Pressure sensors with “ CANopen-Interface “

With internal or front flush diaphragm

Accuracy 0,5 % or 1 %

CANopen-interface according to DS-3
Device profile DS-404

Description

The pressure sensors with CANopen-interface are top of the range pressure transducers.

With the CANopen sensor tecsis offers a new generation of transducers for standard applications and mechanical engineering. This sensor provides good performance and quality for a very attractive price.

The measuring ranges, graded in accordance with EN, range from 0...0,25 bar to the maximum pressure range of 1000 bar

Case and wetted parts made of stainless steel are resistant to chemically aggressive media. The pressure connection and measuring element are welded together, making the measuring system particularly resistant to mechanical shock or vibration.

The front flush diaphragm is available for measurements of highly viscose media.

Communications services as LSS, Node Guarding, Heartbeat, synchronous and asynchronous data transmission are supported. The Baud rate can be selected between 20K Baud and 1M Baud.

The pressure sensor with CANopen-Interface meets the electronic magnetic compatibility (EMC) requirements to EN 61 326

Features

- O Compact design
- O High resistance to pressure peaks
- O High alternating load resistance
- O Good long-term stability
- O Corrosion resistant, stainless steel design
- O High mechanical load rating
- O Galvanic isolation optional available
- O Integrated Y-connector optional available

Measuring ranges

Gauge pressure

positive	0...0,25 bar	to	0...1000 bar with internal diaphragm
positive	0...0,25 bar	to	0...600 bar with front flush diaphragm

Applications

Hydraulics and pneumatics,
mechanical engineering,
industrial application

Model: 3327 , 3328

Technical data

Model	3327	3328	Option
Pressure type	gauge pressure		absolute pressure
Output signal	CANopen protocol acc. CiA DS-301 V.402, Device profile DS-404 V. 1.2		
Accuracy	1 % of F.S. [1)]		0.5 % of F.S.[1)]
Measuring ranges acc. EN	0 ... 0.25 bar to 0 ... 1000 bar	0 ... 0.25 bar to 0 ... 600 bar	other on request
Sensor element	Piezoresistive / thin film		
Repeatability	≤ ± 0,05 % of F.S.		
Stability (annual)	≤ ± 0,2 % of F.S. in rated conditions		
Case	Stainless steel		
Pressure connection	Internal diaphragm G ¼ B, G ¼ B, ¼ NPT, ½ NPT	Front flush diaphragm ≤ 1.6 bar G 1 B; ≥ 2.5 bar G ½ B	other on request
Wetted parts	Stainless steel	Stainless steel , NBR	
Overload limit	≤ 16 bar 3.5 x ≥ 25 bar 2 x = 1000 bar 1.5 x vacuum resistance		
Electrical connection	Round connector M12 x 1; 5-pin.		other on request
Power supply	10 ... 30 VDC		
Power input	< 0,5W (with galvanic isolation <0,7W)		
Communication service	LSS (CiA DSP 305, Version 1.1.1) Services Configuration of device address and baud rate Sync/Async, Node/Lifeguarding, Heartbeat		
Filter	Individually programmable filter, to eliminate e.g. resonance frequencies		
Temp. compens. range	0 ... 80°C		
Temperature influence	± 0.2 % /10 K, zero point and full scale		
Adjustability	Zero point and full scale up to ±10% by entries into object directory		
Response time	1,5 ms (Baud rate ≥ 125K) within 10 % to 90 % of F.S.		
Measuring rate	Internal 1000 Hz (adjustable to approx. 4 Hz)		
Protection type	IP67 according to EN 60 529 / IEC 60 529		
Emission [2)] Interference	according to EN 61326 (89/336/EWG), DGRL (Module H)		
Electrical protection types	polarity, overload and short-circuit protection		galvanic isolation
Temperature ranges – Storage – Medium [3)] – Ambient	 -40 .... 100 °C -30 .... 100 °C -30 .... 85 °C		 Option -40 ....125 °C
Weight	approx. 0,2 kg		

of F.S. = off full scale value

1) Terminal point adjustment, incl. linearity and hysteresis

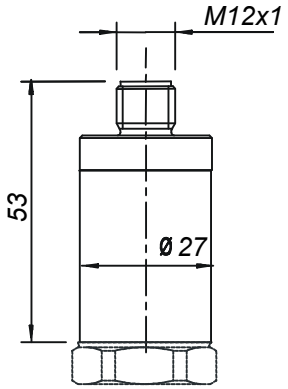
2) Declaration of conformity on request

3) For oxygen version media temperature: -30...60°C, model 3328 max. 160 bar, not available for absolute pressure range <1bar abs.

