

Ex-Resistance Temperature Detector WR15 model 3F

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. This design allows a direct flanging to the weld-neck-flange of a container or a pipeline. The Tapering reduces the response time.

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.

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

For installation please see our operating instructions.

Stock-number-code: WR15-J.

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.
- **Protection shell** (fig. 1/3 up to 5) according or similar to DIN 43772.
Standard material 1.4571.
Standard- D/d: 12 tapered to 9 mm
- **Process connection** (fig.1/4) by welded blind flange according DIN EN 1092-1 Typ 05 or ASME B 16.5.
Standard flange DN25 / DN50 PN40 model B1.
- **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 accuracy 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 6) the following demension are acceptable:
outer diameter(D) \geq 6,0 mm, wall thickness(S) \geq 1,0 mm, ground hight \geq 1,3 x S [mm].
neck tube length (HLR) max. 2000 mm.
fitting length (EBL) max. 6000 mm.
- **Optional materials for gas and dust explosion protection:**
please see ex-operation instructions chapter 4 X-Conditions.

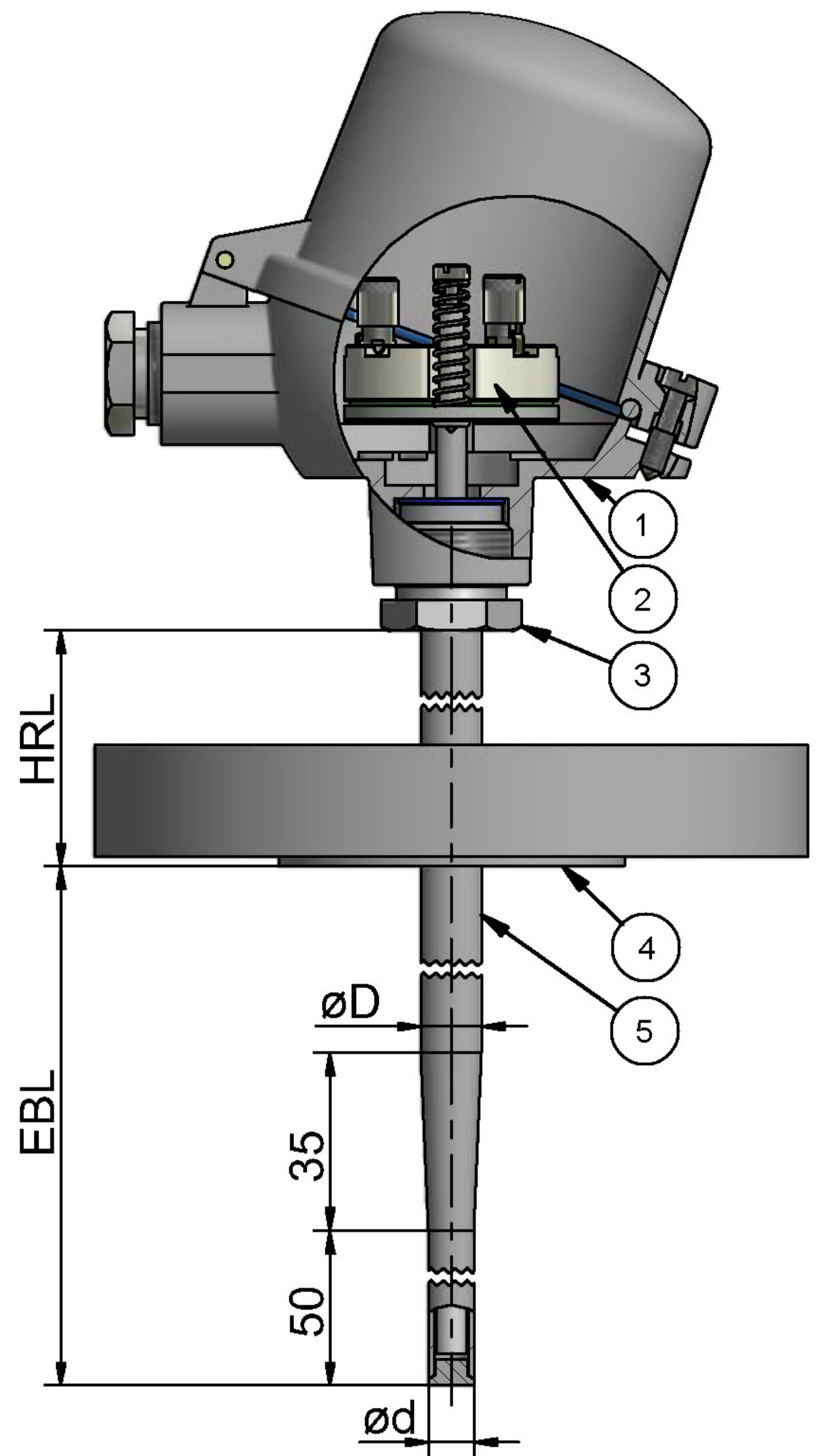
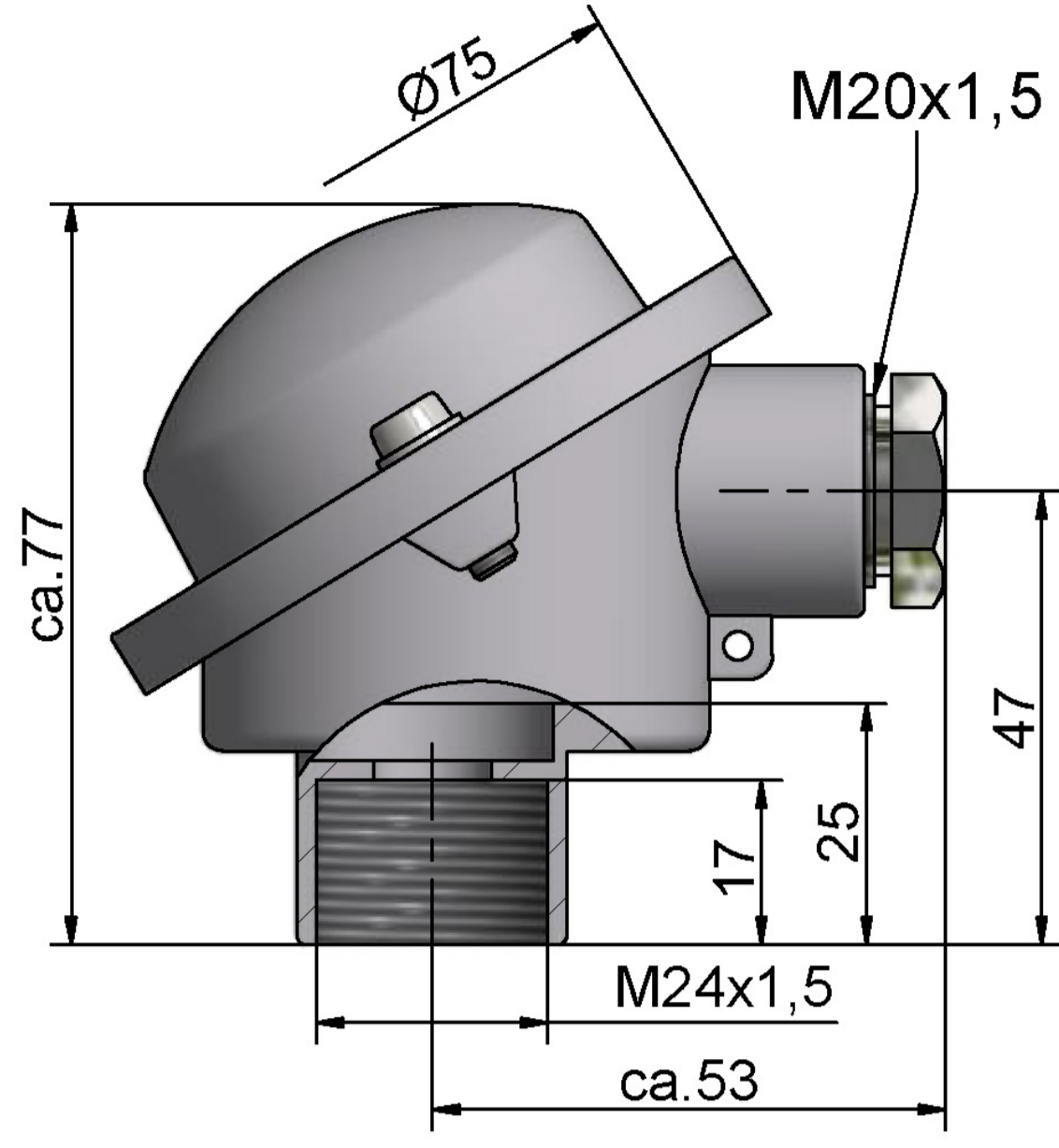


