

EX 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
- Ex SEV 11 ATEX 0145 X

Features

- Pressure ranges from 100 mbar
- Cable PUR or FEP
- Chemical resistant material, in titanium
- Explosion-proof Ex ia IIC T3 ... T6
- Option: Lightning protection (IEC 61000-4-5), 10kA (8/20 μs)

09/2020

Data sheet H72231g

Technical Data			
Measuring principle	Piezoresistive	Ambient temperature	T4/T6: -5°C ... +50°C
Measuring range	0 ... 0.1 to 0 ... 25 bar	Approval / conformity	GL, KRS
Output signal	4 ... 20 mA	Type of protection	 II 1G Ex ia IIC T3 ... T6 Ga II 1D Ex ia IIIC T125°C Da I M1 Ex ia I Ma
Media temperature	T4/T6: -5°C ... +50°C		

Subject to change

Ordering information/type code

				8858 .	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	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 01, relative pressure (accuracy NLH: $\pm 0.1\%$ FS) ²⁾				P1					
	Type 02, relative pressure (accuracy NLH: $\pm 0.25\%$ FS) ²⁾				P2					
	Type 05, relative pressure (Accuracy NLH: $\pm 0.5\%$ FS) ²⁾				P5					
Pressure connection	Open					40				
	Closed					41				
	G1/4" male					15				
Electrical connection	Cable PUR ^{3) 5)}						22			
	Cable FEP ^{3) 5)}						39			
Output signal	4 ... 20 mA							19		
	4 ... 20 mA with lightning protection (Surge)							09		
Accessories	Special oil filling: Anderol ⁴⁾									94
	Temperature class T4 ⁴⁾									T4
	Temperaturklasse T6 ⁴⁾									T6
	Application for seawater ⁴⁾									97
	Titanium (Material pressure connection and housing)									Ti

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

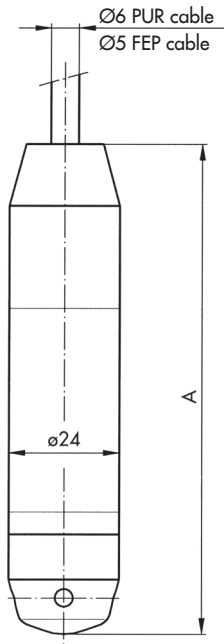
⁵⁾ Attention! Additional measure against static charges are required for Zone 0 to 20 for these cables (laid with earthed metal braid, metal hose or metal pipe).

Specifications		
Electrical Data	Repeatability	± 0.05 % FS
	Zener barrier	30 VDC/ 100mA/ 1W
	Load	4 ... 20 mA: $R_L \leq (U_S - 9V)/20 \text{ mA}$
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
Environmental conditions	Media temperature	T4/T6: -5°C ... +50°C
	Ambient temperature	T4/T6: -5°C ... +50°C
	Protection	Min. IP68
	Humidity	Max. 95 % relative
	Vibration	6 g (25...2000 Hz)
	Shock	50 g / 1 ms
EMC Protection	Burst	EN/IEC 61000-4-4, Level 3
	Surge	EN/IEC 61000-4-5, Level 3 $R_i = 42\Omega$
	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
Mechanical Data	Sensor (wetted parts)	1.4435 (AISI316L)
	Pressure connection (wetted parts)	1.4435 (AISI316L) or titanium
	Housing	1.4404 (AISI316L) or titanium
	Sealing	FKM (Viton)
	Male electrical connector	See ordering information
	Weight	~ 200 g
	Mounting torque	25 Nm

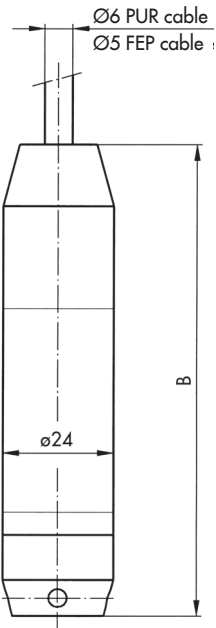
Accuracy				
Range	[bar]	0.1 ... 0.5	0.5 ... 2	2 ... 25
Accuracy NLH (BSL through 0) P5	[± % FS]	± 0.5	± 0.5	± 0.5
Accuracy NLH (BSL through 0) P2	[± % FS]	± 0.25	± 0.25	± 0.25
Accuracy NLH (BSL through 0) P1	[± % FS]	-	± 0.1	± 0.1
Temperature coefficient Zero point -5 ... +50°C	[± % FS/K]	± 0.06	± 0.03	± 0.015
Temperature coefficient Span -5 ... +50°C	[± % FS/K]	± 0.015	± 0.015	± 0.015
Long term drift	[1 year]	< 4 mbar	< 4 mbar	< 0.2 % FS

Additional information		
Documents	Data sheet	www.trafag.com/H72231
	Instructions	www.trafag.com/H73227
	Flyer	www.trafag.com/H70610

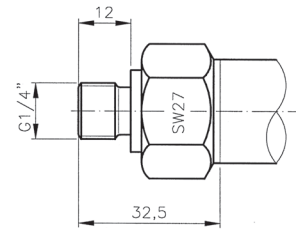
Dimensions



8858.XX.XX.41.XX.XX.XX



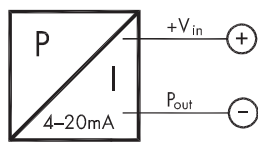
8858.XX.XX.40.XX.XX.XX



8858.XX.XX.15.XX.XX.XX

	A [mm]	B [mm]
Standard	113	109
With lightning protection	157	153

Electrical connection



- Color 4 ... 20 mA**
- white +V_{in}
 - yellow P_{out}
 - grey Ⓢ EP

