

# Ex-Resistance Temperature Detector WR15 model 2

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. By using a movable gas tight screw socket or a compression fitting, this design allows a variable installation length.

## Application area:

Autoclave, machine and plant engineering, chemicals industry, power plant technology industry of building materials, recycling

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

II 1/2G Ex ia IIC T1...T6 Ga/Gb or

II 1/2D Ex ia IIIC T135 °C Da/Db.

**For installation please see our operating instructions.**

**Ex-stock-number-code: WR15-B.**

## 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. IP54, Dimension see page 2.  
**On request** IP65 or IP67.
- **Protection shell** (fig. 1/3 up to 4) according or similar to DIN 43772.  
Standard material 1.4571.  
Standard diameter 9 or 11 mm
- **Process connection** via movable gas tight screw socket or compression fitting, standard thread: G1/2".
- **Measuring insert** (fig.1/2) replaceable according or similar to DIN 43735.  
Sensor depending on use:  
thin film or ceramic according to IEC / EN 60751,  
standard 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 Tolerance class according to IEC / EN 60751  
- 40°C up to + 500°C by thin film sensors,  
- 40°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.
- **Protection shell** (fig. 1/3 up to 4) the following dimension are acceptable:
- outer diameter(D)  $\geq$  6,0 mm, wall thickness(S)  $\geq$  1,0 mm, base thickness  $\geq$  1,3 x S [mm].  
nominal length (NL) max. 8000 mm.
- **Optional materials** for gas and dust explosion protection:  
please see our Ex-Operating Instructions chapter 4 Ex-Conditions.

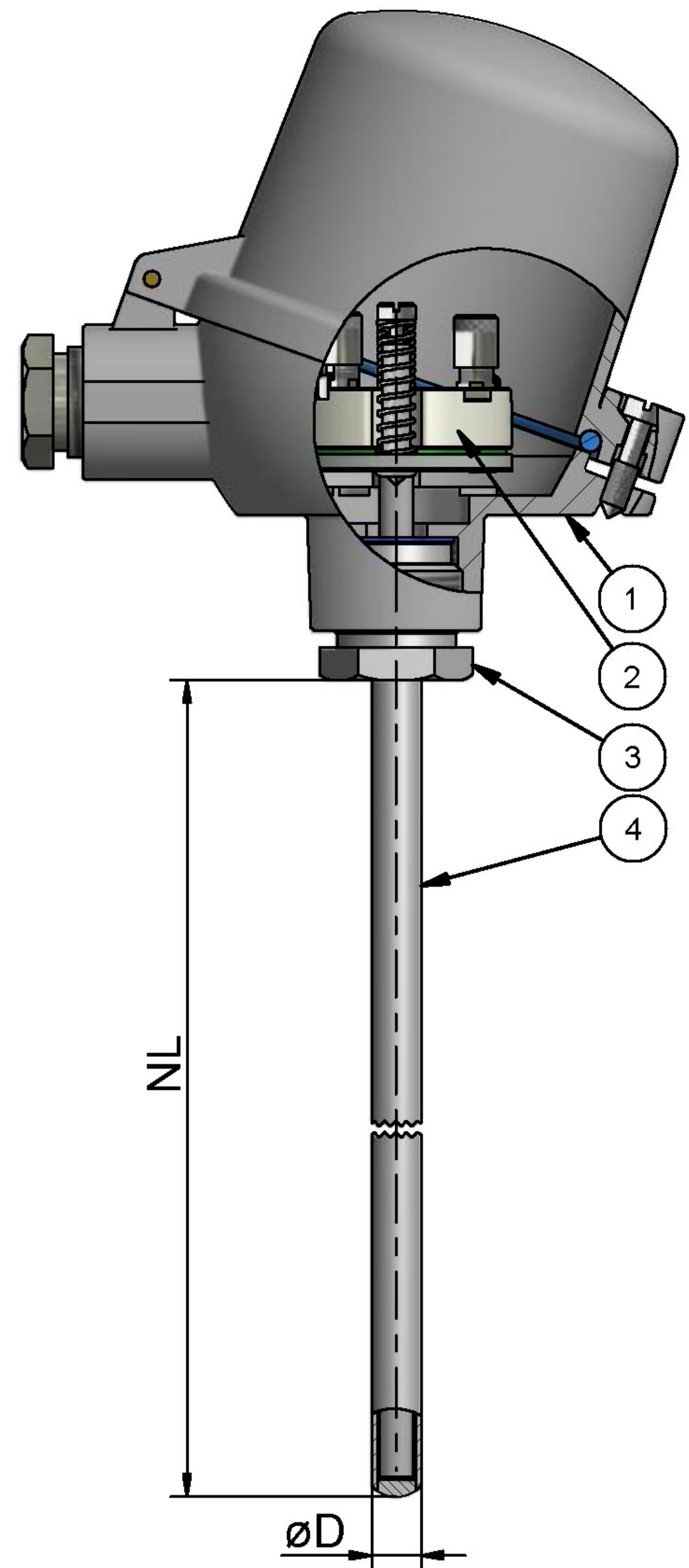
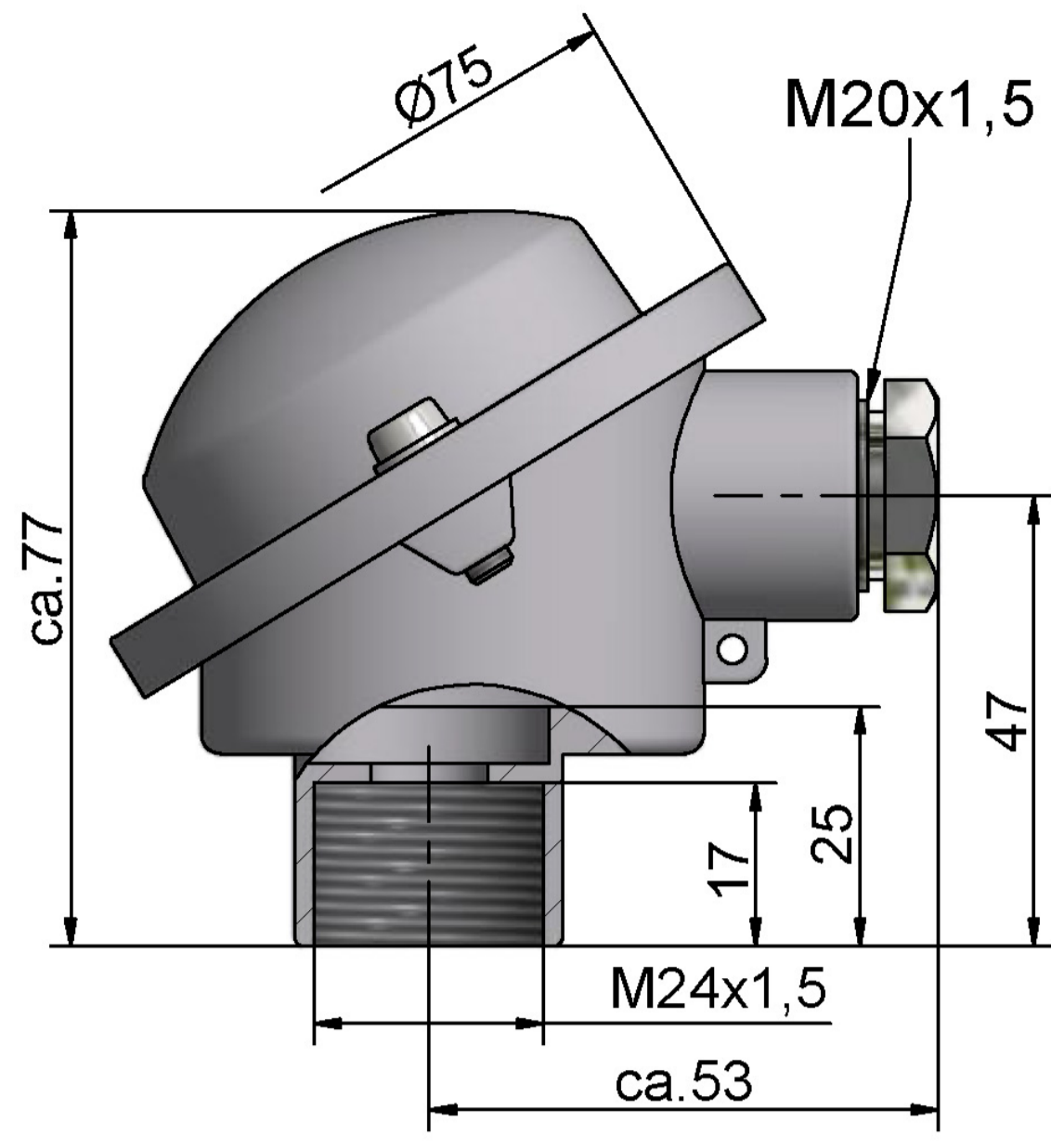


