

Electronic pressure switch with two switching outputs

RE 30279/11.14
Replaces: 10.08

1/4

Type HEDE 11.../2/Component series 1X
Maximum operating pressure 400 bar

TB0082

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Features

- Sensing of hydraulic pressures and their output as electrical switching signals
- 3 pressure ratings
- High burst pressure range
- Simple adjustment of switching points by means of two, optimally readable adjustment rings
- Mechanical locking against unauthorised manipulations of the switching points
- Parts that come into contact with the medium are made of stainless steel or FKM
- Connection thread G1/4
- High long-term stability
- Electrical connection by means of 4-pin M12 connector
- Two exclusive-OR switching outputs
- Indication of switching status and readiness for operation
- Compact design

Ordering code

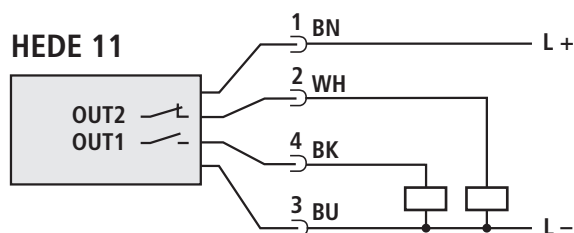
| HEDE 11 A1-1X / / K41 G24/ 2 / V / * | | | | | | | | | |
|---|-------|--|--|--|--|--|--|--|--|
| Hydraulic-electrical pressure switch | = HED | | | | | | | | Further details in clear text |
| Integrated electronics | = E | | | | | | | | Seal material FKM seal |
| Interface hydraulic G1/4 | = A1 | | | | | | | | Note: Observe compatibility of seals with hydraulic fluid used |
| Component series 10 ... 19 (10 ... 19: unchanged installation and connection dimensions) | = 1X | | | | | | | | Electrical interface 2 switching outputs |
| Pressure setting | | | | | | | | | Supply voltage 24 V DC voltage |
| 100 bar | = 100 | | | | | | | | |
| 250 bar | = 250 | | | | | | | | |
| 400 bar | = 400 | | | | | | | | |
| Electrical connection | | | | | | | | | |
| Component plug M12, 4-pin as standard, without female connector | = K41 | | | | | | | | |

| Type | Material-No. |
|----------------------------|--------------|
| HEDE11A1-1X/100/K41G24/2/V | R901141184 |
| HEDE11A1-1X/250/K41G24/2/V | R901396832 |
| HEDE11A1-1X/400/K41G24/2/V | R901141188 |

Function, electrical connection, adjustment

The electronic pressure switch senses the system pressure and switches the two outputs OUT1 (Pin 4) / OUT2 (Pin 2) according to the exclusive-OR principle.

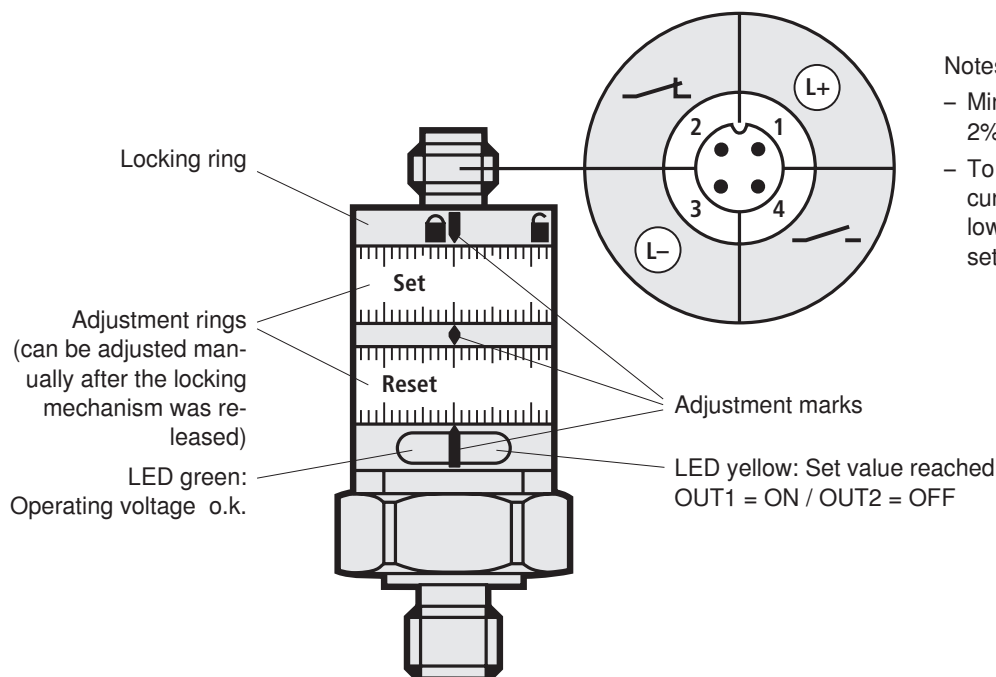
- In the case of rising pressure, OUT1 closes / OUT2 opens, when the selected set value has been reached.
- In the case of falling pressure, OUT1 opens / OUT2 closes, when the selected reset value has been reached.



