

# Ex-Resistance Temperature Detector R14 model B

for gas explosion hazardous areas and areas with combustible dust

In general



The temperature sensors manufactured by Reckmann GmbH (R58®) are solely intended for the measurement of process temperatures in solid, liquid and gaseous media. The bendable sheath material, in combination with a sliding compression fitting, allows for variable installation.

## Application area:

Uncritical process conditions at machine and plant engineering, chemicals industry, Research / Development

Depended on electrical and thermal parameters for operating with the following types of protection:

II 2G Ex ia IIC T1...T6 Gb or

II 2D Ex ia IIIC T135 °C Db.

Ambient temperature at the connection head max. -40 °C up to +100 °C.

**For installation please see our operating instructions**

**Stock-number-code: WR14-J.**

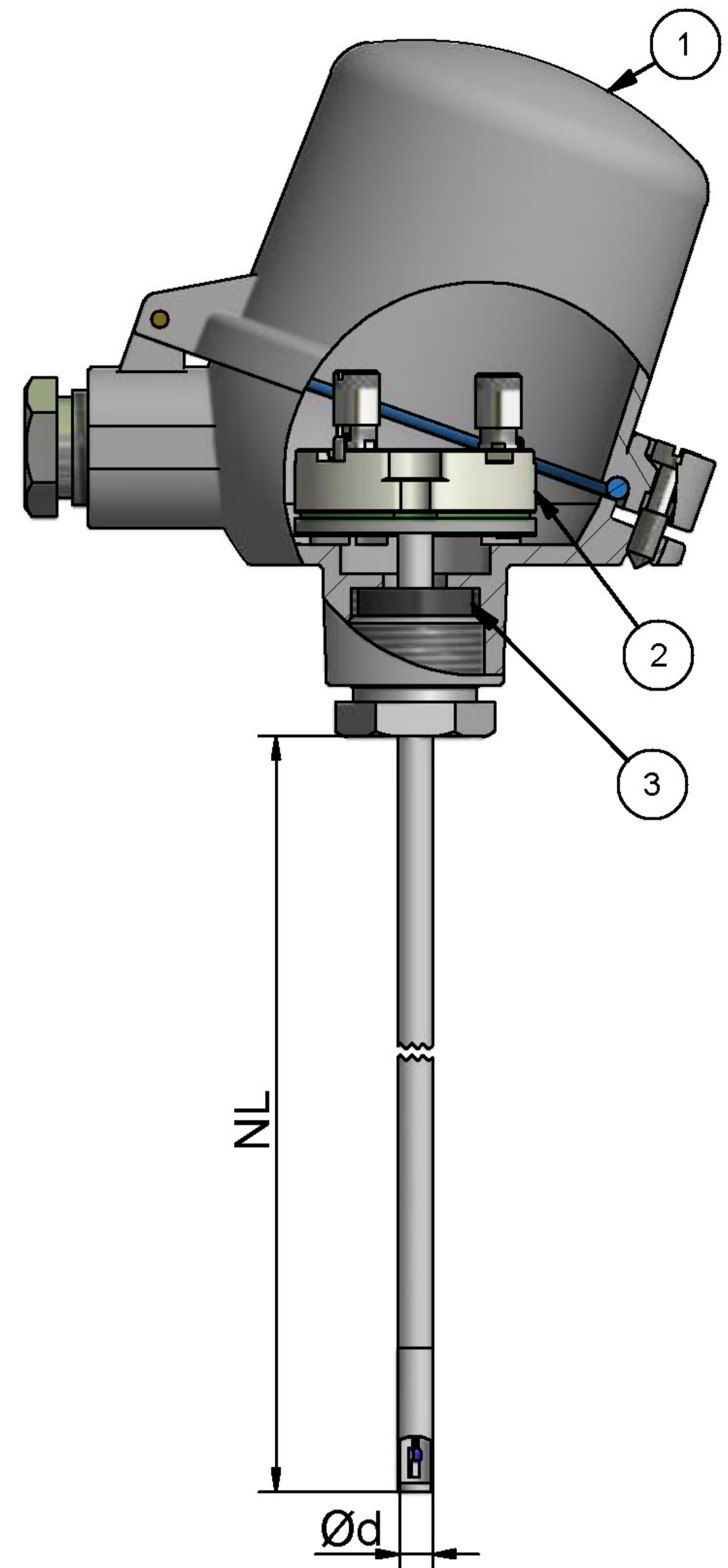


fig. 1

## Technical datas

- **Connection head** (fig. 1/1) according to DIN EN 50446.

Standard connection heads: Form B-G12, B-KL, B-VA, BA-KL, BA-KLH, B-KUKL, B-KUHKL. Dimension see page 2.

**on request:** mit entsprechender Kabelverschraubung und Silikon-Dichtung (fig. 1/3) ähnlich IP 67 möglich.

- **Measuring insert** (fig.1/2) replaceable according to DIN 43735 mounted in connection head (fig. 1/1) gemäß DIN EN 50446.

Standard connection heads: Form B-G12, B-KL, B-VA, BA-KLH, B-KUKL, B-KUHKL. Dimension see page 2.

**Sensor** depending on use:

thin film or ceramic according to IEC / EN 60751,

in 1 x 3-, 1 x 4-, 2 x 3-, or 2 x 4 wire circuit,

Recommended operating temperature on the measuring tip depended on accuracy class according to IEC / EN 60751

- 50 °C up to + 500 °C by thin film sensors,

- 50 °C up to + 600 °C by ceramic sensors.

- **Notice:** Process temperatures above 450 °C are only possible with appropriate process decoupling.

Double sensor with exi-transmitter only on request.

- **Sheath material** according to IEC / EN 61515.

Standard material 1.4404,

Standard diameter 3 or 6 mm.

**Notice:** Sensors with  $\varnothing$  3 mm and more than 4 inner conductors,  $\varnothing$  < 3 mm,  $\varnothing$  > 3 mm and more than 6 inner conductors are considered to be non-insulated or grounded in accordance with IEC / EN 60079-11 (dielectric strength) and must be connected to equipotential bonding of the system throughout the intrinsically safe circuit for safety reasons, taking into account the special conditions according to IEC / EN 60079-14.

