

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



- ▶ Application: 0 to 140, 260, 420, 600 bar
- ▶ Response time: 2 ms
- ▶ Pressure reference type: Absolut
- ▶ Power supply: 5 V
- ▶ Weight: 35 g

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.

## Application

Application and max. pressure	Please see Variations
Pressure reference type	absolute
Operating and media temp. range	-40 to 130°C (140°C)
Storage temp. range	-30 to 60°C
Max. vibration	210 m/s <sup>2</sup> at 147 to 1,350 Hz 175 m/s <sup>2</sup> at 1,350 to 2,000 Hz

## Technical Specifications

### Variations

PSS	-140	-260	-420	-600
Application (bar) 0 to	140	260	420	600
Max. pressure (bar)	180	320	560	660
Sensitivity at U <sub>s</sub> = 5 V (mV/bar)	28.57	15.38	9.52	6.67

## 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 <sub>s</sub>	4.75 to 5.25 V
Max power supply U <sub>s</sub> max	16 V
Full scale output U <sub>A</sub>	10 to 90 % U <sub>s</sub> ratiometric
Current I <sub>s</sub>	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 <sub>s</sub> = 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 <sub>s</sub>

### 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

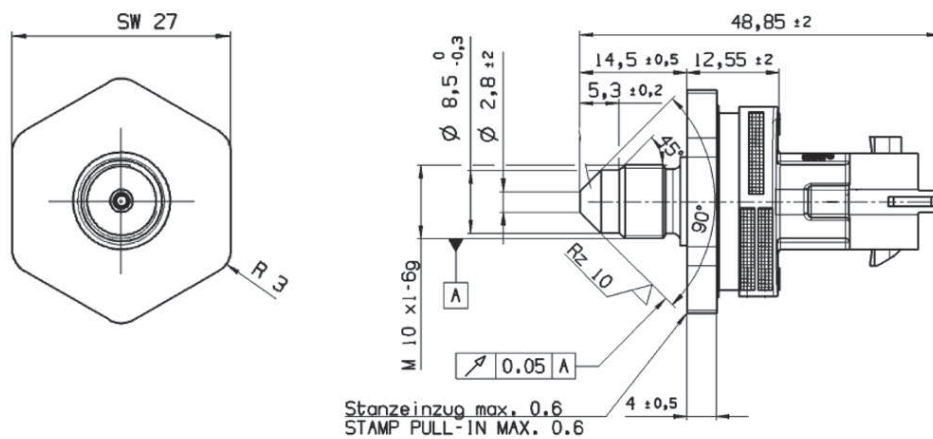
Order number 0261.B23.789-06

### Accessories

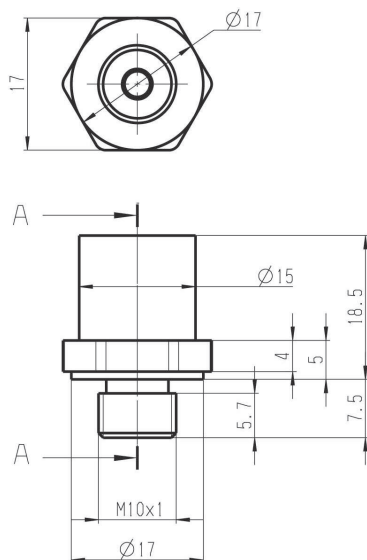
#### Adapter

Order number F 02U 002 711-01

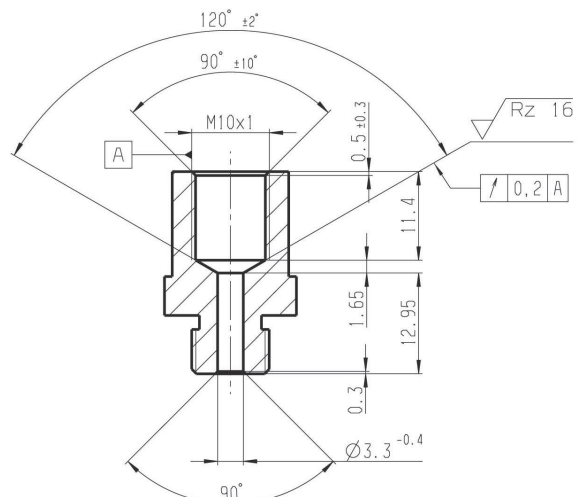
### Dimensions



Sensor



Adapter



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