

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. The new EX Submersible Pressure Transmitter EXL is based on the ECL submersible pressure transmitter with Trafag's own thick-film-on-ceramic sensor technology. The intrinsic safety design is certified for applications in Ex-Zones 0, 1, 2 (gas) and mining.



Applications

- Ex Zone 0, 1, 2 / Gas
- Ex Underground Mining

Features

- II 1G Ex ia IIC T4/T6 Ga
- I M1 Ex ia I Ma
- Good media compatibility
- Cable PUR/PE or FEP
- EMC protection, IEC 61000

Technical Data			
Measuring principle	Thick film on ceramic	Media temperature	T4: -20°C ... +70°C T6: -20°C ... +65°C
Measuring range	0 ... 0.2 to 0 ... 10 bar	Ambient temperature	T4: -20°C ... +70°C T6: -20°C ... +65°C
Output signal	4 ... 20 mA	Approval / conformity	GL, KRS Ex ATEX/IECEx, EN 60079-0/ EN 60079-11/EN 60079-26/ EN 50303
Accuracy @ 25°C typ.	± 0.3 % FS typ. ± 0.5 % FS typ.		

08/2017

Data sheet H72330n

Subject to change

Ordering information/type code

				8432 . XX	XX	XX	XX	XX	XX
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]						
	0 ... 0.2	1.2	2	68					
	0 ... 0.4	1.2	2	69					
	0 ... 0.6	2	3	70					
	0 ... 1.0	3.2	4.8	71					
	0 ... 1.6	3.2	4.8	73					
	0 ... 2.5	5	7.5	75					
	0 ... 4	8	12	76					
	0 ... 6	12	15	77					
0 ... 10	20	25	78						
Sensor	Relative pressure > 400 mbar, Accuracy: 0.3%			23					
	Relative pressure ≤ 400 mbar, Accuracy: 0.5%			26					
Pressure connection	Type 1, female, M 10x1, 1.4404/1.4435				46				
	Type 2, male, M 22x1, 1.4404/1.4435				48				
Electrical connection	Cable with shield: PUR ø 6 mm, 5x0.22mm ^{2 2) 3)}						22		
	Cable with shield: FEP ø 6 mm, 5x0.22mm ^{2 2) 3)}						32		
	Cable with shield: PE ø 6 mm, 6x0.22mm ^{2 2) 3)}						42		
Output	Signal output	Load resistance	I (supply)	U (supply)					
	4 ... 20 mA	(U _{supply} -10 V) / 20 mA		10 ... 30 VDC					19
Accessories	Seal FKM								61
	Seal EPDM								63
	Zener barrier 28V/93mA; R ≈ 300Ω: Ordering no ZEN28VDC								

¹⁾ Extended overpressure as well as customized pressure ranges upon request

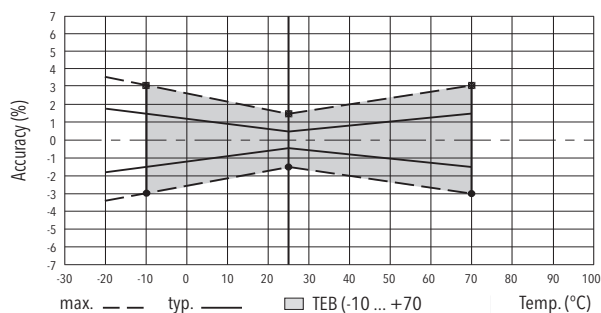
²⁾ Please specify cable length when ordering (cable lengths >50 m up to 120 m upon request)

³⁾ For level measurement applications on ships under certification GL (German Lloyd), the cable of such transmitters must be installed inside the tank only

