

Passive submersible level transmitters

TM/N



Version: 12.11.2013

Technical Specifications

Pressure measuring range (mH2O)

	1 ... 5, (1)	> 5 ... 20	> 20 ... 250
Overpressure	3 bar	3 x FS (≥ 3 bar)	3 x FS
Burst pressure	> 200 bar	> 200 bar	> 200 bar
Accuracy, (2), (\pm % FS)	$\leq 0.5 / \leq 0.25$	$\leq 0.5 / \leq 0.25$	$\leq 0.5 / \leq 0.25$
Thermal shift, (\pm % FS/$^{\circ}$C)			
Zero point 0...70 $^{\circ}$ C	≤ 0.06	≤ 0.03	≤ 0.015
Zero point -25...85 $^{\circ}$ C	≤ 0.08	≤ 0.04	≤ 0.02
Span 0...70 $^{\circ}$ C	≤ 0.015	≤ 0.015	≤ 0.015
Span -25...85 $^{\circ}$ C	≤ 0.02	≤ 0.02	≤ 0.02
Response time, (typ.)	< 0.1ms / 10...90% FS	< 0.1ms / 10...90% FS	< 0.1ms / 10...90% FS
Long term stability, (3)	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

(1) 0.5 mH2O on request

(2) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

(3) 1 year (typ. / max.), the long term stability can be improved by ageing (burn-in) the sensor

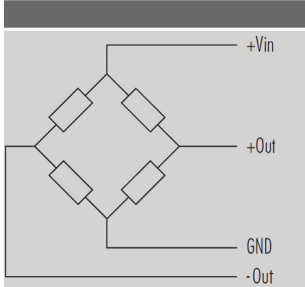
Typical output signal (mH2O)

	1 ... 2	> 2 ... 4	> 4 ... 10
Output signal, (1), (mV)	15	25	35

	> 10 ... 20	> 20 ... 250
Output signal, (1), (mV)	50	100

(1) At nominal pressure, 10 V DC

Electrical specifications

Circuit diagram	
Input impedance	> 10 kOhm
Bridge resistance, (typ.)	3 kOhm
Supply voltage, (typ. / max.)	10 / 15 V DC

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
Cable	PUR, FEP, PE

(1) Hastelloy (C-276) on request

Equipment

Overview

10.00.0091	Accessories overview

Additional documents

Operating and safety instructions

	Article number
10.88.0369	DMM030

Ordering information

		X. XXXX.	XXXX.	XX.	XXX
Type					
	TM/N	22			
Pressure type					
	Gauge	1			
	Absolute (vacuum)	2			
Pressure measuring range					
	50 mbar ... < 100 mbar	XX			
	100 mbar ... < 25 bar	XX			
	Offset, special adjustment	99			
Process connection					
	Closed, (Fig.1)	55			
	Open, (Fig.2)	56			
	G 1/4 M, (Fig. 3)	11			
	G 1/2 M, (Fig. 3)	13			
	Customized connections available	99			
Electrical connection					
	Connectable version, IP 68, (Fig. 4), (3)		07		
	PE cable, IP 68, black (4), (5)		13		
	PUR cable, IP 68, black (4), (6)		15		
	FEP cable, (high temperature), black, IP 68, (4), (8)		12		
	FEP cable, IP 68, black (4)		21		
Output signal					
	0...10 mV		10		
	0...25 mV		11		
	0...35 mV		12		
	0...50 mV		13		
	0...100 mV		14		
	0...XXX mV (customized)		99		
Accuracy					
	≤ ± 0.5 % FS			0	
	≤ ± 0.25 % FS (on request)			1	
Temperature range					
	-5...50 °C compensated (allowed process temperature: -5...50 °C)			4	
	-5...80 °C compensated (allowed process temperature: -5...80 °C)			5	
	Customized			9	
Option 1					
	Special oil filling: Androl Food (for food applications)				G
Option 2					
	Electronics packed in gel: Gauge pressure				C
	Electronics packed in gel: Absolute pressure				D
Option 3					
	Ballast weight 1.4435				B
	Version titanium (without ballast weight)				K
	Seals: Viton (standard)				U
	Seals: EPDM				S
	Seals: Kalrez (Level)				T
	Humidity filter element for gauge versions (only for PUR and PE cable)				Z
	Cutting ring connection G1/2 male				
	Strain relief				

- (1) 0.5 mH₂O on request
- (2) mH₂O, mWS, mWC etc. available
- (3) Connector with required cable has to be ordered separately (KART100)
- (4) Please specify the required cable length and medium
- (5) Suitable for drinking water (food approved)
- (6) For operating temperature > 50°C, PE or FEP cable must be used
- (7) min. Medium temperature -25 ° C
- (8) max. 130°C @ 10 mH₂O, max. 110°C @ 50 mH₂O
- (9) Standard, no special cleaning. Special cleaning must be requested.

