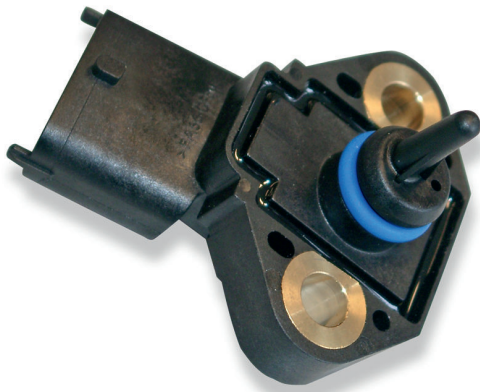


Pressure Sensor Combined PST-F

www.bosch-motorsport.com



BOSCH
Invented for life



- ▶ Absolute fluid pressure and temperature measurements
- ▶ Pressure measurement range 0.5 to 6.0 bar
- ▶ Temperature measurement range -40 to 125°C
- ▶ Analog output

This sensor is designed to measure absolute pressure and temperature of various kinds of fluids e.g. Diesel, gasoline, oil or transmission oil.

The PST-F is equipped with a piezo-resistive pressure sensor element integrated in a silicon chip together with signal processing electronics. The active surface of this chip is exposed to a reference vacuum. The temperature sensor element is an NTC-resistor.

The main feature of this sensor is the integration of two functions (fluid pressure and fluid temperature) in one housing.

Application

Application 1	0.5 to 6 bar (a)
Application 2	-40 to 125°C
Reference	absolute
Max. pressure	20 bar
Operating temp. range	-40 to 125°C
Storage temp. range	-40 to 130°C

Biofuel compatibility	E22, M15
Max. vibration	40 m/s ² at 1 to 250 Hz 60 m/s ² at 250 to 2,600 Hz 40 m/s ² at 2,600 to 3,200 Hz

Technical Specifications

Mechanical Data

Male thread	M6
Weight without wire	30 g
Wrench size	10 mm
Installation torque	11.5 Nm
Sealing	O-ring 13.95 x 2.62 mm

Electrical Data

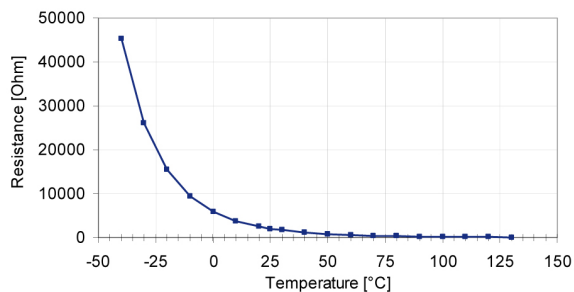
Power supply U_s	4.75 to 5.25 V
Max power supply U_s max	16 V
Full scale output U_A	0.5 to 4.5 V
Current I_s	9 mA

Characteristic 1

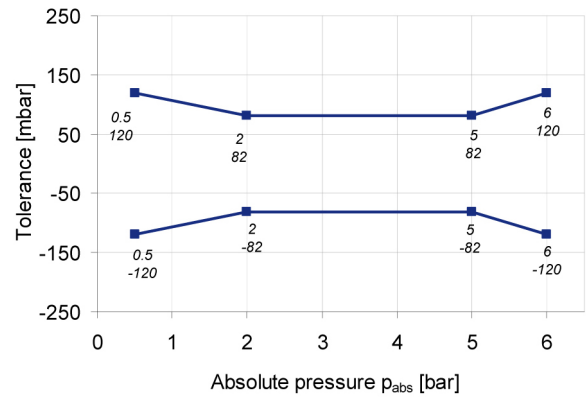
Response time T10/90	1 ms
Output load	10 kOhm
Sensitivity	727 mV/bar
Offset	136 mV

Characteristic 2

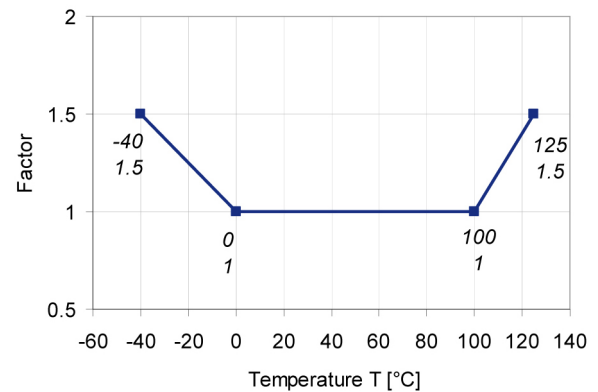
T [°C]	R [Ohm]
-40	45,303
-30	26,108
-20	15,458
-10	9,395
0	5,671
10	3,791
20	2,499
30	1,706
40	1,174
50	834
60	595
70	436
80	322
90	243
100	187
110	144
120	113
125	100
Response Time tau 63	45 s in air; v = 6 m/s



Tolerance



Expansion of Tolerance



Connectors and Wires

Connector	Bosch Compact
Mating connector	D 261 205 336-01
4-pole Compact	
Pin 1	Gnd
Pin 2	NTC
Pin 3	U _s
Pin 4	Pressure Sig

Installation Notes

The sensor can be connected directly to most control units.

Please do not fix the sensor directly to the engine block to avoid undesired strong vibrations.

To avoid noise, an ECU-input circuit with a RC-low pass filter is recommended.
(R = 21 kOhm, C = 100 nF)

For the temperature measurement, a 1 kOhm pull-up at 5 V is recommended.

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.

Safety Note

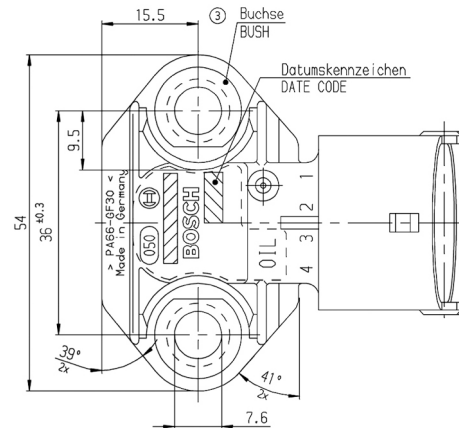
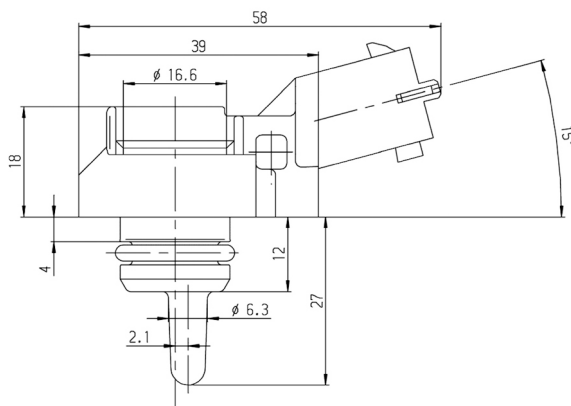
The sensor is not intended to be used for safety related applications without appropriate measures for signal validation in the application system.

Ordering Information

Pressure Sensor Combined PST-F

Order number **0 261 230 147**

Dimensions



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