

Pressure Sensor Air PS-AS



- ▶ Application: 0.2 to 3.0 bar
- ▶ Response time: 1 ms
- ▶ Pressure reference type: Absolute
- ▶ Power supply: 5 V
- ▶ Weight: 21 g

This sensor is designed to measure absolute air-pressure, especially the air box pressure of gasoline or Diesel engines.

An integrated circuit combines a piezo-resistive sensor element and an electronic for signal-amplification and temperature compensation. The output of the sensor is an analog, ratio metric signal.

Application

| | |
|-------------------------|--------------------------|
| Application | 0.2 to 3 bar (a) |
| Pressure reference type | absolute |
| Max. pressure | 5 bar |
| Operating temp. range | -40 to 130°C |
| Media temp. range | -40 to 130°C |
| Storage temp. range | 0 to 40°C |
| Max. vibration | According to ISO 16750-3 |

Technical Specifications

Mechanical Data

| | |
|-----------------|-----------------------|
| Mounting | M6 |
| Fitting | 12.05 ± 0.8 mm |
| Weight w/o wire | 21 g |
| Sealing | O-ring 7.59 x 2.62 mm |

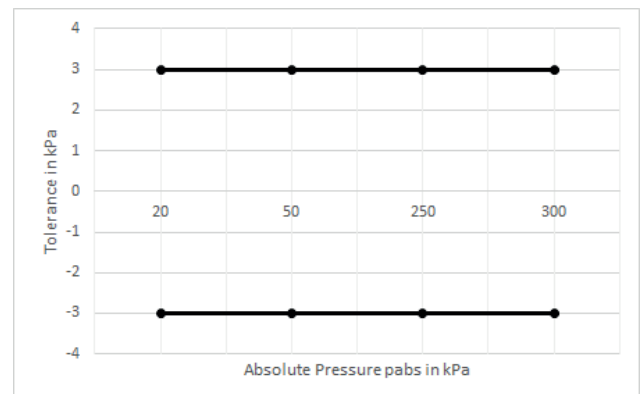
Electrical Data

| | |
|--------------------------------|----------------|
| Power supply U_s | 4.75 to 5.25 V |
| Max power supply U_s max | 16 V |
| Full scale output U_A at 5 V | 0.4 to 4.65 V |
| Current I_s | 9 mA |

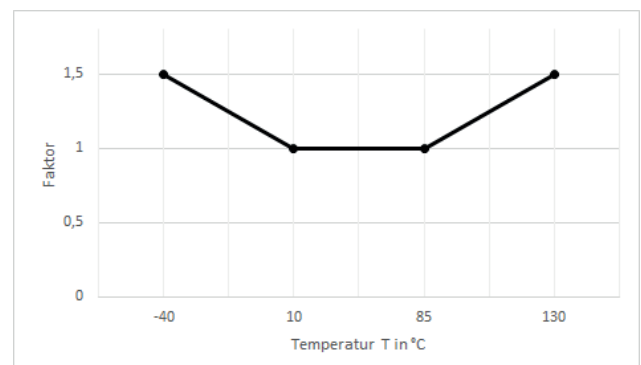
Characteristic

| | |
|-------------------------------|--------------|
| Response time T10/90 | 1 ms |
| Compensated range | 10 to 85°C |
| Tolerance (FS) at $U_s = 5$ V | ± 0.030 bar |
| Tolerance (FS) | ± 1.07 % |
| Sensitivity | 1,518 mV/bar |
| Offset | 96 mV |

Tolerance



Expansion of Tolerance



Connectors and Wires

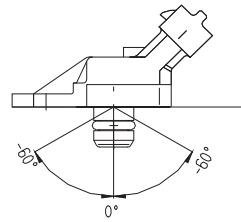
| | |
|------------------|-----------------------|
| Connector | RB-COMP 1.1a/3P/Kod.1 |
| Mating connector | D261.205.366-01 |
| Pin 1 | U _s |
| Pin 2 | Gnd |
| Pin 3 | Sig |

Various motorsport and automotive connectors are available on request.

Installation Notes

- The PS-AS is designed for engines using ROZ95, ROZ98, M15, E22 and Diesel.
- The sensor can be connected directly to most control units.
- To avoid noise, an ECU-input circuit with a RC-low pass filter (tau = 2 ms) is recommended.
- Use engine oil (5W40) as O-Ring grease (no silicone based grease).
- Avoid miss-pinning (max. 5 minutes at I = 0.3 A).
- Please find further application hints in the offer drawing and free download of the sensor configuration file (*.sdf) for the Bosch Data Logging System at our homepage.

To avoid damage caused by condensate the maximum mounting position from vertical is +60°.



Safety Note

The sensor is not intended to be used for safety related applications without appropriate measures for signal validation in the application system.

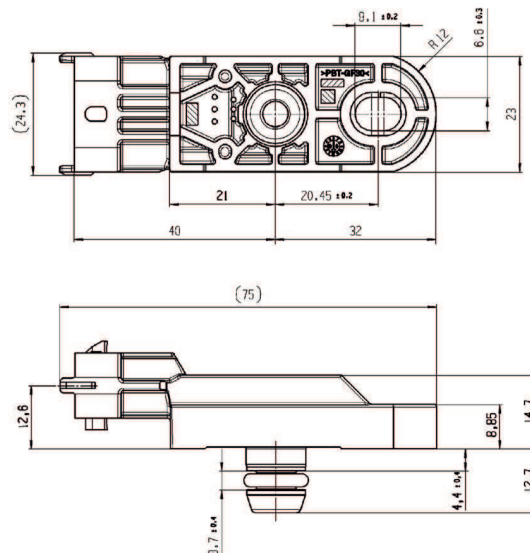
Legal Restrictions

Due to embargo restrictions, sale of this product in Russia, Belarus, Iran, Syria, and North Korea is prohibited.

Ordering Information

Pressure Sensor Air PS-AS
Order number **0281.002.996**

Dimensions



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