

# Pressure Sensor Fluid PSS-10R

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- ▶ Relative fluid pressure measurements
- ▶ Measurement range 0 to 10 bar
- ▶ Analog output
- ▶ Integrated series connector

This sensor is designed to measure the pressure of media in relation to the ambient pressure (e.g. Diesel, gasoline, water, engine oil, transmission oil, air).

The sensor uses stainless steel measuring cells with piezo-resistive measuring bridges in thin layer technique, which are hermetically welded together with stainless steel pressure ports. This guarantees a complete media compatibility.

The main benefit of this sensor is the high quality of a production part at a low price.

## Application

Application	0 to 10 bar (r)
Pressure reference type	relative
Max. pressure	20 bar
Operating temp. range	-40 to 125°C (140°C)
Media temp. range	-40 to 125°C (140°C)
Storage temp. range	-20 to 50°C
Bio fuel compatibility	E 85 / M 100
Max. vibration	100 m/s <sup>2</sup> rms at 10 to 2,000 Hz

## Technical Specifications

### Mechanical Data

Male thread	M10x1
Wrench size	17 mm
Installation torque	15 Nm
Weight w/o wire	45 g
Sealing	O-ring 7.65 x 1.63 mm

### Electrical Data

Power supply $U_s$	4.75 to 5.25 V
Max power supply $U_s$ max	± 30 V
Full scale output $U_A$	10 to 90 % $U_s$ ratiometric
Current $I_s$	8 mA

### Characteristic

Response time T10/90	1.5 ms
Compensated range	0 to 90 °C
Tolerance (FS) at $U_s = 5$ V	± 0.1 bar

Tolerance (FS)	± 1 %
Sensitivity	400 mV/bar at $U_s=5\text{ V}$
Offset	500 mV at $U_s=5\text{ V}$

### Connectors and Wires

Connector	Bosch Compact
Mating connector	3-pole Compact D 261 205 339-01
Pin 1	Gnd
Pin 2	Sig
Pin 3	$U_s$
Pin 4	-
Pin 5	-

### Installation Notes

The PSS-10R can be connected directly to most control units.

The sensor has a protection for over voltage, 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.

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

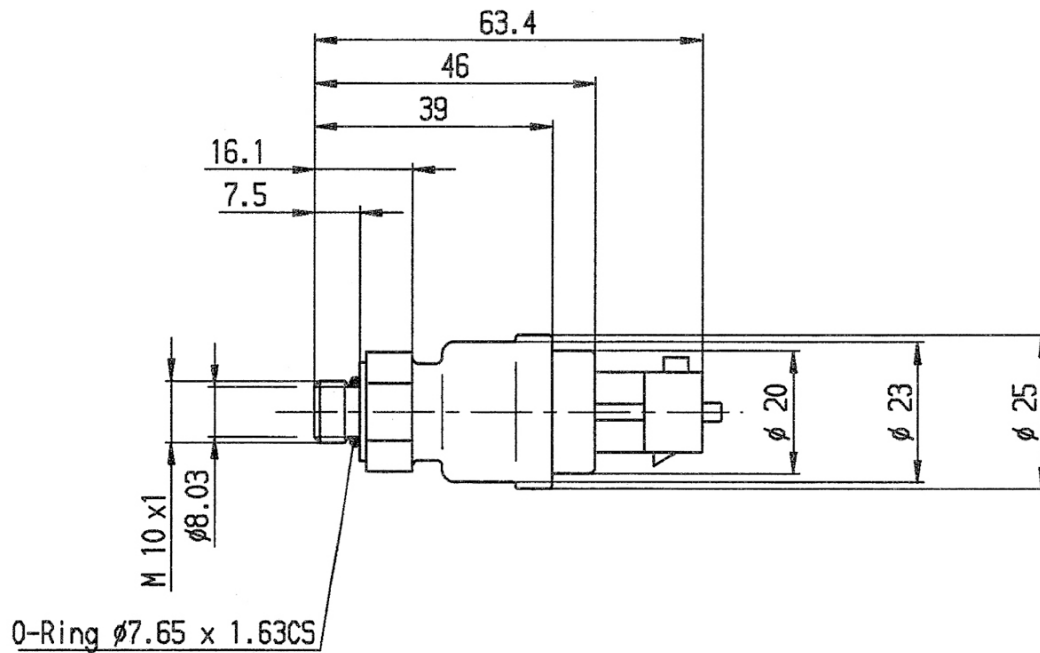
The sensor is not intended to be used for safety related applications without appropriate measures for signal validation in the application system.

### Ordering Information

#### Pressure Sensor Fluid PSS-10R

Order number **F 01T A21 312-01**

Dimensions



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