

## Electronic pressure switch with integrated analogue output

**RE 30276/03.06** 1/6  
Replaces: 01.06  
RE 30275

Type HEDE 10.../1/

Component series 2X



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### Features

- Suitable for measuring pressures and converting the measured values into electrical signal variables in hydraulic systems
- EMC properties allow the use of this pressure switch also in critical applications
- Ceramic / capacitive sensor
- Connecting cable with 4-pin M12 plug on housing
- Accuracy class 1.0
- Connection thread G1/4
- Parts in contact with media are made of stainless steel, ceramic and FKM
- Compact design
- One switching output and one analogue output

### 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>1</b>	<b>/</b>	<b>V</b>	<b>/</b>	<b>*</b>	
Hydraulic electrical pressure switch														Further details in clear text	
Integrated electronics	= E													FKM seals	
Component type	= 10													<b>⚠ Caution!</b>	
Hydraulic interface 1/4"	= A1													Observe compatibility of seals with hydraulic fluid used!	
Component series	= 2X													1 = One switching and one analogue output	
Pressure stages														G 24 = Supply voltage	
100 bar	= 100													Plug variant	
250 bar	= 200													K41 = M12, 4-pin as standard	
400 bar	= 400														
600 bar	= 600														

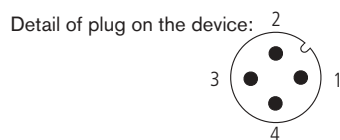
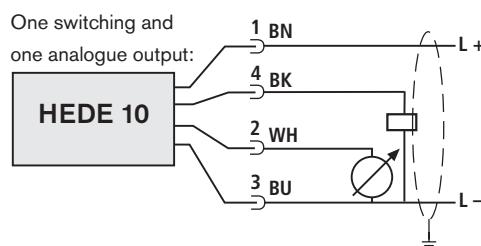
### Technical data (for applications outside these parameters, please consult us!)

Input variables					
Auxiliary energy	$U_O$	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
Output variables					
Analogue output	$U$	0 to 10 VDC minimum load 2000 $\Omega$			
	$I$	4 – 20 mA (max. load $(U_O - 10) \times 50 \Omega$ )			
	Rise time (10 to 90 %)	$t$	3 ms		
Switching output	Current carrying capacity	$I$	250 mA		
	Response time	$t$	< 3 ms (with response time set to dAP = 3)		
	Max. switching frequency	$f$	170 Hz (at dAP = 3)		
Characteristic curve deviation: (initial point setting according to DIN16086)		< $\pm 0.5$ %			
Temperature coefficient within nominal temperature range					
– Highest TC of zero point		0.2 % / 10 k			
– Highest TC of span		0.2 % / 10 k			
Hysteresis		< $\pm 0.1$ %			
Repeatability		0.1 %			
Long-term drift under reference conditions (6 months)		0.05 %			
Ambient conditions					
Limit temperature range		$\vartheta$	–20 to +80 °C		
Storage temperature range		$\vartheta$	–40 to +100 °C		
Medium temperature range		$\vartheta$	–25 to +80 °C		
Mechanical data					
Pressure port		G1/4			
Electrical connection		M12 plug-in connection			

### Technical data (continued)

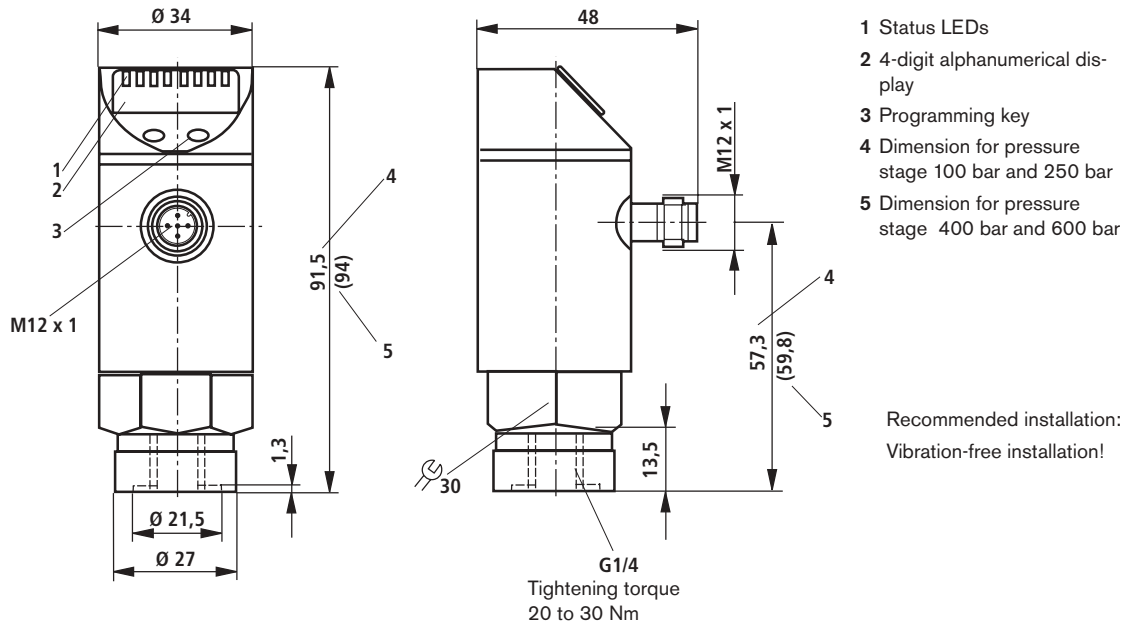
<b>Programming options</b>		Hysteresis / window; normally open / normally closed; pick-up, drop-out delay; attenuation; display unit / analogue output: voltage or current			
Pressure stages		100	250	400	600
Switching point SP	bar	1.0 ... 100	2 ... 250	4 ... 400	6 ... 600
Release position, rP	bar	0.5 ... 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 time dS, dr	s	0.0; 0.2 ... 50.0			
<b>Environmental compatibility</b>					
Type of protection / housing to IEC 60529		IP67			
Class of protection EN 50178		III			
Insulation resistance		MΩ	> 100 (500 VDC)		
Resistane to shock to IEC 60068-2-27		g	50 g, 11 ms		
Resistance to vibration to IEC 60068-2-6		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	4 / 8 kV		
		EN 61000-4-3 HF radiated	10 V/m		
		EN 61000-4-4 burst	2 kV		
		EN 61000-4-5 surge	0.5 / 1 kV		
		EN 61000-4-6 HF cable-bound	10 V		
Housing material		EPDM/X (Santoprene); FKM; PBTP (Pocan); PC (Macrolon); V2A (1.4301)			
Materials in contact with the medium		V2A (1.4305); ceramic; FKM			
Connection		M12 plug-in connection, gold-plated contacts			

