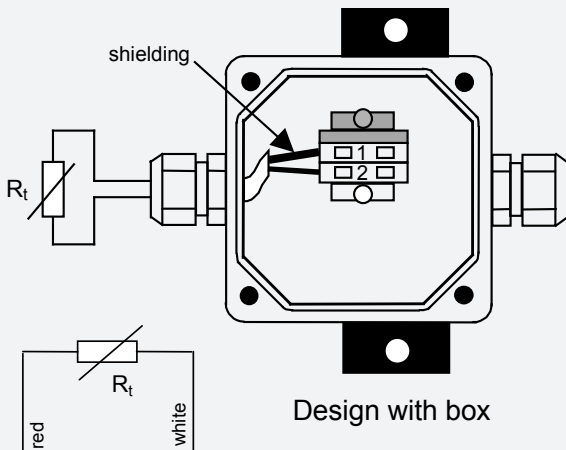


Basic Data

Figure 1 - wiring scheme



Attention:

Prior to installing the gauge and using it, please read the instructions carefully! The installation of the gauge must be carried out only by an instructed person!

Assembly of the gauge:

Install the temperature gauge to a location of measuring; for example screw it onto a conduit etc. For the entire installation and fitting of the gauge use a wrench according to the size defined in the technical parameters. As a sealant it is possible to use a suitable sealing cement, oakum or a sealing strip etc. Attach the SL 20.20R box, using two screws, onto a flat surface. The positioning of the box is optional, however, the grommet must not be directed upwards. Prior to attaching the supply cable, it is necessary to unscrew the lid of the plastic box. Through the open grommet of the HSK - K type the supply cable is attached to WAGO clamps, in conformity with the wiring scheme. The recommended conductor cross-section is 0.35 – 1.5 mm² and the external diameter of the cable with a circular cross-section of 4 - 8 mm. Shielding of the gauge cable is conducted with the temperature sensor; it is not connected to the gauge box. For guaranteeing hermetic sealing, it is necessary, after connecting the supply cable, to retighten the grommet and bolt on the lid. In the event that the gauge is supplied without the SL 20.20R box, the supply cable will be attached directly to the connected electric appliance.

After installation and connection to the electric measuring appliance, the gauge is ready-for-use. The gauge does not require special servicing and maintenance. The working position of the gauge is optional.

Utilisation of gauges:

These resistance gauges are constructed for the measurement of the temperatures of gas and liquid substances. The range of temperatures for which the gauge can be utilised is -30°C – 150°C and these limits must not be exceeded even for a short term. It is possible to use the gauges for all control systems, which are

compatible with the Ni 1000 temperature sensor, with a temperature co-efficient of 5,000 ppm / °C. The gauges are in conformity with the IP 67 standard of protection, according to ČSN EN 60 529, and they are constructed for the measuring of temperature in conduits and in air-conditioning channels. By their construction they permit a high-speed response to changes of temperature, in comparison with gauges with a protective thermowell, and it is possible to use them as pressure armature in accordance with government decree No. 26/2003 Coll. as amended. The gauges are designed for chemically non-aggressive environments.

Warning:

The gauges must not be placed in locations:

- where oscillation of the gauge or mechanical interference with the gauge could occur
- with explosion hazards, in chemically aggressive environments, with a high level of electric interference
- under higher operational pressure than stated in technical parameters

Technical parameters:

Temperature Sensor	Ni 1000/5000
Temperature Range	-30 +150 °C
A accuracy class	For t < 0 °C : ± (0.2 + 0.14 t) in °C For t ≥ 0 °C : ± (0.2 + 0.0035 t) in °C
B accuracy class	For t < 0 °C : ± (0.4 + 0.028 t) in °C For t ≥ 0 °C : ± (0.4 + 0.007 t) in °C
Recommended measuring current	≤ 1 mA
Connection of gauge	Double-wire
Length of case *	
Thread / OK	
Diameter of case stem	4.5 ± 0.1 mm
Insulation resistance	> 200 MΩ at 500 V DC, 25° ± 3°C
Material of external case	Stainless steel 17240 (in conformity with DIN 1.4301)
Supply cable of gauge	TBVFS 2 x 0.22 mm ²
Resistance of supply conductors	0.16 Ω / 1 m – double-wire connection
Coverage of gauge	IP 67 according to ČSN EN 60529
Thermo-stability of cable	Up to 200 °C
Maximum operating pressure PS	2.5 Mpa
Number of pressure cycles	1000 cycles at 2.5MPa and 200 °C
Material of box with terminal plate	LEXAN 500R
Coverage of box	IP 65 according to ČSN EN 60529
Type of terminal plate	WAGO 260 – recommended cross-section 0.35 – 1.5 mm ²

* for the stated accuracy figure a double-wire connection is required to add the effect of the line resistance of the supply cable; at 0°C temperature the effect of the conductor resistance is 0.036 °C / 1m.

** the length of the case of the gauge includes the thread up to the hexagon socket.

Notice:

In the event of exceeding the maximum number of pressure cycles checking must be undertaken by testing the hydraulic pressure, which is equal to the highest operating pressure PS multiplied by a co-efficient of 1.43.

Disposal:

Metal parts belong to the category of scrap metal. Electrical parts of the gauge are disposed of according to the regulations for electrical waste. The plastic box, made of LEXAN material, is disposed of as plastic.