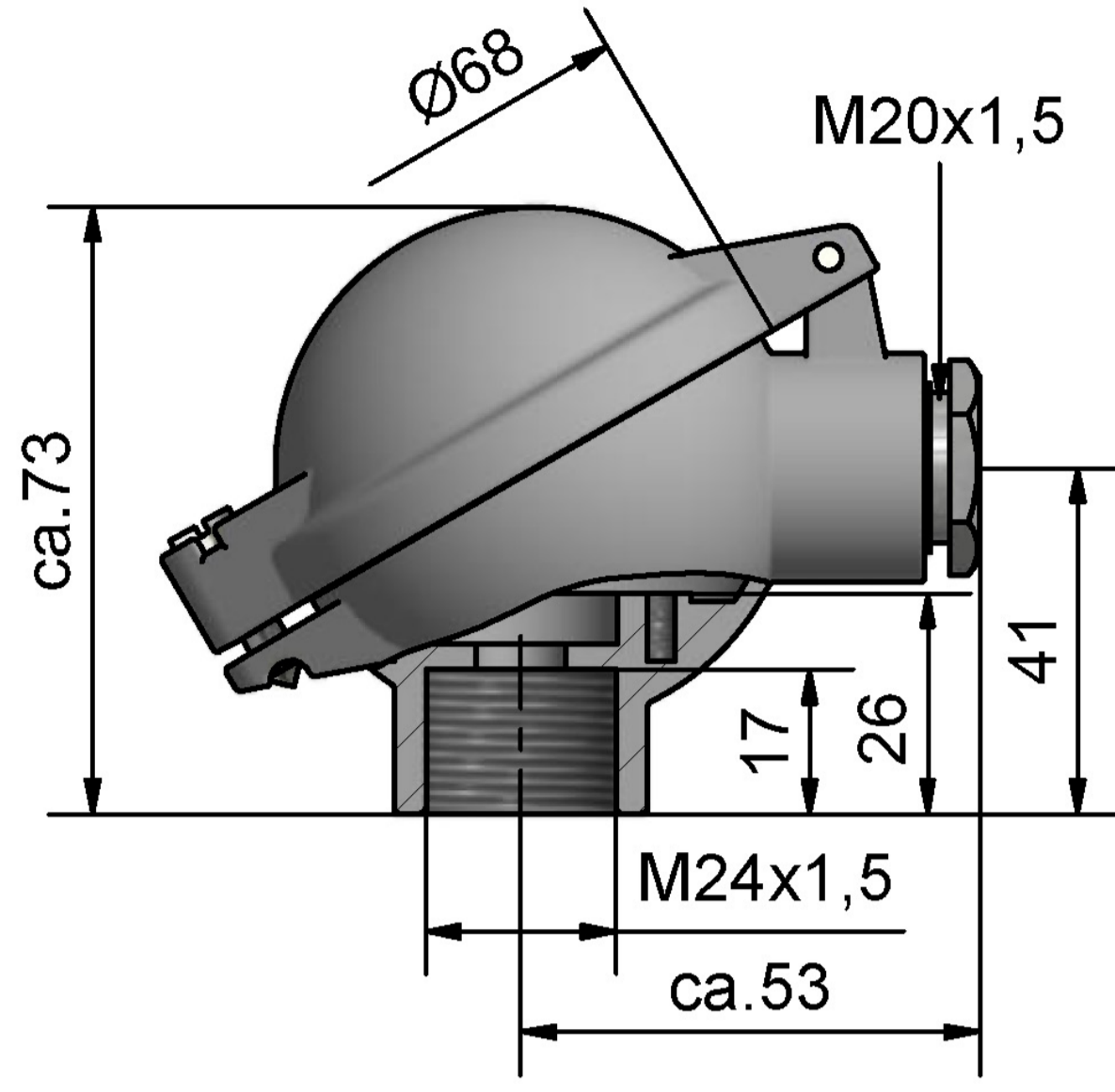
fig. 1

Optional connecting heads / circuit diagram

