



## 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 Al<sub>2</sub>O<sub>3</sub> 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



# Pressure transducer for standard applications



Automatisierungstechnik

## 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  $\leq \pm 0,3\% \text{ FSO} / 10 \text{ K}$   
 In the compensated area  $-25...85\text{ }^\circ\text{C}$

## Functional ranges (temperature)

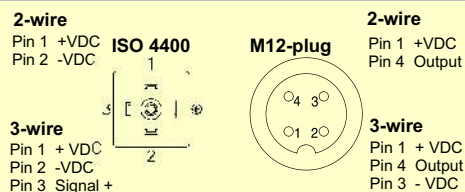
Medium to be measured:  $-25...125\text{ }^\circ\text{C}$   
 Elektronik equipm./ambiance:  $-25... 85\text{ }^\circ\text{C}$   
 Storage:  $-40...125\text{ }^\circ\text{C}$

## Output signal / auxiliary power

Standard 2-wire:  $4 \dots 20 \text{ mA}$  oder  $20 \dots 4 \text{ mA} / U_B = 8 \dots 32 \text{ V}_{DC}$   
 Options 3-wire:  $0 \dots 20 \text{ mA}$  oder  $20 \dots 0 \text{ mA} / U_B = 14 \dots 30 \text{ V}_{DC}$   
 $0 \dots 10 \text{ V}$  oder  $10 \dots 0 \text{ V} / U_B = 14 \dots 30 \text{ V}_{DC}$

## Signal behaviour

Accuracy  $\leq \pm 0,5\% \text{ FSO}$  nach IEC 60770  
 Allowable load  
 Current 2-wire:  $R_{max} = [(U_B - U_{Bmin})/0,02] \text{ Ohm}$   
 Current 3-wire:  $R_{max} = 500 \text{ Ohm}$   
 Current 3-wire:  $R_{min} = 10 \text{ kOhm}$   
 Influence effect  
 Auxiliary power:  $0,05\% \text{ FSO} / 10 \text{ V}$   
 Load:  $0,05\% \text{ FSO} / \text{kOhm}$

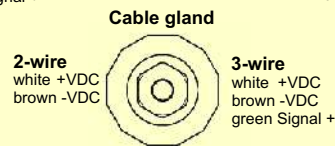


## Case material

High grade steel 1.4301

## Sensormaterial

Keramik Al O 96%



## 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 <sup>1</sup>	1	0					
	0...60 <sup>1</sup>	1	1					
	0...100 <sup>1</sup>	1	2					
	0...160 <sup>1</sup>	1	3					
	0...250 <sup>1</sup>	1	4					
	0...400 <sup>1</sup>	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				D			
20...4 mA	2-wire				E			
10...0 V	3-wire				F			
Electrical connection								
Plug ISO 4400					H	9		
Plug M12x1					M	0		
Cable gland Standard 2m					L	2		
Surcharge per metre					L	X		

Stand 01/2009