

Digital pressure transmitters

DTM.OCS.S



Version: 12.08.2015

Technical Specifications

Pressure measuring range (bar)

	0.2 ... 0.5	> 0.5 ... 2	> 2 ... 100
Overpressure	3 bar	3 x FS (≥ 3 bar)	3 x FS
Burst pressure, (1)	> 200 bar	> 200 bar	> 200 bar
Accuracy (\pm % FS)	≤ 0.15	≤ 0.05	≤ 0.03
Total Error, (2) (3) (\pm % FS)			
0...70°C (typ. / max.)	$\leq 0.5 / 1.0$	$\leq 0.2 / 0.4$	$\leq 0.2 / 0.4$
-25...85°C (4) (typ. / max.)	$\leq 1.5 / 1.7$	$\leq 0.3 / 0.5$	$\leq 0.1 / 0.3$
Long term stability, (5)	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

(1) Transducer

(2) Total error including accuracy, hysteresis, repeatability and temperature influences

(3) The error values are valid within the corresponding temperature range

(4) -40...85°C on request

(5) 1 year (typ. / max.)

Temperature measuring range, (1) (°C)

	0 ... 70	-25 ... 85 (2)
Accuracy (2)	$\leq \pm 0.5$ °C	$\leq \pm 1.5$ °C
Response time, (3), (4)		
T 0.50	9 s	9 s
T 0.63	15 s	15 s
T 0.90	27 s	27 s

(1) Temperature measurement included

(2) -40...85°C on request

(3) Accuracy of the equipment ± 2 °C

(4) Time in seconds that the sensor needs to carry out eg 63% of a temperature change

(5) Time of measurement for liquid medium

Temperature range (1)

Operating temperature	-40...85 °C
Process temperature (2)	-25...85 °C
Storage temperature	-40...85 °C

(1) Depending on connector type, pressure range, seal, measuring medium

(2) -40...85°C on request

Electrical specifications

Power supply (1)	9...30 VDC
Current consumption (typ.)	3mA @ 24VDC
Output	
Protocol	Modbus RTU, 8n2
Interface	RS485
Baudrate	9600 bps
Resolution	
Pressure	21 Bit
Temperature	21 Bit

(1) Power supply at the sensor

Qualifications (1)

	Description	Level	Typical interferences
IEC 60068-2-27	Schock	500g (3ms)	
IEC 60068-2-64	Vibration	10g rms (5 ... 2000 Hz)	
EN 55011 EN 55022 EN 61326-1	Emission, class B	0.03...6 GHz	
EN 61000-4-2 EN 61326-1	Electrostatic discharge	8 kV contact 15 kV air	
EN 61000-4-3 EN 61326-1	Radiated Immunity	10 V/m (0.08 ... 6 GHz)	Radio sets, wireless phones, Wi-Fi
EN 61000-4-4 EN 61326-1	Transients (burst)	4 kV	Motors, valves
EN 61000-4-6 EN 61326-1	Conducted RF	10 V (0.15 ... 80 MHz)	Frequency converters
EN 61000-4-5 EN 61326-1	Surge	2 kV	Overvoltage

(1) Only with connected shield

Physical specifications

Materials	
Transducer	Stainless steel (316L / 1.4435), titanium (Gr. 2), (1)
Housing	Stainless steel (316L / 1.4404), titanium (Gr. 2)
Seals	Viton (Standard), EPDM, Kalrez

