



## Type SDT 03

modular @ pressure

Parameterisable modular pressure transmitter

### Basic features

- ▶ High accuracy
- ▶ Digital input for zero point adjustment
- ▶ Nominal pressure ranges up to 40 bar
- ▶ Relative Pressure
- ▶ Integrated control + indicator display optional
- ▶ Freely adjustable as tank level indicator & linearisation up to 30 support points (via free software)
- ▶ Configuration via display & possibility for software-supported visualisation and configuration
- ▶ 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
- ▶ Galvanically isolated electronics
- ▶ Insulation voltage: 300V
- ▶ Totally front-flush membrane
- ▶ FDA, EHEDG-conformal

### Technical features

- ▶ Accuracy according to IEC 60770: 0,1 % of adjusted measuring value
- ▶ 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  
 High-Temperature-Version permanent up to 180 °C
- ▶ 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:

- **Standard:** Modular, aseptic G1”  
 Process connection with polymeer-free sealing system (HygienicConnect),
- Elastomer sealing (HygienicElastomerConnect „HEC“)



### Software-supported visualisation & configuration



### Examples of modular process connections



Varivent Triclamp Milk-Pipe  
 See data sheet process connection technology

**modular @ process**

### Optional accessories



**DES**  
**Display-Extension-Set**  
 For external placement of the Display and operating unit in Field applications

### Favoured fields of application are:

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

Stand 08/2020



**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
AK 100, FDA conform	ca. 0,11 cm <sup>3</sup>

Output signal / auxiliary power
Standard 2-Leiter: 4 ... 20 mA / U <sub>b</sub> = 12 ... 30 VDC

Elektrical connection / safety class
<ul style="list-style-type: none"> <li>- High grade steel connecting head with M16-gland or M12-plug made of high grade steel</li> <li>- with capillaries cable (Art.Nr. S0772-00001) IP 69K</li> <li>- or Goretex-filter</li> </ul>

**Connection dimensional drawing**

**Terminal Strip**

0	FE	+	-
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Clamp 0: Digin (ZeroPoint/Offset 2 - 5sec. +VDC)  
 Clamp FE: functional GND  
 Clamp +: +VDC  
 Clamp -: Output

**Capillary line**  
 Red: + VDC  
 Black: - Output  
 Yellow: Digin (zero point/offset 2 - 5sec + VDC)

Torque
Torque 30 Nm

Signal behaviour
Accuracy Standard: $\leq \pm 0,1\%$ of meas. Range (incl. hysteresis and reproducibility) IEC 60770
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 operating range
Temperature drift zero-point: $\pm 0,5\%$	All. duration mediumtemp.: -10...100°C
Temperature drift meas. range -10...70°C	Mediumtemp max.: (1/2 h) 140°C
Long Term Stability $\pm 0,2\%$ of final value	Ambient temperature.: -20... 85°C
	High-Temperature-Version permanent up to 180°C

<b>SDT03-</b> "HygienicConnect" (metallic sealing) Standard			0	-	B	-		-	5	
<b>SDT03-E-</b> "HEC" (elastomer sealing)			0	-	B	-		-	5	
Measuring range bar										
0...0,4 reference type	0	1								
0...1 reference type	0	2								
0...1,6	0	3								
0...2,5 reference type	0	4								
0...4	0	5								
0...6	0	6								
0...10 reference 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, closed cover						A				
with integrated control and indicator display, inspection cover						B				
Electrical connection										
Connecting head made of high-grade steel with M16 screw connection								5		
Connecting head made of high-grade steel with implemented M12 plug								6		
Capillary-line for pressure compensation (ventilation), line length in mtr.									X	
Pressure balance with Goretex-filter (Polyamid)									G	
Pressure balance with Goretex-filter (High-Grade-Steel 1.4305)									GE	
High Temperature Version										
Extra charge for high temperature version up to 180°C										

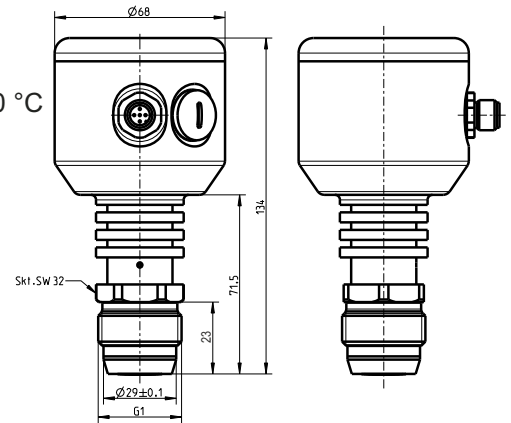
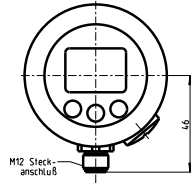
see Data Sheet process connections **modular** @ **process**  
 PC-USB-Interface incl. Software for reading out and parameterize the smw units **ST-PA-M12** + Suitable Plug-Adapter **ST-M12-miniUSB**



### High-Temperature-Version



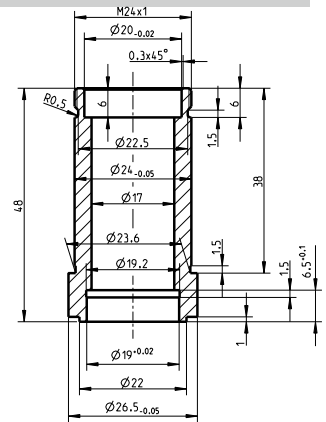
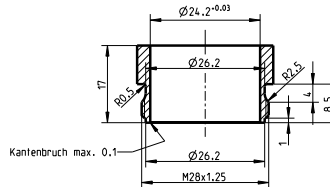
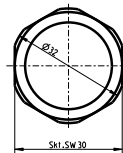
**Property:**  
Temperature Range:  
Medium (steady): -10 °C to 180 °C  
Ordercode: SDT03-.....K001



### Labom-Prozess Connection



**Property:**  
Process Connection Labom  
Ordercode: SDT03-.....K010

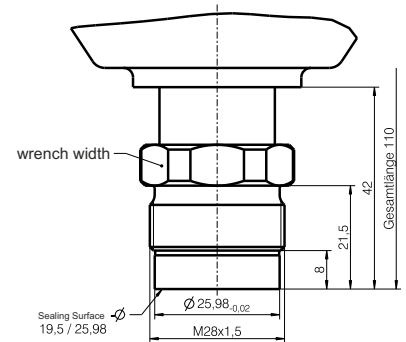


### Wiedemann-Process Connection



**Property**  
M 28x1,5 Pressure Nozzle  
(Wiedemann)

Ordercode: SDT03-.....K009



### Hengesbach-Process Connection



**Property**  
Process connection Hengesbach

Ordercode: SDT03-.....50-.K001