Wire colours of Bosch Rexroth plug-in connectors:

- 1 = BN (brown)
- 2 = WH (white)
- 3 = BU (blue)
- 4 = BK (black)

See also page 4, Accessories.



Notes on the adjustment:

- Minimum distance Set – Reset = 2% of final measuring range value
- To maintain the adjustment accuracy: First, set both rings to the lower mechanical limit stop, then set the desired values.

Technical data (for applications outside these parameters, please consult us!)**General**

| | | |
|---------------------------|----|--------------|
| Weight | kg | Approx. 0.09 |
| Installation position | | Optional |
| Ambient temperature range | °C | -20 ... +80 |
| Storage temperature range | °C | -40 ... +100 |

Hydraulic

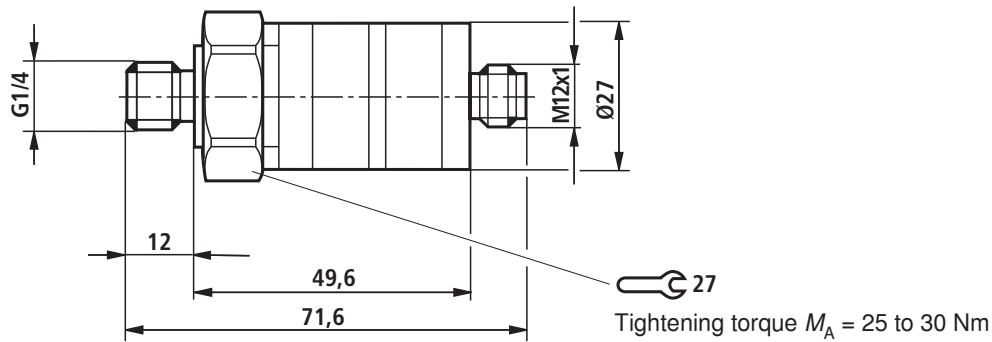
| | | | | |
|-----------------------------------|-----|-------------------|--------------|------------|
| HEDE 11A1-1X/... | | ...100 | ...250 | ...400 |
| Switching point Set | bar | 5 ... 100 | 12.5 ... 250 | 20 ... 400 |
| Switching point Reset | bar | 3 ... 98 | 7.5 ... 245 | 12 ... 392 |
| Maximum operating pressure | bar | 100 | 250 | 400 |
| Permissible overload pressure | bar | 200 | 400 | 600 |
| Burst pressure | bar | 1000 | 1000 | 1600 |
| Hydraulic fluid temperature range | °C | -25 to +80 | | |
| Material in contact with medium | | V4A (1.4404), FKM | | |

