

RE 95 137/04.99

Replaces: RE 95 043/08.92



Pressure Sensor DS

for electronic pressure control, pressure limiting or diagnostics

Series 2



DSR500/20

Features

The DS pressure sensor is designed to detect pressure values for use in electronic open-loop or closed-loop control systems (e.g. with MC microcontrollers, RE 95050).

The design of the DS sensor satisfies the requirements for operation in mobile working machinery.

Main components

- Metal housing, corrosion-resistant
- Watertight plug-in connector
- Internal signal amplifier

Special characteristics

- Thick layer DMS measuring principle
- Suitable for mobile applications
- Direct voltage supply from the on-board vehicle battery

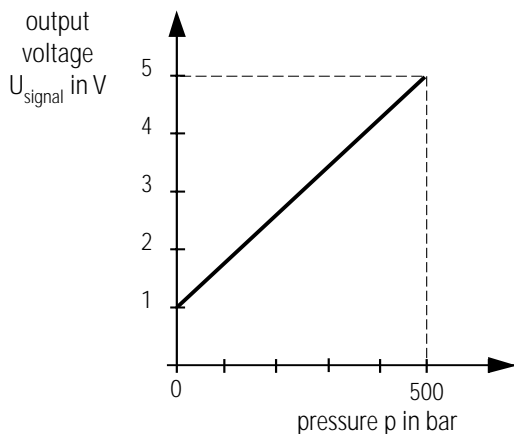
Ordering Code

	DS	R	500	/	2	0
Type	Pressure sensor					
	DS					
Design	Round plug-in connector					
		R				
Measurement range	Max. measured pressure: 500 bar					
			500			
Series						2
Index						0

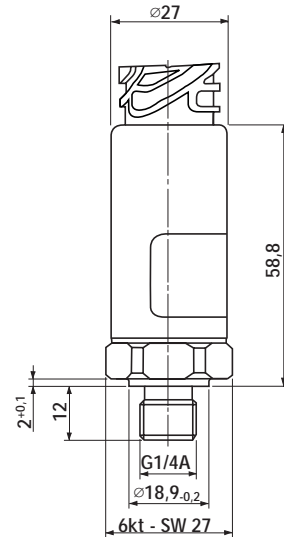
Technical Data

Type	DS
Measuring principle	DMS on stainless steel membrane
Pressure range	0 bar ... 500 bar
Overload	900 bar
Bursting pressure	2 000 bar
Supply voltage (+U _B)	9 V ... 32 V
Protection for reverse polarity	yes
Residual ripple	≤ 10 %
Current consumption	≤ 10 mA
Signal output (0...500 bar)	1 V ... 5 V
Load resistance	≥ 2kΩ
Protection at output	Short-circuit to ground without destruction
Temperature of medium	-40°C...+110°C
Ambient temperature	-40°C...+85°C
Storage temperature	-40°C...+100°C
Cut-off frequency	approx. 2 kHz
Accuracy (-25°C...+ 80°C)	typically ± 2,5% FS
Service life	≥ 10 million load cycles
Electrical connection	3-pin plug-in connector, DIN 72585-A1-3.1
Mechanical connection	G 1/4", A DIN 3852
Seal material	Viton
Tightening torque	20 Nm
Vibration	20-g (IEC 68-2-6, 10...500 Hz)
Electromagnetic compatibility (EMC)	EN 50081-1 and -2 EN 50082-1 and -2
Enclosure protection class, to DIN 40050	IP 67 (with mating connector)
Installation position	any (preferably: connector underneath)
Weight (approx.)	300 g

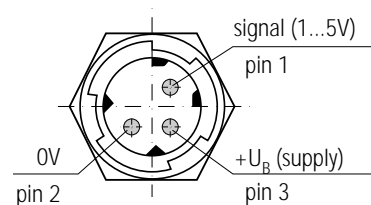
Performance Curve



Unit Dimensions



Pin Layout



Warning:
Incorrect pin connections can cause the destruction of the sensor.

Mating Connector 1)

90°, angled, 3-pin

Order designation: "Mating connector for DSR, angled"

- 1 female receptacle, 3-pin, code 1 AMP 1-967325-2
- 1 cap, 90°, with variable clamping AMP 965576-1
- 3 female contacts for wire 0.5-1.0 AMP 962981-1
- 3 individual seals AMP 828920-1
- 1 blanking plug AMP 828922-1

180°, straight, 3-pin

Order designation: "Mating connector for DSR, straight"

- 1 female receptacle, 3-pin, code 1 AMP 1-967325-2
- 1 cap, 180°, with variable clamping AMP 965784-1
- 3 female contacts for wire 0.5-1.0 AMP 962981-1
- 3 individual seals AMP 828920-1
- 1 blanking plug AMP 828922-1

1) The mating connector for the DSR pressure sensor, optionally 180° (straight) or 90° (angled) is not supplied with the sensor. Available on request from Brueninghaus Hydromatik (see table for order designations).

Brueninghaus Hydromatik GmbH

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The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.