

- 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**

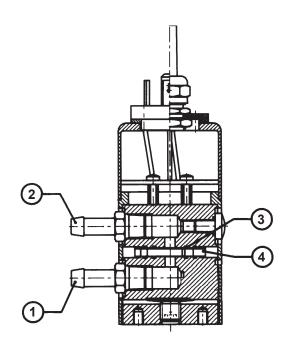
- 1. P1 Higher pressure/lower vacuum
- 2. P2 Lower pressure/higher vacuum.
- 3. O-ring seals
- 4. Ceramic membrane

# 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





DTK

### Models

#### Output signal 0...10V DC

Model	Range	Max. overpressure	Accuracy
DTK10	010 kPa	6x	+/-1.25% fs
DTK20	020 kPa	6x	+/-1.25% fs
DTK40	040 kPa	5x	+/-1.25% fs
DTK100	0100 kPa	5x	+/-1.25% fs
DTK250	0250 kPa	4.8x	+/-1.25% fs
DTK400	0400 kPa	3x	+/-0.75% fs
DTK600	0600 kPa	2x	+/-0.40% fs
DTK1000	01000 kPa	2x	+/-0.40% fs
DTK1600	01600 kPa	2x	+/-0.40% fs
DTK2500	02500 kPa	2x	+/-0.40% fs

#### Output signal 4...20 mA

Model	Range	Max. overpressure	Accuracy
DTK10-420	010 kPa	бх	+/-1.25% fs
DTK20-420	020 kPa	бx	+/-1.25% fs
DTK40-420	040 kPa	5x	+/-1.25% fs
DTK100-420	0100 kPa	5x	+/-1.25% fs
DTK250-420	0250 kPa	4.8x	+/-1.25% fs
DTK400-420	0400 kPa	3x	+/-0.75% fs
DTK600-420	0600 kPa	2x	+/-0.40% fs
DTK1000-420	01000 kPa	2x	+/-0.40% fs
DTK1600-420	01600 kPa	2x	+/-0.40% fs
DTK2500-420	02500 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 010 V:	24 VAC +/- 15% or 1833 V DC
	With output signal of 420 mA:	1133 V DC (two wire)
Power consumption	5 mA (010 V), 20 mA (420 mA)	
Load impedence	With output signal of $010 \text{ V}$ : > 10k c	hm
I man	With output signal of 420 mA: < 650	
Max. system pressure	DTK10 DTK600: 25 bar	
r	DTK 1000 DTK2500: 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 requir	rements of European EMC standards
	CENELEC EN50081-1 and EN50082	-

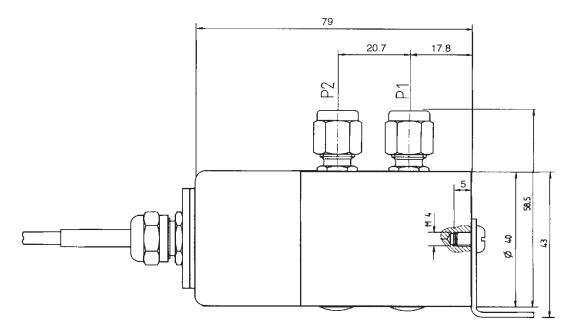
Wiring

DTł	<	
	Brown	- Supply voltage 24 V AC / 1133 V DC
	Vhite	- System neutral
[	Green	- Output signal 010 V

DTK...-420 (two wire)

Brown	- Supply voltage 1133 V DC
Green	— Output signal 420 mA

#### Dimensions



Head Office Sweden Phone: +46 31 720 02 00 www.regin.se info@regin.se Web: Mail:

#### Sales Offices France: Germany:

Spain:

+33 | 4| 7| 00 34 +49 30 77 99 40 +34 91 826 54 06

Hong Kong: Singapore: +852 24 07 02 81 +65 67 47 82 33

