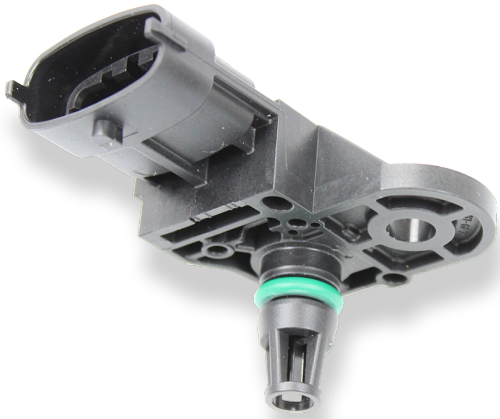


# Pressure Sensor Combined PST 4



- ▶ Pressure: 0.4 to 4 bar
- ▶ Temperature: -40 to 130°C
- ▶ Power supply: 5 V
- ▶ Weight: 22 g

This sensor is designed to measure absolute air pressure, especially the air box pressure of gasoline or Diesel engines plus temperature. An integrated circuit combines a piezo-resistive sensor element and electronic systems for signal-amplification and temperature-compensation. The output of the sensor is an analog, ratio metric signal.

## Application

Application 1	0.4 to 4 bar (a)
Application 2	-40 to 130°C
Reference	Absolute
Max. pressure	6 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 + Washer
Weight without wire	22 g
Fitting	12.05 ± 0.8 mm
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 $U_A$	0.386 to 4.5 V
Current $I_s$	12 mA

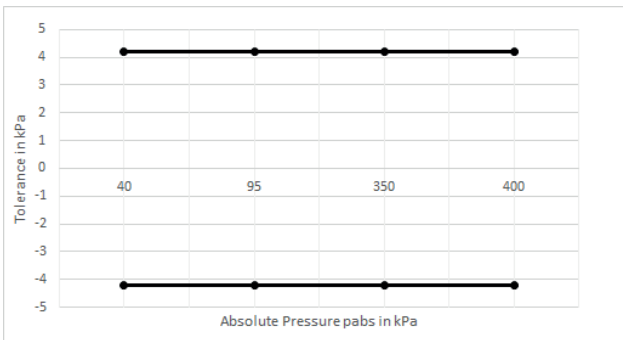
### Characteristic 1

Response time T10/90	1 ms
Compensated range	10 to 85°C
Tolerance (FS) at $U_s = 5$ V	0.042 bar
Sensitivity	1,143 mV/bar
Offset	-71.43 mV

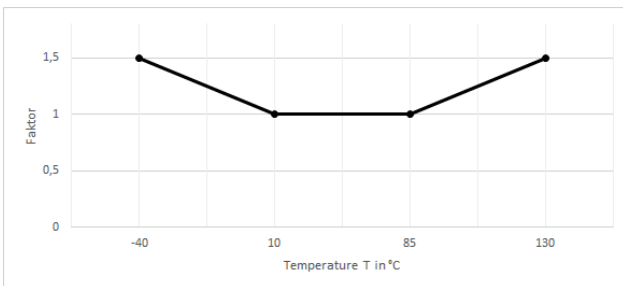
### Characteristic 2

T [°C]	R [Ohm]
-40	45,303
-30	26,108
-20	15,458
-10	9,395
0	5,895
10	3,791
20	2,499
25	2,056
30	1,706
40	1,174
50	833.8
60	595.4
70	435.6
80	322.5
90	243.1
100	186.6
110	144.2
120	112.7
130	89.28

**Tolerance**



**Expansion of Tolerance**



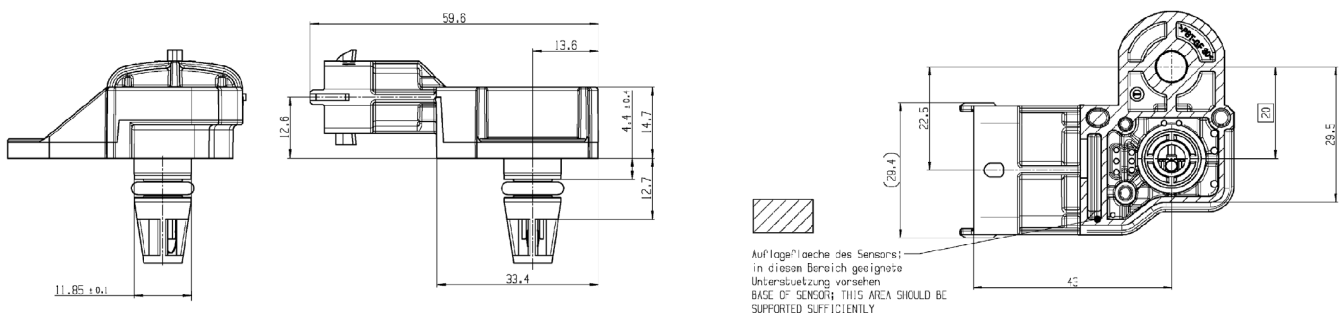
**Connectors and Wires**

Connector	Bosch Compact
Mating connector	D261.205.360-01
Pin 1	Ground
Pin 2	Temperature Signal
Pin 3	Power Supply
Pin 4	Pressure Signal

**Installation Notes**

The PST 4 is designed for engines using ROZ95, ROZ98, M15, E22 and Diesel.

**Dimensions**



The sensor can be connected directly to most control units.

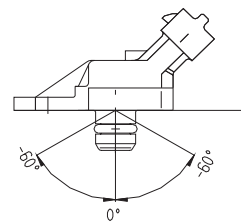
To avoid noise, an ECU-input circuit with a RC-low pass filter ( $\tau = 2 \text{ ms}$ ) is recommended.

Use engine oil (5W40) as O-Ring grease (no silicone based grease).

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.

To avoid damage caused by condensate the maximum mounting position from vertical is  $\pm 60^\circ$ .



**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 Combined PST 4**  
Order number **0261.230.423**

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