

## Pressure measuring transducers with active output

The pressure measuring transducer PREMAGARD® SHD measures relative pressures in the bar range. It converts the measurand pressure into standard signals of 0-10V or 4...20mA. Process connection is G 1/2" straight external pipe thread. PREMAGARD® SHD is used for pressure measurement in gaseous and liquid media. Applications of this pressure transmitter are in hydraulics, pneumatics, process technology, in mechanical and plant engineering. The stainless steel membrane is absolutely vacuum-tight.

### TECHNICAL DATA:

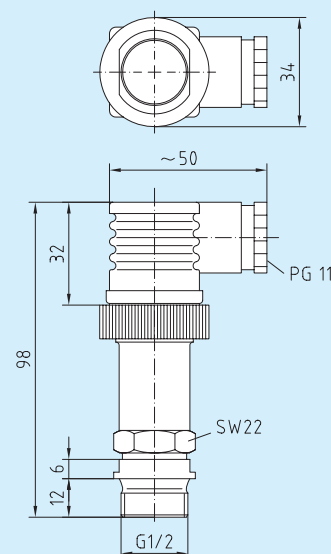
Power supply:	24V AC for output 0 -10 V 12 - 32 V DC for output 4...20 mA, $R_L$ depending on working resistance
Measuring ranges:	see table (other ranges upon request)
Output signal:	0-10V 3-wire, working resistance $R_A \geq 2 \text{ k}\Omega$ or 4...20mA 2-wire, working resistance $R_A(\text{Ohm}) = (U_B[\text{V}] - 10\text{V}) / 0.02 \text{ A}$
Electrical connection:	0.14 - 1.5 mm <sup>2</sup> , via terminal screws inside right angle plug connector shape C
Pressure connection:	pipe thread G 1/4", including adapter for G 1/2" straight external pipe thread (other connections on request)
Type of pressure:	relative
Measuring principle:	thin-film, piezo-resistive on steel membrane
Temperature of medium:	-40 ... +100 °C
Mounting:	directly on pressure line
Enclosure:	stainless steel
Connecting head:	plastic, ca. 98x50x34mm
Medium contacting parts:	stainless steel 1.4301 X 5 CrNi 18-10, O rings, no silicone oil
Response time:	1.5 ms
Class:	0.5%
Total error:	< 3%
Overload range:	2 times measuring range, final value (FS)
Bursting pressure:	3 times measuring range, final value (FS)
Insulating resistance:	$\geq 100 \text{ MOhm}$ , at 20 °C (500V DC)
Protection class:	III (according to EN 60730)
Protection type:	IP 65 (according to EN 60529)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326 + A1 + A2, EMC directive 2004/108/EC



SHD

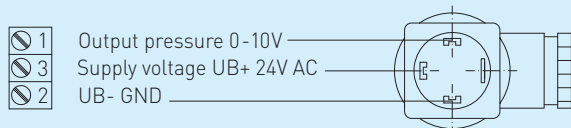
Dimensional drawing

SHD



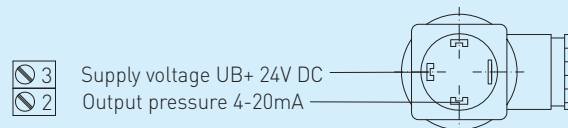
Connecting diagram

SHD-U



Connecting diagram

SHD-I



### PREMASGARD® SHD-U, including DIN plug connector

Type/WG1	Measuring Range	Output
SHD-U 1	0 ... 1 bar	0-10V
SHD-U 2.5	0 ... 2.5 bar	0-10V
SHD-U 6	0 ... 6 bar	0-10V
SHD-U 10	0 ... 10 bar	0-10V
SHD-U 16	0 ... 16 bar	0-10V
SHD-U 25	0 ... 25 bar	0-10V
SHD-U 40	0 ... 40 bar	0-10V

### PREMASGARD® SHD-I, including DIN plug connector

Type/WG1	Measuring Range	Output
SHD-I 1	0 ... 1.0 bar	4 ... 20 mA
SHD-I 2.5	0 ... 2.5 bar	4 ... 20 mA
SHD-I 6	0 ... 6.0 bar	4 ... 20 mA
SHD-I 10	0 ... 10 bar	4 ... 20 mA
SHD-I 16	0 ... 16 bar	4 ... 20 mA
SHD-I 25	0 ... 25 bar	4 ... 20 mA
SHD-I 40	0 ... 40 bar	4 ... 20 mA