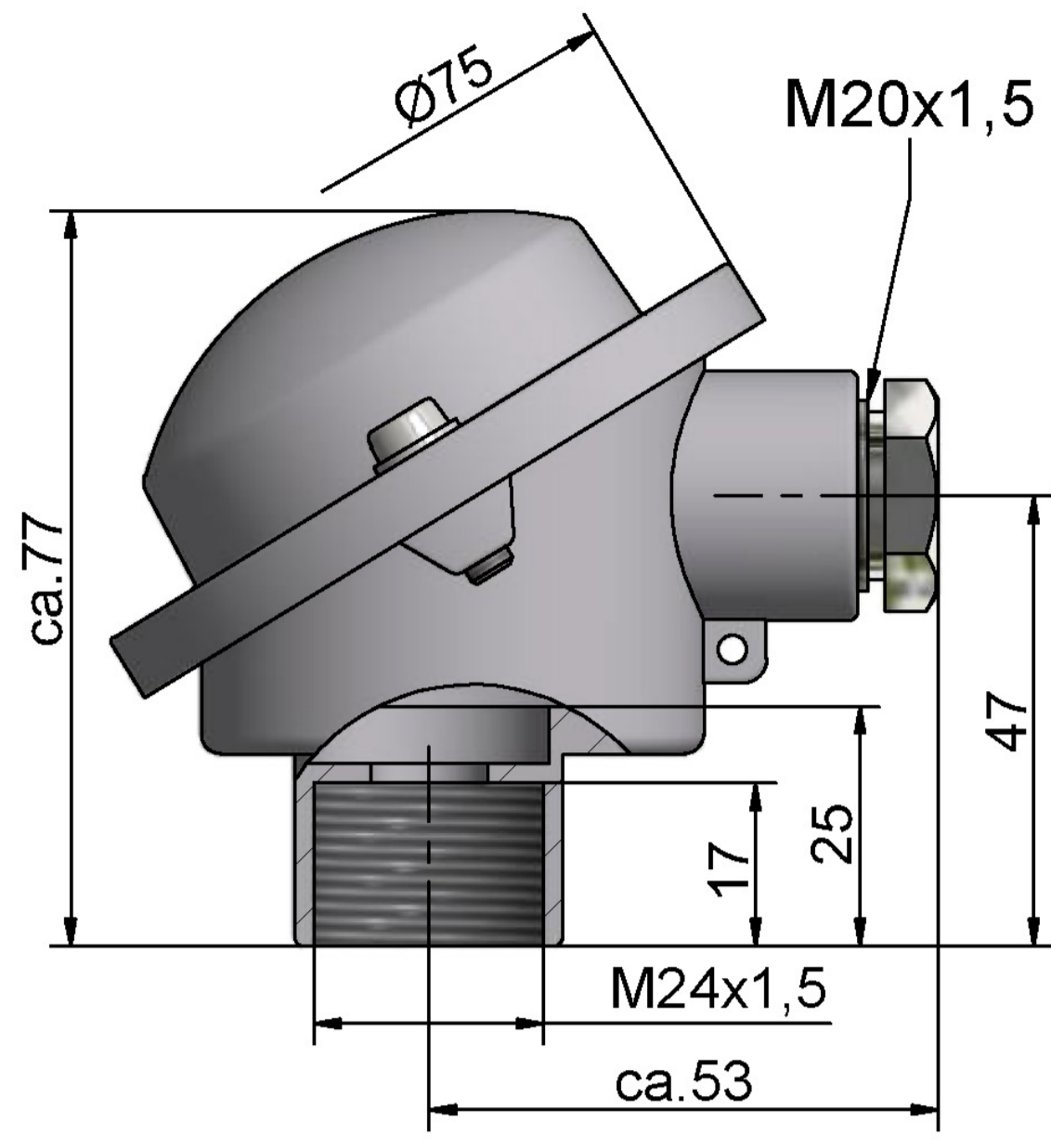
- **Process connection** via sliding compression fitting, union nut or welded-on clamping fitting DIN 32676.

- **Optional materials for gas and dust explosion protection:**

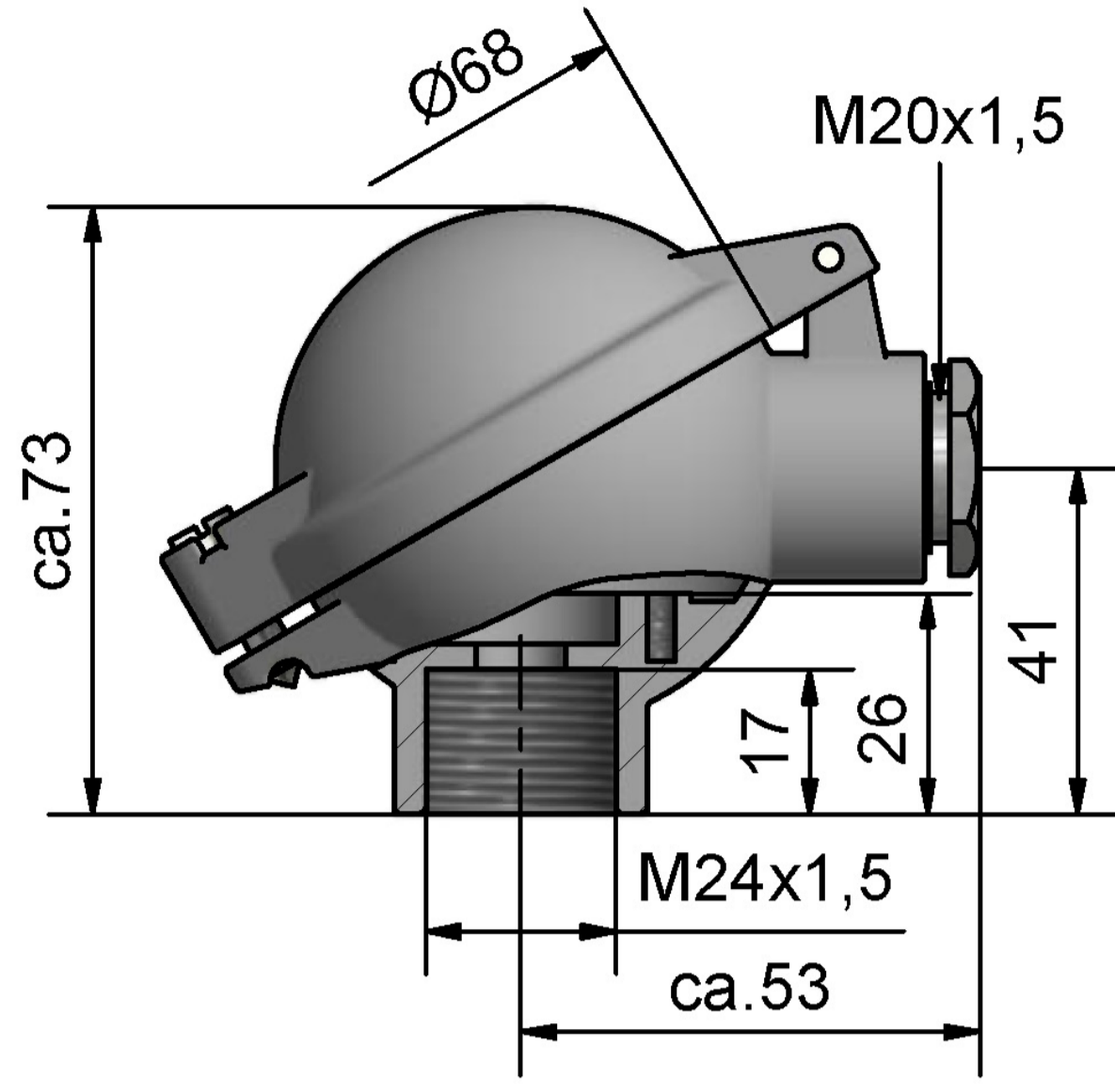
please see operating instructions chapter 4 X-conditions.