fig. 1

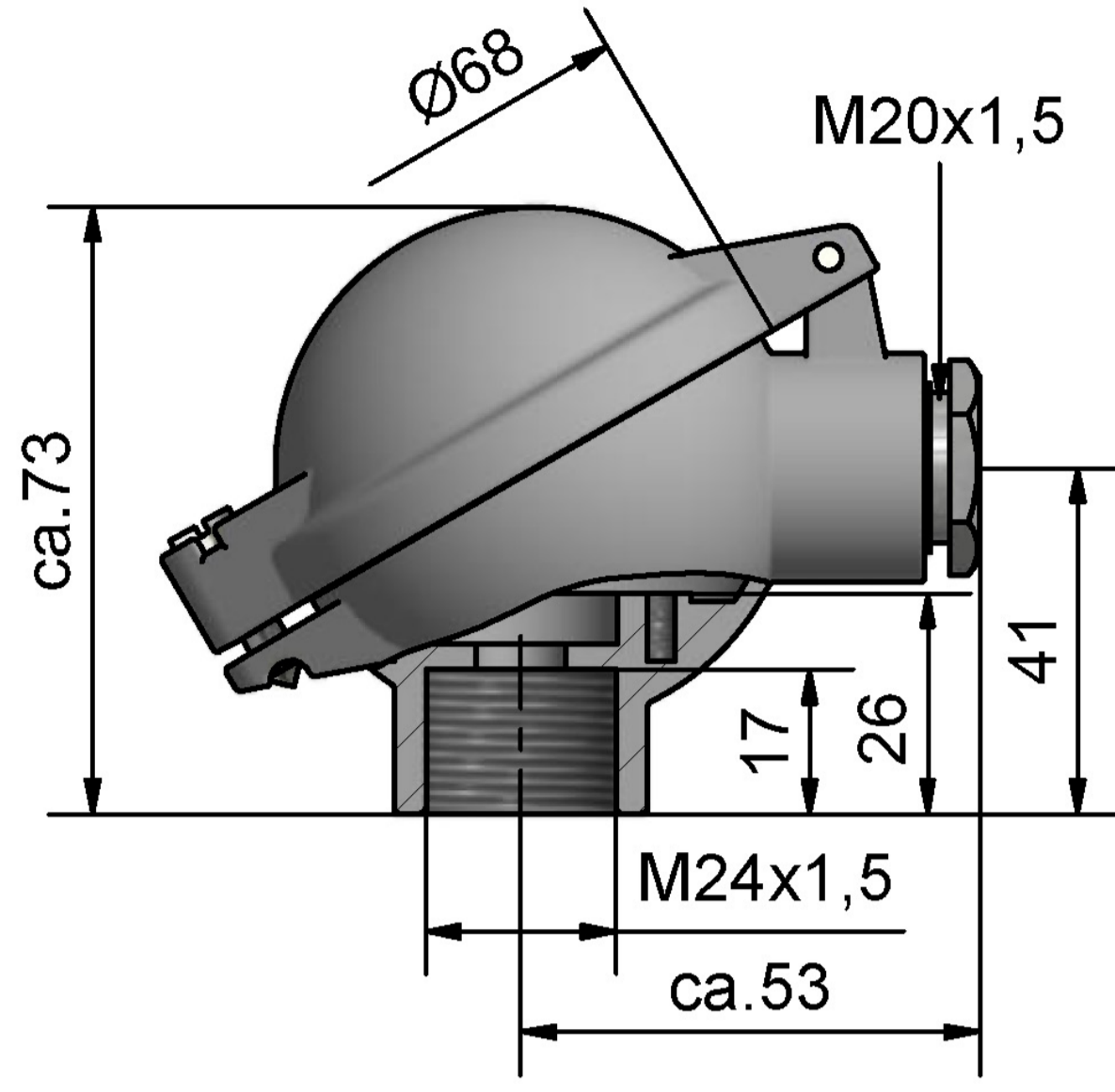


# Optional connecting heads / circuit diagram

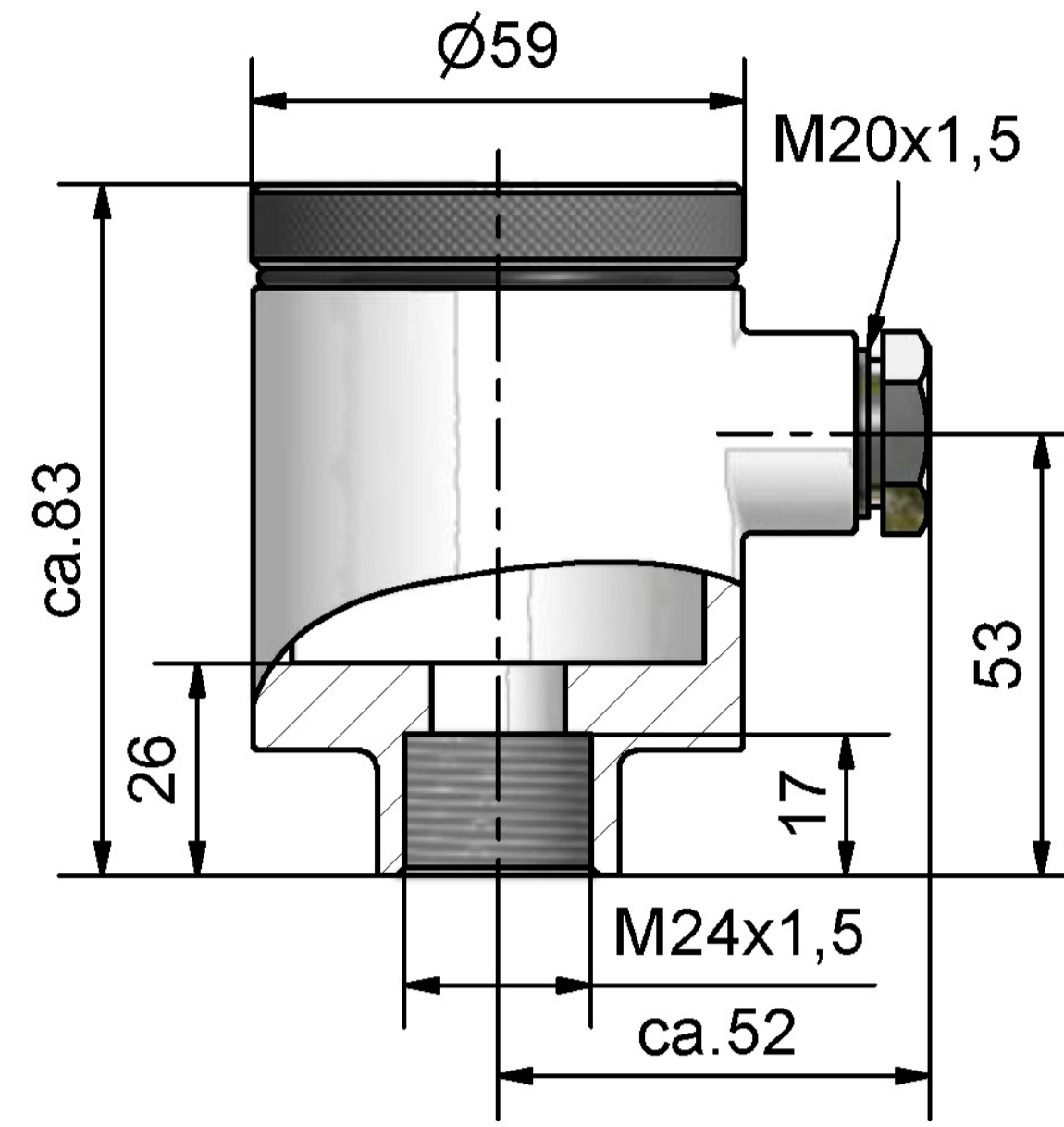
Alternative to the cable gland a M12 insert plug is possible.



