

## Electronic pressure switch with two switching outputs

**RE 30278/03.06** 1/6  
Replaces: 01 .06  
RE 30275

Type HEDE 10.../2/

Component series 2X



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### Features

<b>Page</b>	<b>Features</b>
1	– Suitable for measuring pressures and converting the measured values into electrical signal variables in hydraulic systems
2	– EMC properties allow the use also in critical applications
2 and 3	– Sensor ceramic / capacitive
3	– Connecting cable with 4-pin M12 plug on the housing
4	– Accuracy class 1.0
5 and 6	– Connection thread G1/4
	– Parts that are in contact with the medium are made of stainless steel, ceramics or FKM
	– Compact design
	– Two switching outputs

**Ordering code**

	<b>HED</b>	<b>E</b>	<b>10</b>	<b>A1</b>	<b>2X</b>	<b>/</b>	<b>K41</b>	<b>G24</b>	<b>/</b>	<b>2</b>	<b>/</b>	<b>V</b>	<b>/</b>	<b>*</b>	
Hydraulic electrical pressure switch														Further details in clear text	
Integrated electronics	= E													V = FKM seals	
Type of component	= 10													<b>⚠ Caution!</b>	
Hydraulic interface 1/4"	= A1													Observe compatibility of seals with the hydraulic fluid used!	
Component series	= 2X													2 = Two switching outputs	
Pressure stage														G 24 = Supply voltage	
100 bar	= 100													K41 = Plug-in variant	
250 bar	= 200													M12, 4-pin as standard	
400 bar	= 400														
600 bar	= 600														

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

<b>Input variables</b>						
Auxiliary power		$U_B$	18 to 36 VDC			
Current consumption		$I$	< 50 mA			
Measuring range		$p_N$ in bar	100	250	400	600
Overload safety		$p_{max}$ in bar	300	400	600	800
Burst pressure		$p$ in bar	650	850	1000	1200
<b>Output variables</b>						
Switching output	Current carrying capacity	$I$	250 mA			
	Response time	$t$	< 3 ms (with set response time dAP = 3)			
	Max. switching frequency	$f$	170 Hz (at dAP = 3)			
Characteristic curve deviation: (initial point setting to DIN16086)			< ±0.5 %			
Temperature coefficient in the nominal temperature range						
– Highest TC of the zero point			0.2 % / 10 k			
– Highest TC of the range			0.2 % / 10 k			
Hysteresis			< ±0.25 %; 0.5 % for pressure stage 600 bar			
Repeatability			< ±0.1 %			
Long-term drift under reference conditions (6 months)			0.05 %			
<b>Ambient conditions</b>						
Limit temperature range		$\vartheta$	–20 to +80 °C at $U_B < 32$ V			
			–20 to +45 °C at $U_B > 36$ V			
Storage temperature range		$\vartheta$	–40 to +100 °C			
Fluid temperature range		$\vartheta$	–25 to +80 °C			
<b>Mechanical data</b>						
Pressure port			G1/4			
Electrical connection			M12 plug-in connection			



