

Pressure Sensor Fluid PSS-100R

www.bosch-motorsport.com



BOSCH
Invented for life



- ▶ Relative fluid pressure measurements
- ▶ Measurement range 0 to 100 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 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 feature of this sensor is the high quality of a production part at a low price.

Application

Application	0 to 100 bar (r)
Pressure reference type	relative
Max. pressure	200 bar
Operating temp. range	Please see Variations
Media temp. range	Please see Variations
Storage temp. range	-20 to 50°C
Bio fuel compatibility	E 85 / M 100
Max. vibration	100 m/s ² rms at 10 to 2,000 Hz

Technical Specifications

Variations

	PSS-100R (5 V)	PSS-100R (12 V)
Operating temp. range	-40 to 125°C (140°C)	-40 to 125°C
Media temp. range	-40 to 125°C (140°C)	-40 to 125°C
Power supply U_s	4.75 to 5.25 V	8 to 26 V
Full scale output U_A	10 to 90 % U_s ratio-metric	0.5 to 4.5 V non-ratiometric
Response time $T_{10/90}$	1.5 ms	1.0 ms
Sensitivity	40 mV/bar at $U_s = 5 V$	40 mV/bar
Offset	500 mV at $U_s = 5 V$	500 mV
Mating connector	3-pole Compact D 261 205 339-01	3-pole Compact D 261 205 339-01

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	Please see Variations
Max power supply	± 30 V
Full scale output U_A	Please see Variations
Current I_s	8 mA

Characteristic

Response time T10/90	Please see Variations
Compensated range	0 to 90°C
Tolerance (FS) at $U_s = 5$ V	± 1 bar
Tolerance (FS)	± 1 %
Sensitivity	Please see Variations
Offset	Please see Variations

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

Installation Notes

The PSS-100R 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

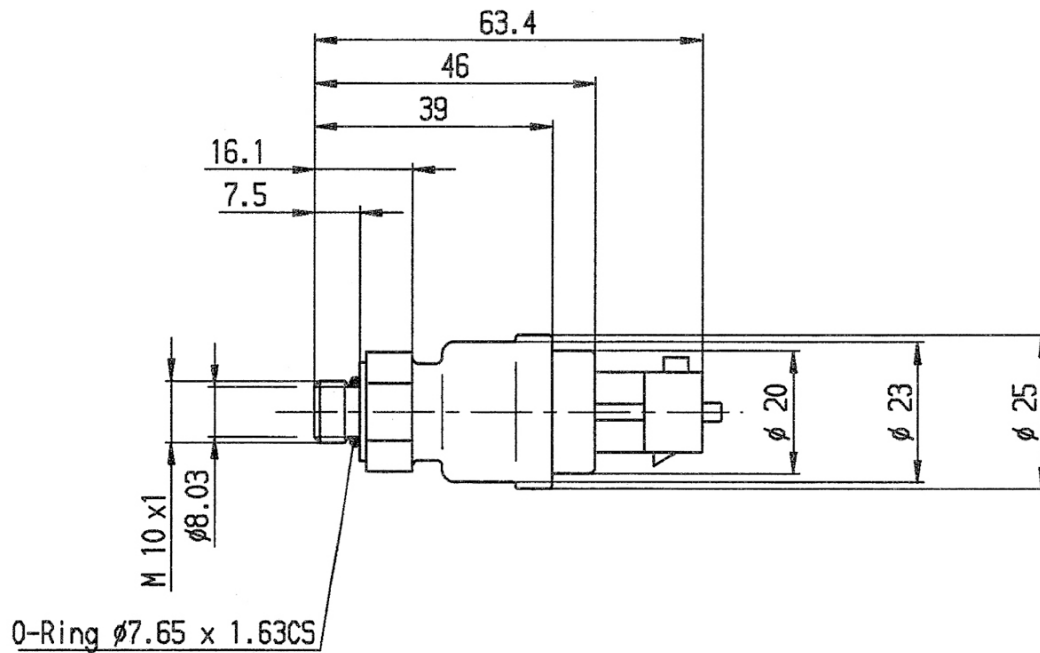
The sensor is not intended to be used for safety related applications without appropriate measures for signal validation in the application system.

Ordering Information

Pressure Sensor Fluid PSS-100R
4.75 to 5.25 V
Order number **B 261 209 347-01**

Pressure Sensor Fluid PSS-100R
8 to 30 V
Order number **F 01T A21 310-01**

Dimensions



Represented by:

Europe:
 Bosch Engineering GmbH
 Motorsport
 Robert-Bosch-Allee 1
 74232 Abstatt
 Germany
 Tel.: +49 7062 911 9101
 Fax: +49 7062 911 79104
 motorsport@bosch.com
 www.bosch-motorsport.de

North America:
 Bosch Engineering North America
 Motorsport
 38000 Hills Tech Drive
 Farmington Hills, MI 48331-3417
 United States of America
 Tel.: +1 248 876 2977
 Fax: +1 248 876 7373
 motorsport@bosch.com
 www.bosch-motorsport.com

Latin America:
 Robert Bosch Ltda
 Motorsport
 Av Juscelino Kubitscheck de
 Oliveira 11800
 Zip code 81460-900
 Curitiba - Parana
 Brasilia
 Tel.: +55 41 3341 2057
 Fax: +55 41 3341 2779

Asia-Pacific:
 Bosch Engineering Japan K.K.
 Motorsport
 18F Queen's Tower C, 2-3-5 Minato Mirai
 Nishi-ku, Yokohama-shi
 Kanagawa 220-6218
 Japan
 Tel.: +81 45 650 5610
 Fax: +81 45 650 5611
 www.bosch-motorsport.jp

Australia, New Zealand and South Africa:
 Robert Bosch Pty. Ltd
 Motorsport
 1555 Centre Road
 Clayton, Victoria, 3168
 Australia
 Tel.: +61 (3) 9541 3901
 motor.sport@au.bosch.com