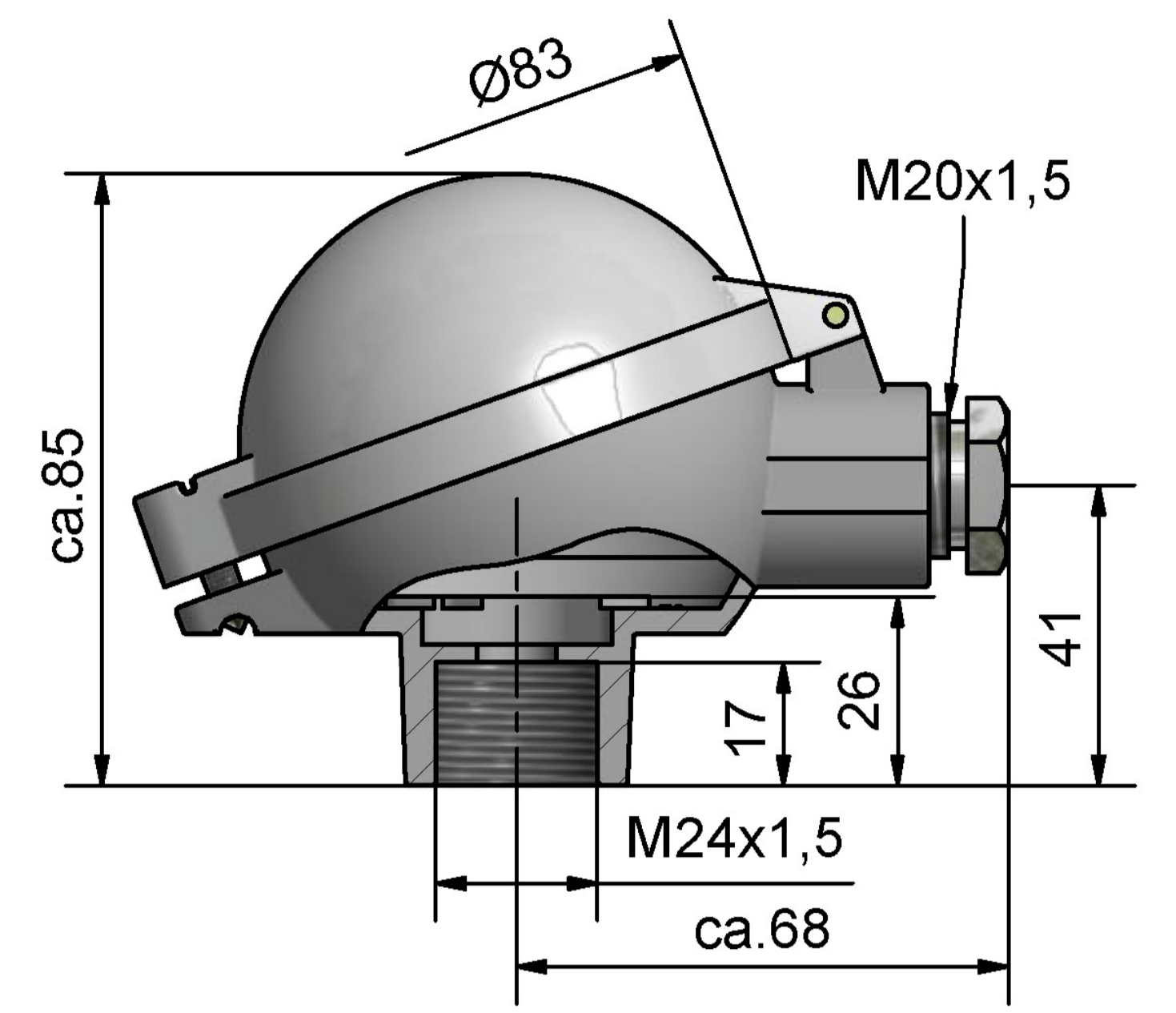
connection head model B-G12  
M24 x 1,5



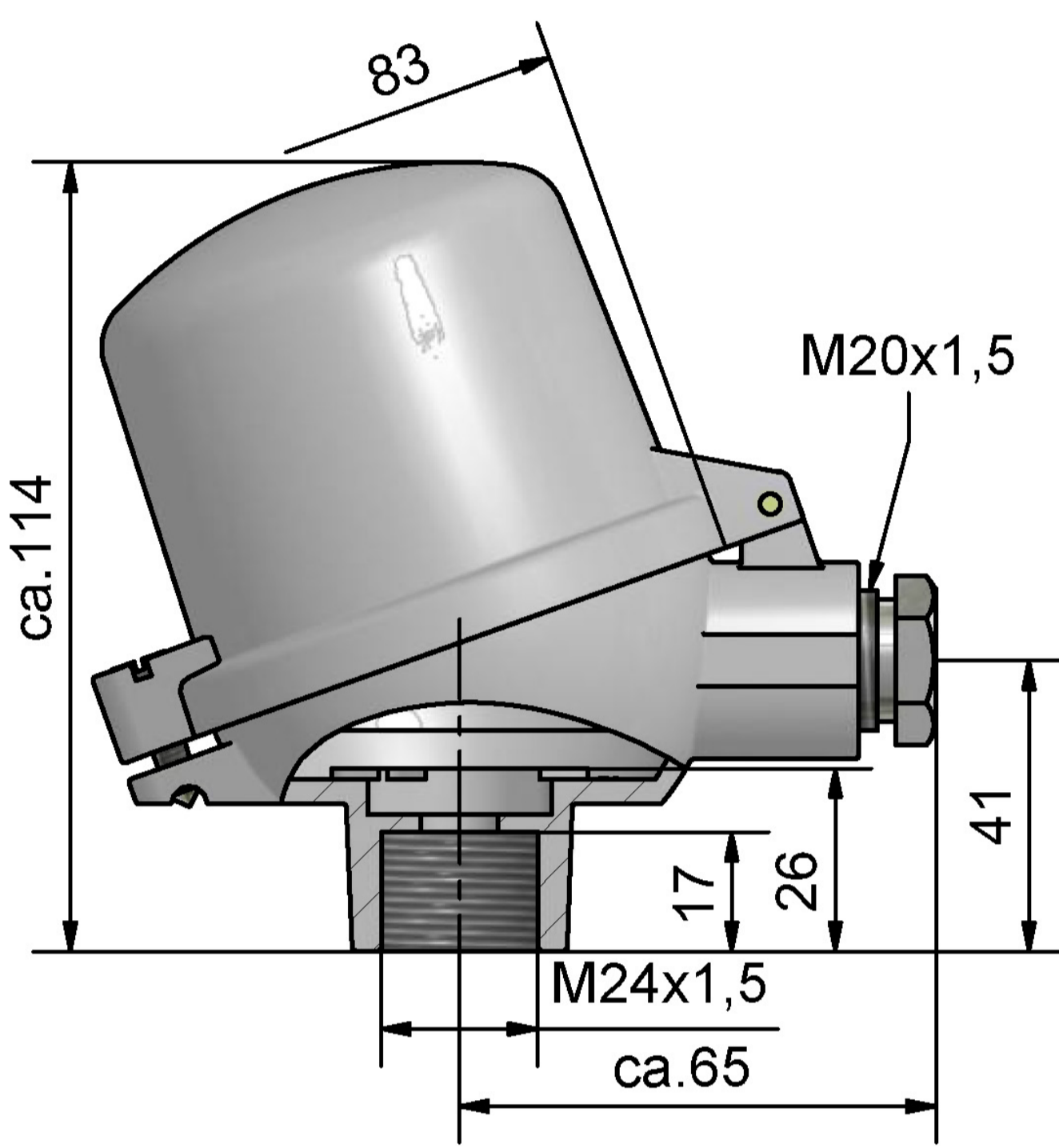
connection head model B-KL  
M24 x 1,5



