranges up to 2500 kPa (25 bar)
- Output signal 0...10 V DC or 4...20 mA
- Highly durable in most environments

Function

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.

Component overview

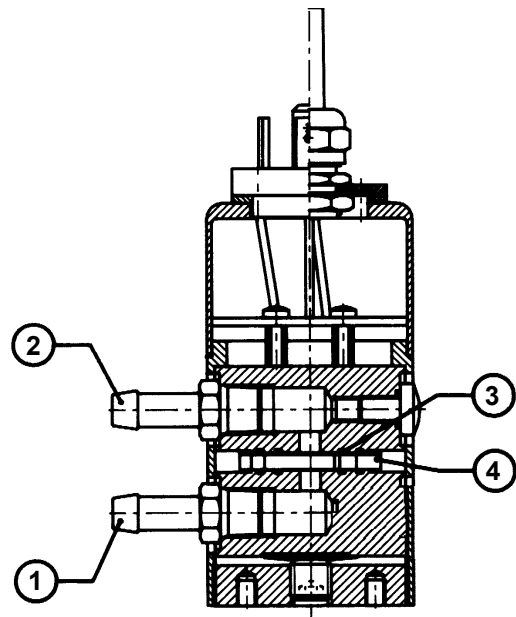
1. P1 Higher pressure/lower vacuum
2. P2 Lower pressure/higher vacuum.
3. O-ring seals
4. Ceramic membrane

DTK

Differential pressure transmitter for liquids and gases

DTK is a 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.

- Can withstand overpressure of up to 6 times the measuring range (depending on model)
- Accuracy <1.25% of measuring range
- Excellent long-term stability and low temperature dependency



Models**Output signal 0...10 V DC**

Model	Range	Max. overpressure	Accuracy
DTK10	0...10 kPa	6x	+/-1.25% fs
DTK20	0...20 kPa	6x	+/-1.25% fs
DTK40	0...40 kPa	5x	+/-1.25% fs
DTK100	0...100 kPa	5x	+/-1.25% fs
DTK250	0...250 kPa	4.8x	+/-1.25% fs
DTK400	0...400 kPa	3x	+/-0.75% fs
DTK600	0...600 kPa	2x	+/-0.40% fs
DTK1000	0...1000 kPa	2x	+/-0.40% fs
DTK1600	0...1600 kPa	2x	+/-0.40% fs

Output signal 4...20 mA

Model	Range	Max. overpressure	Accuracy
DTK10-420	0...10 kPa	6x	+/-1.25% fs
DTK20-420	0...20 kPa	6x	+/-1.25% fs
DTK40-420	0...40 kPa	5x	+/-1.25% fs
DTK100-420	0...100 kPa	5x	+/-1.25% fs
DTK250-420	0...250 kPa	4.8x	+/-1.25% fs
DTK400-420	0...400 kPa	3x	+/-0.75% fs
DTK600-420	0...600 kPa	2x	+/-0.40% fs
DTK1000-420	0...1000 kPa	2x	+/-0.40% fs
DTK1600-420	0...1600 kPa	2x	+/-0.40% fs

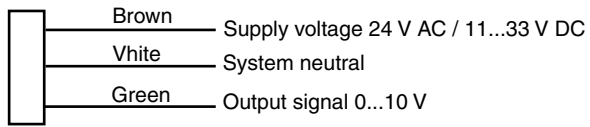
Transmitters may also be ordered with an output signal of 0...20 mA or 4...20 mA, three wire

Technical data

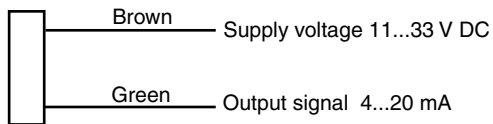
Supply voltage	With output signal of 0...10 V: 24 VAC +/- 15% or 18...33 V DC With output signal of 4...20 mA: 11...33 V DC (two wire)
Power consumption	5 mA (0...10 V), 20 mA (4...20 mA)
Load impedance	With output signal of 0...10 V: > 10k ohm With output signal of 4...20 mA: < 650 ohm (at 24 V DC)
Max. system pressure	DTK10... DTK600: 25 bar DTK 1000-... DTK1600: 50 bar
(linearity and hysteresis)	(model with higher accuracy available upon request)
Temperature dependence, zero point	Max. 0.12 % of measuring range / °C
Temperature dependence, measured value	Max. 0.038 % of measuring range / °C
Ambient- and media temperature	-15...+85°C
Dynamic response time	< 5 ms
Pressure connections	Pressure connection for 6 mm copper tube
Cable	Three- or two wire cable, 1.5 m
Material: sensor housing	Stainless steel
membrane	Ceramic material
Form of protection	IP65
	This product conforms with the requirements of European EMC standards CENELEC EN50081-1 and EN50082-1. It carries the CE-mark.
	RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

Wiring

DTK...



DTK...-420 (two wire)



Dimensions

