

Pressure Measurement





Type SDT 02

modular @ pressure

Modular pressure transducer

Basic features

- ▶ Wetting parts and case made of high-grade Steel
- ▶ High temperature range
- ▶ Nominal pressure ranges up to 40 bar
- ▶ Relative pressure
- ▶ PC-telecontrolled parametrizable
- ▶ Wetting parts made of high-grade steel 1.4435
- ▶ Case made of high-grade steel 1.4404
- ▶ Fourfold overload
- ▶ Totally front-flush membrane
- ▶ FDA, EHEDG-conformal

Technical features

- ▶ Accuracy according to IEC 60770: 0,5 % FSO
- ▶ Long-term stable
- ▶ Short-circuit-proof + reverse voltage protected
- ▶ Functional ranges (temperature):
Medium to be measured (permanent):
-10 °C to 100 °C
Medium to be measured max. (1/2 h)
up to 140 °C
- ▶ Response Time: 40...300 ms (dependently of the change of measurement; large jump = fast, small jump = slow)
- ▶ Protection class IP 67 according to EN 60529
- ▶ M12 connector made of high-grade steel
- ▶ Adjustable attenuation
- ▶ Offset, range modifiable within the dimensions $\pm 25\%$ FS
- ▶ Characteristic curve decreasing - increasing
- ▶ Current limitation

Design and mode of operation

The pressure transducer SDT02 represents the basis of our well-tried pressure transducers of the SDT series. It is available in the following mechanical Versions:

- Modular, aseptic G1" Process connection with polymeer-free sealing system



Examples of modular process connections



See data sheet process connection technology

modular @ process

Favoured fields of application are:

- ▶ Food technology
- ▶ Chemical and pharmaceutical industry
- ▶ Process measurement



Technical data

Input variable (Measuring range)

Basic measuring range bar	0...0,4	0...1	0...1,6	0...2,5	0...4	0...6	0...10	0...16	0...25	0...40
Allowable overload	1,6	4	6,4	10	16	24	40	64	100	160
Turn down: Offset, range adjustment ± 25% FS variable										

Gehäusematerial	Sensormaterial (medienberührt)
High grade steel 1.4404 (316 L)	High grade steel 1.4435 (316 L) Advantages material of the food and Pharmaindustrie (corrosion resistance increased)

Filling medium	Filling volume	Connection dimensional drawing
AK 100, FDA conform	ca. 0,11 cm ³	

Output signal / auxiliary power
Standard 2-Leiter: 4 ... 20 mA / U _B = 12 ... 30 VDC

Electrical Connection
M 12-connector made of high-grade steel

Torque
Torque 30 Nm

Signal behaviour
Accuracy Standard: < ± 0,5 % of Meas. range FS (incl. hysteresis and reproducibility)
Allowable Load 450 Ohm Current in case of error: 3,5 mA
Measuring range not reached: 3,8 mA Meas. range exceeded 22,5 mA

Temperature error	Temperature operating range
Temperature drift zero-point: ≤ ± 0,02 % FS/K, max. ≤ ± 0,04 % FS/K	All. duration mediumtemp.: -10...100°C
Temperature drift meas. range: ≤ ± 0,02 % FS/K, max. ≤ ± 0,04 % FS/K	Mediumtemp max : (1/2 h) 140°C
	Ambient temperature.: -20... 85°C

Ordercode

SDT02 - [] - [] - [] - []

Measuring range bar				
0...0,4 preference type	0	1		
0...1 preference type	0	2		
0...1,6 preference type	0	3		
0...2,5 preference type	0	4		
0...4 preference type	0	5		
0...6 preference type	0	6		
0...10 preference type	0	7		
0...16	0	8		
0...25	0	9		
0...40	1	1		
- 0,6...0,0	3	0		
- 1...0,0	3	1		
- 1...0,6	3	2		
- 1...1,5	3	3		
- 1...3	3	4		
- 1...5	3	5		
- 1...9	3	6		
- 1...15	3	7		
Measuring value				
Relative pressure			0	
Output signal				B
2-Leiter: 4 ... 20 mA / U _B = 12 ... 30 VDC				
Electrical Connection				M
Without Connection Head with plug M12x1				