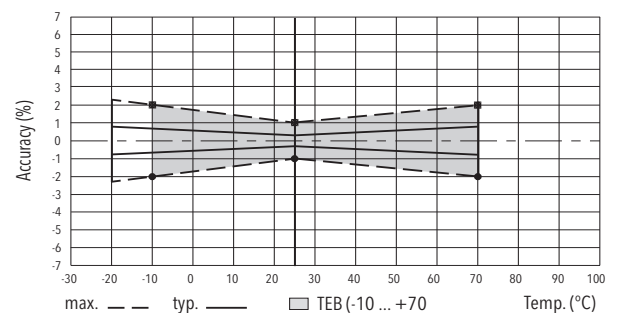
Specifications		
Electrical Data	Output / supply voltage	4 ... 20 mA; 24 (10 ... 30) VDC
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
	Switch-on-delay	max. 1.5 s
Environmental conditions	Media temperature	T4: -20°C ... +70°C T6: -20°C ... +65°C
	Ambient temperature	T4: -20°C ... +70°C T6: -20°C ... +65°C
	Protection	IP68 (25 bar; 250m)
	Vibration	10 g (50...2000 Hz)
	Shock	50 g / 3 ms
EMC Protection	Emission	IEC 61000-6-4
	Immunity	IEC 61000-6-2
Mechanical Data	Sensor (wetted parts)	Ceramic, Al ₂ O ₃ (96 %)
	Pressure connection (wetted parts)	1.4404/1.4435 (AISI316L)
	Housing	1.4404/1.4435 (AISI316L)
	Sealing	FKM 70 Sh
	Weight	~ 200 g

Accuracy			
		Measuring accuracy 0.3 % Ordering No. 23	Measuring accuracy 0.5 % Ordering No. 26
TEB @ -10 ... +70°C	[% FS typ.]	± 0.75	± 1.5
Accuracy @ +25°C	[% FS typ.]	± 0.3	± 0.5
NLH @ +25°C (BSL)	[% FS typ.]	± 0.2	± 0.3
TC zero point and span	[% FS/K typ.]	± 0.02	± 0.02
Long term stability 1 year @ +25°C	[% FS typ.]	± 0.2	± 0.2