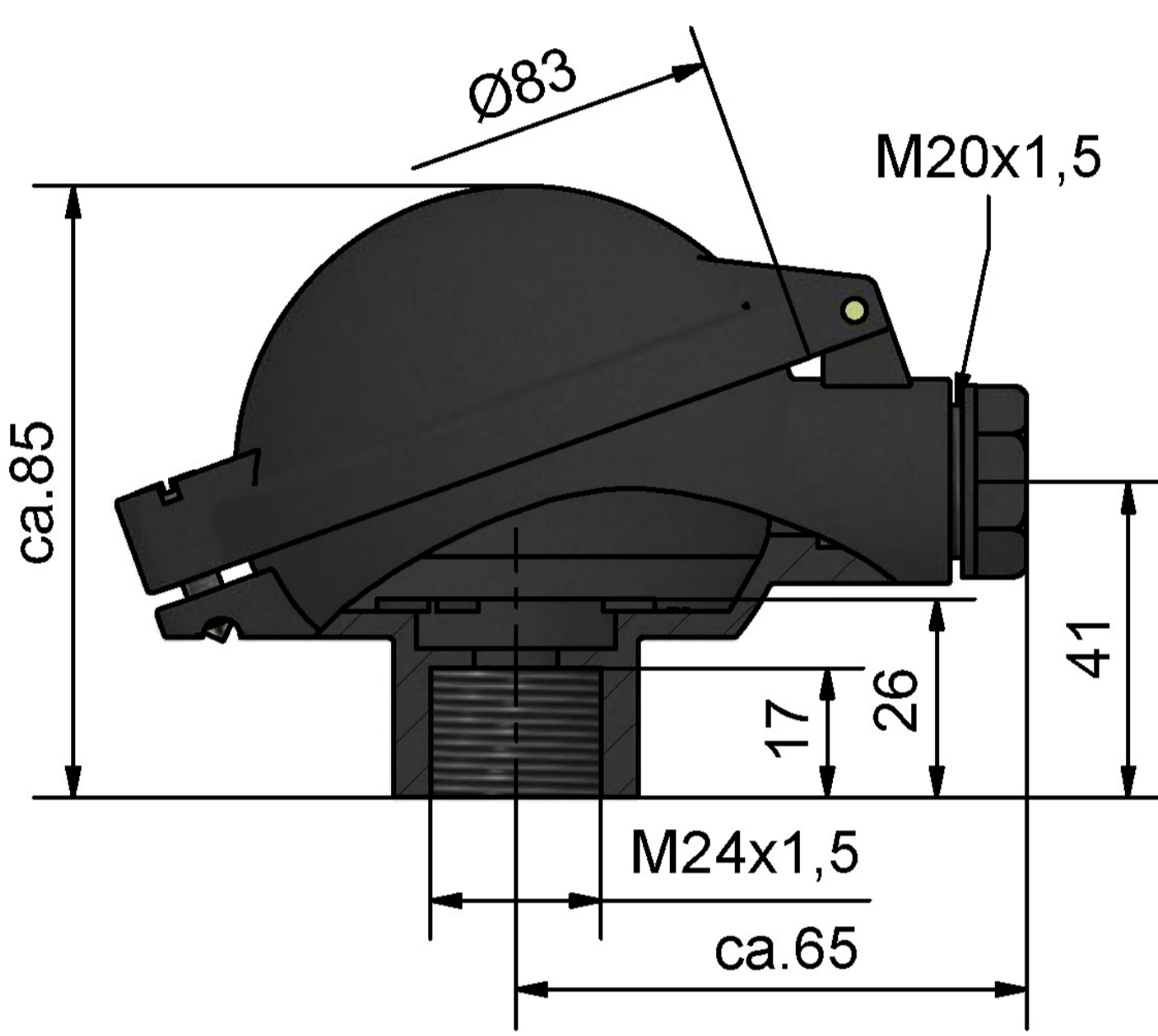
connection head model B-VA  
M24 x 1,5



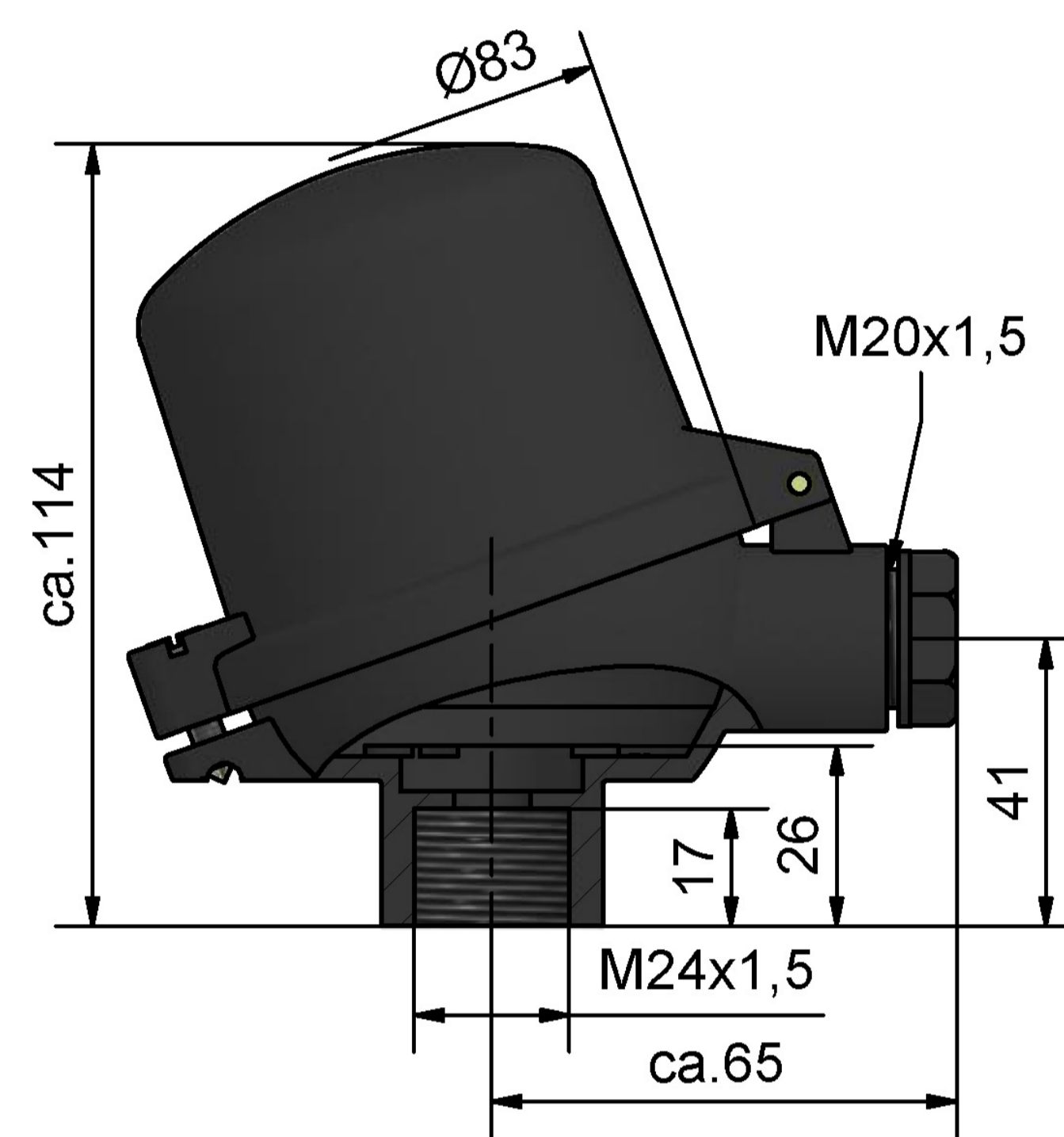
connection head model BA-KL  
m



