

Pressure sensors for general application

with front flush diaphragm
for gauge pressure and absolute pressure

Accuracy 0.25% and 0.5%

Standard output: 4 ... 20 mA; 2-wire system
or 0 ... 5 VDC; 3-wire system
or 0 ... 10 VDC; 3-wire system

Features

- o For pasty or crystallizing media
- o Finely graded selection of nominal ranges according to EN
- o Corrosion resistant, stainless steel design
- o High overload protection
- o Highly resistant to shock and vibration
- o For dynamic or static measurements
- o Good reproducibility
- o Integrated cooling element for medium temperatures of up to 150° C

Measuring Ranges Gauge pressure

Negative -1 ... 0 bar to -0,1 ... 0 bar
Positive 0 ... 0.01 bar to 0 ... 600 bar
Absolute pressure 0 ... 0.25 bar to 0 ... 16 bar

Applications

Process engineering,
Plant and apparatus construction,
Development and laboratory applications



Technical data

Model	TY-P3251						Option
Pressure type	negative or positive gauge pressure			absolute pressure			negative or positive gauge pressure
Output signal	4 ... 20 mA - 2-wire system 0 ... 5 VDC - 3-wire system 0 ... 10 VDC - 3-wire system						other signals on request
Accuracy % of F. S. 1)	0,5	0,25	0,5	0,25	0,5	0,25	
Ranges accord. to EN	0 ... 0.1 bar 2) to 0 ... 16 bar		0 ... 25 bar to 0 ... 600 bar		0 ... 0,25 bar to 0 ... 16 bar		
Sensor element	piezoresistive		thin film		piezoresistive		
Repeatability	≤ ± 0.05% of F. S.						
Stability (annual)	≤ ± 0.2% of F. S. in rated conditions						
Case	Stainless steel						
Pressure connection	≤ 0...1,6 bar G 1 B; ≥ 0...2,5 bar G 1/2 B						
Wetted parts	Stainless steel						
Overload limit	≤ 16 bar 3,5 x; ≤ 600 bar 2 x;						
Electrical connection	plug according to DIN EN 175301-803 form A with junction box round connector M12x1; 4-pin						cable outlet with 1 m cable
Power supply	10 ... 30 VDC (14 ... 30 VDC for output 0 ... 10 V)						
Power consumption	output 4 ... 20 mA: signal currency voltage output: 8 mA						
Load	≤ $\frac{UB - 12 V}{0.020 A}$ for output (0) 4 ... 20 mA > 5 kOhm for output 0 ... 5 V > 10 kOhm for output 0 ... 10 V						
Temp. compens. range	0 ... 80 °C						
Temperature influence							
- Zero point	± 0.2% / 10 K 3)						
- Measuring range	± 0.2% / 10 K						
Adjustability	zero point and full scale up to ± 10%						
Response time	≤ 1 ms (within 10% to 90% of F. S.)						
Protection type	IP 65 to EN 60 529 / IEC 529						IP 67 for cable outlet
Emission 4)	according to EN 61 326						
Interference 4)	according to EN 61 326						
Electrical protection types	polarity, overload and short-circuit protection						
Temperature ranges							medium temperature -40 ... 125 °C
- Storage	-40 ... 100 °C						
- Medium	-30 ... 100 °C						
- Ambient	-20 ... 80 °C						integrated cooling element for temperatures up to 150° C
Weight	approx. 0.2 kg						

1) 0.25% accuracy for ranges ≥ 0.25 bar

2) For ranges < 0.1 bar: model TY-P3275; technical data as model TY-P3276; wetted parts 1.4571, Si, Al and Au; only applicable for dry and non aggressive gases

