



Features

- Compact and robust stainless steel assembly 1.4435 (316L) or titanium (optional)
- Piezoresistive measuring element
- Gauge or absolute
- Standard DIN pressure ranges from 0...100 mbar to 0...25 bar
- Calibration available for all common pressure units mH₂O, mWS, mWC etc.
- Complies with the EMC directive 89/336/EEC
- High reliability
- Short delivery time
- Customised versions due to modular assembly
- Available with PE, PUR or Teflon cable
- Reverse polarity and short circuit protected
- Surge (lightning) protection according to EN 61000-4-5 as an option
- Temperature measuring with Pt 100 element (optional, series 31, ATM/N/T)

Typical applications

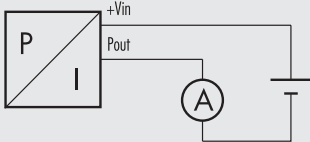
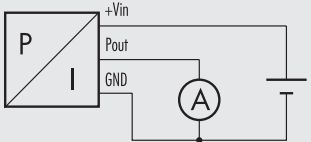
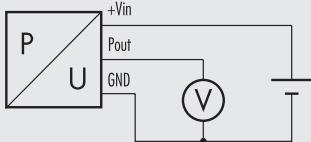
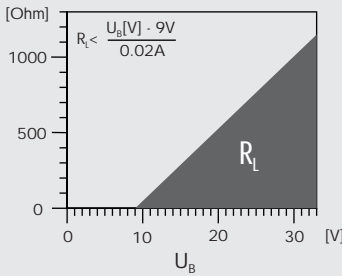
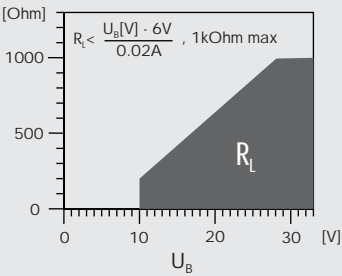
- Depth and level measurement in
- Wells
 - Bore holes
 - Waste water
 - Reservoirs
 - Lakes, rivers
 - Sewage treatment plant



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	0...70°C	0.06	0.03	0.015
	-25...85°C	0.08	0.04	0.02
Span	0...70°C	0.015	0.015	0.015
	-25...85°C	0.02	0.02	0.02
Long term stability (1 year)		< 4 mbar	< 4 mbar	< 0.2% FS

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

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	Stainless steel 1.4435 (316L) or titanium (optional)
Seals (standard)	Viton (other materials see ordering information)

Electromagnetic compatibility

Standard	Level	Typical interferences	
Emission:			
EN 50081-1:1992	Generic emission standard		
EN 55022:1994	Emission, class B		
Immunity:			
EN 50082-2:1995	Generic immunity		
EN 61000-4-2:1995	Electrostatic discharge	4kV contact, 8kV air	
ENV 50140:1993	Radiated electro-magnetic field	10V/m, 80-1000 MHz, 80% AM 1kHz	Cellular phones, radio sets
ENV 50204:1995	Radiated electro-magnetic field (GSM)	10V/m, 950 MHz, 200Hz on/off	Digital portable phones
EN 61000-4-4:1995	Fast transients (burst)	2 kV	Motors, valves
ENV 50141:1993	Conducted radio-frequency	10V, 0.15-80 MHz, 80% AM 1kHz	Cellular phones, radio sets
EN 61000-4-5:1995 ²⁾	Surge	10 kA (8/20 μs)	Lightning strikes

²⁾ Only with optional surge (lightning) protection

The pressure transmitter ATM fulfill the emission and immunity requirements described in the EMC directive 89/336/EEC.

The conformity was tested by KEMA Nederland BV. The certificate and the test report (KEMA 54285-KRQ/ECM 96-4184) are available on request.

Ordering Information

		24	X	XXXX	XXXX	XX	XXX
Type	ATM/N	24					
Pressure type	Gauge	1					
	Absolute	2					
Pressure range ⁶⁾	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 ³⁾			99			
Electrical connection	PE cable ^{1) 2) 5)}			13			
	PUR cable ^{1) 2)}			15			
	Teflon cable ¹⁾			21			
	Lumberg RS4 connector, for KART100			07			
	Special connection			99			
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	
	0...5 V DC surge (lightning) protection					50	
	Special output signal					99	
Accuracy	≤ ± 0.5% FS						0
	≤ ± 0.25% FS						1
	≤ ± 0.1% FS (on request)						2
Temperature range	Compensated -5...50°C ²⁾						4
	Special temperature range						9
Options	Ballast weight						B
	Cutting ring connection G1/2 M (drw. 6.10.0250)						..
	Strain relief (drw. 6.10.0168)						..
	Electronics packed in gel: Gauge pressure						C
	Abs. and sealed gauge						D
	Special oil filling: ASEOL Food						G
	Halocarbon						H
	Seals: Viton (standard)						U
	EPDM						S
	Kalrez						T
	Separate electronics (2 tubes)						Y
Execution titanium						K	
Humidity filter element for gauge versions						Z	

¹⁾ Please specify the required cable length and media

²⁾ For media temperature > 50°C a teflon cable must be used

³⁾ Other executions or process connections on request

⁴⁾ Connector with required cable has to be ordered separately

⁵⁾ Suitable for drinking water (food approved)