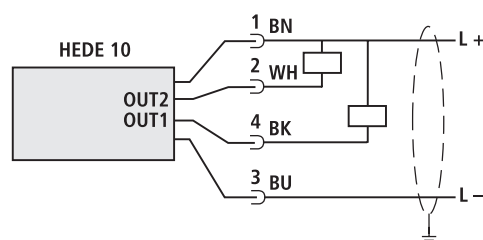
**Technical data (continued)**

<b>Programming options</b>		Hysteresis / window; n.o. / n.c.; pick-up, drop-out delay; damping; unit of indication / diagnosis output			
Pressure stages		100	250	400	600
Switching point SP	bar	1.0 ... 100	2 ... 250	4 ... 400	6 ... 600
Resetting point, rP	bar	0.5 ... 99.5	1 ... 249	2 ... 398	3 ... 597
in increments of	bar	0.5	1	2	3
Adjustable response time of a switching output and resulting switching frequency	Response time (dAP) ms Hz	3 ... 500 170 ... 1			
Adjustable delay dS, dr	s	0.0; 0.2 ... 50.0			
<b>Environmental compatibility</b>					
Type of protection / housing to IEC 60529		IP67			
Protection class to EN 50178		III			
Insulation resistance	MΩ	> 100 (500 VDC)			
Resistance to shock to IEC 60068-2-27	g	50 g, 11 ms			
Resistance to vibration	g	20 g, 10 – 2000 Hz)			
Switching cycles min.		100 million / 50 million with pressure stage 600 bar			
Approval		cULus			
EMC	EN 61000-4-2 ESD EN 61000-4-3 HF radiated EN 61000-4-4 burst EN 61000-4-5 surge EN 61000-4-6 HF cable-bound	4 / 8 kV 10 V/m 2 kV 0,5 / 1 kV 10 V			
Housing material		EPDM/X (Santoprene); FKM; PBTP (Pocan); PC (Macrolon); V2A (1.4301)			
Materials in contact with the medium		V2A (1.4305); ceramics; FKM			
Connection		M12 plug-in connection, gold-plated contacts			

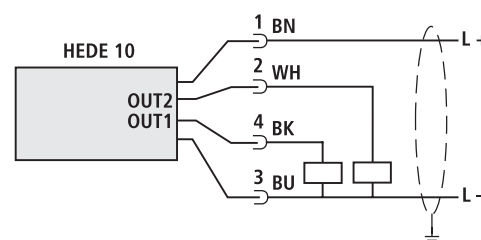
**Pin assignment K41**

Two switching outputs:

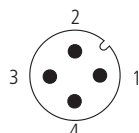
low-side switching (NPN)



high-side switching (PNP)

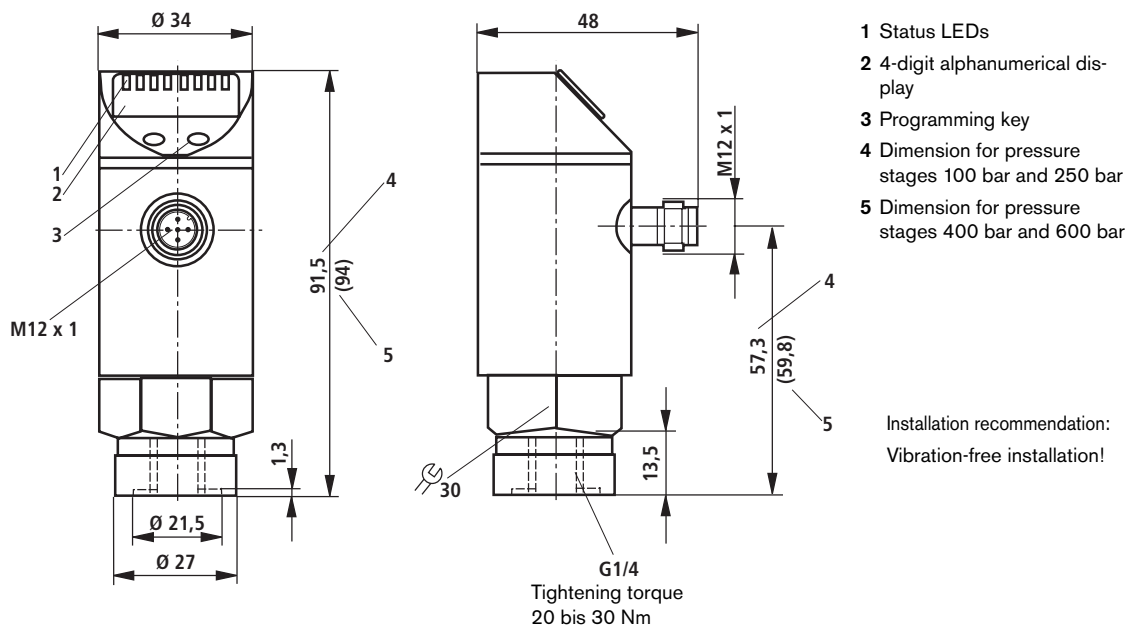


Detail view on the plug of the device:



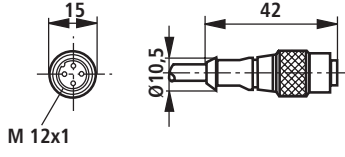
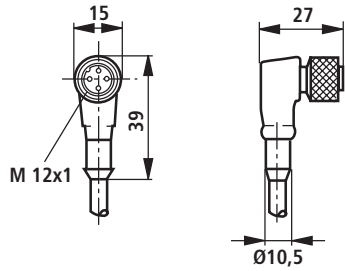
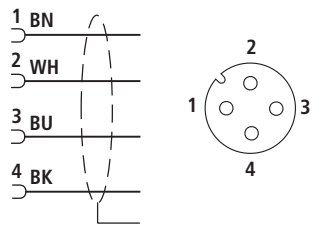
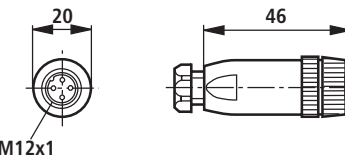
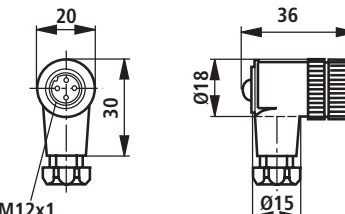
1	BN	Brown
2	WH	White
3	BU	Blue
4	BK	Black

**Unit dimensions** (nominal dimensions in mm)



## Accessories

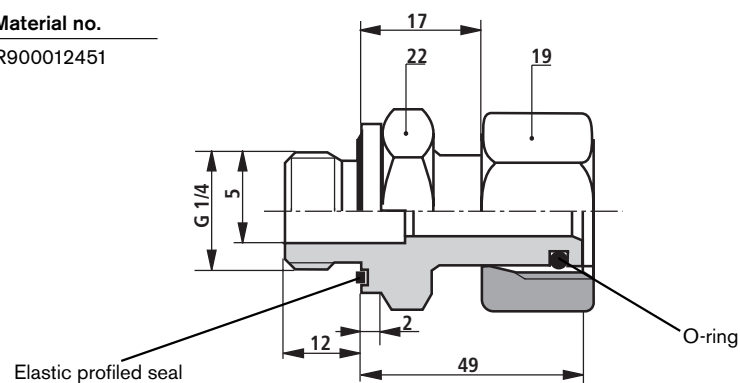
### Cable sockets:

Technical data:			Designation	Material no.	
Current carrying capacity	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				
Contacts	CuZn				
Contact surface	Gold-plated				
Housing	TPU				
Seal	FKM		04 POL (with 2 m cable)	R900779504	
Fitting	CuZn/Ni		04 POL (with 5 m cable)	R900779503	
Wire cross-section	4 x 0.34 mm				
Sheath material	PUR				
Shield	Not connected on plug side				
Sheath diam.	Ø 5.0 mm				
Sheath colour	Black				
Bending radius for dyn. application	min. 50 mm				
Connection: 				04 POL (without cable) <sup>1)</sup>	R900773042
			04 POL (without cable) <sup>1)</sup>	R900779509	

<sup>1)</sup> Type of protection IP68

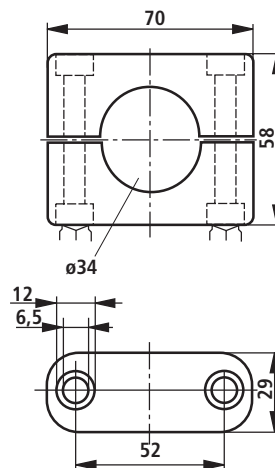
### Hydraulic fitting:

Designation	Material no.
AB 20-28	R900012451

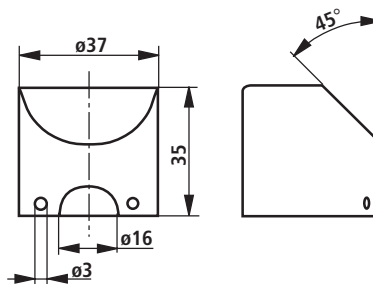


**Accessories** (continued)**Fixing clamp for HEDE10**

Designation	Material no.
Fixing clamp	R900786138

**Protective cap for HEDE10**

Designation	Material no.
Protective cap M12	R900786141



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