Technical drawings

Dimensions

Fig. 1: Closed version

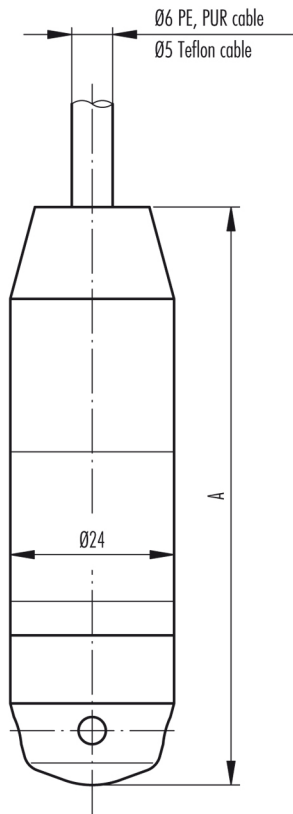


Fig. 2: Open version

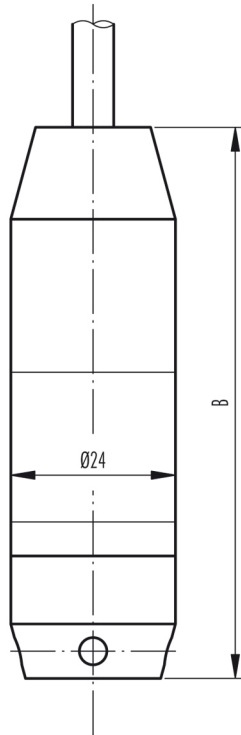


Fig. 3: with process connection

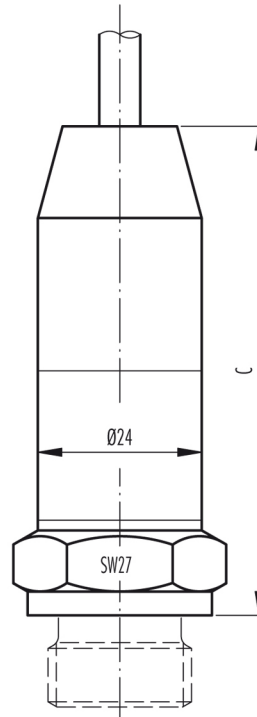
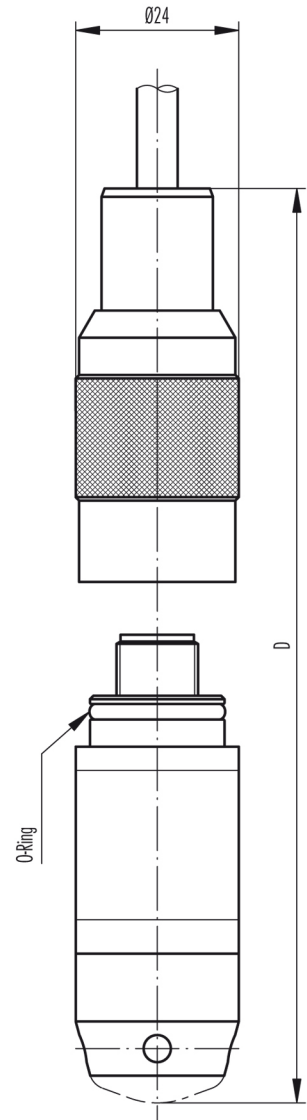


Fig. 4: Electrical connection, connectable



	A [mm]	B [mm]	C [mm]	D [mm]	Weight [g]
without ballast weight	85	81	on request	on request	approx. 200
with ballast weight	172	168	on request	on request	approx. 450

Colour	
white	+Vin
yellow	GND
brown	+Out
green	-Out

Specifications may change without notice.

STS Headquarters, Switzerland:
 STS Sensor Technik Sirmach AG
 Rütihofstrasse 8, 8370 Sirmach, Switzerland
 sales@stssensors.com | www.stssensors.com

STS France:
 STS France
 844 Route de la Caille, 74350 Allonzier la Caille, France
 info-fr@stssensors.com | www.stssensors.fr

STS Germany:
 STS Sensoren Transmitter Systeme GmbH
 Poststrasse 7, 71063 Sindelfingen, Germany
 info-de@stssensors.com | www.stssensors.de

STS Great Britain:
 STS Great Britain Ltd.
 Box 3942 | Warwick | CV34 9AE, United Kingdom
 contact@stssensors.com | www.stssensors.co.uk

STS Italy:
 STS Italia s.r.l.
 Via Gesù 5, 20090 Opera (Milano), Italy
 info-italia@stssensors.com | www.stssensors.it