⁶⁾ mH₂O, mWS, mWC ets. available

Dimensions

Fig. 1: Closed version

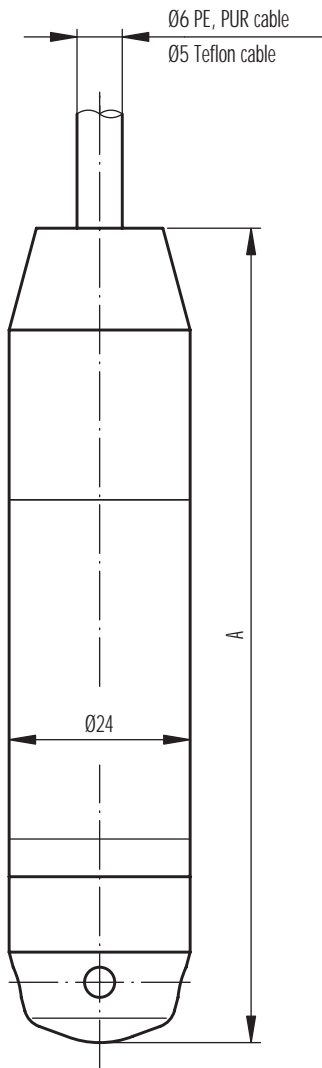


Fig. 2: Open version

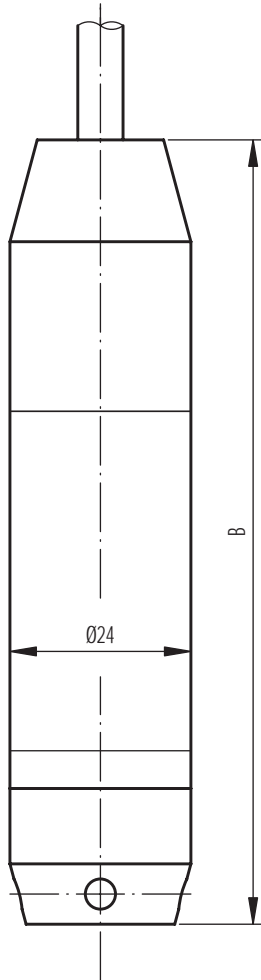


Fig. 3: with process connection

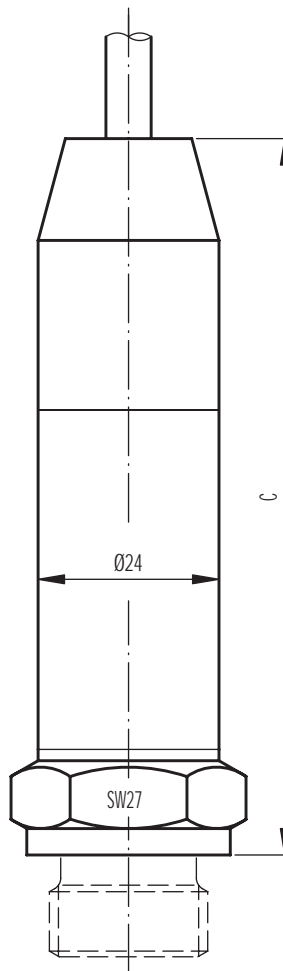
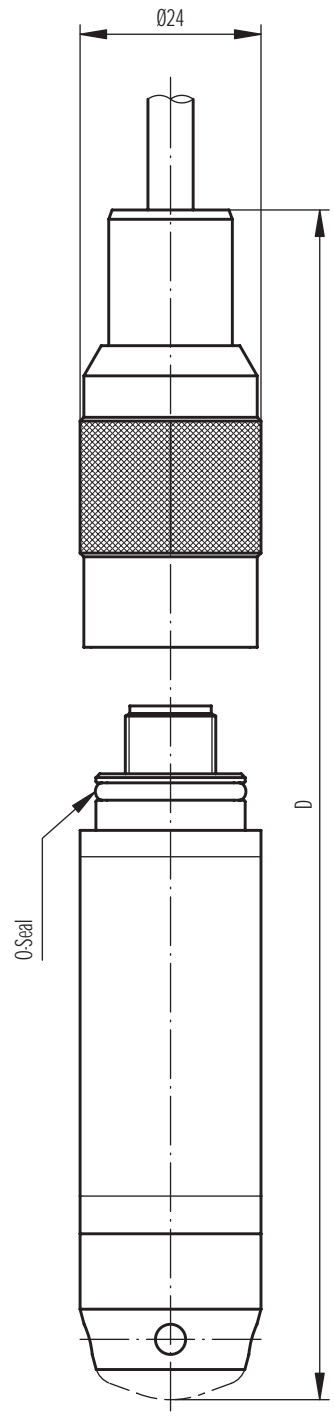


Fig. 4: Electrical connection, connectable



Standard

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

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

Version with surge (lightning) protection

	A [mm]	B [mm]	C [mm]	D [mm]	Weight [g]
without ballast weight 200	157	153	on request	on request	approx.
with ballast weight 460	244	240	on request	on request	approx.

Specifications may change without notice. Release 06/01

