



### Features

- Piezoresistive measuring element
- Adjustable 1:4 of the nominal range within -5% to +105%
- Standard DIN pressure ranges from 0...100 mbar to 0...25 bar
- Calibration available for all common pressure units mH<sub>2</sub>O, mWG, mWC etc.
- Adjustable delay
- Available with PE-, PUR- or Teflon cable
- Reverse polarity and short circuit protected
- Active compensation (option)

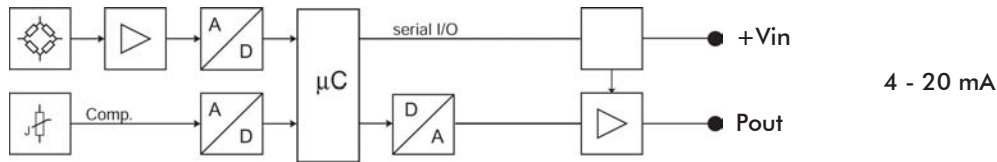
### Typical applications

Depth and level measurement in

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



## Specifications



Pressure range [bar]	0.1 ... 0.5	> 0.5 ... 2	> 2 ... 25
<b>Overpressure</b>	3 bar	3 x FS (min. 3 bar)	3 x FS
<b>Burst pressure</b>	> 200 bar	> 200 bar	> 200 bar
<b>Thermal shift</b> [± % FS/°C]			
Zero	0.06 <sup>2)</sup>	0.03	0.015
	-25...85°C	0.08	0.02
Span	0.015	0.015	0.015
	-25...85°C	0.02	0.02
<b>Accuracy</b> <sup>1)</sup>	≤ ± 0.25 % FS ≤ ± 0.1 % FS, ≥ 500 mbar		

Electrical specifications		
<b>Supply voltage</b>	Range:	9...33 V DC
	Supply voltage influence:	< 0.1 % FS
<b>Analog Output</b>	Resolution:	12 bit
	Output 4 mA:	adjustable between -5% FS...105% FS
	Output 20 mA:	adjustable between -5% FS...105% FS
	Span:	adjustable between 25% FS...110% FS, min. 50 mbar
	Adjustable delay:	100 ms, 1 s, 10 s, (standard ca. 30 ms)
<b>Load resistance</b>		$R_L = U_o [V] - 6.6V/0.02A$
<b>Load resistance influence</b>		< 0.1% FS
<b>Interface</b>	VART199 incl. PC-Program (VART244) <sup>4)</sup>	

Materials	
<b>Process connection, Diaphragm, Housing</b>	Stainless steel 1.4435 (316L) other materials (e.g. titanium) on request
<b>Seals (standard)</b>	Viton (other materials see ordering code)

## Electromagnetic compatibility

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



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

<sup>2)</sup> 0.5-0.99 mH<sub>2</sub>O: ≤0.12

<sup>3)</sup> Only with optional surge (lightning) protection

<sup>4)</sup> Interface not included

## Ordering information

		32	X	XXXX	XXXX	XX	XXX	
<b>Type</b>	PTM/N	32						
<b>Pressure type</b>	Gauge	1						
	Absolute	2						
<b>Pressure range<sup>5)</sup></b>	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					
<b>Version</b>	Closed version (Fig. 1)			55				
	Open version (Fig. 2)			56				
	G 1/4 M (Fig. 3)			11				
	G 1/2 M (Fig. 3)			13				
	Customized version <sup>2)</sup> (Fig. 3)			99				
<b>Electrical connection</b>	Connectable version <sup>3)</sup> (Fig. 4) IP68					07		
	PE cable <sup>1) 3)</sup> IP68					13		
	PUR cable <sup>1)</sup> IP68					15		
	Teflon cable <sup>1)</sup> IP68					21		
<b>Output signal</b>	4...20 mA						05	
	4 ... 20 mA with surge protection (lightning)						08	
<b>Accuracy</b>	≤ ± 0.25 % FS						1	
	≤ ± 0.1 % FS, ≥ 500 mbar						2	
<b>Temperature range</b>	-5...50°C comp. (max. medium temp. -5... 50°C)						4	
	Customized temperature range						9	
<b>Options</b>	Version titanium						K	
	Ballast weight						B	
	Electronic packed in gel:	Gauge						C
		Absolute						D
	Special oil filling:	ASEOL Food						G
		Halocarbon						H
	Seals:	Viton (Standard)						U
		EPDM						S
		Kalrez						T
Temperature compensation active						E		
Special options						Z		

<sup>1)</sup> Please specify the medium and required cable length

<sup>4)</sup> Suitable for drinking water (food approved)

<sup>2)</sup> Other versions or process connections on request

<sup>5)</sup> mH<sub>2</sub>O, mWG, mWC etc. available

<sup>3)</sup> Connector with required cable has to be ordered separately (KART100)