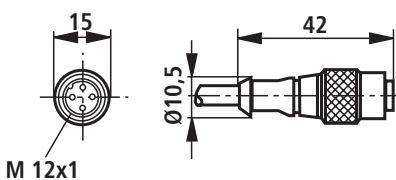
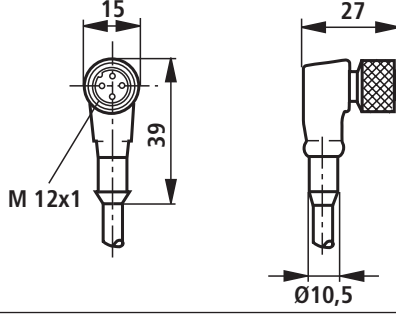
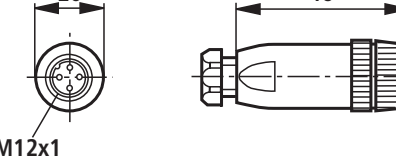
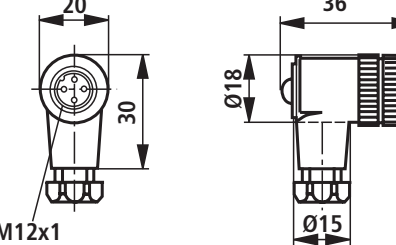
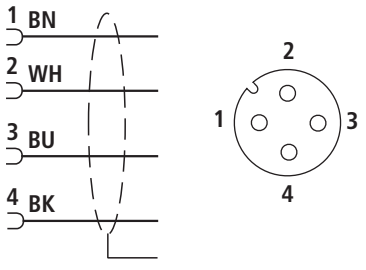
Electrical

| | | |
|--|---|---|
| Auxiliary power | VDC | 18 ... 36 |
| Current consumption | mA | < 25 |
| Current carrying capacity per switching output | mA | 500 |
| Short-circuit protection | | Clocked |
| Overload-proof | | Yes |
| Reverse polarity protection | | Yes |
| Voltage drop | V | < 2 |
| Switching frequency | Hz | 100 |
| Adjustment accuracy | % | < ±2.5 of final measuring range value |
| Repeatability | % | < ±0.5 of final measuring range value |
| Temperature influence | % | < ±0.5 of final measuring range value / 10 K from 0 ... +80 °C |
| Switching cycles, minimum | | 50 million |
| Type of protection to EN 60529 | | IP 67 |
| Protection class to EN 50178 | | III |
| Insulation resistance | MΩ | > 100 (500 V DC) |
| EMC | EN 61000-4-2 ESD EN 61000-4-3 HF radiated EN 61000-4-4 burst EN 61000-4-6 HF conducted | 4 kV CD / 8 kV AD 10 V/m 2 kV 10 V |
| UL approval | | UL 508 |

Note:

To meet the "limited voltage current" requirements according to UL, the device must be supplied from an electrically isolated source and an overcurrent protection feature must be provided.

Dimensions (dimensions in mm)**Accessories: Plug-in Connectors**

| Technical data | | Designation | | Material no. |
|-------------------------------------|----------------------------|---|---------------------------------------|-------------------|
| Ampacity | 4 A |  | 04 POL (with 2 m cable) | R900773031 |
| Temperature range | –25...90 °C | | 04 POL (with 5 m cable) | R900779498 |
| Type of protection | IP 67 |  | 04 POL (with 2 m cable) | R900779504 |
| Contacts | CuZn | | 04 POL (with 5 m cable) | R900779503 |
| Contact surface | Gold-plated |  | 04 POL (without cable) ¹⁾ | R900773042 |
| Housing | TPU | | 04 POL (without cable) ¹⁾ | R900779509 |
| Seal | FKM |  | ¹⁾ Type of protection IP68 | |
| Fitting | CuZn/Ni | | | |
| Wire cross-section | 4 x 0,34 mm | | | |
| Sheath material | PUR | | | |
| Shield | Not connected on plug side | | | |
| Sheath diameter | Ø5.0 mm | | | |
| Sheath colour | Black | | | |
| Bending radius for dyn. application | min. 50 mm | | | |
| Connection: | |  | | |