

Pressure Sensor Combined PST-F 2 350 bar



- ▶ Pressure: 0 to 350 bar
- ▶ Temperature: -40 to 140°C
- ▶ Power supply: 5 V
- ▶ Weight: 36 g

This sensor is designed to measure absolute gasoline pressure and gasoline temperature in direct injection systems

The pressure measurement is based on the expansion of a steel diaphragm, where strain gauges are placed to a Wheatstone bridge. The measured signal is proportional to the pressure and is processed in an application specific integrated circuit.

The temperature measurement is conducted by an NTC thermistor. The main feature of this sensor is its compact design and the integration of two functions (temperature and pressure measurements) in a common housing.

Application

Application 1	0 to 350 bar
Reference	Absolute
Max. pressure	390 bar
Application 2	-40 to 140°C
Resistance at 25°C	2 kOhm
Operating temp. range	-40 to 140°C
Media temp. range	-40 to 140°C
Storage temp. range	-40 to 60°C
Biofuel compatibility	E26, E85
Max. vibration	210 m/s ² RMS at 147 to 1,350 Hz 175 m/s ² RMS at 1,350 to 2,000 Hz

Technical Specifications

Mechanical Data

Male thread	M10x1
-------------	-------

Weight without wire	36 g
Wrench size	27 mm
Installation torque	37.5 ± 2.5 Nm
Sealing	Sealed cone

Electrical Data

Power supply U_s	4.75 to 5.25 V
Max power supply U_s max	16 V (18 V for max. 1 h)
Full scale output U_A	0.5 to 4.5 V U_s ratiometric
Current I_s	12 mA

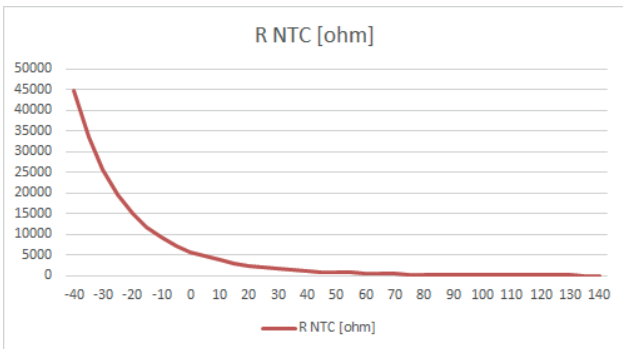
Characteristic 1

Response time T10/90	Pressure: 0.2 to 0.8 ms Temperature: 9 s (response time of temperature signal in oil dip bath 20 to 100°C)
Compensated range	-40 to 130°C
Tolerance (FS) at U_s	+/- 1 % at 0 to 100°C +/- 1.5 % at -40 to 0°C and 100 to 130°C
Sensitivity at $U_s = 5$ V	11.43 mV/bar
Offset	500 mV at $U_s = 5$ V

Characteristic 2

T [°C]	R [Ohm]
-40	44,864
-30	25,524
-20	15,067
-10	9,195
0	5,784
10	3,740

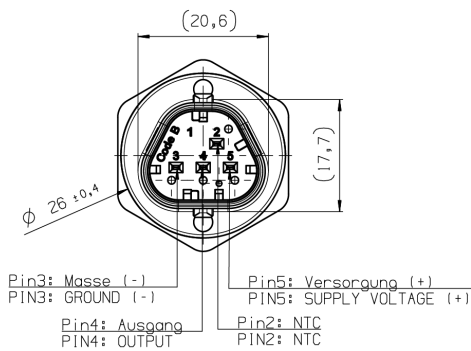
20	2,480
25	2,038
30	1,683
40	1,167
50	825
60	594
70	434,9
80	323,4
90	244
100	186,6
110	144,5
120	113,3
130	89,8
140	71,9



Connectors and Wires

Connector	Bosch Trapezoid
Mating connector	F02U.B00.751-01
Pin 1	-

Dimensions



Pin 2	Temperature Signal
Pin 3	Ground
Pin 4	Pressure Signal
Pin 5	Power Supply

Various motorsport and automotive connectors are available on request.

Installation Notes

The sensor can be connected directly to most control units.

For temperature measurement please use a pull-up resistor with an optimal value of 4.6 kOhm.

The sensor has a protection for overvoltage, reverse polarity and short-circuit.

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

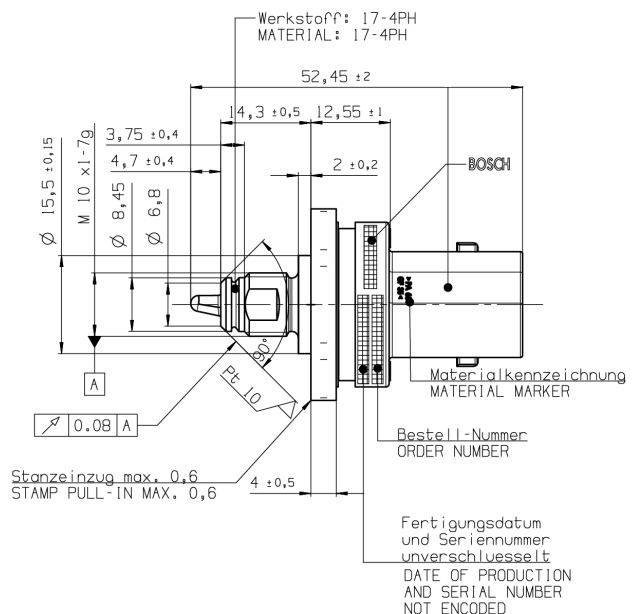
The sensor is not intended to be used for safety related applications without appropriate measures for signal validation in the application system.

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-F 2 350 bar
 Order number **0261.B35.596-01**



Represented by:

Europe:

Bosch Engineering GmbH
Motorsport
Robert-Bosch-Allee 1
74232 Abstatt
Germany
Tel.: +49 7062 911 9101
Fax: +49 7062 911 79104
motorsport@bosch.com
www.bosch-motorsport.de

North America:

Bosch Engineering North America
Motorsport
38000 Hills Tech Drive
Farmington Hills, MI 48331-3417
United States of America
Tel.: +1 248 876 2977
Fax: +1 248 876 7373
motorsport@bosch.com
www.bosch-motorsport.com

Asia-Pacific:

Bosch Engineering Japan K.K.
Motorsport
18F Queen's Tower C, 2-3-5 Minato
Mirai Nishi-ku, Yokohama-shi
Kanagawa 220-6218
Japan
Tel.: +81 45 650 5610
Fax: +81 45 650 5611
www.bosch-motorsport.jp

Australia, New Zealand and South

Africa:
Robert Bosch Pty. Ltd
Motorsport
1555 Centre Road
Clayton, Victoria, 3168
Australia
Tel.: +61 (3) 9541 3901
motor.sport@au.bosch.com