



Pressure Sensor Air PSA-C



- ▶ Absolute air pressure measurements
- ▶ Measurement range 0.2 to 1.05 bar or 0.2 to 2.5 bar
- ▶ Analog output
- ▶ External tube connector

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 electronics for signal-amplification and temperature-compensation. Air pressure is supplied to the sensor via a tube connector. The output of the sensor is an analog, ratio metric signal.

The main feature and benefit of this sensor is the combination of the high quality of the production part and a low price.

Application

Application	Please see ordering informations
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	-40 to 130°C
Max. vibration	20 m/s ² at 10 to 1,000 Hz

Technical Specifications

Variations

	PSA-C (0.2 to 1.05 bar)	PSA-C (0.2 to 2.50 bar)
Tolerance (FS) at U _S = 5 V	± 0.017 bar	± 0.042 bar
Tolerance (FS)	± 1.62 %	± 1.68 %
Sensitivity	5,000 mV/bar	1,532 mV/bar
Offset	-600 mV	724 mV

Mechanical Data

Mounting	M6
Fitting	6 mm
Weight w/o wire	40 g

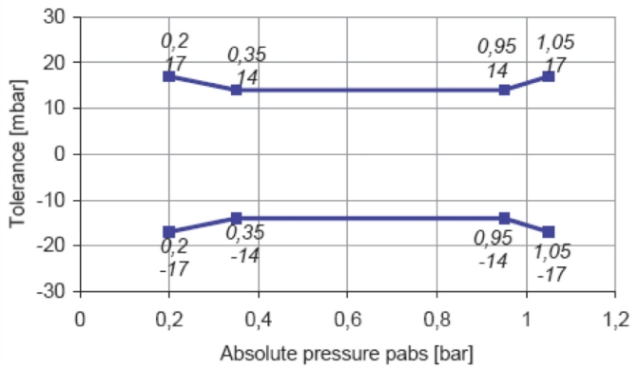
Electrical Data

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	0.3 to 4.8 V
Current I _S	9 mA

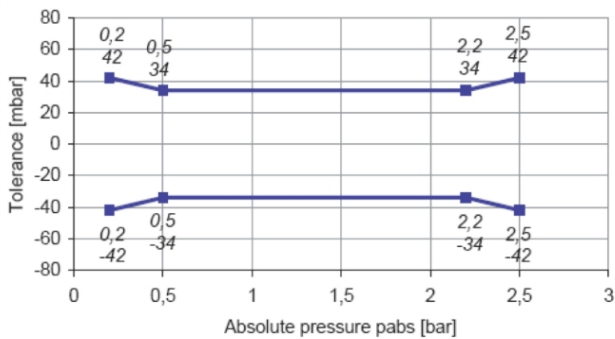
Characteristic

Response time T10/90	10 ms
Compensated range	10 to 85°C
Tolerance (FS) at $U_S = 5\text{ V}$	Please see variations
Tolerance (FS)	Please see variations
Sensitivity	Please see variations
Offset	Please see variations

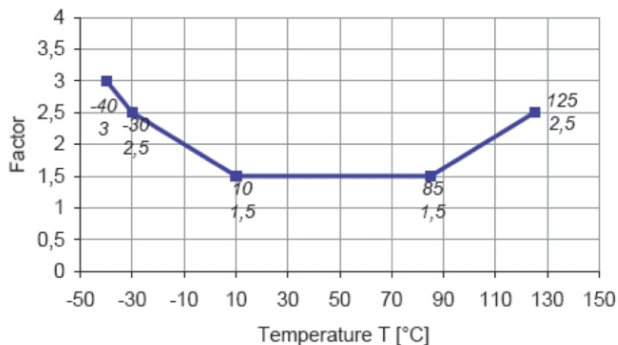
Tolerance 0.2 to 1.05 bar



Tolerance 0.2 to 2.50 bar



Expansion of Tolerance



Connectors and Wires

Connector	Bosch Jetronic
Mating connector	D 261 205 289
Pin 1	U_S
Pin 2	GND
Pin 3	SIG
Pin 4	-
Pin 5	-

Various motorsport and automotive connectors are available on request.

Please specify the required wire length with your order.

Installation Notes

The PSA-C is designed for engines using ROZ95, ROZ98, M15, E22 and Diesel.

Avoid liquid entering the measuring cell.

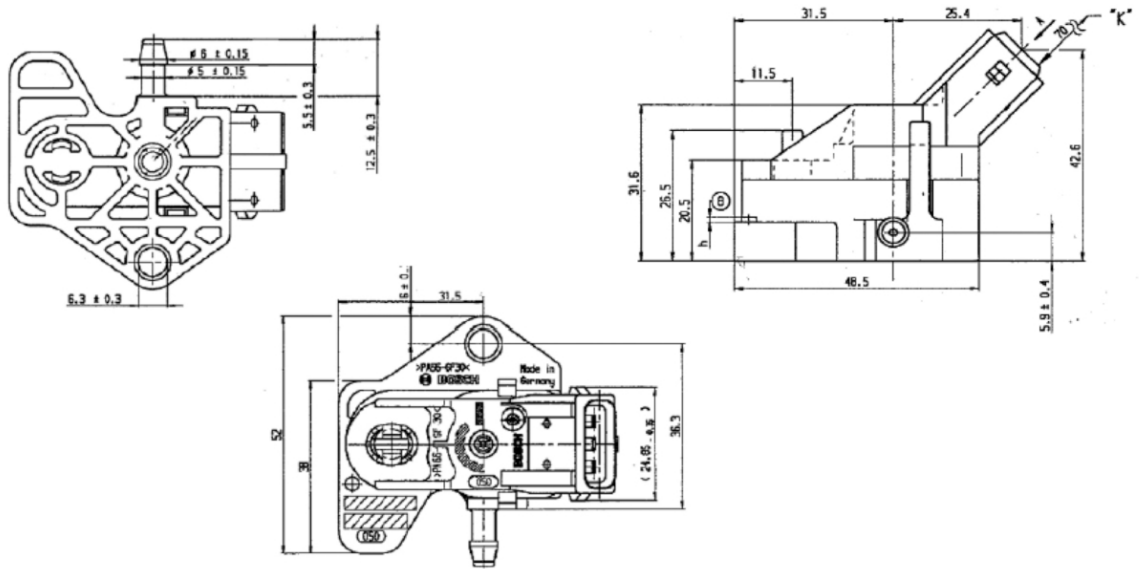
The sensor can be connected directly to most control units.

To avoid noise, an ECU-input circuit with a RC-low pass filter ($\tau = 2\text{ ms}$) is recommended.

Avoid miss-pinning (max. 5 minutes at $I = 0.3\text{ A}$).

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.

Dimensions



Ordering Information

PSA-C 0 261 230 037
0.2 to 1.05 bar

PSA-C 0 281 002 389
1.05 to 2.50 bar

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