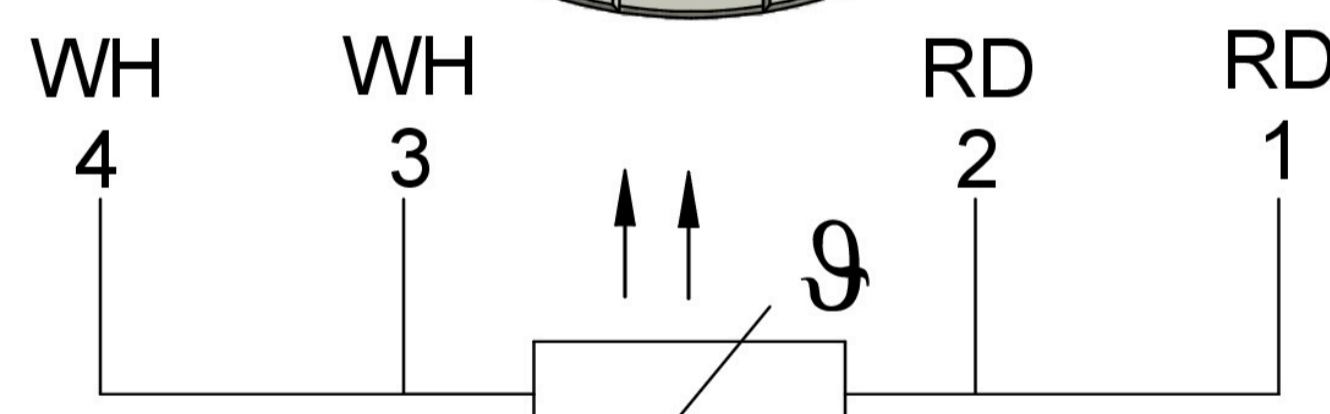
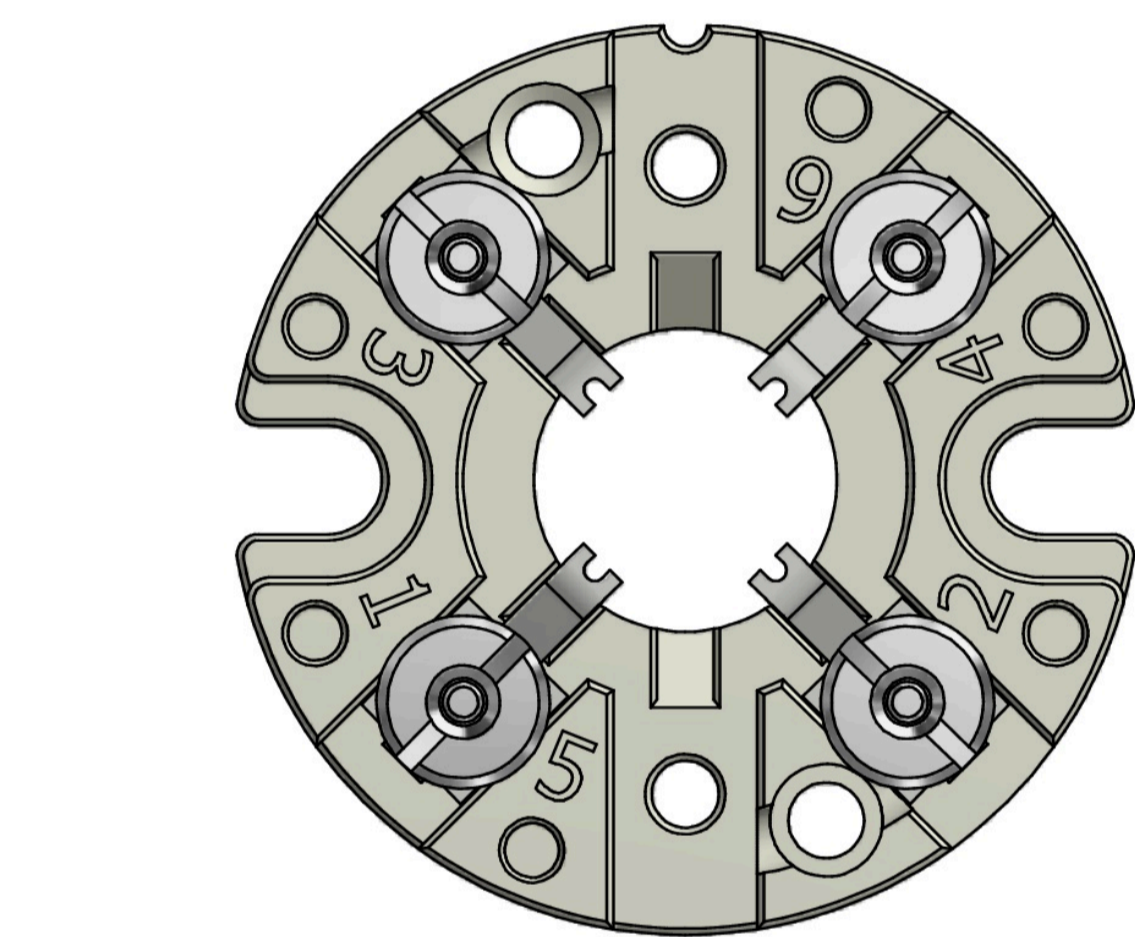
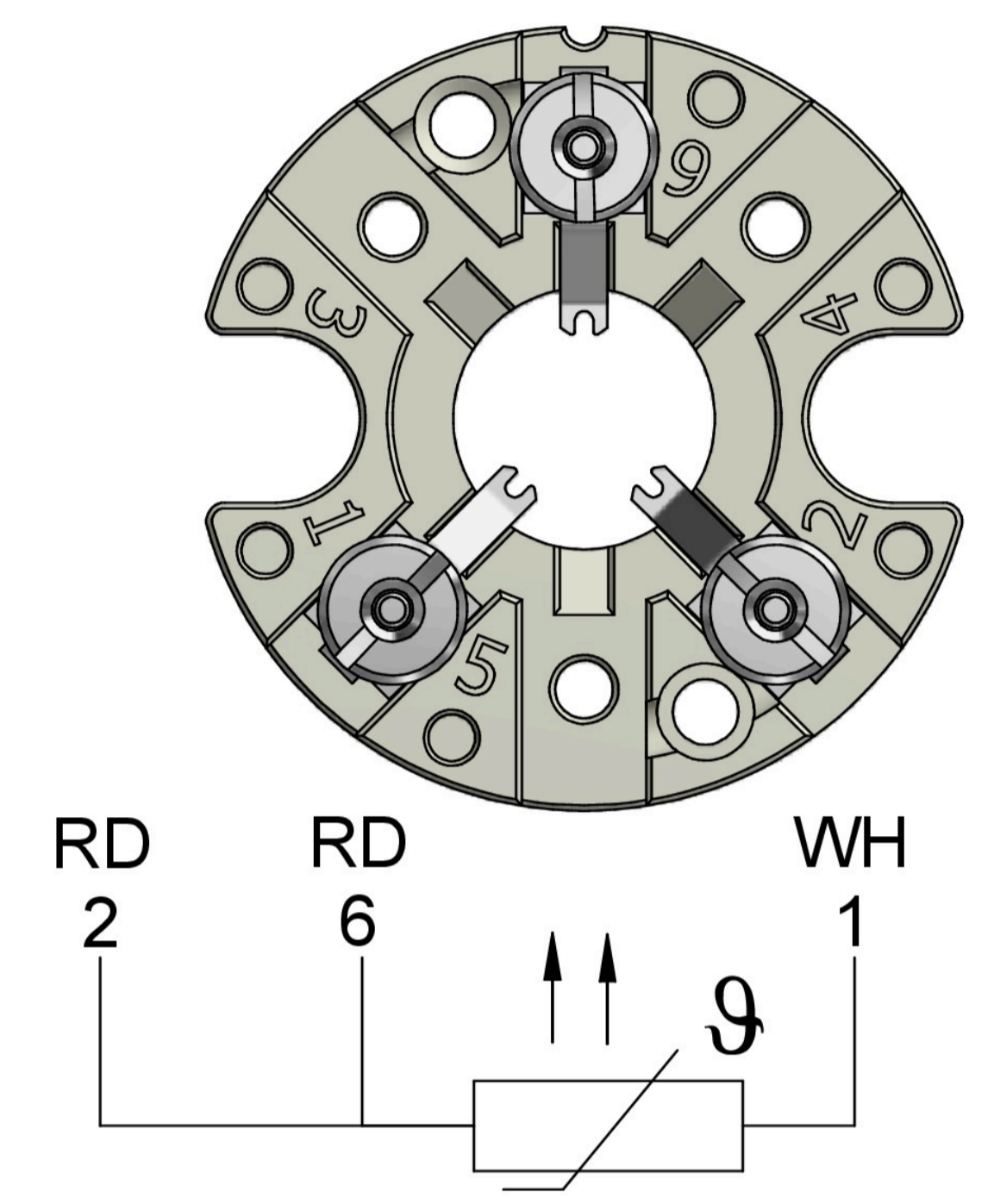
connection head model B-KLH  
M24 x 1,5



