

# 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
- PUR/PE or FEP cable
- EMC protection, IEC 61000

## Technical Data

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

05/2014

Data sheet H72330c

Subject to change

## Ordering information/type code

				8432 . XX . XX . XX . XX . XX
<b>Measuring range</b> <sup>1)</sup>	<b>Pressure measurement range [bar]</b>	<b>Over pressure [bar]</b>	<b>Burst pressure [bar]</b>	
	0 ... 0.2	2	3	68
	0 ... 0.4	2	3	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
0 ... 16	32	40	79	
0 ... 25	50	75	80	
<b>Sensor</b>	Relative pressure			23
	Relative pressure, accuracy: 0.5% ( $\leq 1$ bar)			26
<b>Pressure connection</b>	Type 1, female, M 10x1, 1.4404/1.4435			46
	Type 2, male, M 22x1, 1.4404/1.4435			48
<b>Electrical connection</b>	Cable with shield: PUR $\varnothing$ 6 mm, 5x0.22mm <sup>2 2) 3)</sup>			22
	Cable with shield: FEP $\varnothing$ 6 mm, 5x0.22mm <sup>2 2) 3)</sup>			32
	Cable with shield: PE $\varnothing$ 6 mm, 5x0.22mm <sup>2 2) 3)</sup>			42
<b>Output</b>	<b>Output</b>	<b>Load resistance</b>	<b>I (supply)</b>	<b>U (supply)</b>
	4 ... 20mA	(U <sub>supply</sub> -10V) / 20mA		10 ... 30 VDC
<b>Accessories</b>	O-Ring FKM			61
	O-Ring EPDM			63
	Zener barrier 28V/93mA; R $\approx$ 300 $\Omega$ ; Ordering no F90138			

<sup>1)</sup> Extended overpressure as well as customized pressure ranges upon request

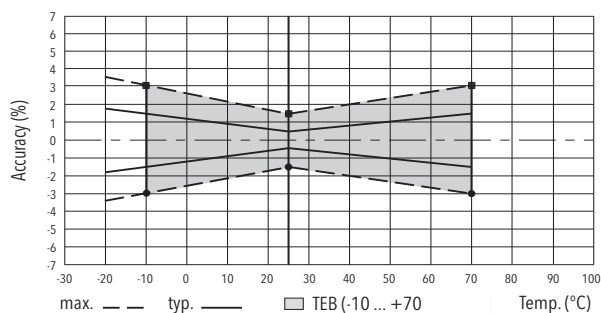
<sup>2)</sup> Please specify cable length when ordering (cable lengths > 50m upon request)

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

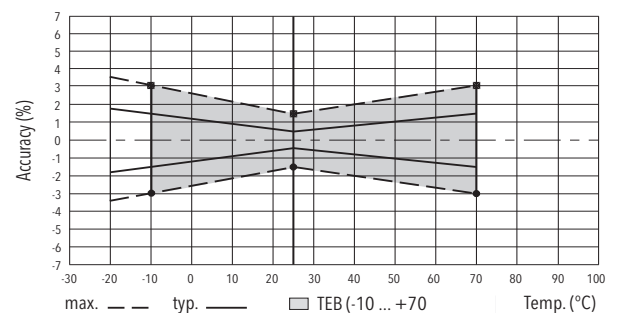
Specifications		
<b>Electrical Data</b>	Output / supply voltage	4 ... 20 mA; 24 (10 ... 30) VDC
	Rise time	typ. 1 ms/ 10...90% nominal pressure
	Switch-on-delay	max. 1.5 s
<b>Environmental Conditions</b>	Media temperature	T4: -20 ... +70°C T6: -20 ... +65°C
	Ambient temperature	T4: -20 ... +70°C T6: -20 ... +65°C
	Protection	IP68 (25 bar; 250m)
	Vibration	10g (50...2000 Hz)
	Shock	50 g / 3 ms
<b>EMC Protection</b>	Emission	IEC 61000-6-4
	Immunity	IEC 61000-6-2
<b>Mechanical Data</b>	Sensor	Ceramic, Al <sub>2</sub> O <sub>3</sub> (96%)
	Housing / Pressure connection	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...+80°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