### Pin assignment K41



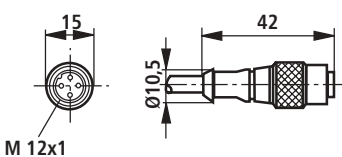
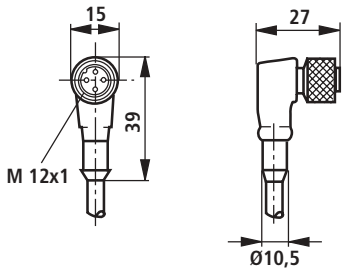
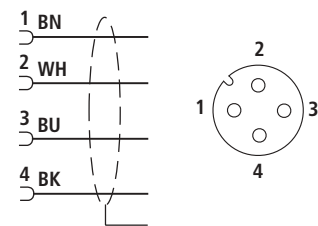
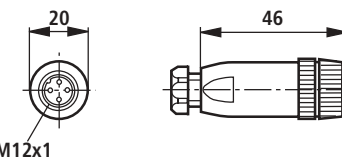
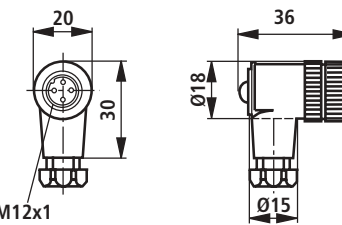
1	BN	Brown
2	WH	White
3	BU	Blue
4	BK	Black

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



### Accessories

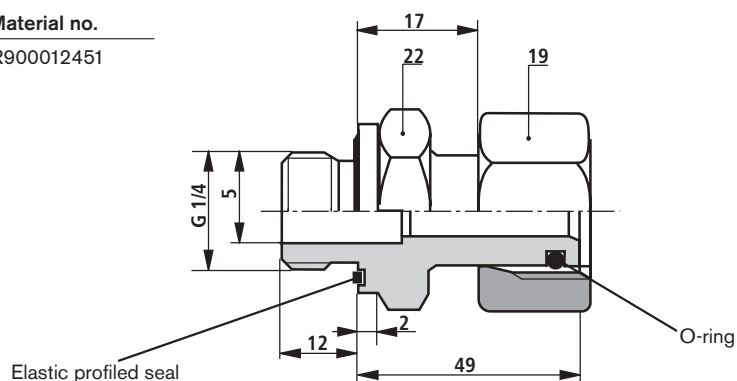
#### Cable sockets:

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				
Fitting	CuZn/Ni				
Wire cross-section	4 x 0,34 mm				
Sheath material	PUR				
Shield	Not connected on plug side				
Sheath diameter	Ø 5.0 mm				
Sheath colour	Black				
Bending radius for dyn. application	min. 50 mm				
<b>Connection:</b> 			04 POL (without cable) <sup>1)</sup>	R900773042	
					04 POL (without cable) <sup>1)</sup>

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

#### Hydraulic fitting:

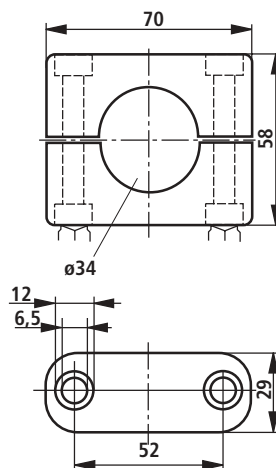
Designation	Material no.
AB 20-28	R900012451



## Accessories (continued)

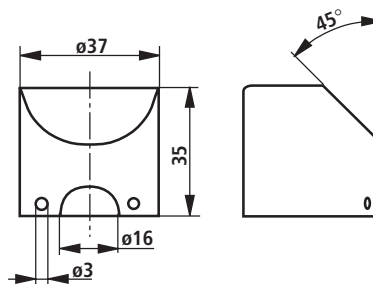
### Mounting clamp for HEDE 10

Designation	Material no.
Mounting clamp	R900786138



### Protective cap for HEDE 10

Designation	Material no.
Protective cap M12	R900786141



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## Notes

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## Notes

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