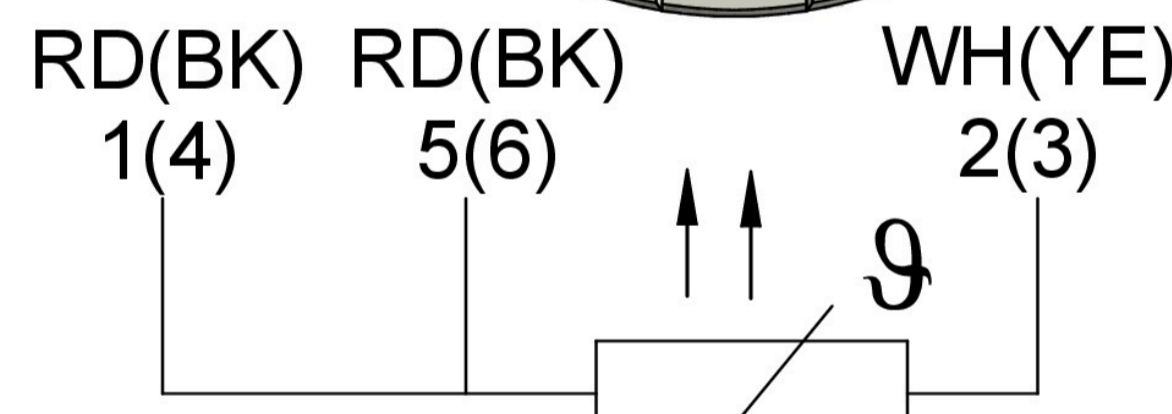
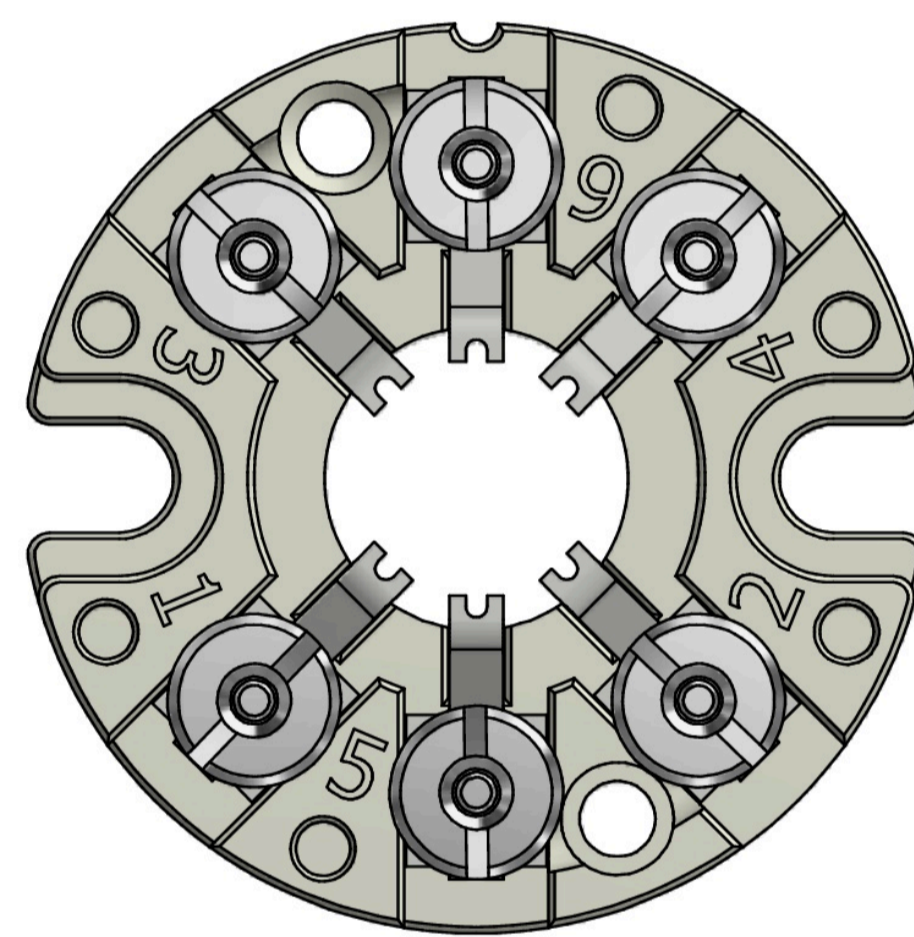
connection head model B-KUKL  
M24 x 1,5



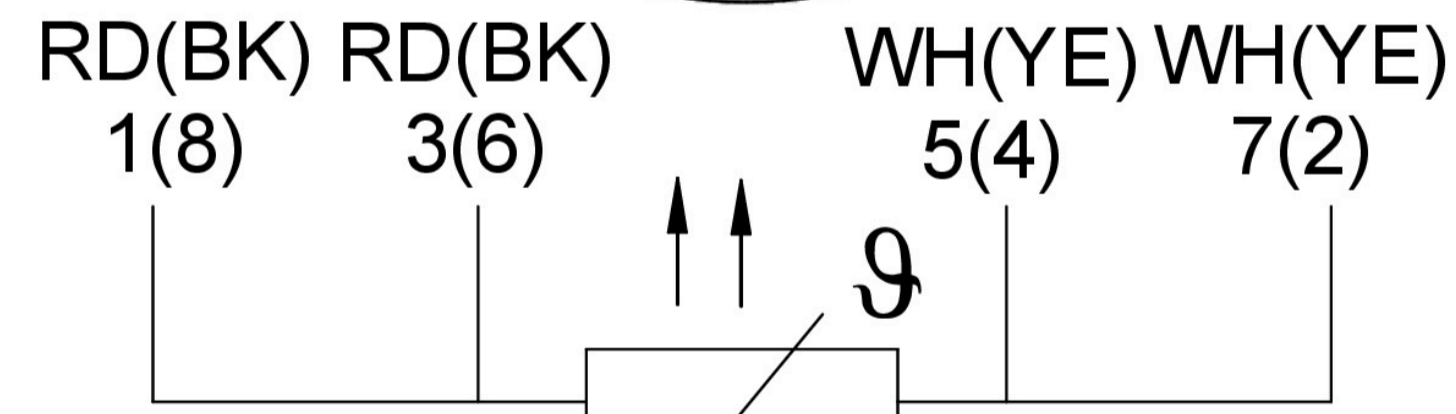
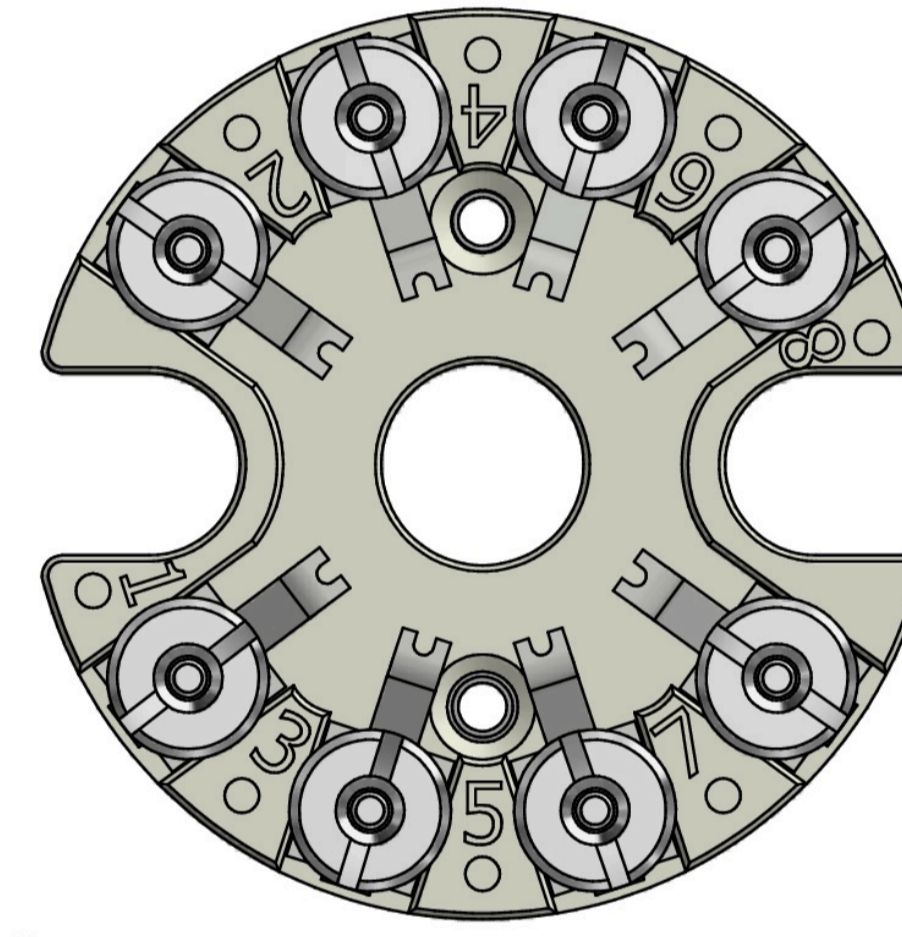
connection head model B-KUHKL  
M24 x 1,5



