

PRESSURE TRANSMITTER FOR LEVEL MEASUREMENT ATM/N



Features

- Compact and robust stainless steel assembly 1.4435 (316L) or titanium (option)
- Piezoresistive measuring element
- Any pressure ranges between 0...100 mbar and 0...25 bar
- Calibration available for all common pressure units mH₂O, mWG, mWC ect.
- Available with PE, PUR or Teflon cable, also connectable
- Reverse polarity and short circuit protected
- Surge (lightning) protection according to EN 61000-4-5 (option)

Typical applications

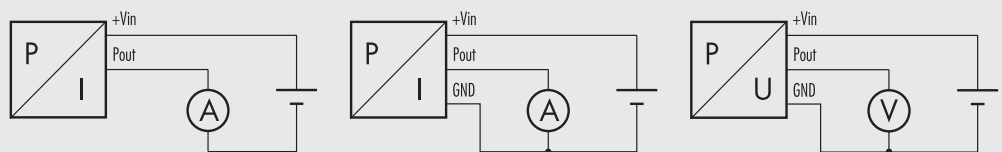
Depth and level measurement in

- Wells
- Bore holes
- Waste water
- Reservoirs
- Lakes, rivers
- Sewage treatment plant

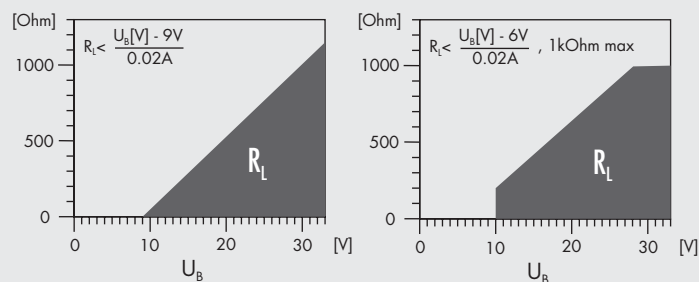
Technical specifications

Pressure range	[bar]	0.1 ... 0.5	> 0.5 ... 2	> 2 ... 25
Overpressure		3 bar	3 x FS (min. 3 bar)	3 x FS
Burst pressure	[bar]	> 200	> 200	> 200
Accuracy ¹⁾	[± % FS]	≤ 0.5 (optional ≤ 0.25)	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)
Thermal shift	[± % FS/°C]			
Zero	-5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span	-5...50°C	≤ 0.015	≤ 0.015	≤ 0.015
Long term stability (1 Jahr) - (typ./max.)		0.5% FS/< 4 mbar	0.2% FS/< 4 mbar	0.1% FS/< 0.2% FS
Output signal		4 ... 20 mA	0 ... 20 mA	0 ... 5 V / 0 ... 10 V
Type		Two wire current transmitter	Three wire current transmitter	Three wire voltage transmitter
Supply voltage		9...33 V DC	9...33 V DC	15...30 V DC
Supply voltage influence		< 0.1% FS	< 0.1% FS	< 0.1% FS

Circuit diagram



Load resistance



$R_L > 10k\Omega$

Load resistance influence

< 0.1% FS

< 0.1% FS

< 0.1% FS

Materials

Process connection, diaphragm, housing

Seals (standard)

Stainless steel 1.4435 (316L) other materials (e.g. titanium) on request

Viton (other materials see ordering information)

Electromagnetic compatibility

Standard	Level	Typical interferences
Emission: EN 61000-6-3 EN 55022	Generic emission standard Emission, class B	
Immunity: EN 61000-6-2 EN 61000-4-2 EN 61000-4-3 EN 61000-4-3 EN 61000-4-4 EN 61000-4-6 EN 61000-4-5	Generic immunity Electrostatic discharge Radiated electro-magnetic field Radiated electro-magnetic field (GSM) Fast transients (burst) Conducted radio-frequency Surge 4 kV contact, 8 kV air 10 V/m, 80-1000 MHz, 80% AM 1 kHz 10 V/m, 950 MHz, 200 Hz on/off 2 kV 10 V, 0.15-80 MHz, 80% AM 1 kHz 10 kA (8/20 μ s) ²⁾	Cellular phones, radio sets Digital portable phones Motors, valves Cellular phones, radio sets Lightning strikes

¹⁾ Zero based non-conformity according to DIN 16086, including hysteresis and repeatability

²⁾ Only with optional surge (lightning) protection

Ordering Information

		24	X	.	XXXX	.	XXXX	.	XX	.	XXX
Type	ATM/N	24									
Pressure type	Gauge	1									
	Absolute	2									
Pressure range ⁵⁾	0...100 mbar				00						
	0...160 mbar				01						
	0...250 mbar				02						
	0...400 mbar				03						
	0...600 mbar				04						
	0...1.0 bar				05						
	0...1.6 bar				06						
	0...2.5 bar				07						
	0...4.0 bar				08						
	0...6.0 bar				09						
	0...10 bar				10						
	0...16 bar				11						
	0...25 bar				12						
	Special calibration				99						
Version	Closed version	(Fig. 1)			55						
	Open version	(Fig. 2)			56						
	G 1/4 M	(Fig. 3)			11						
	G 1/2 M	(Fig. 3)			13						
	Special version ²⁾	(Fig. 3)			99						
Electrical connection	Connectable version ³⁾	(Fig. 4)	IP68			07					
	PE cable ^{1) 4)}		IP68			13					
	PUR cable ¹⁾		IP68			15					
	Teflon cable ¹⁾		IP68			21					
Output signal	0... 5 V DC					46					
	0...10 V DC					47					
	0...20 mA					00					
	4...20 mA					05					
	4...20 mA surge (lightning) protection					08					
	0...10 V DC surge (lightning) protection					49					
	Special output signal					99					
Accuracy	≤ ± 0.5% FS								0		
	≤ ± 0.25% FS								1		
	≤ ± 0.1% FS (on request)								2		
Temperaturbereich	-5...50°C compensated (medium temperature -5... 50°C)								4		
Options	Version titanium										K
	Ballast weight										B
	Electronics packed in gel: Gauge pressure										C
	Absolute pressure										D
	Special oil filling in the TD: ASEOL Food										G
	Halocarbon										H
	Seals: Viton (standard)										U
	EPDM										S
	Kalrez										T
	Humidity filter element										Z

