

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 Submersible Pressure Transmitter ECL is based on Trafag's own thick-film-on-ceramic technology. Together with the inhouse developed high performance ASIC chip electronics it ensures a high level of accuracy over a wide temperature range.



Applications

- Process technology
- Water treatment



Features

- Good media compatibility
- Economical
- Cable PUR/PE or FEP
- Lightning protection integrated

10/2016

Data sheet H72328I

Technical Data			
Measuring principle	Thick film on ceramic	Media temperature	-25°C ... +80°C (+70°C)
Measuring range	0 ... 0.1 to 0 ... 10 bar	Ambient temperature	-25°C ... +80°C (+70°C)
Output signal	4 ... 20 mA	Approval / conformity	GL, KRS
Accuracy @ 25°C typ.	± 0.3 % FS typ. Range 0...0.1 to 0...0.4 bar: ± 0.5 % FS typ.		

Subject to change

Ordering information/type code

				8438	XX	XX	XX	XX	XX	XX
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]							
	0 ... 0.1	1.2	2	66						
	0 ... 0.16	1.2	2	67						
	0 ... 0.2	1.2	2	68						
	0 ... 0.4	1.2	2	69						
	0 ... 0.6	1.2	2	70						
	0 ... 1.0	2	3	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: PUR ø 6 mm ^{2) 3)}									22
	Cable: FEP ø 6 mm ^{2) 3)}									32
	Cable: PE ø 6 mm ^{2) 3)}									42
Output	Signal output	Load resistance	I (supply)	U (supply)						
	4 ... 20mA	(U _{supply} -9V) / 20mA		9 ... 30 VDC						19
Accessories	Seal FKM									61
	Seal CR									62
	Seal EPDM									63

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

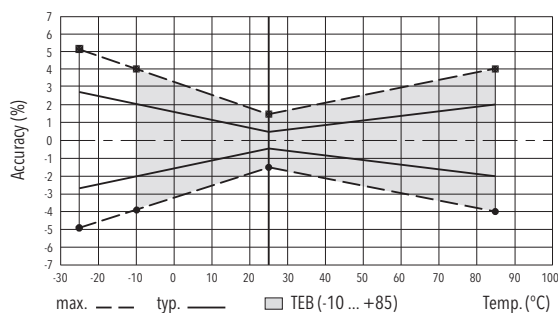
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Cable length
ECL0.2A	8438 68 2646 22 0000 0000 19 61 5M	0...0.2	2	9...30	5m
ECL0.5A	8438 21 2346 22 0000 0000 19 61 8M 01	0...0.5	2	9...30	10m

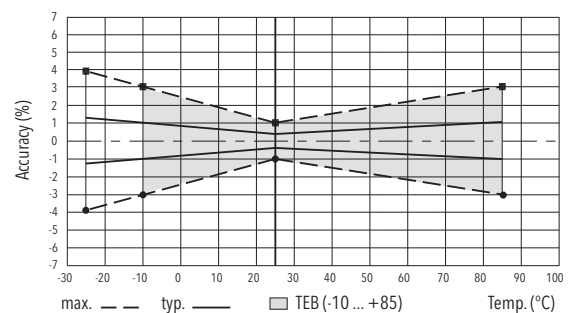
Specifications		
Electrical Data	Output / supply voltage	4 ... 20 mA; 24 (9 ... 32) VDC
	Rise time	Typ. 1 ms/10...90 % nominal pressure
	Switch-on-delay	Max. 1.5 s
Environmental conditions	Media temperature	-25°C ... +80°C (+70°C)
	Ambient temperature	-25°C ... +80°C (+70°C)
	Protection	IP68 (25 bar; 250m)
	Vibration	6g (25...2000 Hz)
	Shock	50g/ 8 ms
EMC Protection	Emission	EN/IEC 61000-6-3
	Immunity	EN/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 CR, EPDM
	Weight	~ 200 g