# Optional connecting heads / circuit diagram

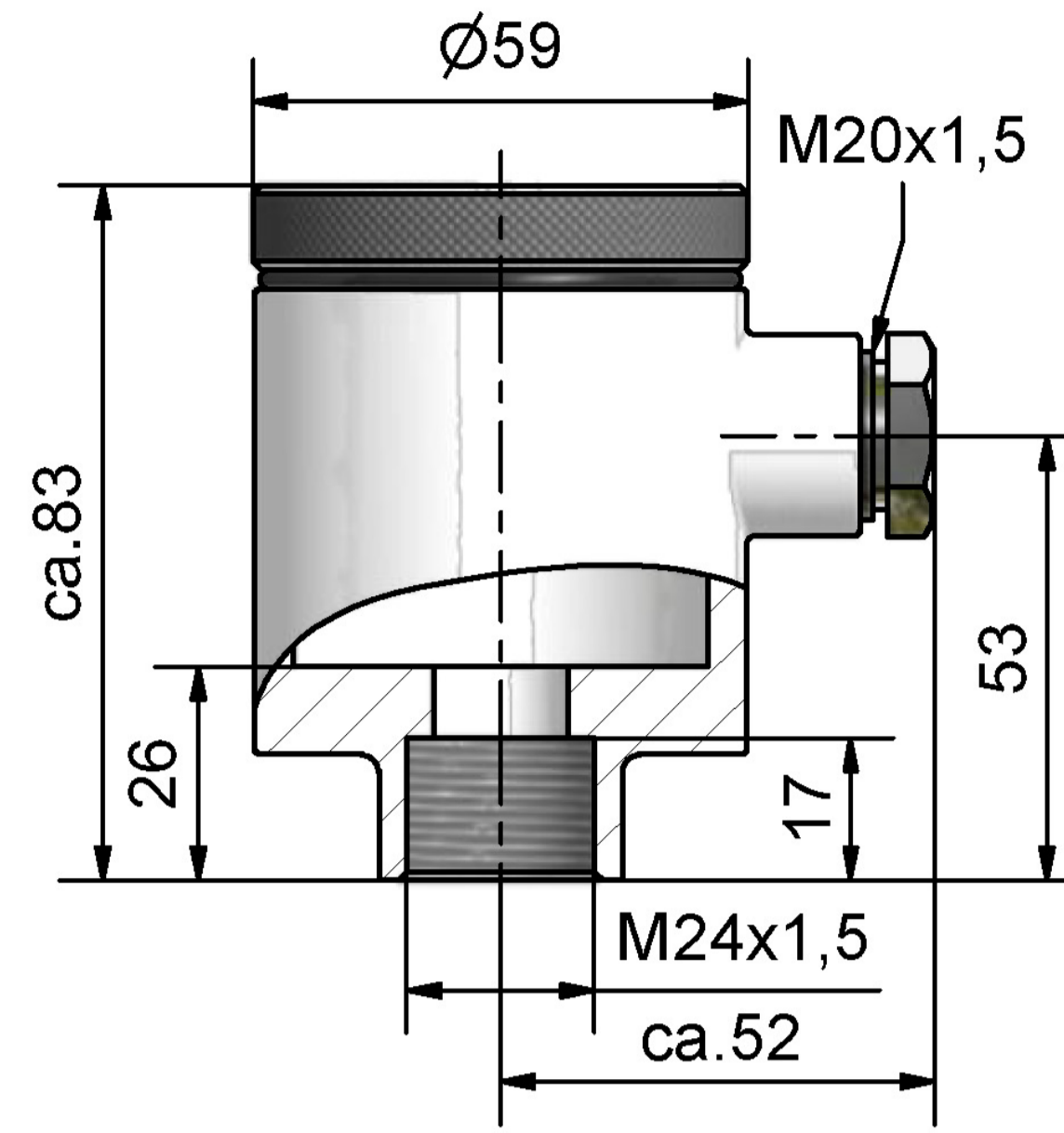
Alternatively to the cable gland an M12 plug-connector is possible.



