

Intrinsically safe pressure transmitters

Product features

- Measuring of the pressure of gases, vapours and liquids
- Measuring of relative / absolute pressure, vacuum
- Medium temperature: up to 140 °C
- 32 measurement ranges between 0 and 25 bar
- Intrinsically safe
- 4-20 mA two-wire transmitter
- G 1/2"A / M20 × 1.5 / G 3/4"A process connections
- IP 65 protection



The **DT7200 ...Intrinsically safe pressure transmitters** provide a 4-20 mA current signal in proportional to the pressure connected to their input. The transmitters are intrinsically safe devices, and they can be operated in a potentially explosive environment falling into the category Zone 0 and Zone 1.

The transmitters are available with 32 different measurement ranges, for the measuring of relative / absolute pressure and vacuum. Depending on the construction of the device, the temperature of the medium under measurement may vary between -25 °C and 140 °C, while the ambient temperature may be between -25 °C and 70 °C.

The material being in contact with the medium is KO36 steel; the sealing applied depends on the medium and the temperature of the medium, and it can be: Teflon (PTFE), Buna EP (EPDM), Viton (FKM), or Isolast 9503 (FFKM).


The transmitters are available with various threaded connections: G1/2"A / M20 x 1.5 manometer connection, and G 3/4" A front-membrane construction.

Safety data:

The connection terminals of the supply voltages are isolated from each other, the isolation is in compliance with the standard EN 61010-1, taking into consideration the following:

Pollution level: 2
 Measurement category: II

Intrinsic safety data:

Certification: BKI 04 ATEX 145 X
 Protection marking:  II 1/2 G EEx ia IIC T4/T3 (Class T3 in the case of more than 130 °C temperatures of the medium)

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*							
[mbar] rel.	[bar] rel.			[mbar] abs.	[bar] abs.		
0-100	0-1.00	0-10	-1-0	-1-6.00	0-400	0-1.00	0-10
0-160	0-1.60	0-16	-1-1.00	-1-10	0-600	0-1.60	0-16
0-250	0-2.50	0-25	-1-1.60	-1-16		0-2.50	0-25
0-400	0-4.00		-1-2.50	-1-25		0-4.00	
0-600	0-6.00		-1-4.00			0-6.00	

*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: 200 ppm / °C (0-75 °C between), 300 ppm / °C (-20-90 °C between)
 Supply-voltage effect: no
 Response time: 0.5 ms (10-90%)

Power supply:

Loop power supply voltage: 12-28 VDC

Ambient conditions:

Operating temperature range: see the table below

Type	Ambient temperature	Medium temperature
DT7200 L	-25 °C <Ta< 60 °C	-25 °C <Tp< 70 °C
DT7200 M	-25 °C <Ta< 70 °C	-25 °C <Tp< 90 °C
DT7200 H	-25 °C <Ta< 70 °C	-25 °C <Tp< 140 °C

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

**Electromagnetic compatibility (EMC):
 accordance with the standard EN 61326**

Immunity: industrial area
 Noise emission: Group 1, Class B

Data in general:

Housing: KO36 steel housing
 Process connection: G1/2"A, M20 x 1.5 (manometer-connection),
 G3/4"A (front-membrane connection)
 Electrical connection: 3-pole connector DIN43650/IP 65
 Cross-section of the connected cable: 2 x 0.25 mm² (shielded cable)
 Dimensions: DT7200 L: 36 x 154 mm DT7200 M, DT7200 H: 36 x 203 mm
 (diameter x length) (diameter x length)
 Weight: DT7200 L: 0.3 kg, DT7200 M, DT7200 H: 0.35 kg
 Protection: IP 65
 Materials being in contact with the medium under measurement: KO36 steel / Teflon (PTFE) / Buna EP (EPDM) / Viton (FKM) / Isolast 9503 (FFKM)

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