

TECSIS - EXTERNAL FLUSH DIAPHRAGM PRESSURE TRANSDUCER

P3251B013001

Pressure sensor -0.25/0bar 4-20mA DIN A

- Accuracy 0.5 %
- For relative/absolute pressure
- Pressure range from -1...0 bar to 0...600 bar
- Zero point and span adjustment



PRODUCT DESCRIPTION

Pressure transducer with flush diaphragm for applications with viscous or crystallising media. Robust sensor with very good accuracy and a large number of measuring ranges. Possible to adjust zero point through potentiometers in the housing.

TECHNICAL SPECIFICATION

Measuring principle	Pressure range ≤16 bar Piezo resistive sensor Pressure range ≥25 bar Thinfilm sensor
Accuracy	≤0.5 % of end value according to DIN16086 (≤0.25 % BFSL)
Linearity and hysteresis	Included in the above
Repeatability	≤±0.05 % of end value
Long term stability	≤±0.2 % of end value per year
Overpressure protection	≤16 bar 3.5x; ≤600 bar 2x;
Protected against vacuum	Insensitive to vacuum
Response time	≤1 ms for 10-90 % of the range
Pressure connection	Up to 0-1.6 bar: 1" external thread From 0-2.5 bar: 1/2" external thread
Sensor body	Stainless steel SIS 2350 (316)
Wetted parts	Stainless steel SIS 2350 (316) Nitrile (external o-ring)
Media temperature	-30 °C to +100 °C
Ambient temperature	-20 °C to +80 °C
Temperature deviation	±0.2 % of measuring range/10K for zero point and measuring span (≤0.4 % of measuring range/10K for pressure ranges ≤0...0.16 bar)
Temp. compensation range	0 °C to +80 °C
Signal options	4-20 mA, 0-10 V

Supply voltage	Signal 4-20 mA	10-30 V DC
	Signal 0-10 V	14-30 V DC
Max. permitted load for signal 4-20 mA	$R_L[\Omega] = \frac{U_M[M]-10V}{0,02A}$	
Min. permitted load for signal 0-10V	$R_L > 10k\Omega$	
Energy consumption	Output signal 4-20 mA: signal current Output signal 0-10 V: 14-30 V DC	
Electrical connection	Connector according to DIN43650/EN175301-803A	
Adjustability	±10 % for zero point and measuring span	
IP-class	IP65 according to	EN60529/IEC529
EMC data	Emission	EN61326
	Immunity	EN61326
Weight	0.2 kg	

DIMENSIONS

	
Connection from 2.5 bar	Connection up to 1.6 bar

CIRCUITS

	
2 wire, 4-20mA	3 wire, 0-10V

	2 wire	3 wire
	mA	V DC
Supply voltage UB+	1	1
Supply voltage 0V-	2	2
Signal S+		3
Signal S-		2

ORDER NUMBER

		Relative pressure	Relative pressure	Absolute pressure	Absolute pressure
Pressure range bar		4-20 mA	0-10 V	4-20 mA	0-10 V
-0.25...	0	P3251B013001	P3251B013101	-	-
-0.4...	0	P3251B014001	P3251B014101	-	-
-0.6...	0	P3251B015001	P3251B015101	-	-
-1...	0	P3251B016001	P3251B016101	-	-

-1...	0...+1.5	P3251B043001	P3251B043101	-	-
-1...	0...+5	P3251B045001	P3251B045101	-	-
0...	0.1	P3251B063001	P3251B063101	-	-
0...	0.16	P3251B064001	P3251B064101	-	-
0...	0.25	P3251B065001	P3251B065101	P3251S065401	P3251S065411
0...	0.4	P3251B066001	P3251B066101	P3251S066401	P3251S066411
0...	0.6	P3251B067001	P3251B067101	P3251S067401	P3251S067411
0...	1	P3251B069001	P3251B069101	P3251S069401	P3251S069411
0...	1.6	P3251B070001	P3251B070101	P3251S070401	P3251S070411
0...	2.5	P3251B072001	P3251B072101	P3251S072401	P3251S072411
0...	4	P3251B073001	P3251B073101	P3251S073401	P3251S073411
0...	6	P3251B074001	P3251B074101	P3251S074401	P3251S074411
0...	10	P3251B075001	P3251B075101	P3251S075401	P3251S075411
0...	16	P3251B076001	P3251B076101	P3251S076401	P3251S076411
0...	25	P3251B078001	P3251B078611	-	-
0...	40	P3251B079601	P3251B079611	-	-
0...	60	P3251B080601	P3251B080611	-	-
0...	100	P3251B081601	P3251B081611	-	-
0...	160	P3251B082601	P3251B082611	-	-
0...	250	P3251B084601	P3251B084611	-	-
0...	400	P3251B086601	P3251B086611	-	-
0...	600	P3251B087601	P3251B087611	-	-

SPECIAL VERSIONS

- Sensor with overmoulded cable or M12 connector. IP67
- Accuracy $\leq 0.25\%$ for pressure range ≥ 0.25 bar
- Alternative working ranges and output signals
- Media temperature $-40\text{ }^{\circ}\text{C}$ to $+125\text{ }^{\circ}\text{C}$
- Integrated cooling coil for media temperatures up to $+150\text{ }^{\circ}\text{C}$
- Wetted parts in Hastelloy C4 or PFA
- O-ring in Viton

ACCESSORIES

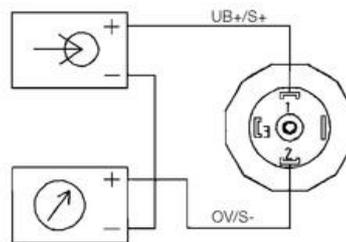
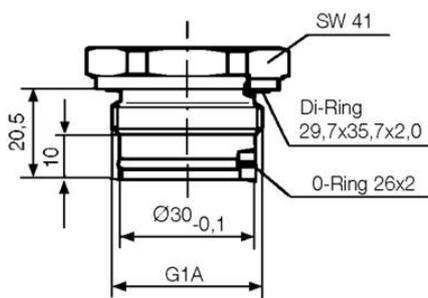
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Order no.	Description
AZM23X031006	Welding sleeve for sensor connection 1/2"
AZM23X031004	Welding sleeve for sensor connection 1"

SPECIFICATIONS

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Connection	Male thread
Connection Thread	G1
EMC	EN61326
IP Class	IP65
Material of sensor housing	Stainless steel SIS2350 (316)
Materials Wetted Parts	Stainless steel SIS2350 (316)
Pressure Range Max	0 bar
Pressure Range Min	-0.25 bar
Response Time	1 ms
Supply Voltage DC Max	30 V DC
Supply Voltage DC Min	10 V DC
Temperature ambient from	-20 °C
Temperature ambient to	80 °C
Temperature compensated range from	0 °C
Temperature compensated range to	80 °C
Temperature range of media from	-30 °C
Temperature range of media to	100 °C



	2-tråd
	mA
Matningsspänning UB+	1
Matningsspänning 0V-	2
Signal S+	
Signal S-	