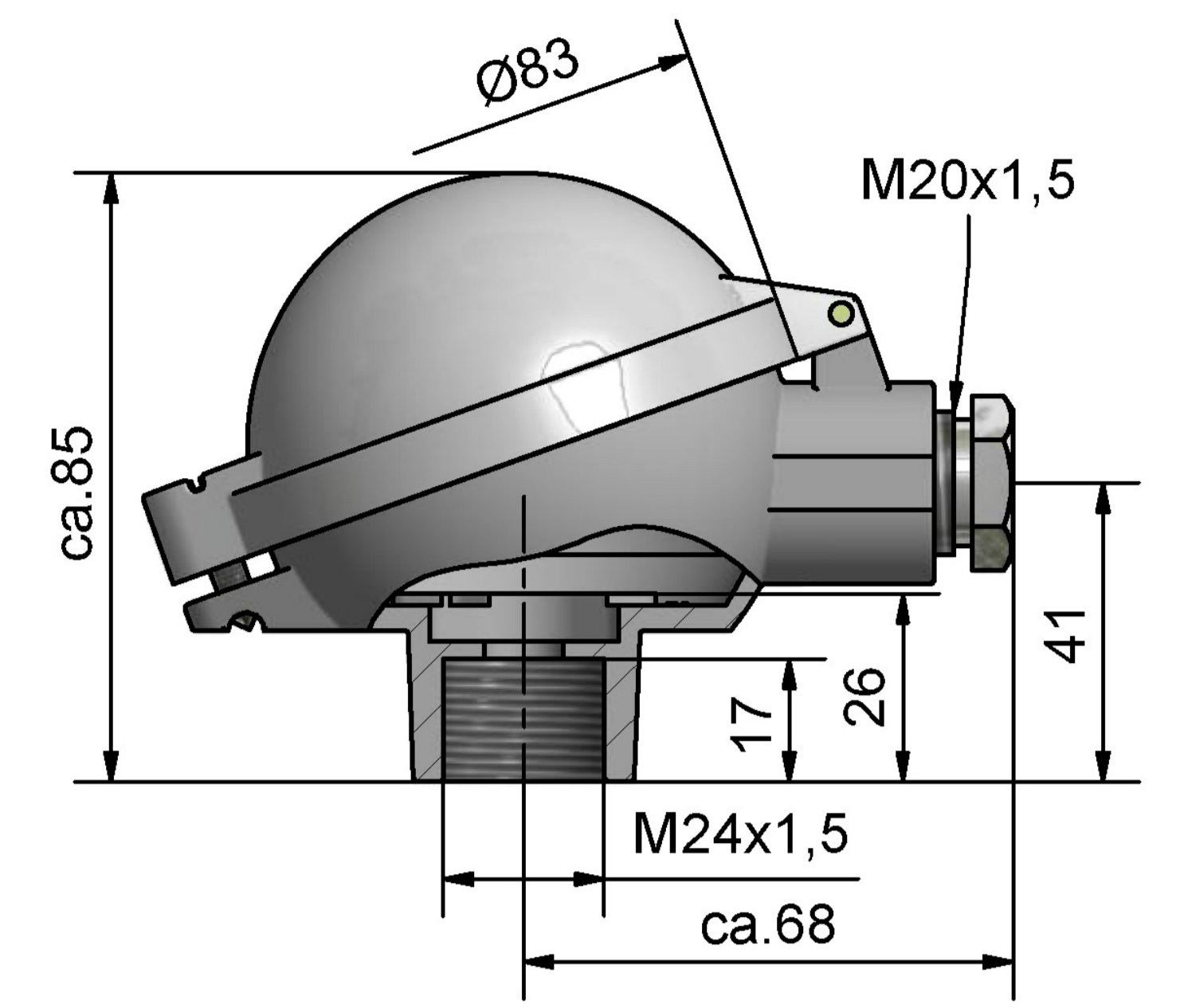
connection head model B-G12  
M24 x 1,5



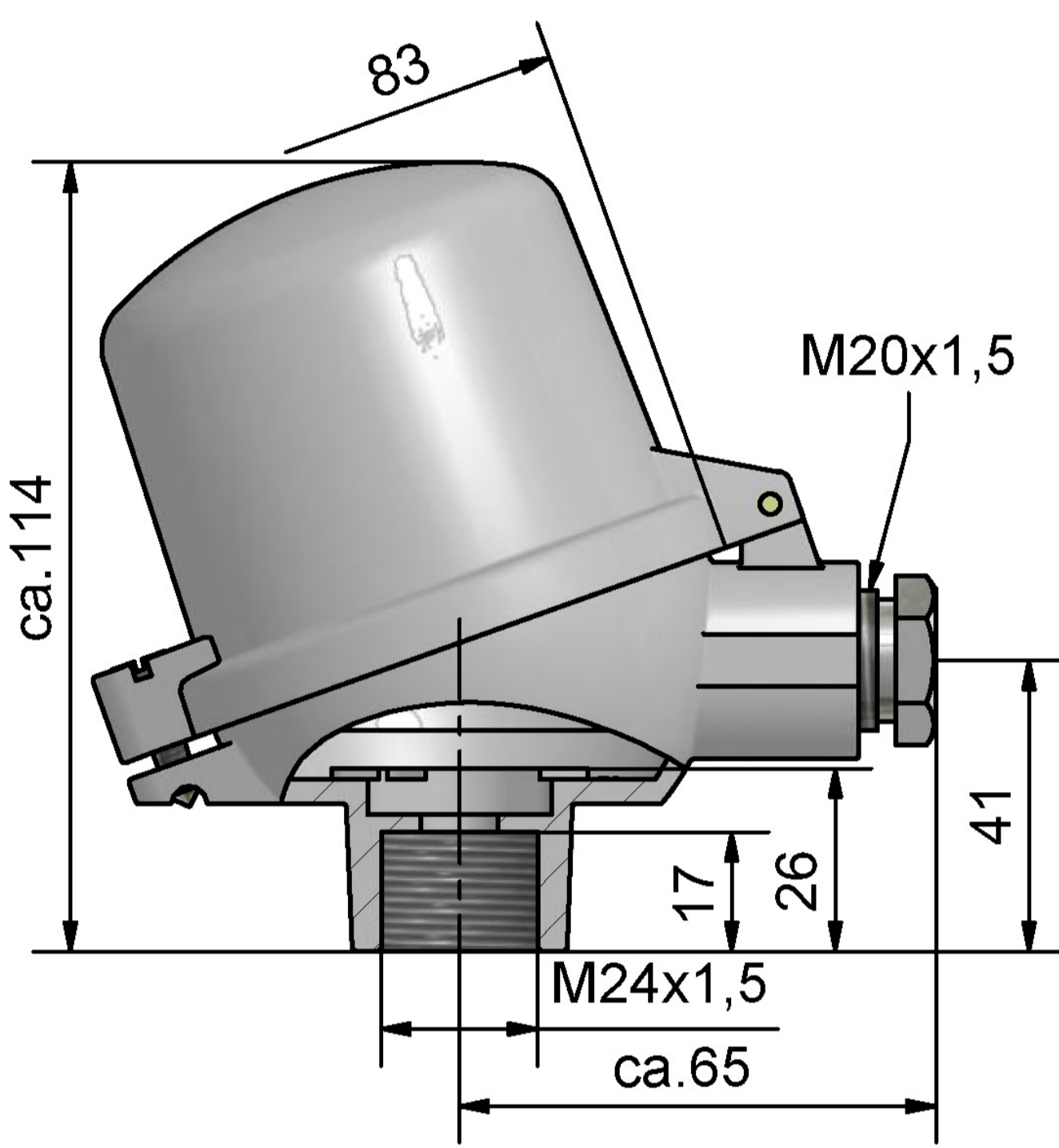
connection head model B-KL  
