



Type SDT 03

modular @ pressure

Basic features

- ▶ High accuracy
- ▶ High temperature range
- ▶ Nominal pressure ranges up to 40 bar
- ▶ Relative Pressure
- ▶ integrated control + indicator display optional
- ▶ programmable on unit or PC-telecontrolled
- ▶ Parametrizable
- ▶ very quick compensation of temperature jump
- ▶ Wetting parts made of high-grade steel 1.4435
- ▶ Housing made of high-grade steel 1.4404
- ▶ Pressure screw for free positioning
- ▶ individual measuring range adjustment
- ▶ smallest measuring range 100 mbar
- ▶ Turndown 4:1
- ▶ Fourfold overload
- ▶ Totally front-flush membrane
- ▶ FDA, EHEDG-conformal

Technical features

- ▶ Accuracy according to IEC 60770: 0,2 % 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: < 10 ms (typical 4 ms)
- ▶ Protection class up to IP 69 K (execution-dependently)
- ▶ customized remarks:
 - special measuring range
 - various electrical and mechanical process connections
 - further remarks on request

Design and mode of operation

The pressure transducer SDT03 represents the extension 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, pressure screw for free positioning



Examples of modular process connections



Triclamp

Milk-Pipe

See data sheet process connection technology

modular @ process

Accessories



Clamp-Housing
SDAG



Altitude Compensation-Element
(High-Grade-Steel)
DAE-E

Favoured fields of application are:

- ▶ Food technology
- ▶ Chemical and pharmaceutical industry
- ▶ Process measurement
- ▶ environmental technology
- ▶ fill level measuring



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
Turndown 4 : 1										

Housing material	Sensormaterial (wetting parts)
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	<p>Cable version</p> <p>Two-wire (pluggable)</p> <p>Plug version</p> <p>4...20mA Pin 1 +VDC Pin 4 Output</p>

Output signal / auxiliary power

Standard 2-Leiter: 4 ... 20 mA / U_B = 12 ... 30 VDC

Elektrical connection / safety class

- High grade steel connecting head with M16-gland or M12-plug made of high grade steel
- with capillaries cable (Art.Nr. S0772-00001) IP 69K
- or Goretex-filter

Torque

Torque 30 Nm

Signal behaviour

Accuracy Standard: ≤ ± 0,2 % of meas. Range FS (incl. hysteresis and reproducibility)

Allowable load 450 Ohm Lower current border adjustable (3,5...22,5 mA)

Upper current border adjustable (3,5...22,5 mA) Current in case of error adjustable (3,5...22,5 mA)

Temperature error

Temperature drift zero-point: ≤ ± 0,01% FS/K

Temperature drift meas. range ≤ ± 0,01% FS/K

Long Term Stability ± 0,2% of final value

Temperature operating range

All. duration mediumtemp.: -10...100°C

Mediumtemp max.: (1/2 h) 140°C

Ambient temperature.: -20... 85°C

Order Code SDT03 - [] - 0 - B - [] - [] - []

Measuring range bar						
0...0,4	advantages type	0	1			
0...1	advantages type	0	2			
0...1,6		0	3			
0...2,5	advantages type	0	4			
0...4		0	5			
0...6		0	6			
0...10	advantages 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						
4...20 mA, 2-wire technology				B		
Parameter module						
without integrated control and indicator display					A	
with integrated control and indicator display					B	
Electrical connections						
Connecting head made of high-grade steel with M16 screw connection					5	
Connecting head made of high-grade steel with implemented M12 plug + Goretex-Filter					6	G
Capillary-line for pressure compensation (ventilation), line length in mtr.						X
Pressure balance with Goretex-filter						G

look at the data sheet process connections **modular** **process** Stand 09/2009