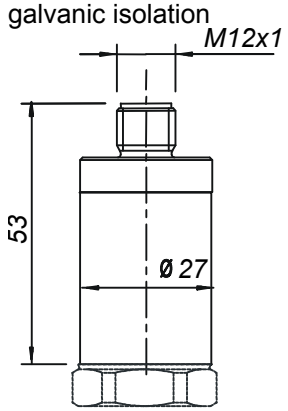
Dimensions (mm)

Case

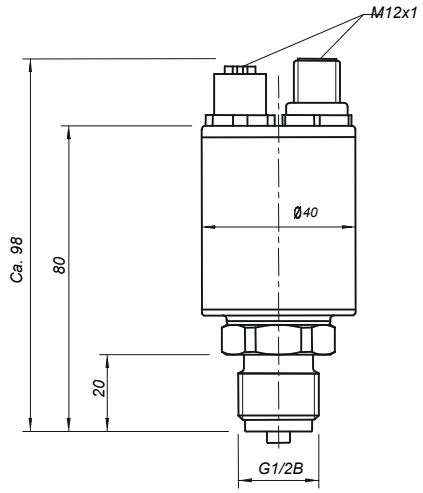
- with welded connector



- Option DIP-switch/ galvanic isolation

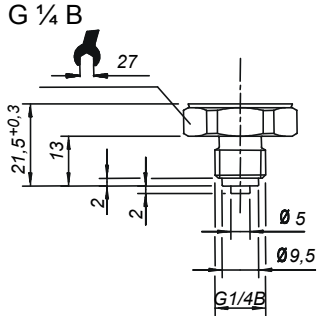


- with Y-connector

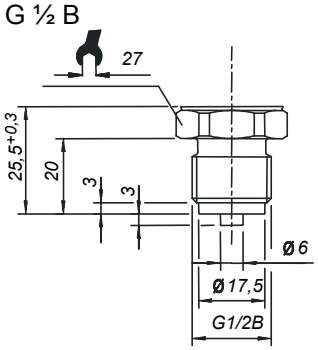


Pressure connections
Internal diaphragm

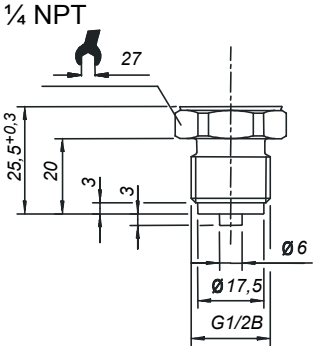
G ¼ B



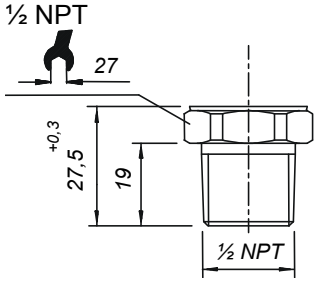
G ½ B



¼ NPT

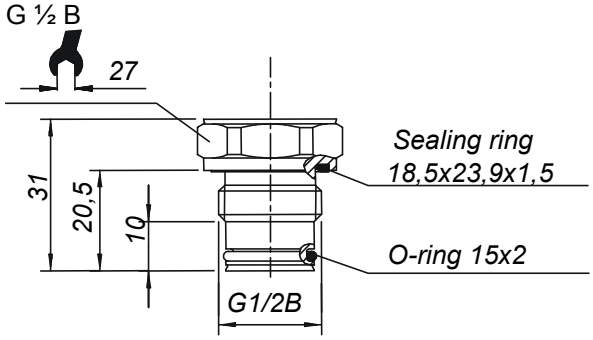


½ NPT

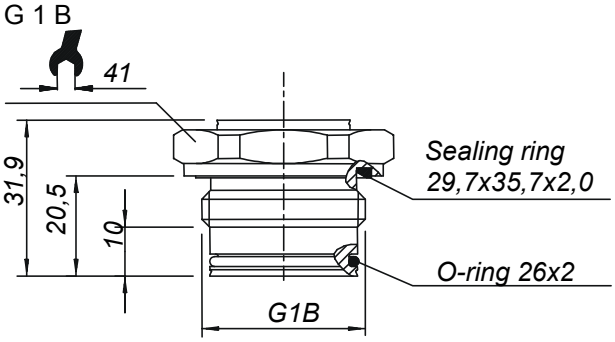


Pressure connections
Front flush diaphragm

G ½ B

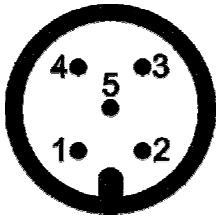


G 1 B



Electrical connection

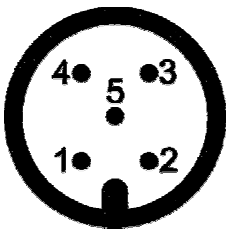
Round connector M12 x 1 5-pin.



1 - Screen
2 - UB+ (CAN V+)
3 - UB- (CAN GND)
4 - Bus-Signal CAN-High
5 - Bus-Signal CAN-Low

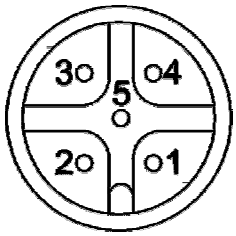
Option with integrated Y-connector

Round connector M12 x 1 5-pin. (male)



1 - Screen
2 - UB+ (CAN V+)
3 - UB- (CAN GND)
4 - Bus-Signal CAN-High
5 - Bus-Signal CAN-Low

Round connector M12 x 1 5-pol. (female)



1 - Screen
2 - UB+ (CAN V+)
3 - UB- (CAN GND)
4 - Bus-Signal CAN-High
5 - Bus-Signal CAN-Low

You will find supplementary documentation as operating manual and software for CANopen on our internet:

www.tecsis.de.

Order details
1. Model
2. Measuring range
3. Options

Subject to technical alternations