M24 x 1,5



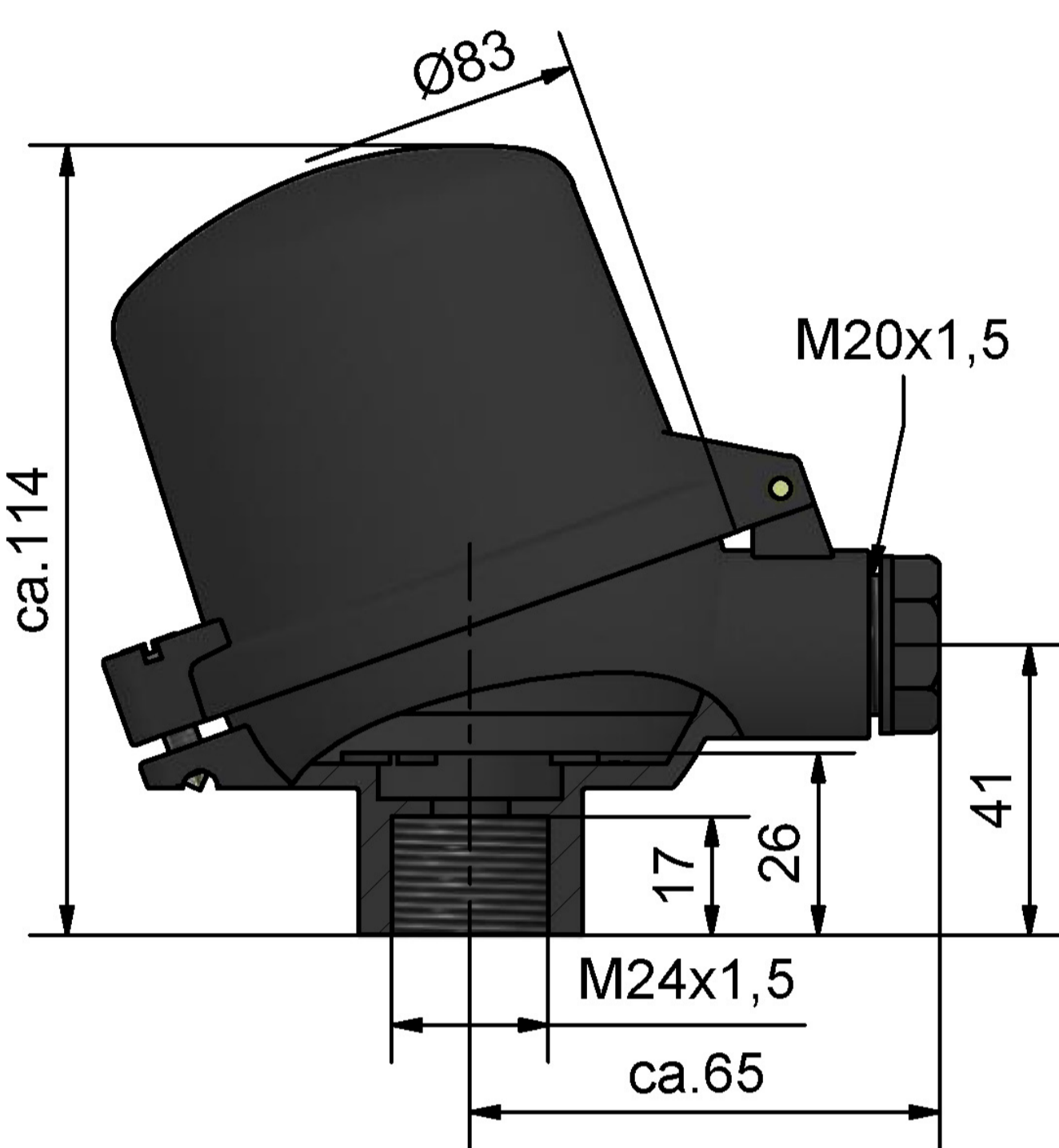
connection head model B-VA  
M24 x 1,5



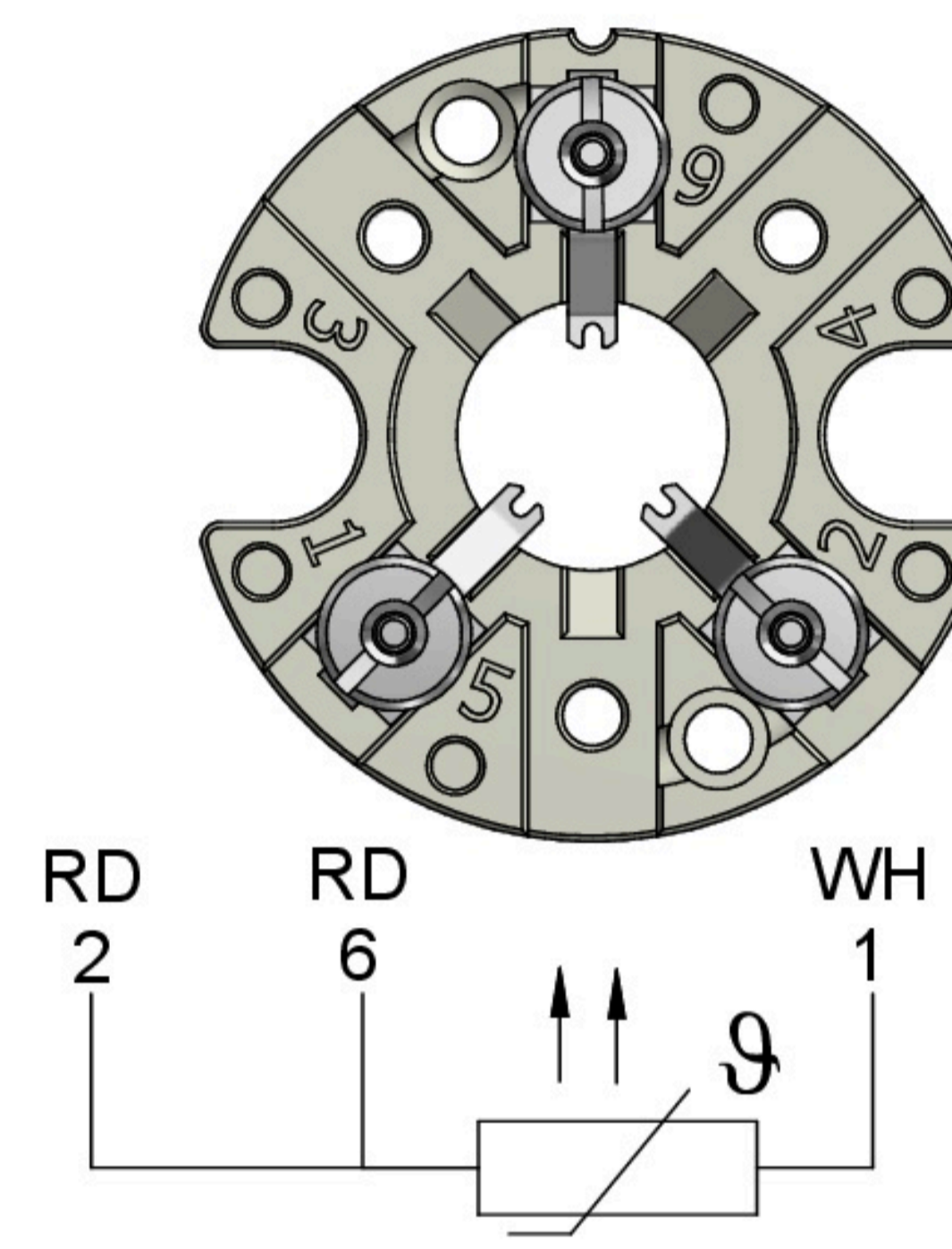