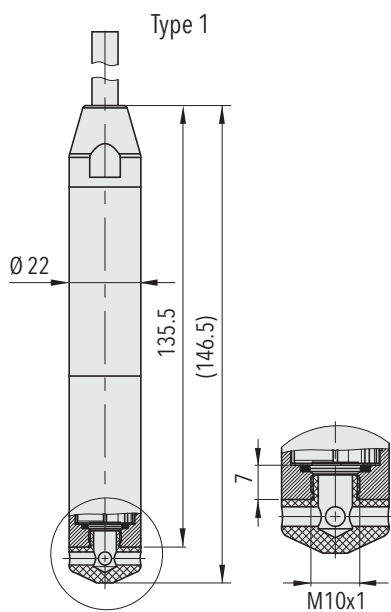
## Measuring accuracy 0.5%



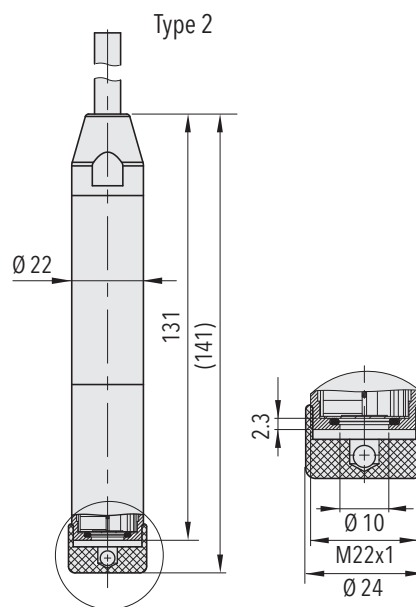
## Measuring accuracy 0.3%



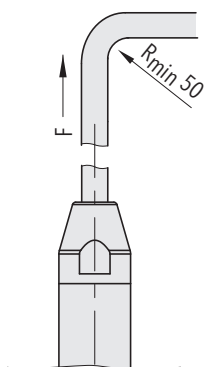
## Dimensions



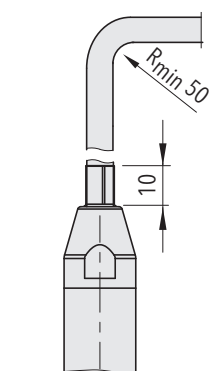
8432.XX.XX46.XX.XX.XX



8432.XX.XX48.XX.XX.XX

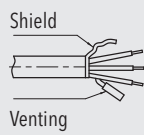
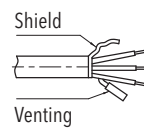
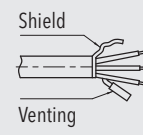
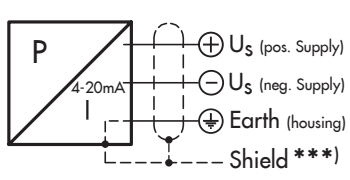


8432.XX.XXXX.22.XX.XX



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

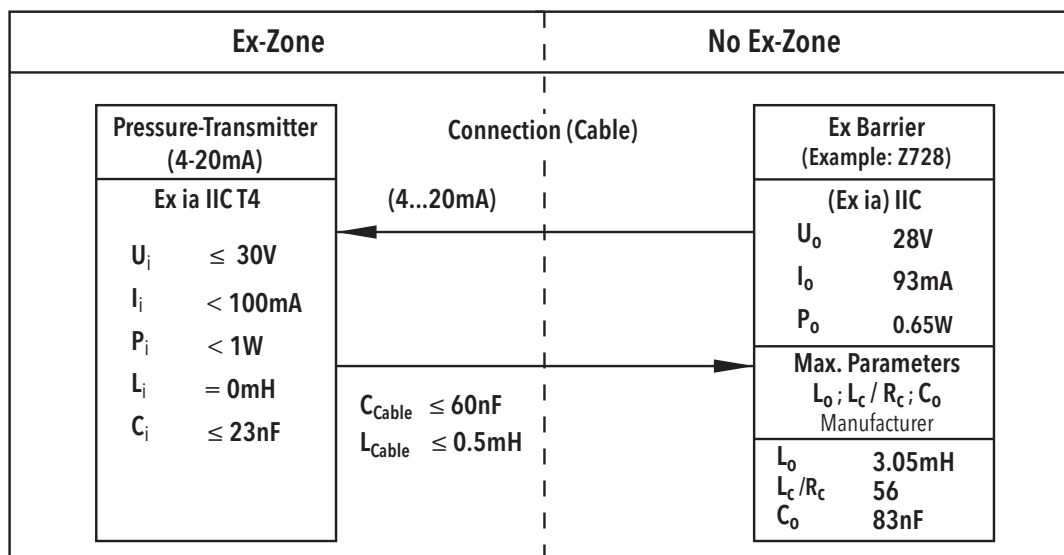
## Electrical Connection

				Protection / electrical connection		
				IP68 (25 bar; 250m)	IP68 (25 bar; 250m)	IP68 (25 bar; 250m)
				Cable PUR Ø 6 mm (5x0.22mm <sup>2</sup> ) <b>22</b>	Cable FEP Ø 6 mm (5x0.22mm <sup>2</sup> ) <b>32</b>	Cable PE Ø 6 mm (5x0.22mm <sup>2</sup> ) <b>42</b>
						
Output signal	 <p><b>8432.XX.XXXX.XX.19</b></p>	+ U <sub>S</sub> (pos. Supply) - U <sub>S</sub> (neg. Supply) ⊕ Earth (housing) Shield ***	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	-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	<a href="http://www.trafag.com/H72330">www.trafag.com/H72330</a>
Instructions	<a href="http://www.trafag.com/H73329">www.trafag.com/H73329</a>
Flyer	<a href="http://www.trafag.com/H70658">www.trafag.com/H70658</a>