(1) Hastelloy (C-276) on request

Accessories

Overview

10.00.0091	Accessories overview

Additional documents

Operating manual

	Article number
10.00.0430	Operating manual

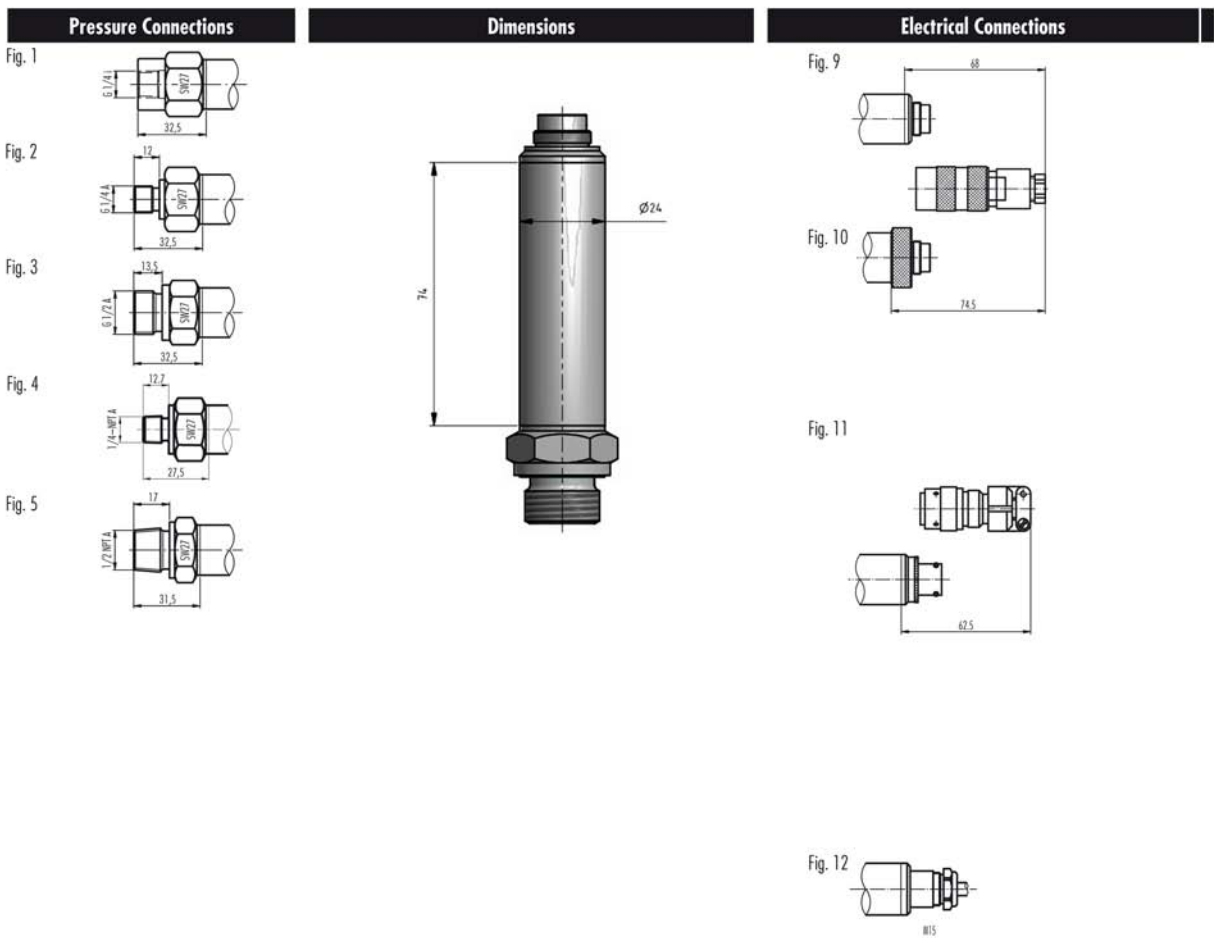
Ordering information

		X.	XXXX.	XXXX.	XX.	XXX
Type	DTM.OCS.S					
Pressure type	Gauge	1				
	Absolute (vacuum)	2				
	Sealed gauge	3				
Pressure measuring range	200 mbar ... 100 bar	XX				
	offset, special adjustment	99				
Process connection	G 1/4 F (Fig. 1)	00				
	G 1/4 M (Fig. 2)	11				
	G 1/4 M, manometer DIN 16288	12				
	G 1/2 M (Fig. 3)	13				
	G 1/2 M, manometer DIN 16288	16				
	G 1/2 M, with bore Ø 14mm	17				
	1/4 NPT M (Fig. 4)	10				
	1/2 NPT M (Fig. 5)	19				
	Customized connection available	99				
Electrical connection	Binder 723, 5-pin, IP 67, (1) (Fig. 9)		03			
	Binder 723, 5-pin, IP 67, demountable,(1) (Fig. 10)		43			
	MIL C26482, 10-6, IP 40, (1) (Fig. 11)		06			
	PE cable, IP 67, black (Fig. 12)		13			
	PUR cable, IP 67, black (Fig. 12)		15			
	FEP cable, IP 67, black (Fig. 12)		21			
	Customized connection available		99			
Output signal	RS485, Modbus		62			
Accuracy	According to Datasheet			3		
Temperature range	0 ... 70°C compensated (allowed process temperature: 0 ... 70 °C)				0	
	-25 ... 85°C compensated (allowed process temperature: -25 ... 85°C)				1	
Option 1	Throttle					A
	Special oil filling: Anderol Food (for food applications)					G
	Special oil filling: PAO4 (Silicone free)					Q
Option 2	Version titanium					K
Option 3	Seals: Viton (standard)					U
	Seals: EPDM					S
	Seals: Kalrez (Industry)					T

(1) Cable socket connector not included

(3) Only parts which are in contact with medium

Technical drawings



Specifications may change without notice.

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