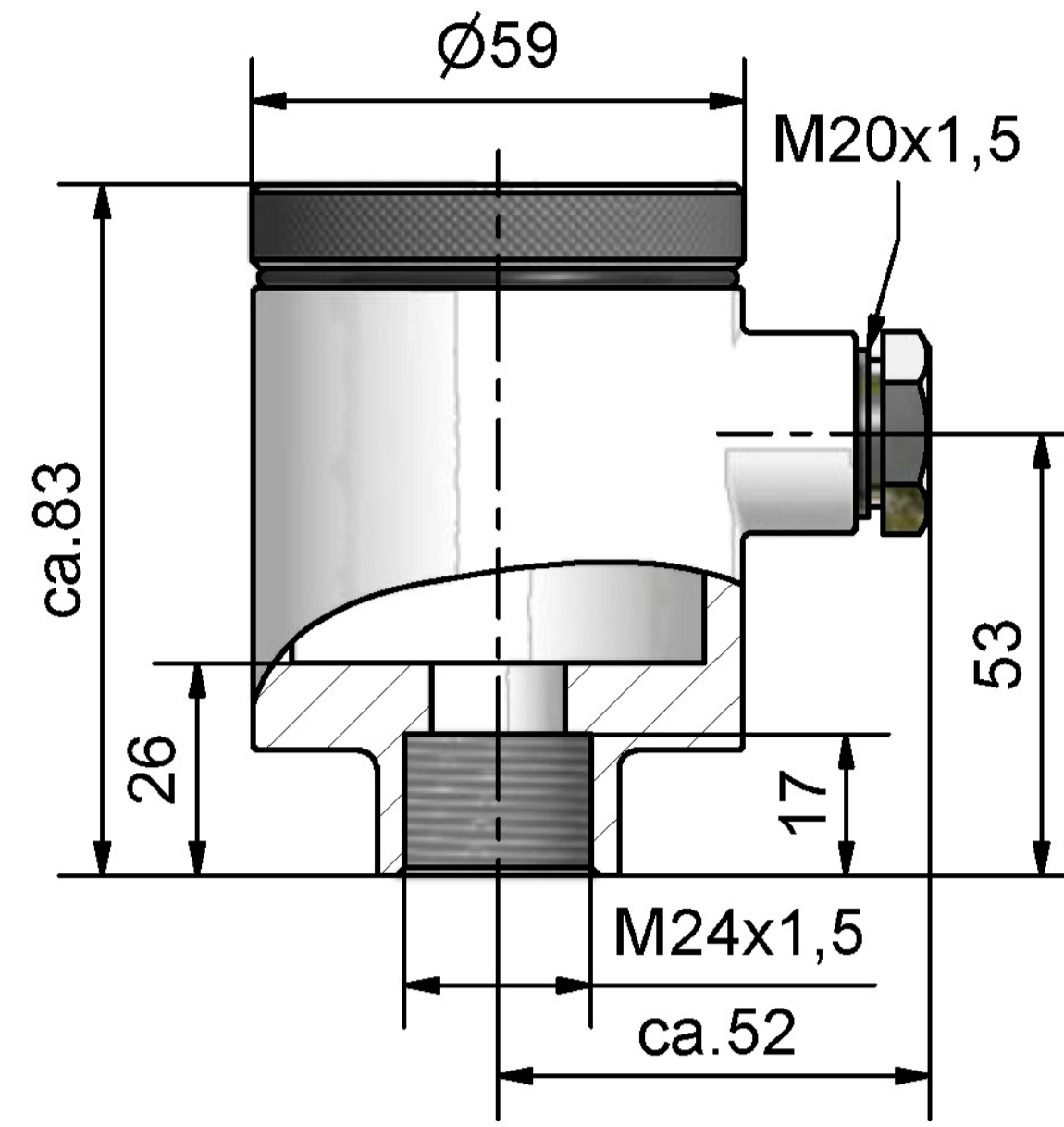
Alternative to the cable gland a M12 insert plug is possible.