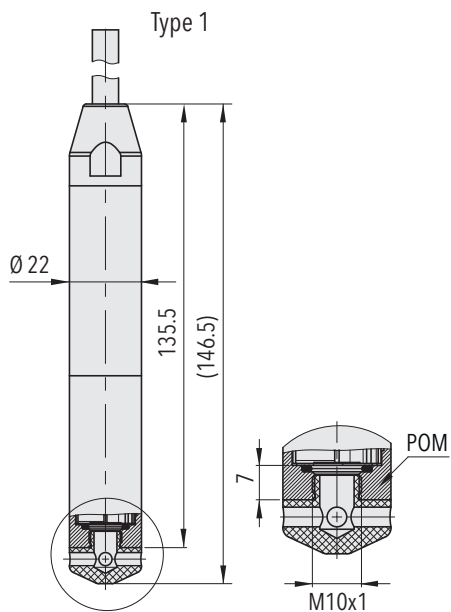
Measuring accuracy 0.5%



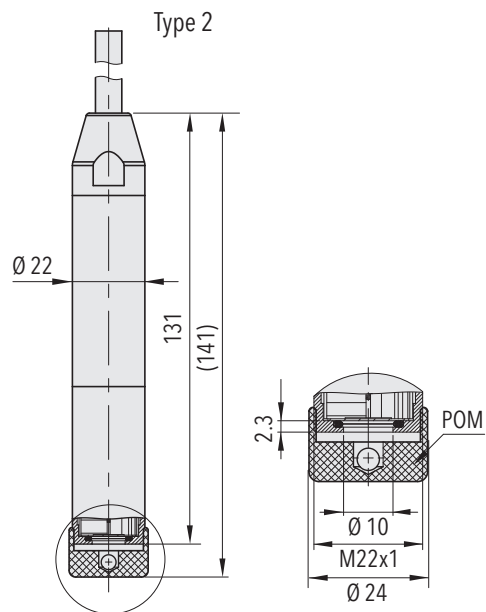
Measuring accuracy 0.3%



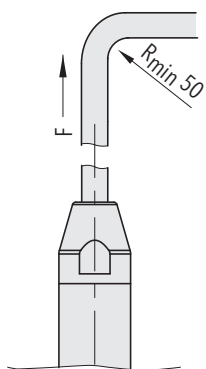
Dimensions



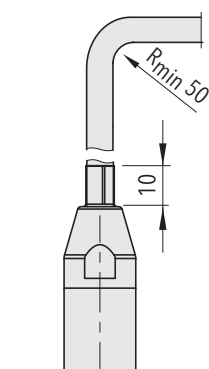
8432.XX.XX46.XX.XX.XX



8432.XX.XX48.XX.XX.XX

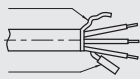
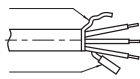
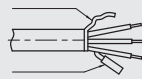
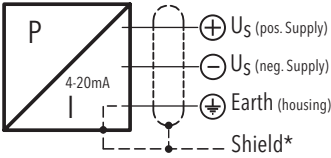


8432.XX.XXXX.22.XX.XX



8432.XX.XXXX.32/42.XX.XX

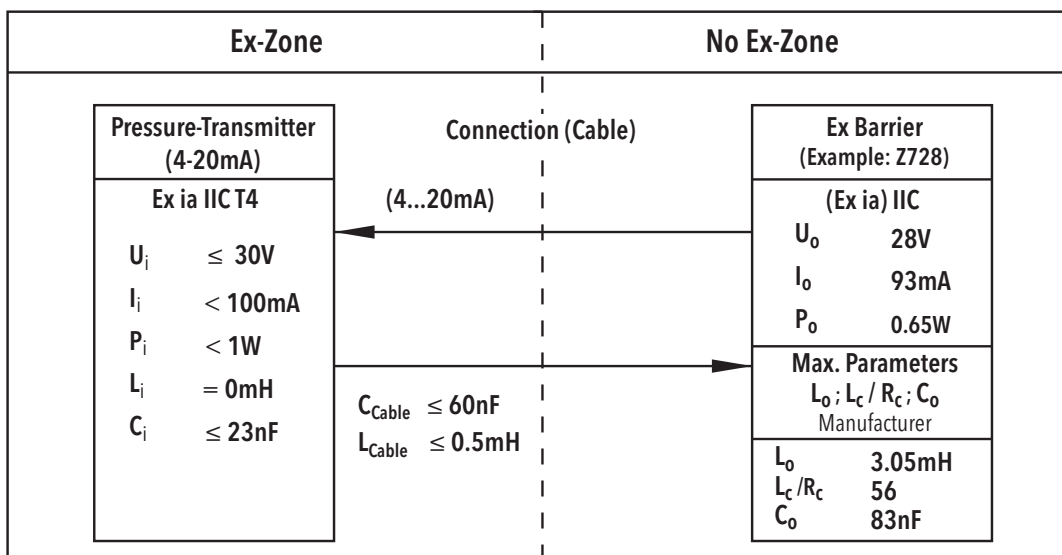
Electrical connection

				Protection / electrical connection		
				IP68 (25 bar; 250m)	IP68 (25 bar; 250m)	IP68 (25 bar; 250m)
				Cable PUR Ø 6 mm (5x0.22mm ²) 22	Cable FEP Ø 6 mm (5x0.22mm ²) 32	Cable PE Ø 6 mm (6x0.22mm ²) 42
				Shield 	Shield 	Shield 
				Venting	Venting	Venting
Output signal		8432.xx.xxxx.xx.19	white brown yellow (green = not connected) (red = not connected)	white brown yellow (green = not connected) (red = not connected)	white brown yellow (green = not connected) (pink = not connected) (grey = not connected)	
			Temperature range	-20 ... +70°C	-20 ... +70°C	-20 ... +70°C

Any manipulation on the ventilation tube will result in warranty loss

***) For all cable versions

Ex-Barrier



Additional information

Documents

Data sheet	www.trafag.com/H72330
Instructions	www.trafag.com/H73329
Flyer	www.trafag.com/H70658