3) ≥ 0 ... 2500 bar; M 16 x 1.5 female

4) ≤ " ± 0,4%/10 K for measuring ranges 0 ... 0.1 and 0 ... 0.16 bar

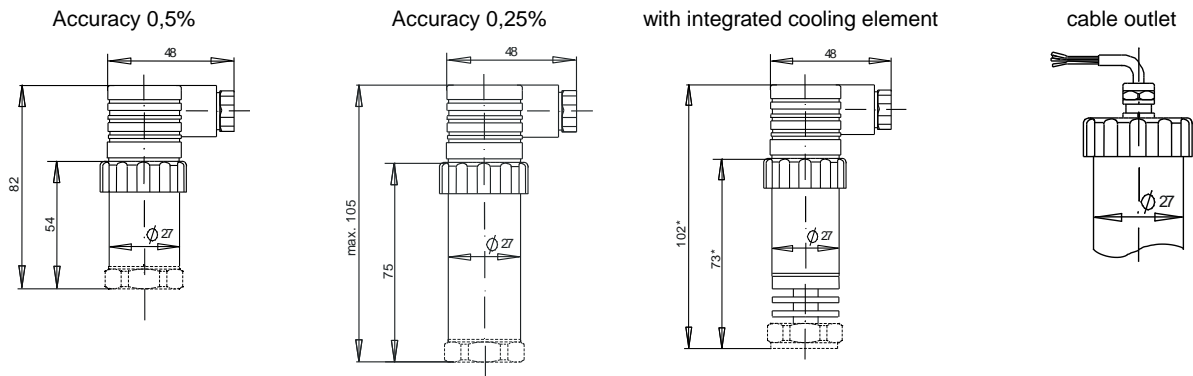
5) Declaration of conformity on request

of F. S. = of full scale value

Dimensions

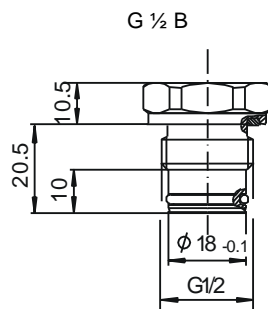
Case

Plug according to DIN EN 175301-803 form A

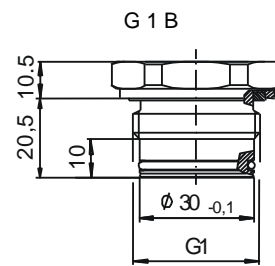


* for long version + 22 mm

Pressure connections

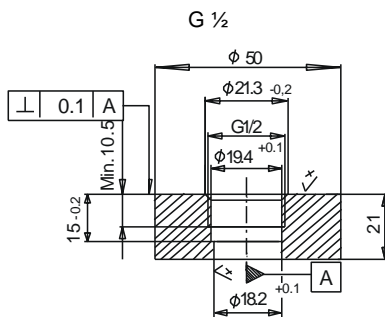


A-004

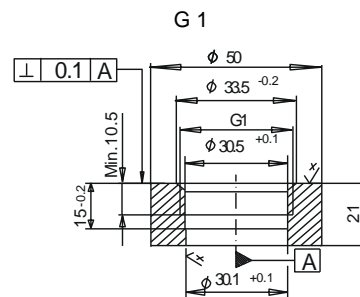


A-005

weld-on socket or screw-in aperture



S-003

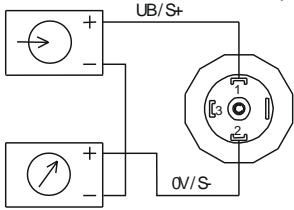


S-004

Electrical connection

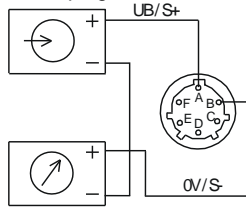
Two-wire system

DIN EN 175301-803 form A plug



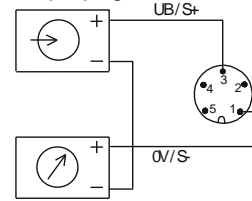
E-001

MIL-plug PT 02 E-10 6P



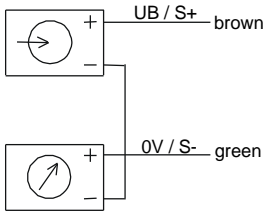
E-011

5-pin plug



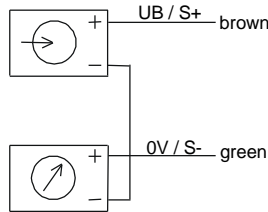
E-035

cable outlet



E-015

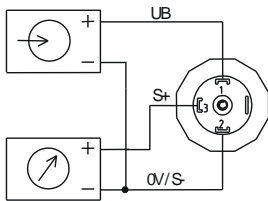
M12x1



E-015

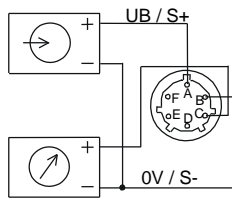
Three-wire system

DIN EN 175301-803 form A plug



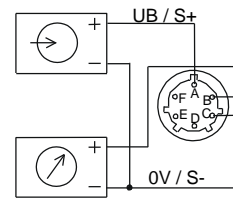
E-002

MIL-plug PT 02 E-10 6P



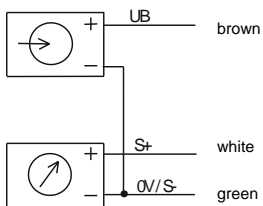
E-012

5-pin plug



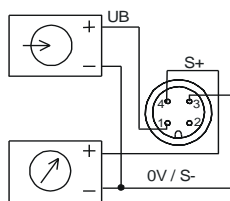
E-012

cable outlet



E-017

M12x1



E-034

Connection table for DIN plug or cable outlet

	4 . . . 20 mA (2-wire)		0 . . . 10 VDC (3-wire)	
Supply: UB+	1	brown	1	brown
Supply: 0V	2	green	2	green
Signal: S+	---	-----	3	white
Signal:	---	-----	2	green

Order details

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