

Level transmitters

ATM/N



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), (± % FS)	≤ 0.5 / ≤ 0.25	≤ 0.5 / ≤ 0.25 / ≤ 0.1	≤ 0.5 / ≤ 0.25 / ≤ 0.1
Thermal shift, (± % FS/°C)			
Zero point -5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span -5...50°C	≤ 0.015	≤ 0.015	≤ 0.015
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

Temperature range

Operating temperature	-5...80 °C
Process temperature	-5...80 °C
Storage temperature	-10...80 °C

Electrical specifications

	4 ... 20 mA	0 ... 20 mA	0 ... 5 V / 0 ... 10 V
Power supply	9...33 V DC	9...33 V DC	15...30 V DC
Supply influence	< 0.1% FS	< 0.1% FS	< 0.1% FS
Current consumption			3 mA
Circuit diagram			
Load resistance			$R_L > 10k\Omega$
Load influence	< 0.1% FS	< 0.1% FS	< 0.1% FS

Qualifications

	Description	Level	Typical interferences
EN 61000-4-2	Electrostatic discharge	4 kV contact 8 kV air	
EN 61000-4-3	Irradiated RF	10 V/m (0.08...1 GHz)	Radio sets, wireless phones
EN 61000-4-4	Transients (burst)	2 kV	Motors, valves
EN 61000-4-5	Surge	10 kA (8 / 20 µs), (1)	Lightning
EN 61000-4-6	Conducted RF	10 V (0.15...80 MHz)	Frequency converters

(1) Only with optional surge (lightning) protection

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, PTFE, PE

(1) Hastelloy (C-276) on request

Equipment

Overview

10.00.0091	
	Accessories overview

Additional documents

Operating and safety instructions

10.88.0092	
	Article number DMM029

Ordering information

		X. XXXX.	XXXX.	XX.	XXX
Type	ATM/N	24			
Pressure type	Gauge	1			
	Absolute (vacuum)	2			
Pressure measuring range	Any pressure measuring ranges between 0...1 mH ₂ O and 0...250 mH ₂ O available, (1), (2)	XX			
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	XX			
Electrical connection	Connectable version, IP 68, (Fig. 4), (3)		07		
	PE cable, IP 68, (4), (5)		13		
	PUR cable, IP 68, (4), (6)		15		
	PTFE cable, IP 68, (4)		21		
	Customized connection available		XX		
Output signal	4...20 mA		05		
	0...20 mA		08		
	0... 5 V DC		46		
	0...10 V DC		47		
	4...20 mA surge (lightning) protection		08		
	0...10 V DC surge (lightning) protection		49		
Accuracy	≤ ± 0.5 % FS			0	
	≤ ± 0.25 % FS			1	
	≤ ± 0.1 % FS (on request)			2	
Temperature range	-5...50 °C compensated (allowed process temperature: -5...50 °C)			4	
Option 1	Special oil filling: ASEOL Food (for food applications)				G
	Special oil filling: Halocarbon (for oxygen applications)				H
Option 2	Electronics packed in gel: Gauge pressure				C
	Electronics packed in gel: Absolute pressure				D
Option 3	Ballast weight				B
	Version titanium				K
	Seals: Viton (standard)				U
	Seals: EPDM				S
	Seals: Kalrez				T
	Aging				Z

(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 $> 50^{\circ}\text{C}$, PE or PTFE cable must be used

Technical drawings

Dimensions

Fig. 1: Closed version

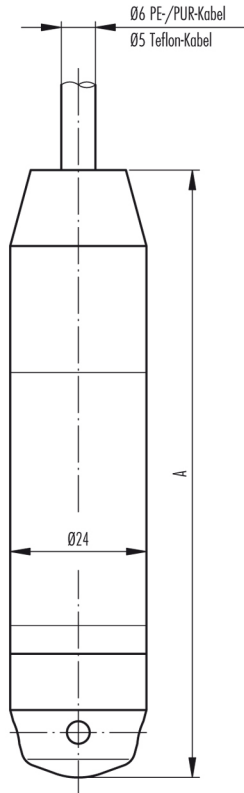


Fig. 2: Open version

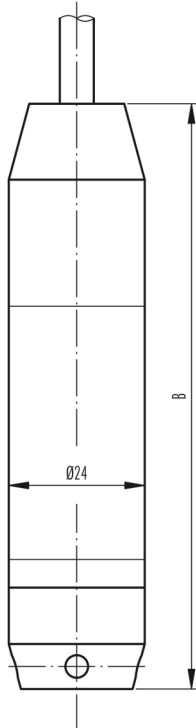


Fig. 3: with process connection

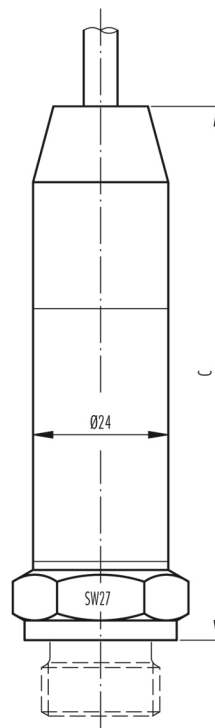
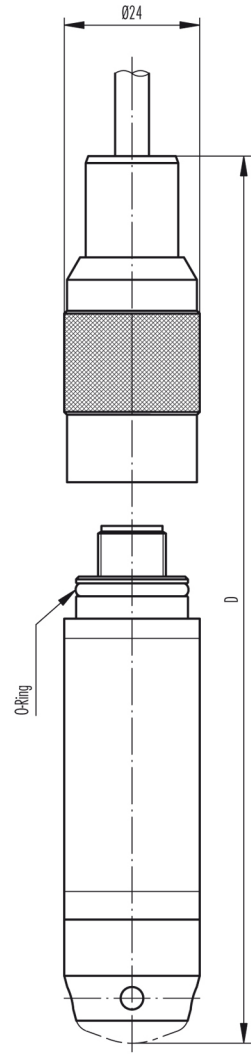


Fig. 4: Electrical connection, connectable



Standard	A [mm]	B [mm]	C [mm]	D [mm]	Weight [g]
without ballast weight	108	104	on request*	on request*	approx. 160
with ballast weight	195	191	on request*	on request*	approx. 420

*C: Depending on process connection

*D: Depending on process connection or version

Version with surge (lightning) protection	A [mm]	B [mm]	C [mm]	D [mm]	Weight [g]
without ballast weight	157	153	on request	on request	approx. 200
with ballast weight	244	240	on request	on request	approx. 460

Colour	2-Wire	3-Wire
with	+Vin	+Vin
yellow	Pout	GND
brown	Pout	

Specifications may change without notice.

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

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