## Dimensions

Fig. 1: Closed version

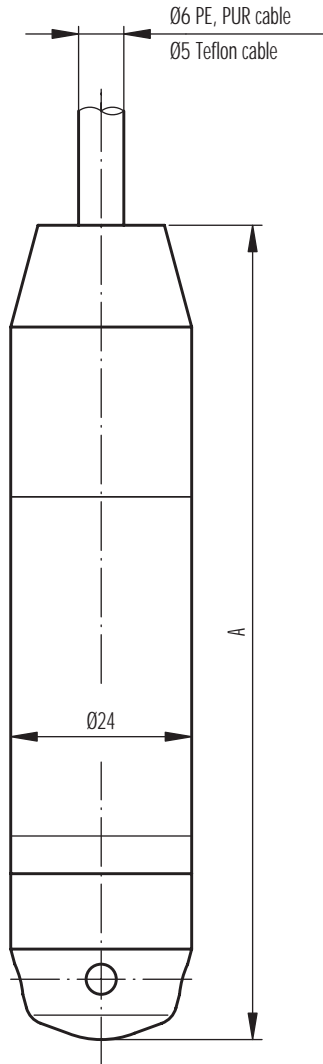


Fig. 2: Open version

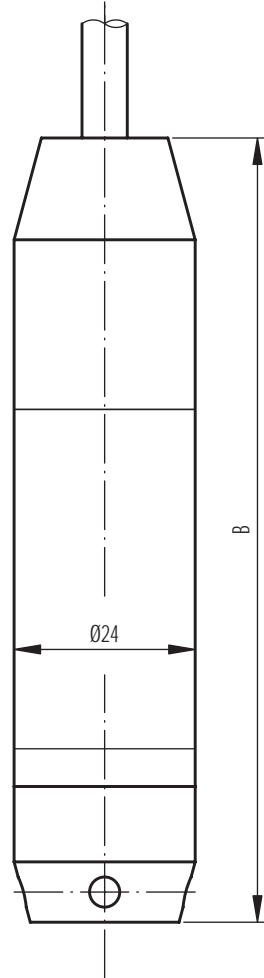


Fig. 3: with process connection

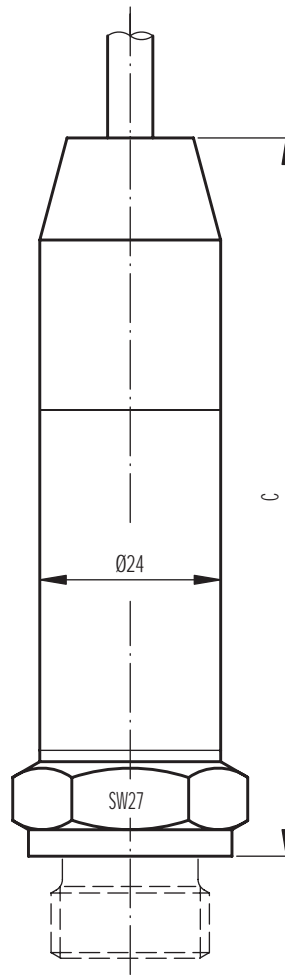
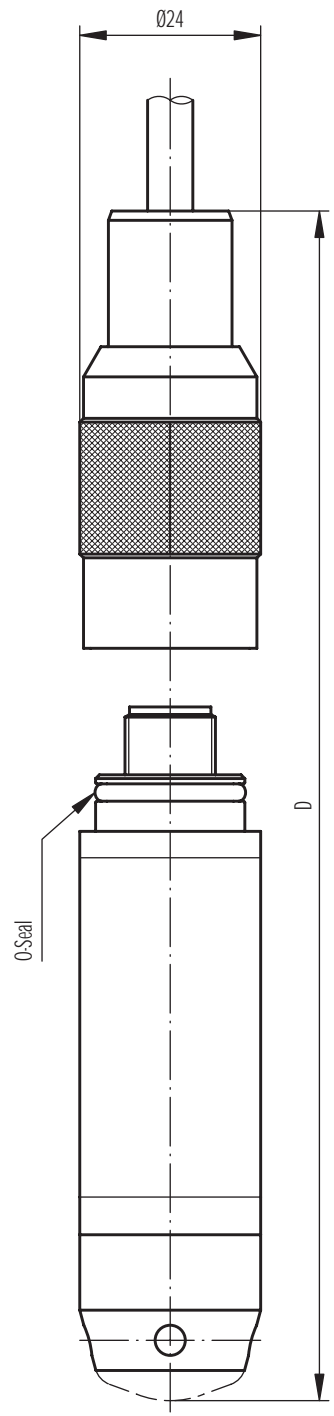


Fig. 4: Electrical connection, connectable



**Standard**

	A [mm]	B [mm]	C [mm]	D [mm]	Weight [g]
without ballast weight	118	114	on request*	on request*	ca. 200
with ballast weight	205	201	on request*	on request*	ca. 460

\*C: Depending on process connection

\*D: Depending on process connection or version

Colour	2-wire
white	+Vin
yellow	Pout

Specifications may change without notice. Release 01/08

