

DATA SHEET

Ceramic absolut pressure sensors 0391 0005-01 to -06



Description



Characteristic features

- Operating range from 1 to 50 bar
- For the measurement of absolute pressure
- Robust, media-resistant design
- Monolithic ceramic technology
- Easy mounting
- Water and oil resistant
- With connection cable

Areas of application

- Food technology
- Pneumatics
- High pressure
- Gasoline pumps
- Gases
- Fuel cells

Technical Data

Ceramic pressure sensor (absolute pressure)	
Measuring range	1...50 bar, 6 types
Output signal (FS/Range)	Min. 1,5 / typ. 3,2 / max. 6 mV/V
Linearity / hysteresis / reproducibility	< ±0,4 % Full Scale (FS)
Offset	-0,2 ... +0,2 mV / V
TK Offset 25...85 °C	≤ ±0,03 % FS / K
TK Range 0...70 °C	≤ -0,013 % FS / K
Bridge resistance	10 kΩ ± 20 %
Supply voltage	≤ 30 VDC
Nominal temperature range	-40 ... 135 °C
Operating temperature range	-40 ... 135 °C
Storage temperature range	-50 ... 135 °C
Dimensions	See drawing
Connection	Ribbon cable, RM 1,27 x 40 mm length

The 0391 0005-01 to -06 absolute pressure sensors with a flush diaphragm are basically suitable for measuring absolute pressures. The flush diaphragm allows easy cleaning, which is an essential condition for the use of the sensors in the field of medical technology or the food industry. Due to the ceramic (Al_2O_3) material, the sensor has an excellent resistance against aggressive and corrosive media. 6 measuring range variants cover the entire pressure range from 1 bar to 50 bar FS. The sensor itself is designed as a Wheatstone full bridge and supplies a pressure-dependent differential voltage. Ready-to-use, calibrated pressure transmitters (sensor, electronics, housing) with prepared voltage output 0...10 V or current output 4...20 mA, as well as special designs for larger quantities, are also available. Typical applications are in the field of pneumatics, hydraulics and industrial applications or electronic pressure switches.

In general, the B+B pressure sensors are media resistant. However, we recommend carrying out a media compatibility test for particularly critical media such as in electroplating applications (iron rich chloride) or oils with undefined additives.

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Measuring range	Overpressure	Burst pressure	Order No.
1 bar abs	≤ 1,5 bar	2,5 bar	0391 0005-02
2 bar abs	≤ 3 bar	5 bar	0391 0005-04
5 bar abs	≤ 7,5 bar	12 bar	0391 0005-06
10 bar abs	≤ 15 bar	25 bar	0391 0005-01
20 bar abs	≤ 30 bar	40 bar	0391 0005-03
50 bar abs	≤ 75 bar	100 bar	0391 0005-05

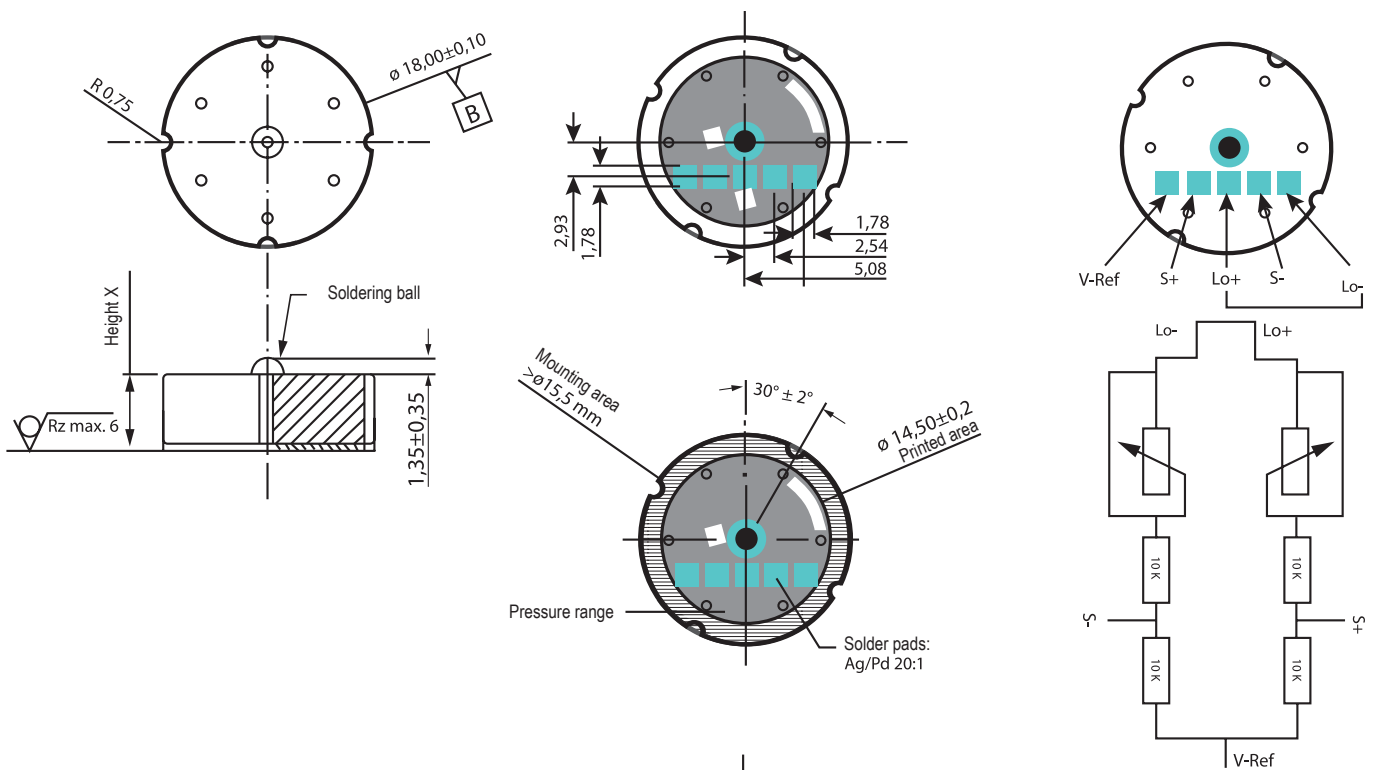


Table for height X		
0-1 bar	6,20	± 0,15
0-2 bar	6,25	± 0,15
0-5 bar	6,30	± 0,15
0-10 bar	6,35	± 0,15
0-20 bar	6,55	± 0,15
0-50 bar	6,70	± 0,15

