

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

- Ex Zone 0, 1, 2 / Gas
- Ex Zone 20, 21, 22 / Dust
- Ex Underground Mining

Features

- ATEX and IECEx
- Pressure ranges from 100 mbar
- No media contacting O-rings
- Cable PUR or FEP
- Option: Chemical resistant material, e.g. titanium

Technical Data			
Measuring principle	Piezoresistive	Ambient temperature	-5°C ... +80°C
Measuring range	0 ... 0.1 to 0 ... 25 bar	Approval / conformity	DNV-GL Ex according to standards, IEC/EN 60079-0/-11/-26, EN 50303
Output signal	4 ... 20 mA	Type of protection	Ex II 1G Ex ia IIC T3 ... T6 Ga II 1D Ex ia IIIC T145°C Da I M1 Ex ia I Ma
Media temperature	-5°C ... +80°C		

02/2019

Data sheet H72335b

Subject to change

Ordering information/type code

				8859 . 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 02, relative pressure (accuracy NLH: ± 0.25 % FS) ²⁾				P2				
	Type 02, absolute pressure (accuracy NLH BSL ± 0.25 % FS) ²⁾				A2				
	Type 01, relative pressure (accuracy NLH: ± 0.1 % FS) ²⁾				P1				
	Type 01, absolute pressure (accuracy NLH BSL ± 0.1 % FS) ²⁾				A1				
Pressure connection	Open					40			
	Closed					41			
	G1/4" male					15			
	G1/2" male					21			
Electrical connection	Cable PUR ^{3) 5)}						22		
	Cable FEP ^{3) 5)}						39		
Output signal	Signal output	Load resistance	I (supply)	U (supply)					
	4 ... 20 mA	(U _{supply} -9 V) / 20 mA		9 ... 28 VDC					19
Accessories	Detachable cable ⁴⁾								37
	Special oil filling: Anderol ⁴⁾								94
	Temperature class T4 ⁴⁾								T4
	Temperaturklasse T6 ⁴⁾								T6
	Application for seawater ⁴⁾								97
	Titanium (Sensor and housing material)								

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

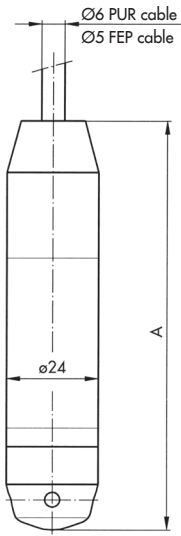
⁵⁾ Attention! Additional measure against static charges are required for Zone 0 to 20 for these cables. (laid with earthed metal braid, metal hose or metal pipe).

Specifications		
Electrical Data	Repeatability	± 0.05 % FS
	Zener barrier	28 V / 93 mA / 0.65 W
	Output / supply voltage	4...20 mA: 9 ... 28 VDC
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
Environmental conditions	Media temperature	-5°C ... +80°C
	Ambient temperature	-5°C ... +80°C
	Protection	Min. IP68
	Vibration	EN 60068-2-6: 10 g (4...2000 Hz)
	Shock	EN 60068-2-27: 100 g / 60 ms
EMC Protection	Burst	EN/IEC 61000-4-4: 4 kV
	Surge	EN/IEC 61000-4-5: Line-Line: 0.5 kV / 42 Ω Line-Earth: 1 kV / 42 Ω
	Emission	EN/IEC 61000-4-3: 10 V / m
	Immunity	EN/IEC 61000-4-2: 8 kV K. / 15 kV L.
Mechanical Data	Sensor (wetted parts)	1.4435 (AISI316L) or titanium
	Housing	1.4404 (AISI316L) or titanium
	Sealing	FKM (Viton), EPDM / Kalrez
	Male electrical plug	See ordering information
	Weight	~ 220 g
	Mounting torque	25 Nm

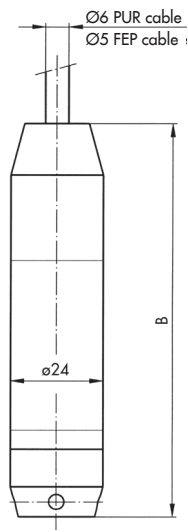
Accuracy				
Pressure measuring range	[bar]	0.1 ... 0.5	0.5 ... 2	2 ... 25
Accuracy NLH (BSL through 0)	[% FS typ.]			
P2/A2		±0.25	±0.25	±0.25
P1/A1			±0.1	±0.1
Measuring accuracy 0.25 %	[% FS typ.]			
TEB @ -5...+50°C		±1.0	±0.7	±0.7
TEB @ -5...+80°C		±2.0	±1.0	±1.0
Measuring accuracy 0.1 %	[% FS typ.]			
TEB @ -5...+50°C		±0.8	±0.3	±0.3
TEB @ -5...+80°C		±1.3	±0.75	±0.75
Long term drift (1 year)		< 4 mbar	< 4 mbar	< 0.2 %

Additional information		
Documents	Data sheet	www.trafag.com/H72335
	Instructions	www.trafag.com/H73227
	Flyer	www.trafag.com/H70695

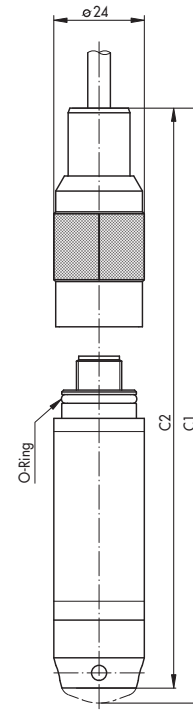
Dimensions



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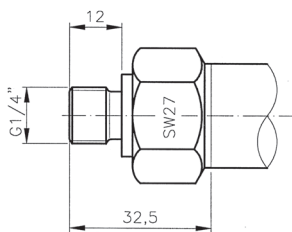


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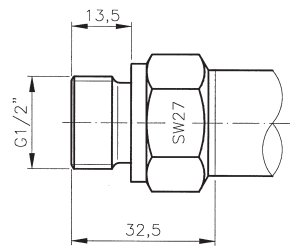


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	A [mm]	B [mm]
Standard	113	109
With lightning protection	157	153

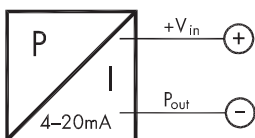


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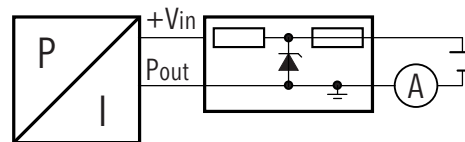


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Electrical connection



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



U_o 28 V
 I_o 93 mA
 P_o 0.65 W

Zener barrier