connection head model BA-KL  
M24 x 1,5



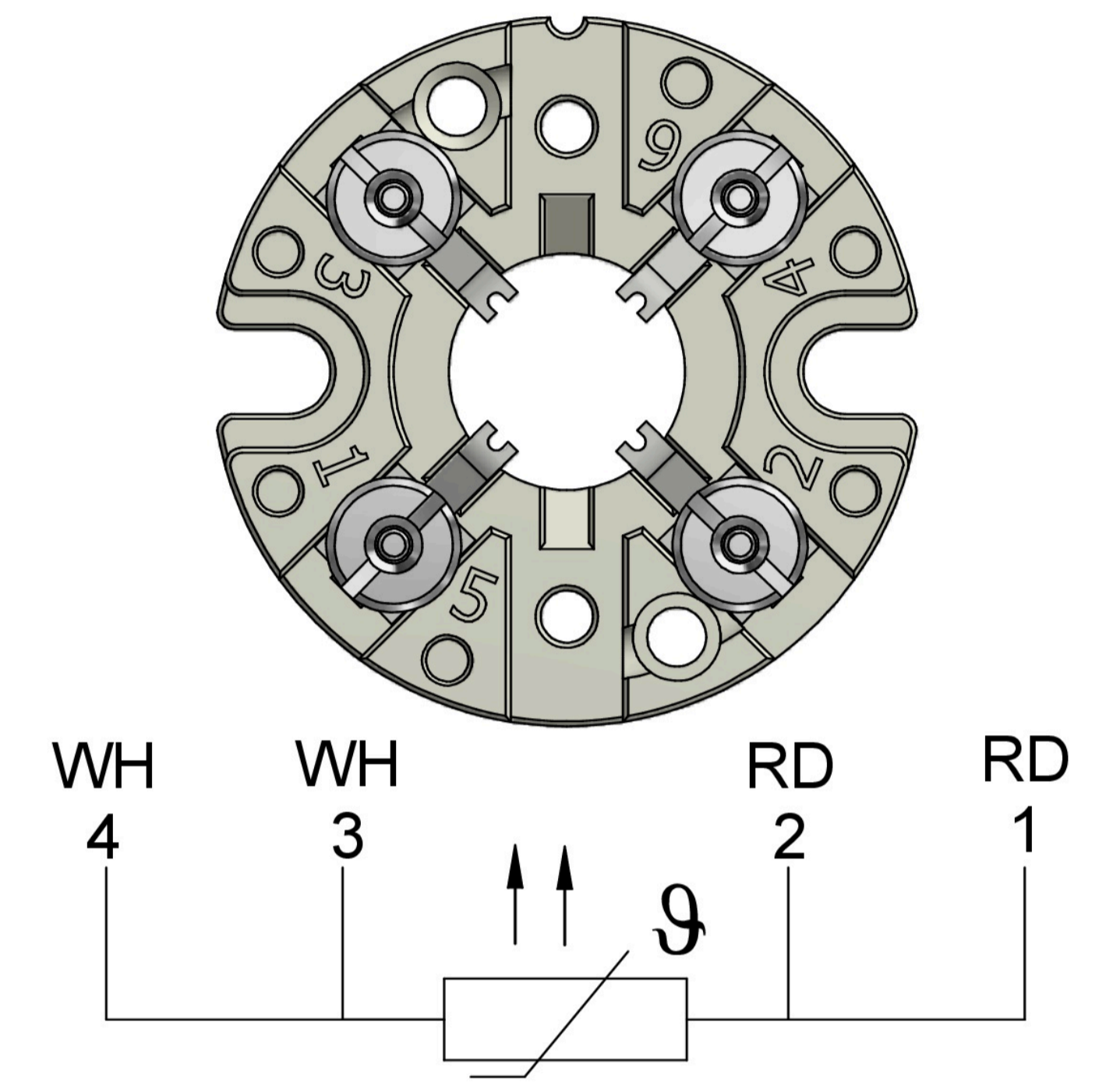
connection head model BA-KLH  
M24 x 1,5