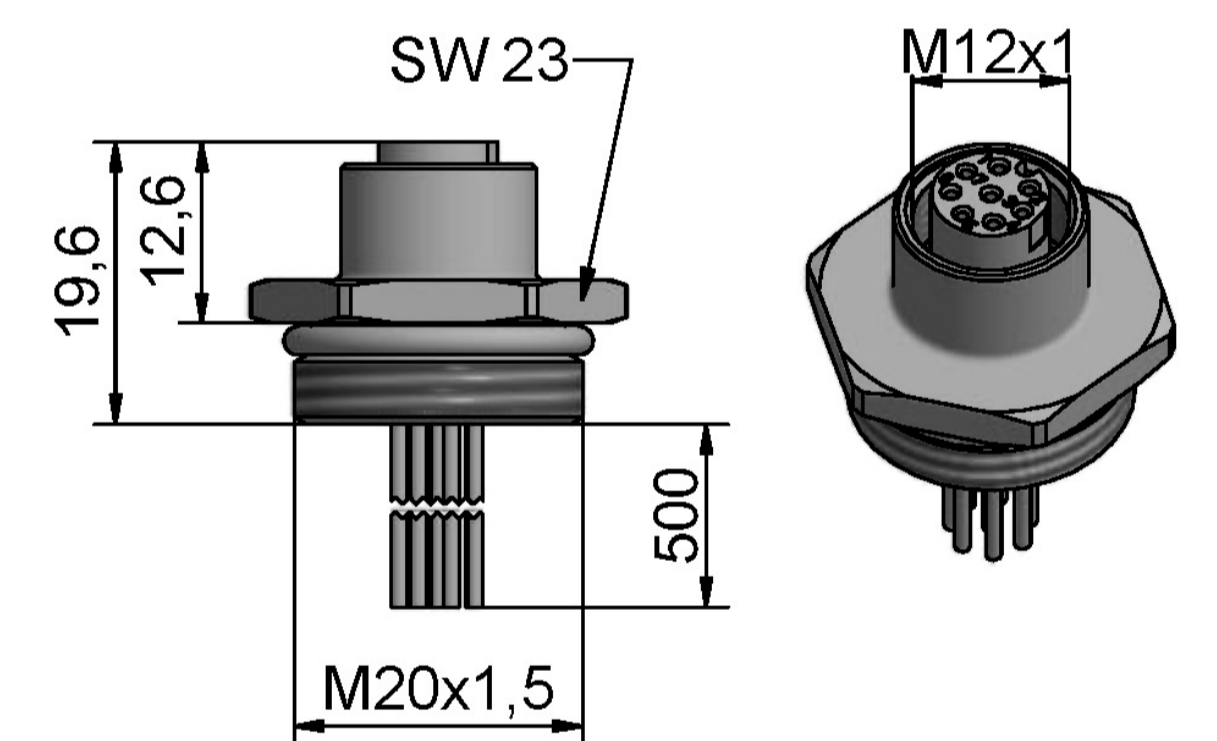
terminal base  
1 x PT100 4 wire



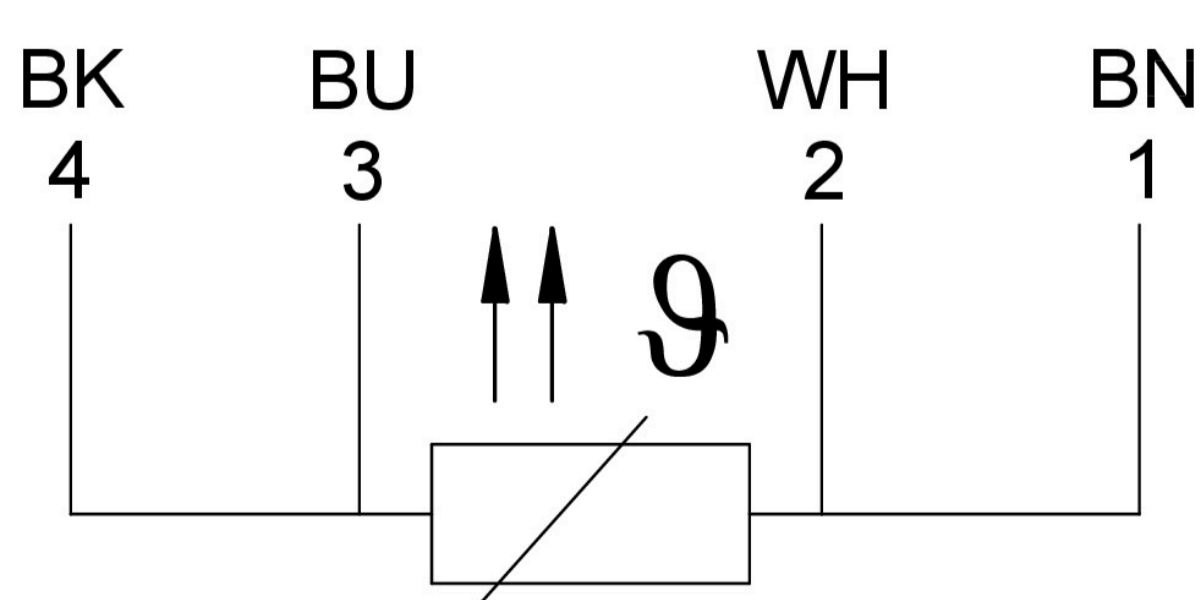
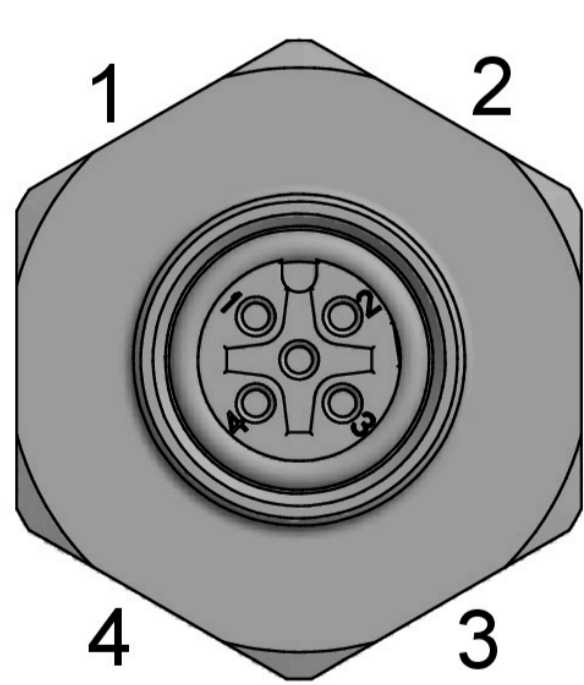
terminal base  
2 x PT100 3 wire



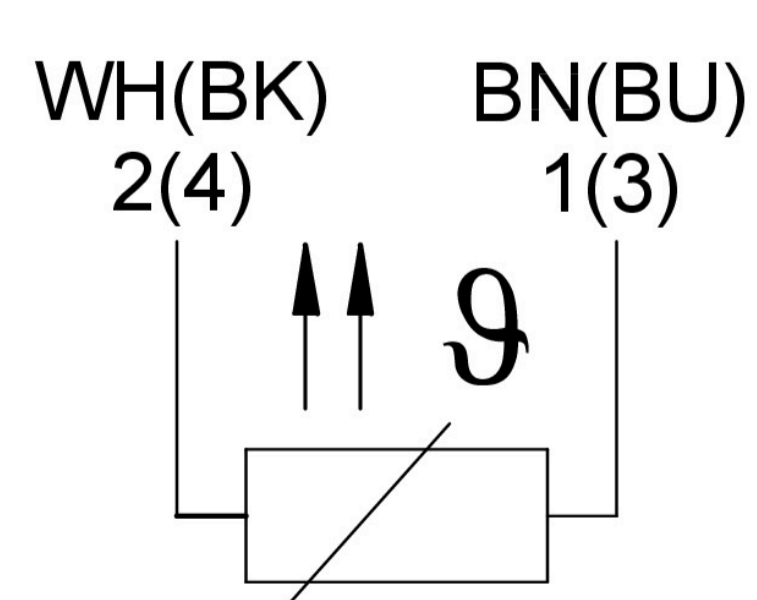
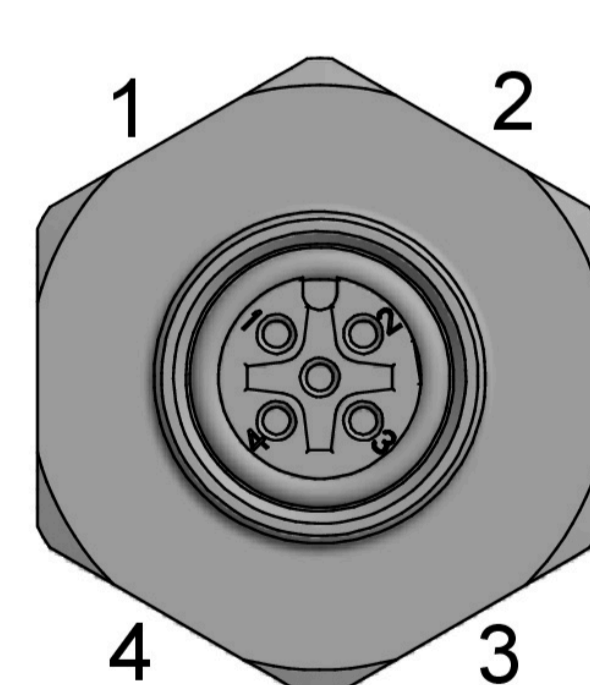
terminal base  
2 x PT100 4 wire