Accuracy			
		Measuring accuracy 0.3%	Measuring accuracy 0.5%
		Ordering No. 23	Ordering No. 26
TEB @ -10...+80°C	[% FS typ.]	± 1.0	± 2.0
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

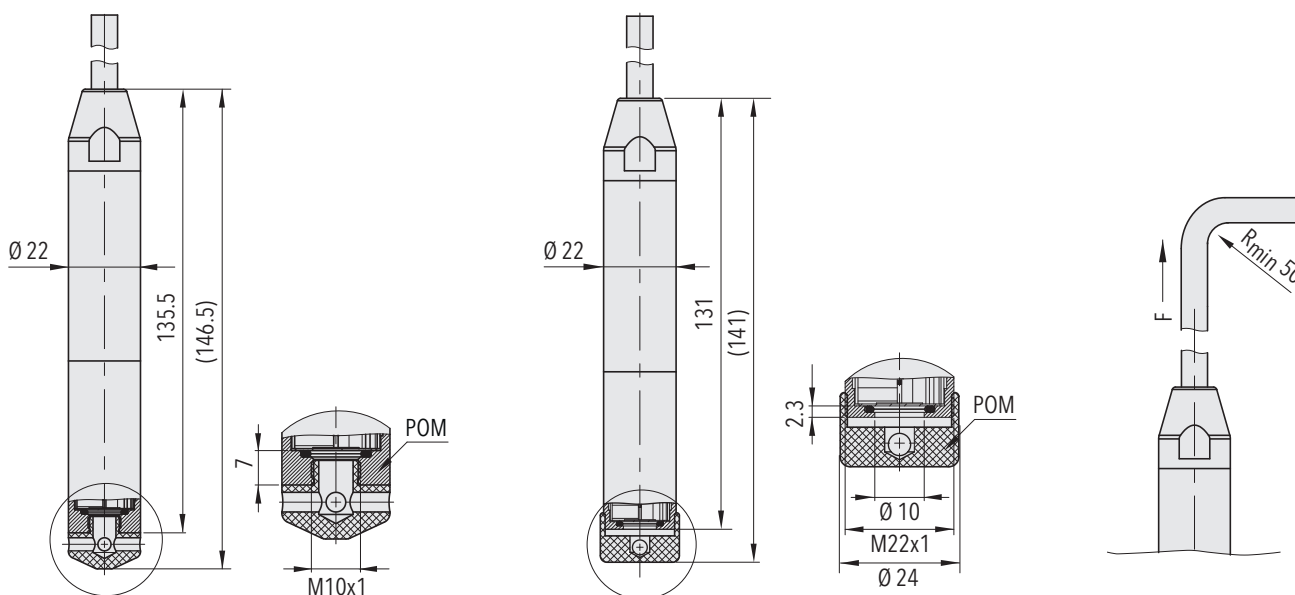
Measuring accuracy 0.5%



Measuring accuracy 0.3%



Dimensions


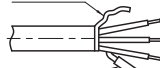
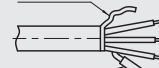
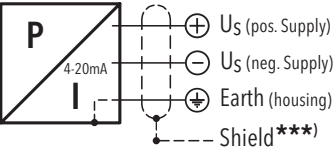


8438.XX.XX46.XX.XX.XX

8438.XX.XX48.XX.XX.XX

F = max. 12 kg (120 N)

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 (5x0.22mm ²) 42
				Shield 	Shield 	Shield 
				Venting	Venting	Venting
Output signal	 <p>8438.XX.XXXX.XX.19</p>	white brown yellow (green = not connected) (red = not connected)	white brown yellow (green = not connected) (red = not connected)	white brown yellow (green = not connected) (red = not connected)		
		Temperature range	-25 ... +70°C	-25 ... +80°C	-25 ... +70°C	

Any manipulation on the ventilation tube will result in warranty loss

***) For all cable versions

Additional information

Documents

Data sheet	www.trafag.com/H72328
Instructions	www.trafag.com/H73328
Flyer	www.trafag.com/H70641