

# Pressure Sensor Fluid PSS-250R



- Application: 0 to 250 bar
- Response time: 1.5 ms
- Pressure reference type: Relative
- Power supply: 5 V
- Weight: 45 g

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 or air). The sensor is available for two different supply voltage ranges.

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 250 bar (r)                           |
| Pressure reference type | relative                                   |
| Max. pressure           | 500 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 | $\pm 30$ 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)       | $\pm 2.5$ bar            |
| Tolerance (FS)       | $\pm 1$ %                |
| Sensitivity          | 16 mV/bar at $U_s = 5$ V |
| Offset               | 500 mV at $U_s = 5$ V    |

### Connectors and Wires

|                  |                                   |
|------------------|-----------------------------------|
| Connector        | Bosch Compact                     |
| Mating connector | 3-pole Compact<br>D261.205.339-01 |
| Pin 1            | Gnd                               |
| Pin 2            | Sig                               |
| Pin 3            | $U_s$                             |
| Pin 4            | -                                 |
| Pin 5            | -                                 |

### Installation Notes

The PSS-250R 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.

## Legal Restrictions

Due to embargo restrictions, sale of this product in Russia, Belarus, Iran, Syria, and North Korea is prohibited.

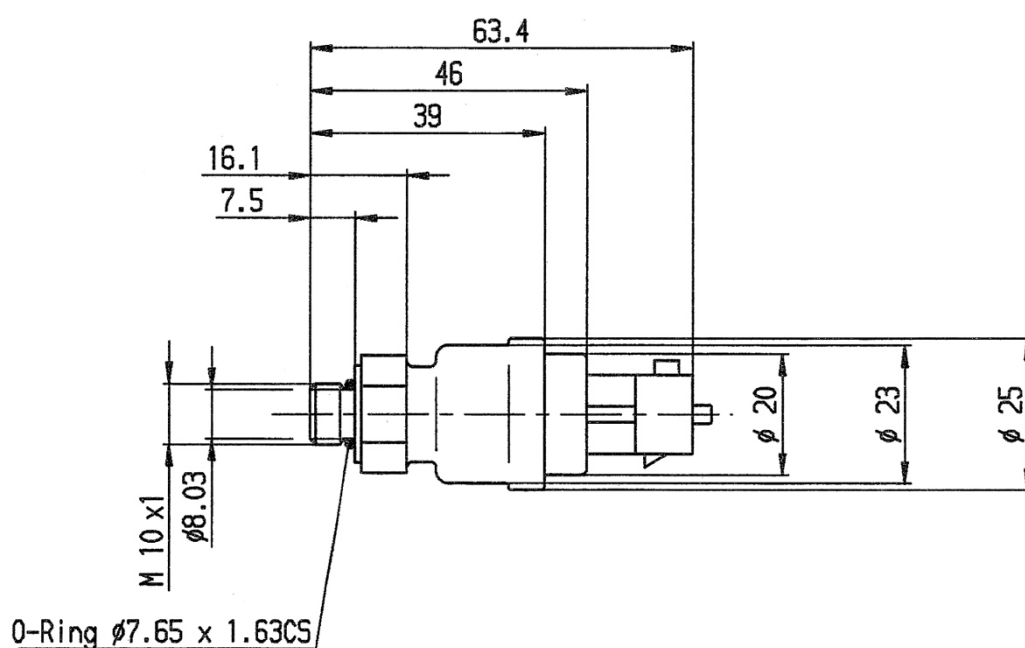
## Ordering Information

### Pressure Sensor Fluid PSS-250R

4.75 to 5.25 V

Order number **B261.209.965-01**

## Dimensions



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