

Pressure Sensor Fluid PSS-140/260/420/600

www.bosch-motorsport.com



- ▶ Absolute fluid pressure measurement
- ▶ Measurement range variations 0 to 600 bar
- ▶ For gasoline, Diesel, oil or brake fluid
- ▶ Robust and compact design

The PSS is specially designed to measure absolute pressure in gasoline direct injection applications. This sensor is also compatible with other kind of fluids e.g. Diesel, engine oil, transmission oil or brake fluid. The sensor uses a thin layer technique to achieve high accuracy pressure measurements. The stainless steel measuring cells with piezoresistive bridges are hermetically welded with stainless steel pressure ports. The internal reference ensures ambient pressure independent measurements. The main benefits of this sensor are its high accuracy, its wide measurement range and its robust and compact design.

175 m/s² at 1,350 to 2,000 Hz

Application

Application	Please see Variations
Pressure reference type	absolute
Max. pressure	Please see Variations
Operating temp. range	-40 to 130°C (140°C)
Media temp. range	-40 to 130°C (140°C)
Storage temp. range	-30 to 60°C
Max. vibration	210 m/s ² at 147 to 1,350 Hz

Technical Specifications

Variations

PSS	-140	-260	-420	-600
Applica- tion (bar)	0 to 140	0 to 260	0 to 420	0 to 600
Max. pressure (bar)	180	320	560	660
Sensitivi- ty at U _s = 5 V	28.57 mV/bar	15.38 mV/bar	9.52 mV/bar	6.67 mV/bar

Mechanical Data

Male thread	M10 x 1
Wrench size	27 mm
Installation torque	22 ± 2 Nm in aluminum 32.5 ± 2.5 Nm in steel

Weight w/o wire	35.2 g
Sealing	sealed cone

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	10 to 90 % U_s ratiometric
Current I_s	12 mA

Characteristic

Load capacity	10 nF
Output resistance	10 Ohm
Tolerance (FS)	+ 1 % (0 to 100°C) + 1.5 % (-40 to 0°C and 100 to 130°C)
Sensitivity	Please see Variations
Offset	500 mV at $U_s = 5$ V

Connectors and Wires

Connector	Bosch Compact
Mating connector	3-pole Compact D 261 205 366-01
Pin 1	Gnd
Pin 2	Sig
Pin 3	U_s

Installation Notes

The PSS- can be connected directly to most control units. Please consider the TCI for the electrical connection of the sensor.

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

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

Each mounting orientation is possible.

Please consider using the adapter F 02U 002 711-01.

The sensor meets all EMV, EMC and ESD automotive standards.

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 Fluid PSS-140

Order number **0 261 545 053**

Pressure Sensor Fluid PSS-260

Order number **0 261 545 040**

Pressure Sensor Fluid PSS-420

Order number **0 261 545 136**

Pressure Sensor Fluid PSS-600

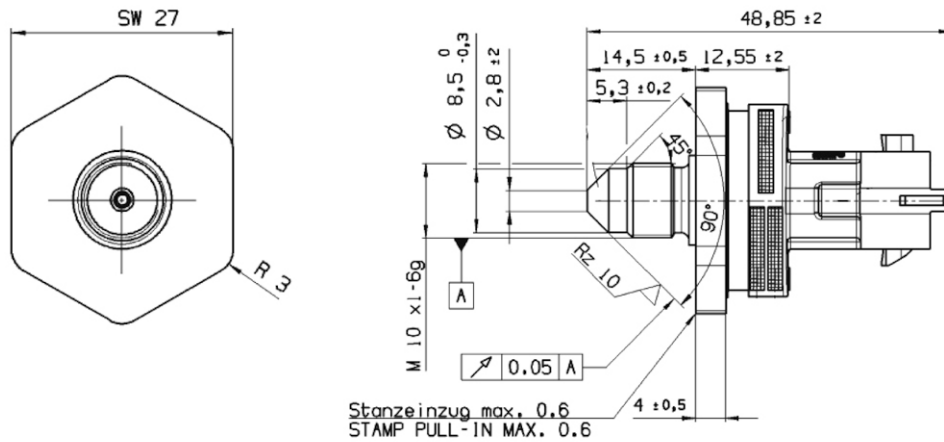
Order number **0 261 B23 789-05**

Accessories

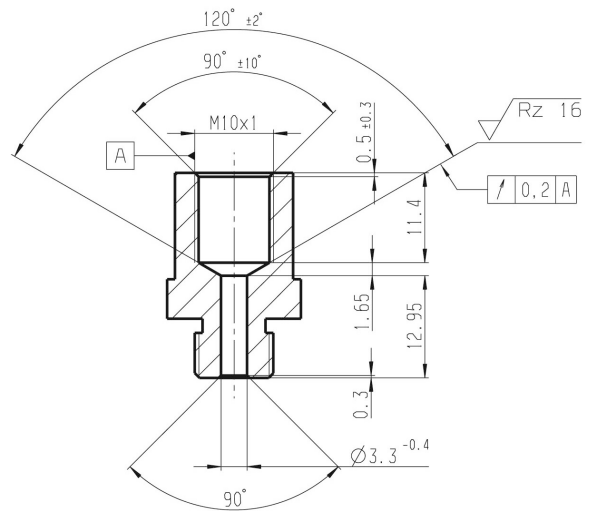
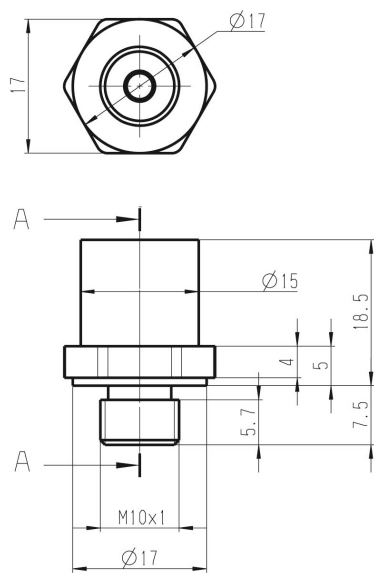
Adapter

Order number **F 02U 002 711-01**

Dimensions



Sensor



Adapter

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