

# Electronic pressure switch with two switching outputs

Type HEDE11.../2/



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The data specified only serve to describe the product. If information on the use of the product is given, it is only to be regarded as application examples and recommendations.

Catalog specifications do not constitute assured characteristics. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.

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The cover shows an example configuration. The product delivered may differ from the image on the cover.

Translation of the original instruction manual. The original instruction manual was prepared in German language.

# 1 Safety instructions

Before commissioning the device, please read this document. Make sure that the product is suitable for your application without any restrictions. The non-observance of application notes or technical information can result in damage to property and/or personal injury. Irrespective of the application, test the compatibility of the product material (see technical data) with the hydraulic media to be measured.

# 2 Intended use

The pressure sensor acquires the system pressure and switches the two outputs OUT1 (pin 4) / OUT2 (pin 2) non-equivalently.

- When the pressure is rising OUT1 closes / OUT2 opens, when the selected set value is reached.
- When the pressure is falling OUT1 opens / OUT2 closes, when the selected reset value is reached.

## 2.1 OPERATING RANGE



### CAUTION

#### Overpressure!

Risk of injury and risk of destruction of the pressure sensor, even if the overload pressure is exceeded only briefly.

- Avoid steady-state and dynamic overpressures that exceed the specified nominal pressure.

Tabelle 1: Type of pressure: Relative pressure

Ordering code	Measuring range in bar	Permitted over-pressure in bar	Burst pressure in bar
HEDE11A1-1X/100K41G24/2/V Mat. no. R901141184	0...100	200	1000
HEDE11A1-1X/250/K41G24/2/V Mat. no. R901396832	0...250	400	1000
HEDE11A1-1X/400K41G24/2/V Mat. no. R901141188	0...400	600	1600
HEDE11A1-1X/400K41G12/2/V Mat. no. R901275415	0...400	600	1600

## 3 Installation



### CAUTION

#### **Pressure!**

Risk of injury due to pressurized component.

- Before installing and removing the pressure sensor, make sure that the system is depressurized.

## 4 Electrical connection



### WARNING

#### **High electrical voltage by incorrect connection!**

Danger to life, risk of injury due to electric shock.

- ▶ The device may exclusively be installed by a qualified electrician.
- ▶ Voltage supply according to EN 50178, SELV, PELV
- ▶ Observe national and international regulations for the erection of electrotechnical systems. The device shall be supplied from an isolating transformer having a secondary Listed fuse rated either
  - a) max. 5 amps for voltages 0~20 Vrms (0~28.3 Vp)
  - or
  - b) 100/Vp for voltages of 20...30 Vrms (28.3...42.4 Vp).

In order to comply with the requirements laid down in EN 61000-4-5 with regard to supply cables, the sensor must be supplied from a power supply unit (SELV or PELV), which meets these requirements.

The max. cable length must not exceed 30 m; otherwise, this cable to the pressure switch has to be shielded (shield has to be connected at both ends).

- Disconnect the system from the power supply and connect the device as follows:

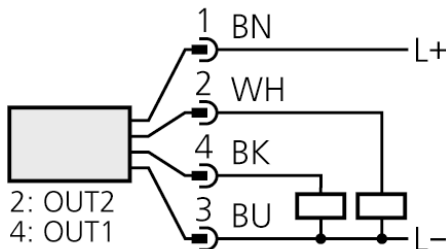


Fig. 1: Pinout



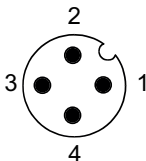


Fig. 2: Plug detail (on the device)

Tabelle 2: Wire colors of Bosch Rexroth mating connectors

**1** BN (Brown)

**2** WH (White)

**3** BU (blue)

**4** BK (Black)

## 5 Adjustment/operation

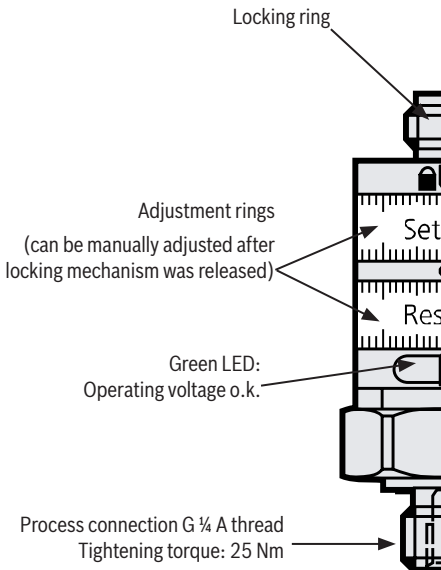
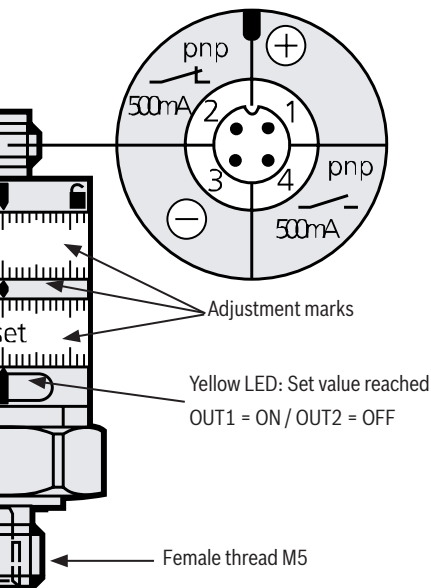


Fig. 3: Setting HED11.../2/



- Minimum distance between Set – Reset = 2 % of the upper range value.
- To maintain the adjustment accuracy: Firstly, set the two rings to the lower limit stop, then to the desired values.

## 6 Technical data

Auxiliary energy [V]

G12 variant 9.6...32 DC

G24 variant 18...36 DC

Current consumption [mA] < 10

Current carrying capacity per switching output [mA] 500

Switching frequency [Hz] 100

Adjustment accuracy [% of the upper range value] <  $\pm 2.5$

Repeatability

[% of the upper range value] <  $\pm 0.5$

Influence of temperature

[% of the upper range value / per 10K] <  $\pm 0.5$

Within temperature range [°C] 0...+80

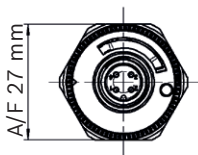
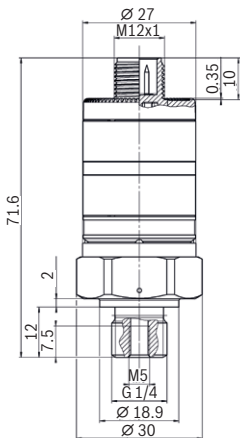
Ambient temperature [°C] -20...+80 \*

Medium temperature [°C] -25...+80 \*

Type of protection/protection class to CEN 50178 IP 67 / III	
Enclosure type	Type 1
Insulation resistance [MΩ]	> 100 (500 V DC)
Shock resistance [g]	50 (DIN / IEC 68-2-27, 11 ms)
Resistance to vibration [g]	20 (DIN / IEC 68-2-6, 10 – 2000 Hz)
Housing materials	V4A (1.4404); PBTP (Pocan); PC (Macrolon); FPM (Viton)
Materials in contact with the medium	V4A (1.4404)
Seal	FPM (Viton)
EMC EN 61000-4-2 ESD:	6 / 8 kV
EN 61000-4-3 HF radiated:	10 V/m
EN 61000-4-4 Burst:	2 kV
EN 61000-4-6 HF conducted:	10 V

\* Temperatures for UL applications: max. 70 °C

## 7 Unit dimensions







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