

Pressure Sensor Air PSP

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, ratiometric signal.

The main feature and benefit of this sensor is the combination of both high quality production part and motorsport connector.



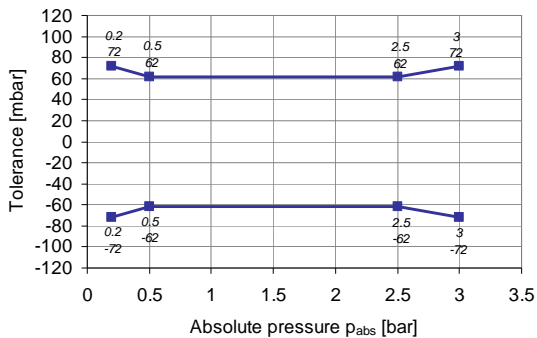
Application	
Application	0.2 ... 3 bar (a)
Pressure Reference Type	absolute
Max. Pressure	5 bar
Operating Temp. Range	-40 ... 125 °C
Media Temp. Range	-40 ... 125 °C
Storage Temp. Range	-40 ... 130 °C
Max. Vibration	0.19 mm @ 100 ... 200 Hz 250 m/s ² @ 200 ... 500 Hz

Electrical Data	
Power Supply U_s	4.5 ... 5.5 V
Max Power Supply U_s max	16 V
Full Scale Output U_A @ 5 V	0.3 ... 4.8 V
Current I_s	9 mA

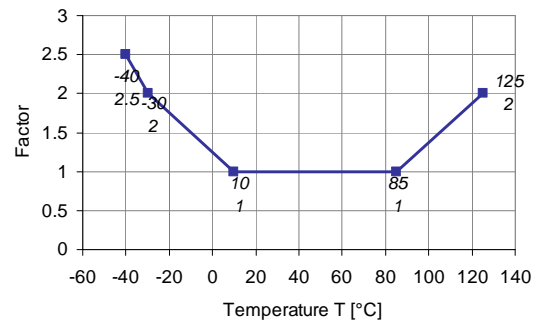
Mechanical Data	
Mounting	M6
Fitting	12.05 mm
Weight w/o Wire	17 g
Sealing	O-ring 7.59 x 2.62 mm

Characteristic	
Response Time T10/90	0.2 ms
Compensated Range	10 ... 85 °C
Tolerance (FS) @ $U_s = 5$ V	± 0.042 bar
Tolerance (FS)	± 1.4 %
Sensitivity	1,518 mV/bar
Offset	96 mV

Tolerance



Expansion of Tolerance f(T)



Connectors and Wires

Connector	ASL 6-06-05PC-HE
Mating connector	ASL 0-06-05SC-HE
Pin 1	-
Pin 2	GND
Pin 3	SIG
Pin 4	Us
Pin 5	-
Various motorsport and automotive connectors are available on request.	
Sleeve	DR-25
Wire Size	AWG 24
Wire Length L	15 ... 100 cm
Please specify the required wire length with your order.	

Application Hint

The PSP 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-lowpass filter ($\tau = 2$ ms) is recommended.

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

Avoid miss-pinning (max. 5 minutes @ $I = 0.3$ A).

Please find further application hints in the offer drawing (<http://www.bosch-motorsport.com>).

Free download of the sensor configuration file (*.sdf) for the Bosch Data Logging System (<http://www.bosch-motorsport.com>).

Part Number

PSP **B 261 209 690-01**

