



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



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 05/2023

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 polymere-free sealing system (HygienicConnect),
- Elastomer sealing (HygienicElastomerConnect „HEC“)

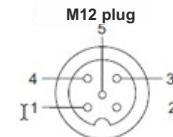
**Technical Data****Input variable (Measuring range)**

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 materialHigh grade steel 1.4404
(316 L)**Sensormaterial (wetting parts)**High grade steel 1.4435 (316 L) Advantages material of the food and Pharmaindustrie
(corrosion resistance increased)**Filling medium**

AK 100, FDA conform

Filling volumeca. 0,11 cm³**Connection dimensional drawing**

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)

Output signal / auxiliary powerStandard 2-Leiter: 4 ... 20 mA / U_B = 12 ... 30 VDC**Torque**

Torque 30 Nm

Signal behaviourAccuracy 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 drift zero-point: $\pm/- 0,5\%$
 Temperature drift meas. range $\pm 10...70^\circ\text{C}$
 Long Term Stability $\pm 0,2\%$ of final value

Temperature operating range

All. duration mediumtemp.: -20...110°C
 Mediumtemp max.: (1/2 h) 140°C
 Ambient temperature.: -20... 85°C
 High-Temperature-Version permanent up to 180°C

SDT03-

"HygienicConnect" (metallic sealing)

Standard

		0	-	B	-		-	5	
		0	-	B	-		-	5	

SDT03-E-

"HEC" (elastomer sealing)

Measuring range bar

0...0,4	reference type	0	1
0...0,1	reference type	0	2
0...0,16		0	3
0...0,25	reference type	0	4
0...0,4		0	5
0...0,6		0	6
0...0,10	reference type	0	7
0...0,16		0	8
0...0,25		0	9
0...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

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