

# 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, optically 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

**HED E 11 A1-1X / K41 G24/ 2 / V / \***

Hydraulic-electrical pressure switch	= HED									
Integrated electronics	= E									
Interface hydraulic G1/4		= A1								
Component series 10 ... 19 (10 ... 19: unchanged installation and connection dimensions)			= 1X							
<b>Pressure setting</b>										
100 bar				= 100						
250 bar				= 250						
400 bar				= 400						
<b>Electrical connection</b>										
Component plug M12, 4-pin as standard, without female connector					= K41					

Further details in clear text

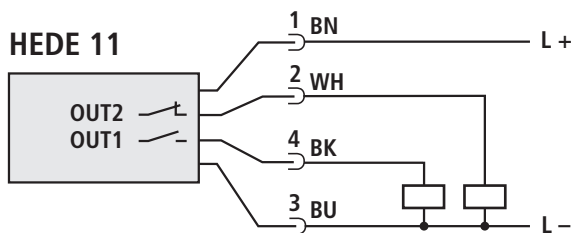
<b>V =</b>	<b>Seal material</b> FKM seal <b>Note:</b> Observe compatibility of seals with hydraulic fluid used
<b>2 =</b>	<b>Electrical interface</b> 2 switching outputs
<b>G24 =</b>	<b>Supply voltage</b> 24 V DC voltage

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.

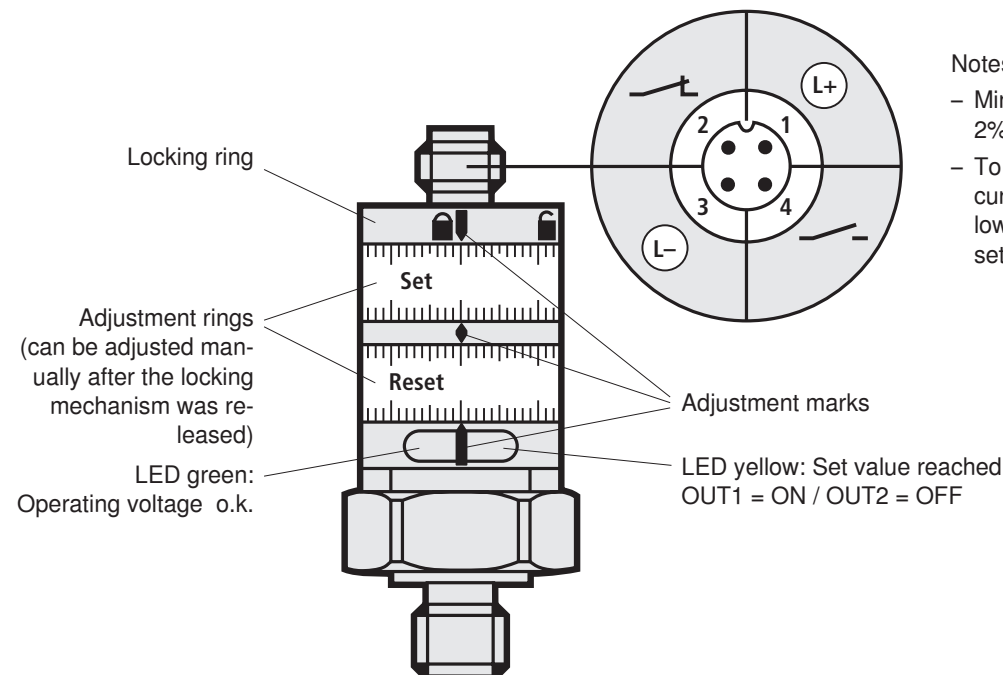
- In the case of rising pressure, OUT1 closes / OUT2 opens, when the selected set value has been reached.
- In the case of falling pressure, OUT1 opens / OUT2 closes, when the selected reset value has been reached.



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.

LED yellow: Set value reached  
OUT1 = ON / OUT2 = OFF

LED green:  
Operating voltage o.k.

**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		

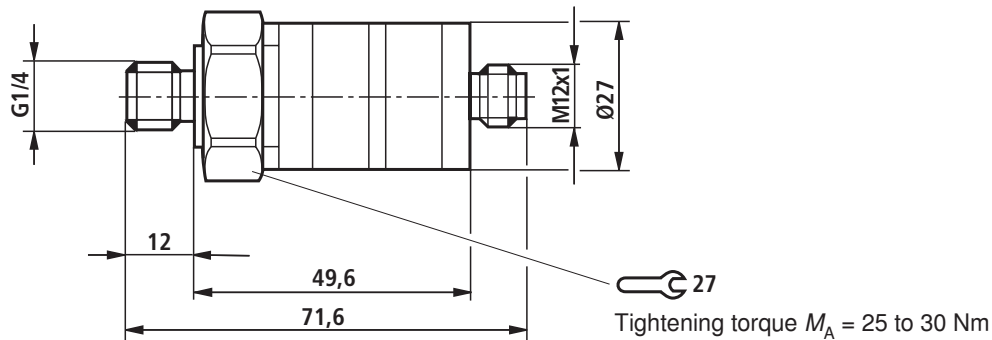
**Electrical**

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)	<b>R900773031</b>			
Temperature range	-25...90 °C		04 POL (with 5 m cable)	<b>R900779498</b>			
Type of protection	IP 67		04 POL (with 2 m cable)	<b>R900779504</b>			
Contacts	CuZn		04 POL (with 5 m cable)	<b>R900779503</b>			
Contact surface	Gold-plated		04 POL (without cable) <sup>1)</sup>	<b>R900773042</b>			
Housing	TPU			04 POL (without cable) <sup>1)</sup>	<b>R900779509</b>		
Seal	FKM						
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:					<sup>1)</sup> Type of protection IP68		