

Electronic pressure switch with two switching outputs

RE 30279/10.08
Replaces: 01.07

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
- 100 bar and 400 bar versions available
- 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 FPM
- 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 to 19 (10 to 19: unchanged installation and connection dimensions) = **1X**
Pressure setting
 100 bar = **100**
 400 bar = **400**
Electrical connection
 Component plug M12, 4-pin as standard, without female connector = **K41**

Further details in clear text

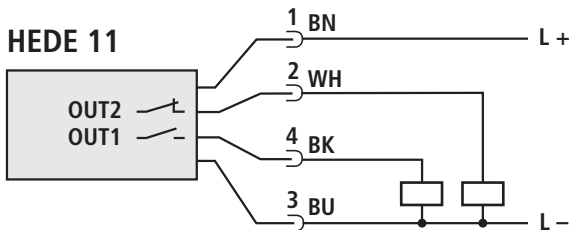
Seal material
 FPM seal
Note:
 Observe compatibility of seals with hydraulic fluid used
Electrical interface
 2 switching outputs
Supply voltage
 24 V DC voltage

Type	Material-No.
HEDE11A1-1X/100/K41G24/2/V	R901141184
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.

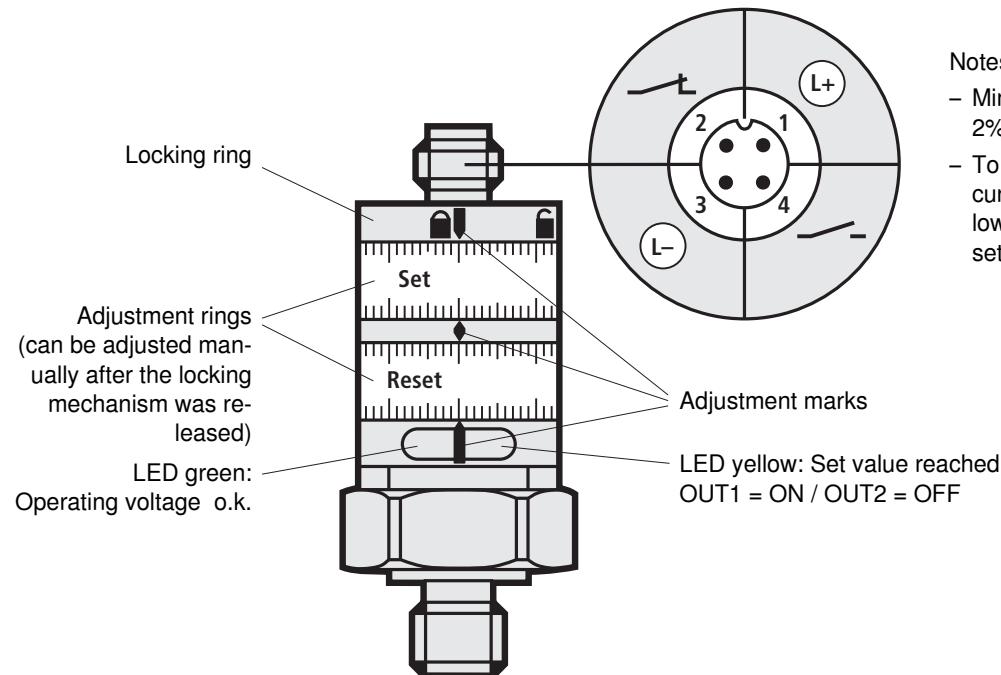
- In the case of rising pressure, OUT1 closes / OUT2 opens, when the selected set value has been reached.
- In the case of falling pressure, OUT1 opens / OUT2 closes, when the selected reset value has been reached.



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 to +80
Storage temperature range	°C	-40 to +100

Hydraulic

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

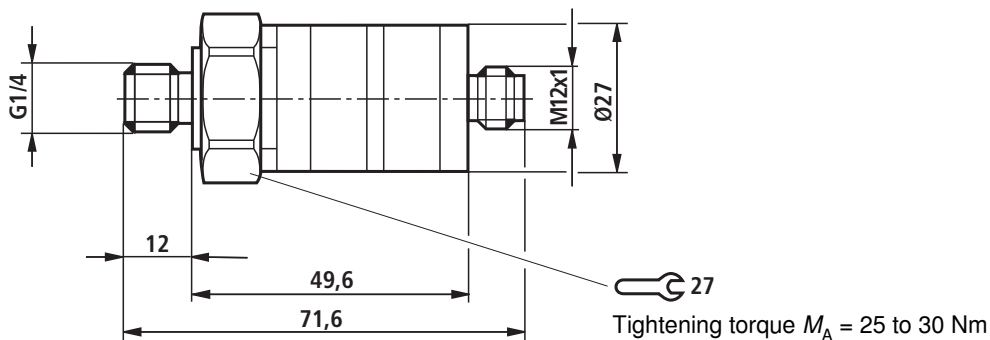
Electrical

Auxiliary power	VDC	18 to 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 to +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.

Unit 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	FPM		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			