Type SDT 01

basic @ pressure

Industrial pressure transducer

Basic features

- Thick-film ceramic sensor
- High accuracy
- High temperature range
- Nominal pressure ranges from -1 bar to 400 bar
- Absolute and relative pressure
- Wetting parts made of high grade steel 1.4301,(front-flushed Version high grade steel 1.4571) FKM, Ceramics AI O 96%
- Case made of high-grade steel 1.4301

Technical features

- small temperature error
- Long-term stable
- Accuracy according to IEC 60770: 0,5 % FSO
- Functional ranges (temperature) Medium to be measured: -25 °C bis 125 °C
- Customised versions:
  - special measuring ranges
  - multifarious electrical and mechanical couplings
  - further versions on request

Design and mode of operation

The pressure transducer SDT01 represents the basis of our well-tried industrial pressure transducers of the SDT series.

It is available in the following mechanical versions:

- Standard: open pressure connection G1/2” with immersed ceramic sensor (Manometer coupling)

- Option:
  - 1/4” DIN3852,
  - 1/2” DIN3852 (quasi front-flush)

  Ceramic sensor for nominal pressures von 0...0,5 bar bis 0...25 bar

Process connections

1/2” EN837 (manometer-coupling)

1/4” DIN3852

1/2” DIN3852 (quasi front-flush)

Favoured fields of application are:

- Medical technology
- Environment engineering
- Food-technology
- Hydraulics
- Chemical and pharmaceutical industry

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Pressure transducer for standard applications

Input variable

Nominal pressure	bar	-1...0	0,5	1	1,6	2,5	4	6	10	16	25	40	60	100	160	250	400
Allowable overpressure	bar	3	3	3	4	4	10	10	20	40	40	100	100	200	400	400	650

Temperature error

Temperature error
For zero-point and range ≤ ± 0,3 % FSO / 10 K
In the compensated area -25...85 °C

Functional ranges (temperature)

Medium to be measured: -25...125°C
Elektronic equipm./ambiance: -25... 85°C
Storage: -40...125°C

Output signal / auxiliary power

Standard 2-wire: 4 ... 20 mA oder 20 ... 4 mA / U_B = 8 ... 32 V_{DC}
Options 3-wire: 0 ... 20 mA oder 20 ... 0 mA / U_B = 14 ... 30 V_{DC}
0 ... 10 V oder 10 ... 0 V / U_B = 14 ... 30 V_{DC}

Signal behaviour

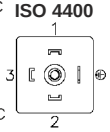
Accuracy ≤ ± 0,5 % FSO nach IEC 60770
Allowable load Current 2-wire: R_{max}=[(U_B - U_{Bmin})/0,02]Ohm
Current 3-wire: R_{max}= 500 Ohm
Current 3-wire: R_{min}= 10 kOhm

Influence effect Auxiliary power: 0,05 % FSO / 10 V
Load: 0,05 % FSO / kOhm

2-wire
Pin 1 +VDC
Pin 2 -VDC

3-wire
Pin 1 + VDC
Pin 2 -VDC
Pin 3 Signal +

ISO 4400



M12-plug

2-wire
Pin 1 +VDC
Pin 4 Output

3-wire
Pin 1 + VDC
Pin 4 Output
Pin 3 - VDC

Case material

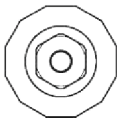
High grade steel 1.4301

Sensormaterial

Keramik Al O 96%

Cable gland

2-wire
white +VDC
brown -VDC



3-wire
white +VDC
brown -VDC
green Signal +

Order Code

SDT01- [ ][ ][ ] - [ ] - [ ] - [ ][ ]

Measuring range	**bar**				
	0...0,5	0	1		
	0...1	0	2		
	0...1,6	0	3		
	0...2,5	0	4		
	0...4	0	5		
	0...6	0	6		
	0...10	0	7		
	0...16	0	8		
	0...25	0	9		
	0...40 [1]	1	0		
	0...60 [1]	1	1		
	0...100 [1]	1	2		
	0...160 [1]	1	3		
	0...250 [1]	1	4		
	0...400 [1]	1	5		
-	1...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	
Absolute pressure	(From 0...1 bar to 0...25 bar)			1	
Process connection					
1/4" DIN 3852					0
1/2" EN 837					1
1/2" Flush with front	(Only relative pressure for meas. range -1 bis 25 bar)				2
Output signal					
0...20 mA	2-wire				A
4...20 mA	2-wire				B
0...10 V	3-wire				C
20...0 mA	3-wire	(Output signal inverted)			D
20...4 mA	2-wire	(Output signal inverted)			E
10...0 V	3-wire	(Output signal inverted)			F
Electrical connection					
Plug ISO 4400					H 9
Plug M12x1 High grade steel					M 1
Cable gland Standard 2m					L 2
Surcharge per metre					L X

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