

Intrinsically Safe Differential Pressure Meters / Transmitters

Product features

- Measuring of the pressure-differences of gases
- 8 measurement ranges between 0-5000 Pa
- Medium temperature: up to 60 °C
- 4-20 mA two-wire transmitter
- Intrinsically safe
- LCD display
- IP 65 protection



The **DT7000 / DT7001 Intrinsically Safe Differential Pressure Transmitters** are suitable for measurement differential pressure of dry non corrosive gases in even the most hazardous plant areas (zone 1, zone 2).

The instruments provide a 4-20 mA current signal, proportional to the pressure connected to their pressure ports.

The **DT7000** presents the measured pressure values on an LCD display too, while the instrument **DT7001** is a version without display.

Eight different measurement ranges are available from 0 - 50 Pa up to 0 - 5000 Pa, but user defined measuring ranges are also available. The temperature of the measured medium may vary between -20°C and +60°C.

The pressure to be measured can be connected to the transmitter via pneumatic tube 2 x Ø4 mm inner diameter.

The die-cast Aluminium housing has IP 65 protection.

Intrinsical safety data:

Certification: BKI 04 ATEX 145 X
 Protection marking:  II 1/2 G EEx ia IIC T4

Safety data pertaining to intrinsical safety:

Ui [V]	Ii [mA]	Pi [W]	Ci [nF]	Li [uH]
28	100	0,7	37	506

Input parameters:

Input signal: pressure
 Ranges: see the table below

RANGES*	
[Pa]	
0-50	0-500
0-100	0-1000
0-250	0-2000
0-300	0-5000

*Special ranges that differ from the above are also available upon request.

Overdrive capacity: 150 %

Output parameters:

Output signal: DC current, proportional to the measured pressure
 Range: 4-20 mA
 Accuracy: 0,25 % (typically)
 Temperature-coefficient: 500 ppm / °C
 Supply-voltage effect: no
 Response time: 0,5 ms (10-90 %)

Display:

Display: 3.5 digits, + or – sign, decimal point
 Display unit: LCD, 12,7 mm with character height

Power supply:

Loop power supply voltage: 12-28 VDC

Ambient conditions:

Operating temperature range: see the table below

Type	Ambient temperature	Medium temperature
DT7000, DT7001	-20 °C <Ta< 60°C	-20 °C <Tp< 60°C

Relative humidity: 90 % (max., non-condensing)
 Place of installation: potentially explosive area

Elektromagnetic compatibility (EMC):

accordance with the standard EN 61326:2000

Immunity: -A- criterion
 Noise emission: -A- class

Data in general:

Housing: die-cast aluminium, KO36 steel connection
 Process connection: 2 x Ø4 mm pneumatic tube
 Electrical connection: 3-pole connector DIN43650 / IP 65
 Connection cable: 0,25-1,5 mm²
 Dimensions: 127 x 85 x 58 mm (width x height x depth)
 Weight: DT7000: 0,45 kg
 DT7001: 0,4 kg
 Protection: IP 65

Detailed information see in operating instructions. The Manufacturer maintains the right to change the technical data!