

Pressure sensors for food industry

with front flush diaphragm for gauge and absolute pressure

accuracy 0.5 %

standard output: 4...20 mA; or 0...10 VDC; 2-wire-system 3-wire-system



Description

tecsis pressure sensors for the food industry fulfil the special requirements of pressure connections in food industry, and they offer a wide range of different connections.

The combination of pressure sensor and special connection result in a better performance of the instrument. It can replace a necessary chemical seal system. All wetted parts are made of stainless steel and completely welded. The robust case is also made of stainless steel. It provides a protection type of at least IP65. The pressure transmitting liquid is approved by FDA.

The pressure sensor model P3269 is designed to ensure the surfaces exposed to the process are crack or crevice free according to the hygienic prescriptions. Pressure connections with clamp-connector or according to DIN 11851 respectively Varivent connections are available.

An integrated cooling element guarantees temperature ranges up to 150 °C.

Features

- O Compact design
- O Corrosion resistant stainless steel version
- O High overload capacity
- O Special pressure connection directly on the sensor
- O Aseptic pressure connection
- O Wetted parts 14435

Measuring ranges

Gauge pressure Negative -1...0 bar positive 0...0.25 bar up to 0...25 bar Absolute pressure 0...0.25 bar up to 0...16 bar

Application

Dairies and breweries, food industry, pharmaceutical industry, sterilizers

Model: P3269

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Technical data

Model	P3269				
Pressure type	positive gauge pressure				
	absolute pressure				
Output signal	420 mA - 2-wire system 020 mA - 3-wire system 010 VDC - 3-wire system				
Pressure ranges ¹⁾	0.25 0.4 0.6 1.0 2.5 4 6 10 16 25				
Overload limit	2 2 4 5 10 17 35 35 80 80				
Accuracy % of F.S. ²)	0.5				
Repeatability	<u>≤</u> ±0.05 % of F.S.				
Stability per year	\leq ± 0.2 % of F.S. in rated conditions				
Case	stainless steel 1.4571				
Pressure connection	Tri-Clamp 1 1/2 ";				
	Option: Tri-Clamp 2"				
	Union nut DIN 11851 DN 25; DN40; DN50.				
	Union nut DIN 11864-1 DN40; DN50.				
	Clamp ISO 2852 DN 33,7; DN 38; DN 40; DN 51.				
	Clamp DIN 32676 DN 32; DN 40; DN 50.				
Wetted parts	Varivent connection form F; form N.				
Electrical connection	stainless steel 1.4435				
Electrical connection	rectangular plug form A with junction box (DIN EN 175301-803 A) round connector M12x1, 4-pin cable outlet with 10 m cable				
Power supply / Load					
- 420 mA	1030 VDC $R_{\Lambda}[Q] < (U_{P}[V]-10V) / 0.02A$				
- 020 mA					
- 010 V	$ \begin{array}{ c c c c c c c } 1030 \text{ VDC} & R_{A}[\Omega] \leq (U_{B}[V]-3V) / 0.02A \\ 1430 \text{ VDC} & > 10 \text{ kOhm} \\ \end{array} $				
Power consumption					
- 420 mA	Signal current				
- 020 mA	signal current + 4 mA				
- 010 V	8 mA				
Temp. comp. range	080°C				
Average TC of					
- zero point ³)	< ± 0.2 % /10 K				
– span	<u><</u> ± 0.2 % /10 K				
Adjustability ⁴⁾	Zero point and full scale up to ± 10 %				
Response time	< 10 ms (from 10 % to 90 % of f.s.)				
Protection type	IP 65 to EN 60529/IEC 529				
····	IP 67 for M12x1 connector				
	IP 68 for cable outlet ⁴⁾				
Emission ⁵)	Acc. to EN 61326				
Interference 5)	acc. to EN 61326				
Electrical protection type	Polarity, over voltage and short-circuit protection				
Temperature ranges					
- Storage	-40 100 °C				
- Medium	-20 150 °C				
- Ambient	-20 80 °C				
Weight	approx. 0.2 kg				

of F.S. = of full scale value

Absolute pressure 0... 2.5 bar to 0... 16 bar
Terminal point adjustment according to DIN 16086 incl. linearity and hysteresis. Installation position vertical.
≤ 0.4 % /10K for pressure range 0... 0.25 bar
≤ 0.25 % /10K for pressure ranges0... 0.4 bar
No adjustability possible for cable outlet

5) Declaration of conformity on request

Dimensions (mm)

Case



Pressure connection



		Nominal diameter	Dimensions (mm)	
Pressur	e connection	DN	D	G
Clamp	Tri-clamp	1 ½ "	50	
		2 "	64	
	DIN 32676	DN 32	50	
		DN 40	50	
		DN 50	64	
	ISO 2852	DN 33,7	50	
		DN 38	50	
		DN 40	64	
		DN 51	64	
Union nut DIN 11851 wit	h conical coupling, for tubes	DN 25	44	Rd 52 x ¹ / ₆
to DIN 11850		DN 40	56	Rd 65 x ¹ / ₆
		DN 50	68.5	Rd 78 x ¹ / ₆
Union nut DIN 11864-1 with liner form A, for tubes to		DN 40	54.9	Rd 65 x ¹ / ₆
DIN 11850		DN 50	66.9	Rd 78 x ¹ / ₆
Varivent	form F	DN 25/32	50	
	form N	DN 40/50	68	

Electrical connection

Two-wire system

rectangular plug form A



E-001



round connector M12x1



E-033

Three-wire system

rectangular plug form A



E-002



Connection table for DIN plug or cable outlet

	420 mA (2 - wire)		010VDC (3 - wire)	
Supply: +UB	1	brown	1	brown
Supply: 0V	2	green	2	green
Signal: +S	-	-	3	white
Signal: -S	-	-	2	green

round connector M12x1



E-034

Order details

- 1. Model
- 2. Measuring range
- 3. Output signal
- 4. Options

Subject to technical changes