Ex - Pressure Sensors
EEx ia I / IIC T6

according to ATEX

with internal diaphragm for submersible pressure measurement

accuracy 0.25% and 0.5 %

standard output: 4...20 mA; 2-wire system

Description

Ex-pressure sensors Industrial Heavy Duty are top of the range products in Ex-pressure gauge technology.

The intrinsically safe Ex-pressure sensors are designed for zone 1 and have special type approval for use in potentially explosive atmospheres and a CENELEC certificate according to the new ATEX.

Due to the systematic use of high-grade stainless steel for the wetted parts, this sensor is suitable for aggressive media. For measuring tasks in aggressive media a special version with PTFE cable can be obtained.

A hermetically sealed stainless steel case allows the pressure sensor to be immersed down to a depth of 300 m.

The inner vented connection cable makes pressure compensation of the measuring cell against the atmosphere possible and thus hydrostatic pressure measurement.

The mechanical fastening of the pressure sensor does not require any additional strain relief, as the construction of the cable is suitable to take a maximum tensile force of 1000 N. An additional weight can be screw-fitted to increase the actual weight of the sensor.

The pressure sensors special meet the electronic magnetic compatibility (EMC) requirements to EN 61326.

Features

- O intrinsically safe, zone 1
- O option: zone 0
- O finely graded selection of nominal pressure ranges according to EN
- O high long-term stability
- O high accuracy
- O corrosion resistant stainless steel design
- O good repeatability
- O high overload protection
- O for dynamic and static measurements
- O simple installation
- O CENELEC-certificate acc. to ATEX

Measuring ranges

gauge pressure

positive	0...0.1 bar	to	0...25 bar

Applications

Level measurement in explosive atmosphere

Model: E130., E131.

tecsis GmbH
Carl-Legien Str. 40
D-63073 Offenbach / Main
Tel.: +49(0) 69 / 5806-0

Sales National
Fax: +49(0) 69 / 5806-170

Sales International
Fax: +49(0) 69 / 5806-177

e-Mail: info@tecsis.de
Internet: www.tecsis.de

Technical data

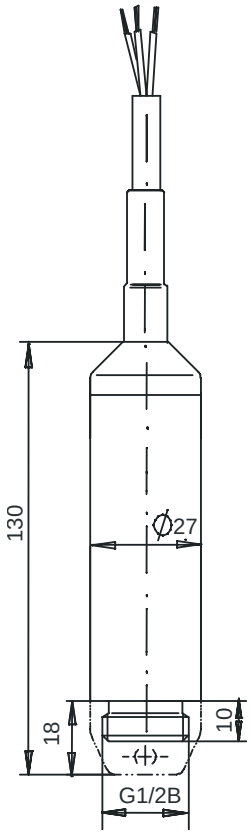
Model	**E130.**	**E131.**
Pressure type	positive gauge pressure	
Output signal	4...20 mA - 2-wire system	
Accuracy % of F.S. [1])	0.5	0.25
Measuring ranges acc. to EN	0 ... 0.1 bar to 0 ... 25 bar	0 ... 0.25 bar to 0 ... 25 bar
Repeatability	≤ ± 0.05 % of F.S.	
Stability (annual)	≤ ± 0.2 % of F.S. in rated conditions	
Pressure connection	G ½ B with protection cap	
Wetted parts - case - diaphr. + pressure connect. - protection cap - cable - shrink hose	 stainless steel 1.4571 stainless steel 1.4571 stainless steel 1.4571 PUR (option: PTFE up to 10 bar) Polyolefin (not for PTFE cable)	
Over load limit	≤ 1.6 bar 5-fold; >1.6 bar 3.2-fold	
Electrical connection	cable with inner ventilation, tensile strength max. 1000 N	
Protection type	IP 68 according to EN 60 529/IEC529 (depth up to 300 m)	
Power supply	10 ...30 VDC	
Power consumption	signal current	
Load	$R_A[\Omega] < (U_B[V] - 10\ V) / 0.02\ A - (0.14\ \Omega \times$ cable length in m)	
Temperature comp. range	0...50 °C	
Temperature influence [2])	≤ 0.2 % /10 K on zero and span	
Response time	≤ 1 ms (within 10 % to 90 % of F.S.)	
Emission [3]) Interference [3])	according to EN 61326 according to EN 61326	
HF immunity	10 V/m (option: 30 V/m)	
Burst	4 KV	
Electrical protection types	Reverse polarity protection	
⟨Ex⟩ Explosion proof protection type max. values - power supply - short circuit current - power restriction [4]) - media temperature - ambient temperature - storage temperature - internal capacity - internal inductivity	EEx ia I / IIC T6 (DMT 02 ATEX E 114 X) DMT <30 VDC 100 mA 1 W -10 ... 60 °C -10 ... 60 °C -10 ... 60 °C ≤ 22 nF + 0.2 per m cable ≤ 100µH + 2 per m cable	
Weight - sensor - cable - additional weight	 0.20 kg 0.08 kg per m cable 0.50 kg	

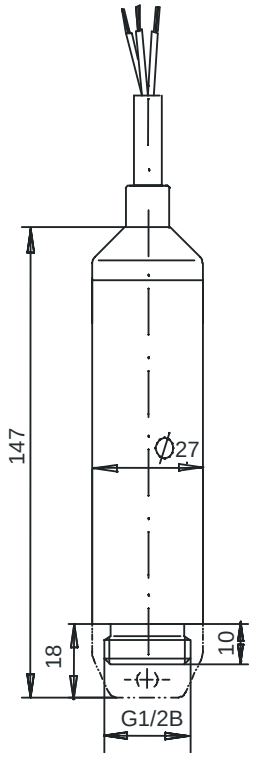
of F.S. = of full scale value

1) Terminal point adjustment according to DIN 16 086, including linearity and hysteresis
2) ≤ 0.4 % /10 K for measuring ranges 0...0.1 and 0...0.16 bar
3) Declaration of conformity on request
4) Power limitation for supply transformers

Dimensions (mm)

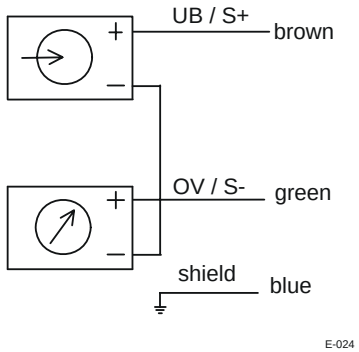
Option: PTFE cable





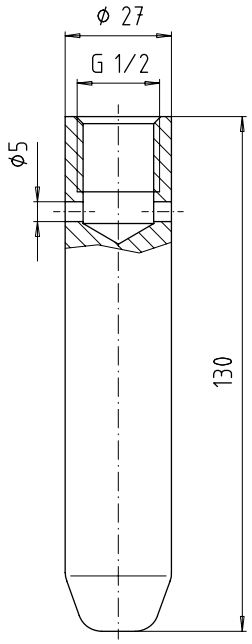
Electrical connection

Two-wire system



Accessories

To increase the actual weight of the sensor an additional weight can be screw-fitted.
Article-no. AZM51X001001



Order details:
1. Model
2. Measuring range
3. Options
4. Cable length
5. Ex-zone