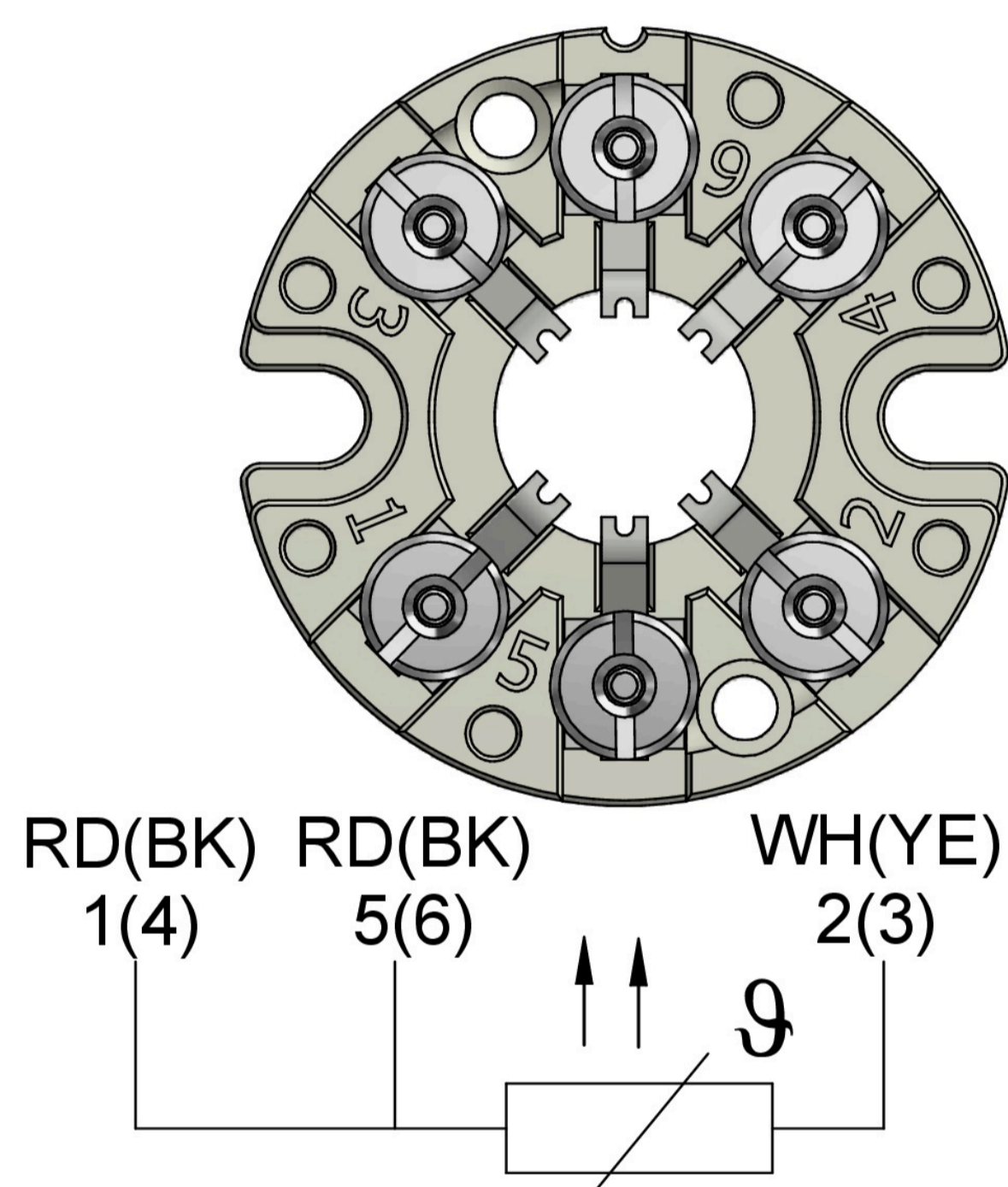
connection head model B-KUHKL  
M24 x 1,5



