

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	GL, KRS

08/2014

Data sheet H72228h

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

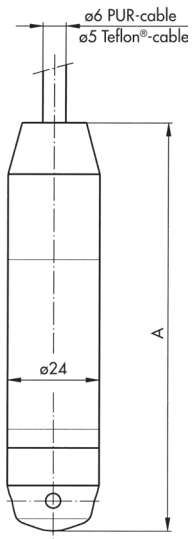
Standard products (extra short lead time)

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

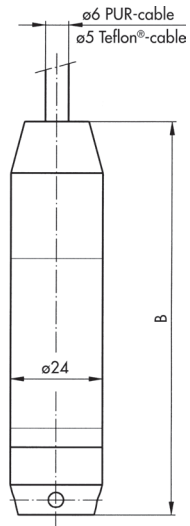
Specifications		
Electrical Data	Output / supply voltage	4...20 mA: 9...33 VDC 0...10 VDC: 15...30 VDC
	Load	4...20 mA: $R_L \leq (U_s - 9V)/20 \text{ mA}$ 0...10 VDC: $R_L > 10 \text{ k}\Omega$
	Rise time	typ. 1 ms/10...90% nominal pressure
Environmental Conditions	Media temperature	-5°C ... +50°C
	Ambient temperature	-5°C ... +50°C
	Protection	Min. IP68
	Humidity	Max. 95% relative
	Vibration	6g (25...2000 Hz)
	Shock	50g/ 11 ms
EMC Protection	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
Mechanical Data	Sensor	1.4435 (AISI316L)
	Housing / Pressure connection	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

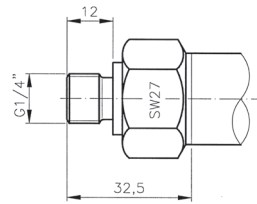
Dimensions



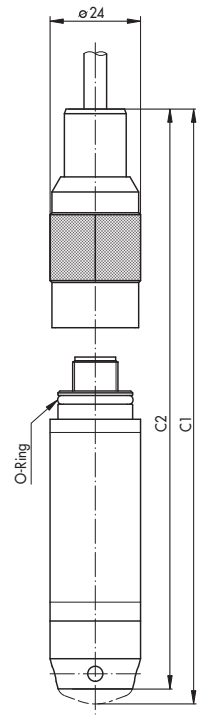
8838.XX.XX.41.XX.XX.XX



8838.XX.XX.40.XX.XX.XX



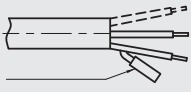
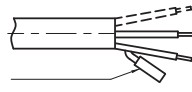
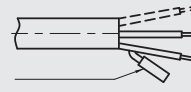
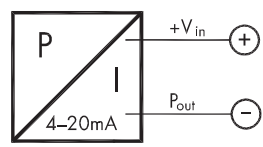
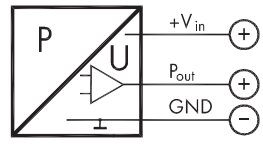
8838.XX.XX.15.XX.XX.XX



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