

SUBMERSIBLE PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature.



Applications

- Shipbuilding
- Process technology
- Water treatment

Features

- Low pressure ranges (to 100 mbar)
- No media contacting O-rings
- PUR or Teflon cables
- Option: Chemical resistant material, e.g. titanium
- Option: Lightning protection (IEC 61000-4-5)

Technical Data

Measuring principle	Piezoresistive	Media temperature	-5°C ... +50°C
Measuring range	0 ... 0.1 to 0 ... 25 bar	Ambient temperature	-5°C ... +50°C
Output signal	4 ... 20 mA 0 ... 10 VDC	Approval / conformity	GL, KRS

11/2017

Data sheet H72228k

Subject to change

Ordering information/type code

				8838 .	XX	XX	XX	XX	XX	XX
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]							
	0 ... 0.1	3	200	66						
	0 ... 0.16	3	200	67						
	0 ... 0.2	3	200	68						
	0 ... 0.4	3	200	69						
	0 ... 0.6	3	200	70						
	0 ... 1.0	3	200	71						
	0 ... 1.6	4.8	200	73						
	0 ... 2.5	7.5	200	75						
	0 ... 4	12	200	76						
	0 ... 6	18	200	77						
	0 ... 10	30	200	78						
	0 ... 16	48	200	79						
	0 ... 25	75	200	80						
Sensor	Type 05, accuracy NLH: $\pm 0.5\%$ FS ²⁾								P5	
	Type 02, accuracy NLH: $\pm 0.25\%$ FS ²⁾								P2	
	Type 01, accuracy NLH: $\pm 0.1\%$ FS ²⁾								P1	
Pressure connection	Open									40
	Closed									41
	G1/4" male									15
Electrical Connection	Cable PUR ³⁾									22
	Cable Teflon ³⁾									32
	Cable PE ³⁾									29
Output	4 ... 20 mA									19
	4 ... 20 mA with lightning protection (Surge)									09
	0 ... 10 VDC									17
Accessories	Detachable cable ⁴⁾									37
	Special oil filling Aseol ⁴⁾									94
	Special oil filling Halocarbon ⁴⁾									95
	Electronics packed in gel ⁴⁾									96
	Application for seawater ⁴⁾									97

¹⁾ Customized pressure ranges upon request

²⁾ Accuracy NLH see table

³⁾ Please specify the cable length when ordering

⁴⁾ Please specify the measuring medium when ordering

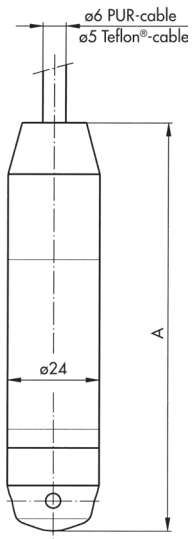
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAL0.1A	8838	0...0.1	3	9...33	± 0.5
NAL0.2A	8838	0...0.2	3	9...33	± 0.5
NAL1.0A	8838	0...1.0	3	9...33	± 0.5

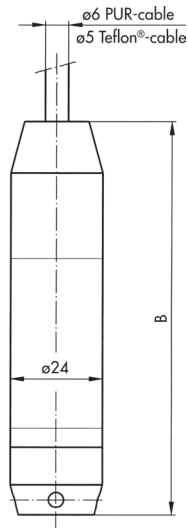
Specifications		
Electrical Data	Output / supply voltage	4...20 mA: 9...33 VDC 0...10 VDC: 15...30 VDC
	Load	4 ... 20 mA: $R_L \leq (U_s - 9V)/20 \text{ mA}$ 0 ... 10 VDC: $R_L > 10 \text{ k}\Omega$
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
Environmental conditions	Media temperature	-5°C ... +50°C
	Ambient temperature	-5°C ... +50°C
	Protection	Min. IP68
	Humidity	Max. 95 % relative
	Vibration	6 g (25...2000 Hz)
	Shock	50 g / 11 ms
EMC Protection	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
Mechanical Data	Sensor (wetted parts)	1.4435 (AISI316L) or titanium
	Pressure connection (wetted parts)	1.4435 (AISI316L) or titanium
	Housing	1.4435 (AISI316L) or titanium
	Sealing	FKM
	Male electrical plug	See ordering information
	Weight	~ 220 g
	Mounting torque	25 Nm

Accuracy				
Range	[bar]	0.1 ... 0.5	0.5 ... 2	2 ... 25
NLH (BSL through 0)				
P5		±0.5	±0.5	±0.5
P2	[% FS]	±0.25	±0.25	±0.25
P1			±0.1	±0.1
Temperature coefficient				
Zero point -5 ... +50°C	[% FS/K]	±0.06	±0.03	±0.015
Span -5 ... +50°C		±0.015	±0.015	±0.015
Long term drift (1 year)	[mbar]	< 4	< 4	< 4

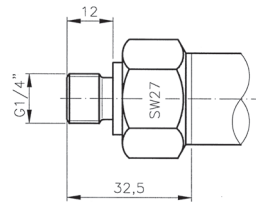
Dimensions



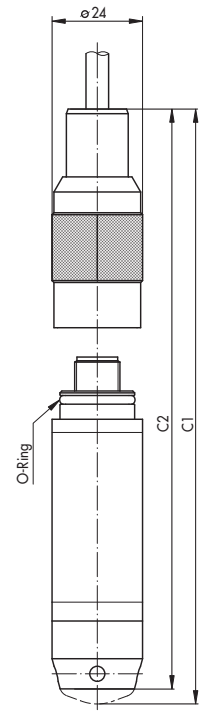
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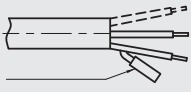
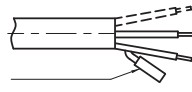
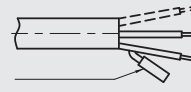
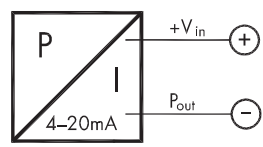
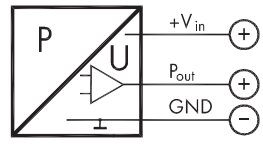
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8838.XX.XX.XX.XX.XX.37

	A [mm]	B [mm]	C1 [mm]	C2 [mm]
Standard	108	104	135	131
With lightning protection	157	153	184	180

Electrical Connection

				Protection / electrical connection		
				Min. IP68	Min. IP68	Min. IP68
				Cable PUR	Cable Teflon	Cable PE
				22	32	29
						
				Venting	Venting	Venting
Output signal	 <p>8838.xx.xxxx.xx.19</p>	white	white	white	yellow	yellow
	 <p>8838.xx.xxxx.xx.17</p>	white	white	white	brown	brown

Any manipulation on the ventilation tube will result in warranty loss

Additional information

Documents

Data sheet	www.trafag.com/H72228
Instructions	www.trafag.com/
Flyer	www.trafag.com/H70681