¹⁾ Please specify the required cable length and medium

²⁾ Other versions or process connections on request

³⁾ Connector with required cable has to be ordered separately (KART100)

⁴⁾ Suitable for drinking water (food approved)

⁵⁾ mH2O, mWS, mWC etc. available

Dimensions

Fig. 1: Closed version

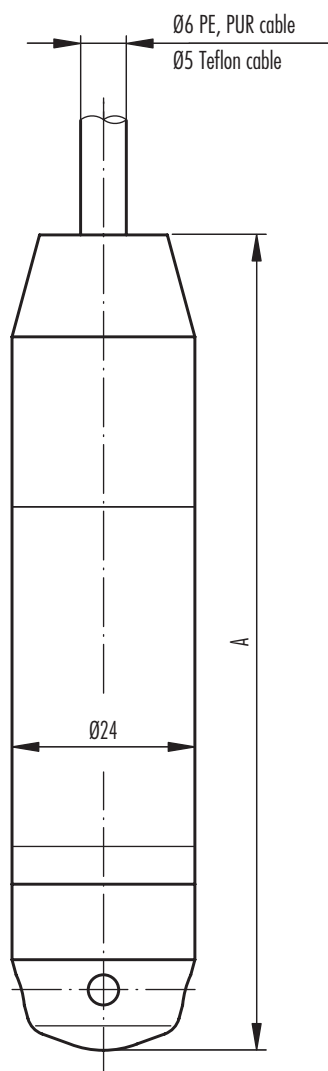


Fig. 2: Open version

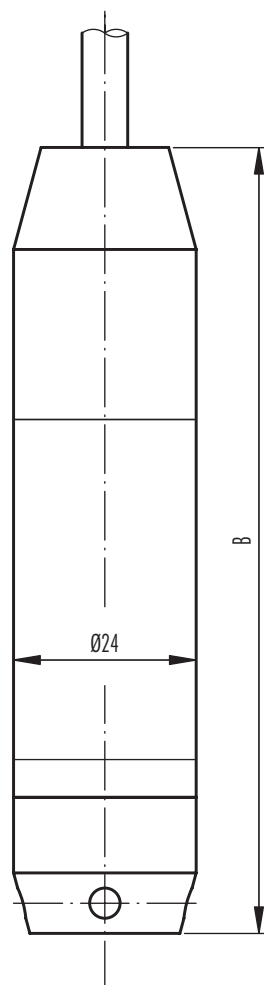


Fig. 3: with process connection

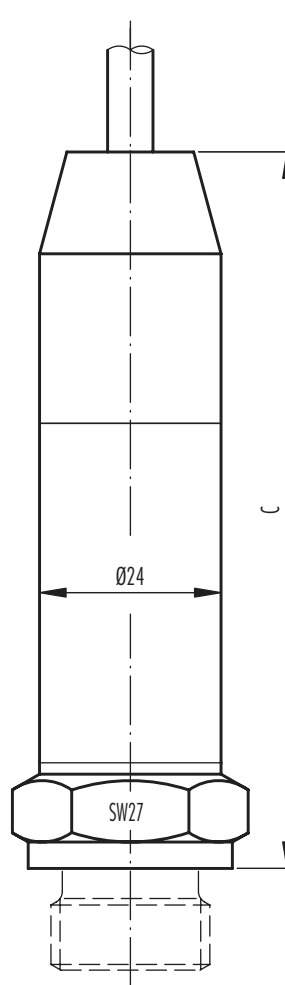
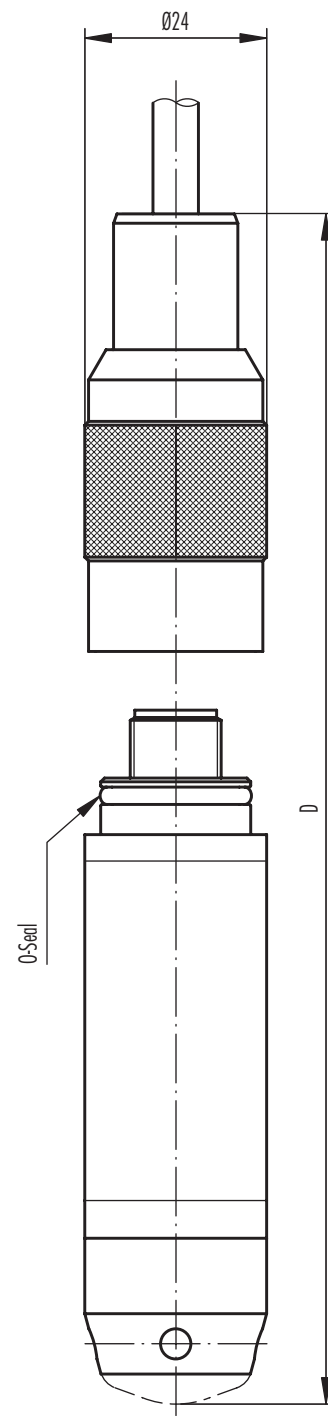


Fig. 4: Electrical connection, connectable



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



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