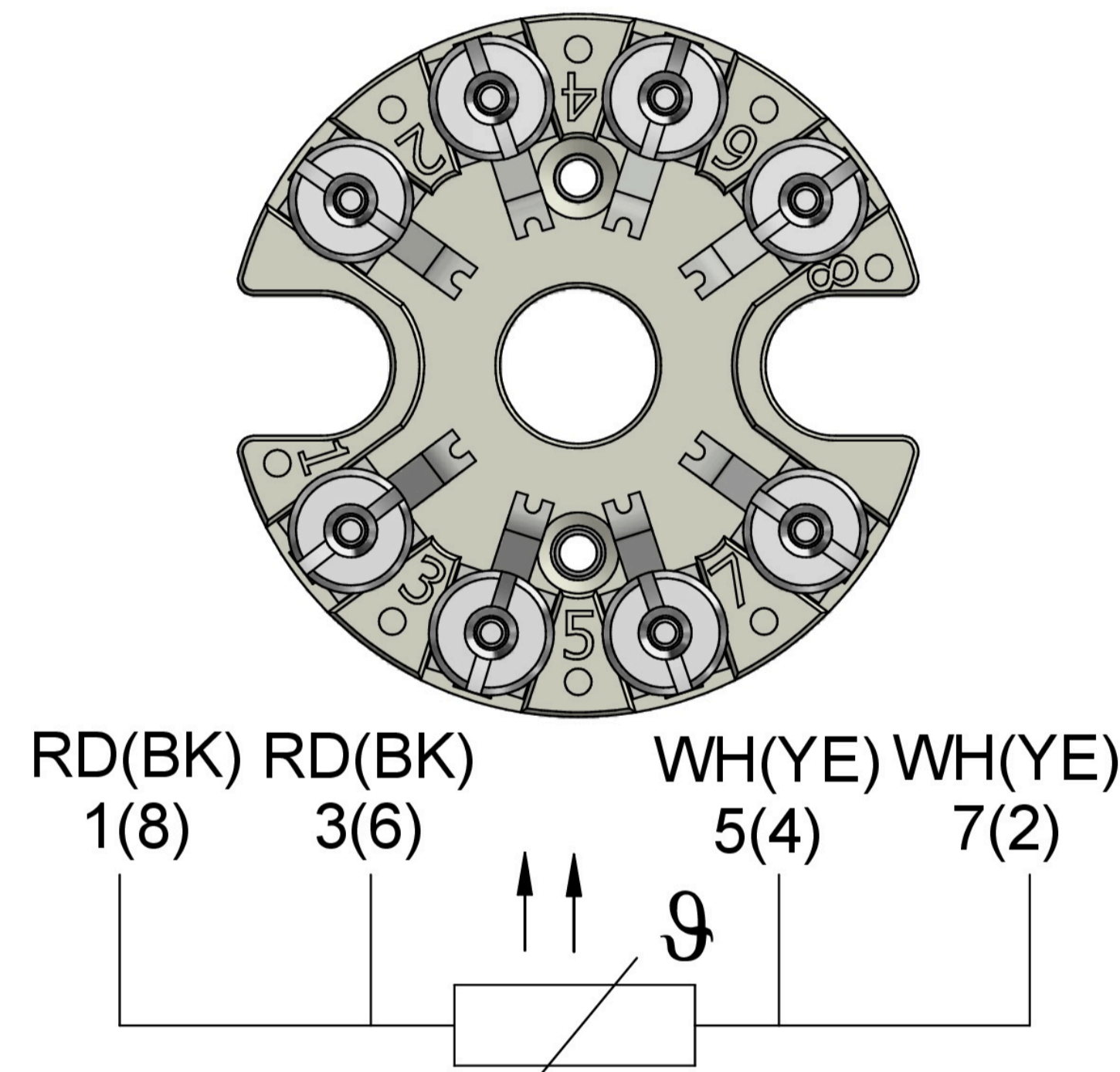
terminal base  
1 x PT100 3 wire



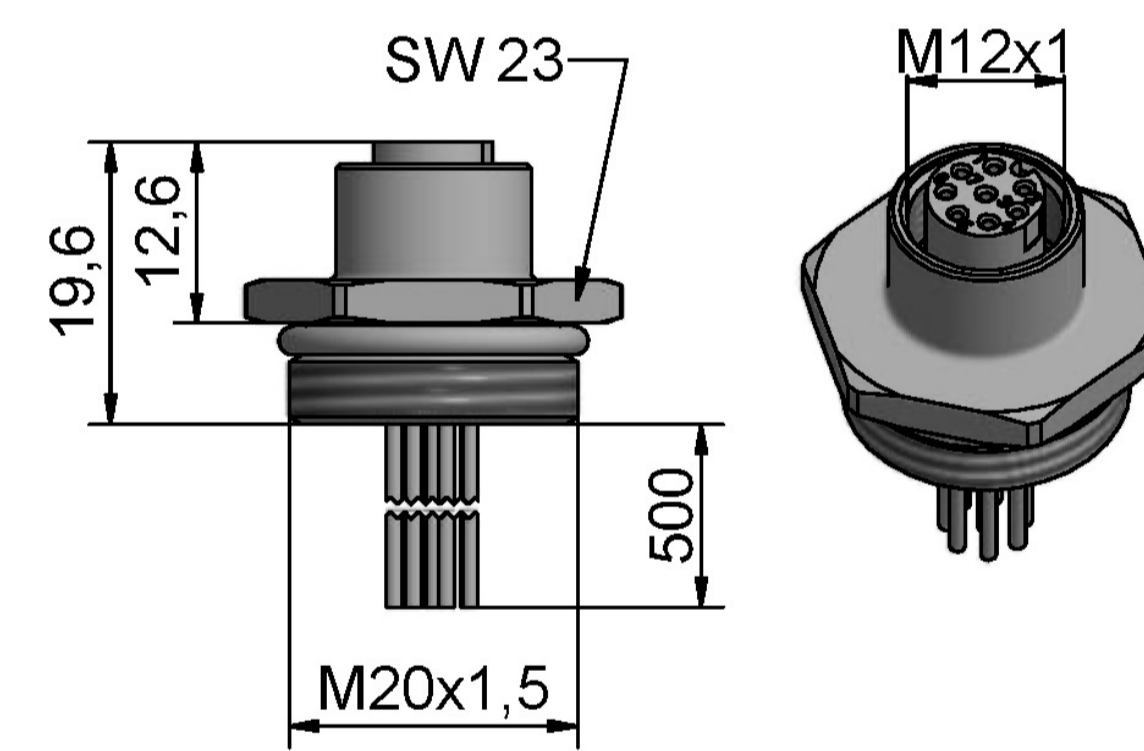
terminal base  
1 x PT100 4 wire



terminal base  
2 x PT100 3 wire



terminal base  
2 x PT100 4 wire



M12 insert socket  
4-terminals



M12 insert socket  
1xPT100 4 wire

M12 insert socket  
2xPT100 2 wire

M12 insert socket  
2xPT100 3-wire

M12 insert socket  
2xPT100 4-wire