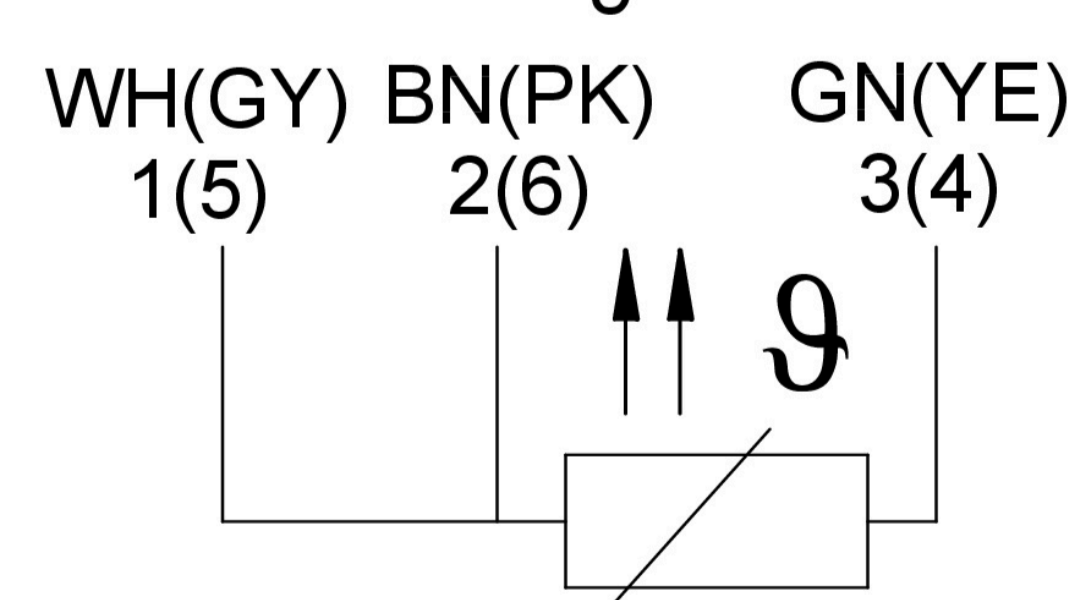
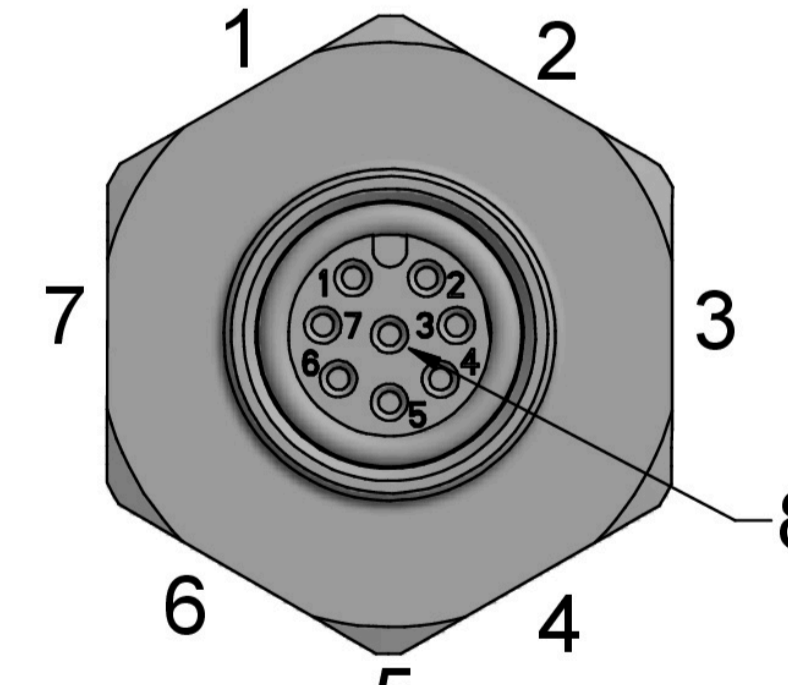
M12 insert socket  
8 - terminal



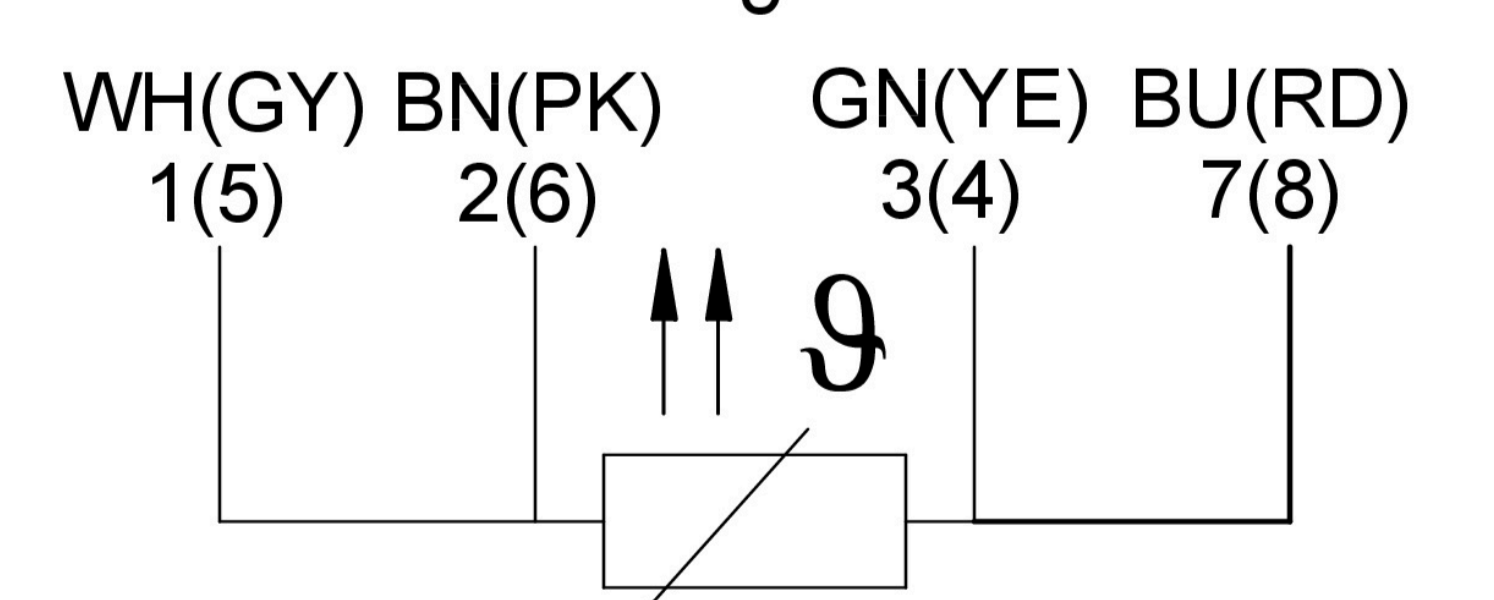
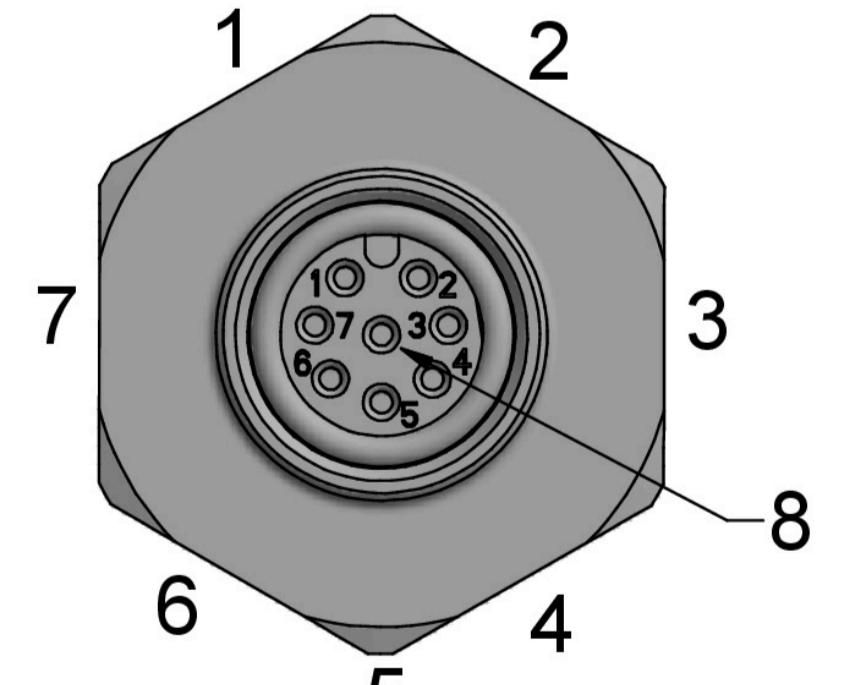
M12 insert socket  
1 x PT100 4 wire



M12 insert socket  
2 x PT100 2 wire



M12 insert socket  
2 x PT100 3-wire



M12 insert socket  
2 x PT100 4 wire