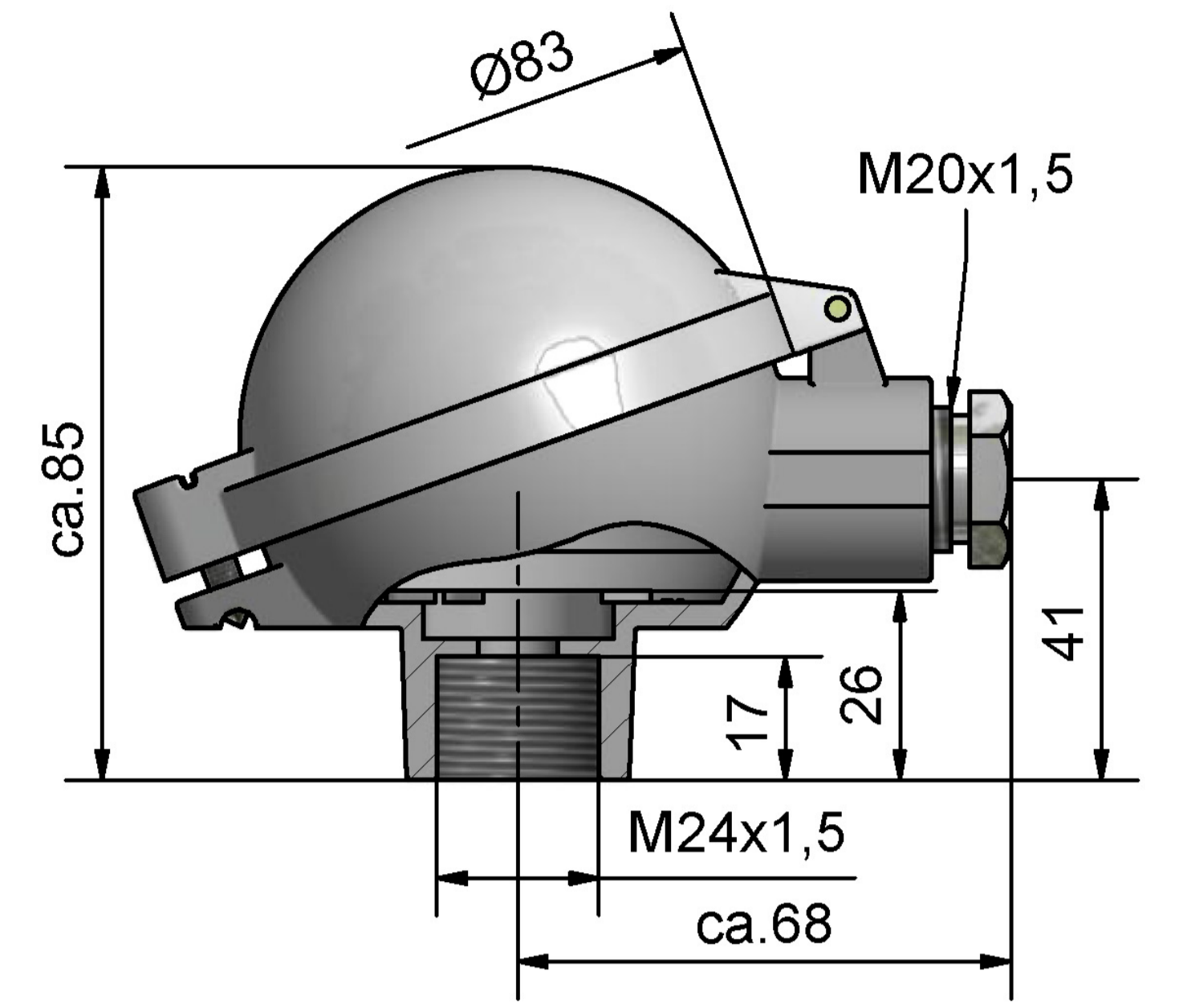
connection head model B-G12
M24 x 1,5



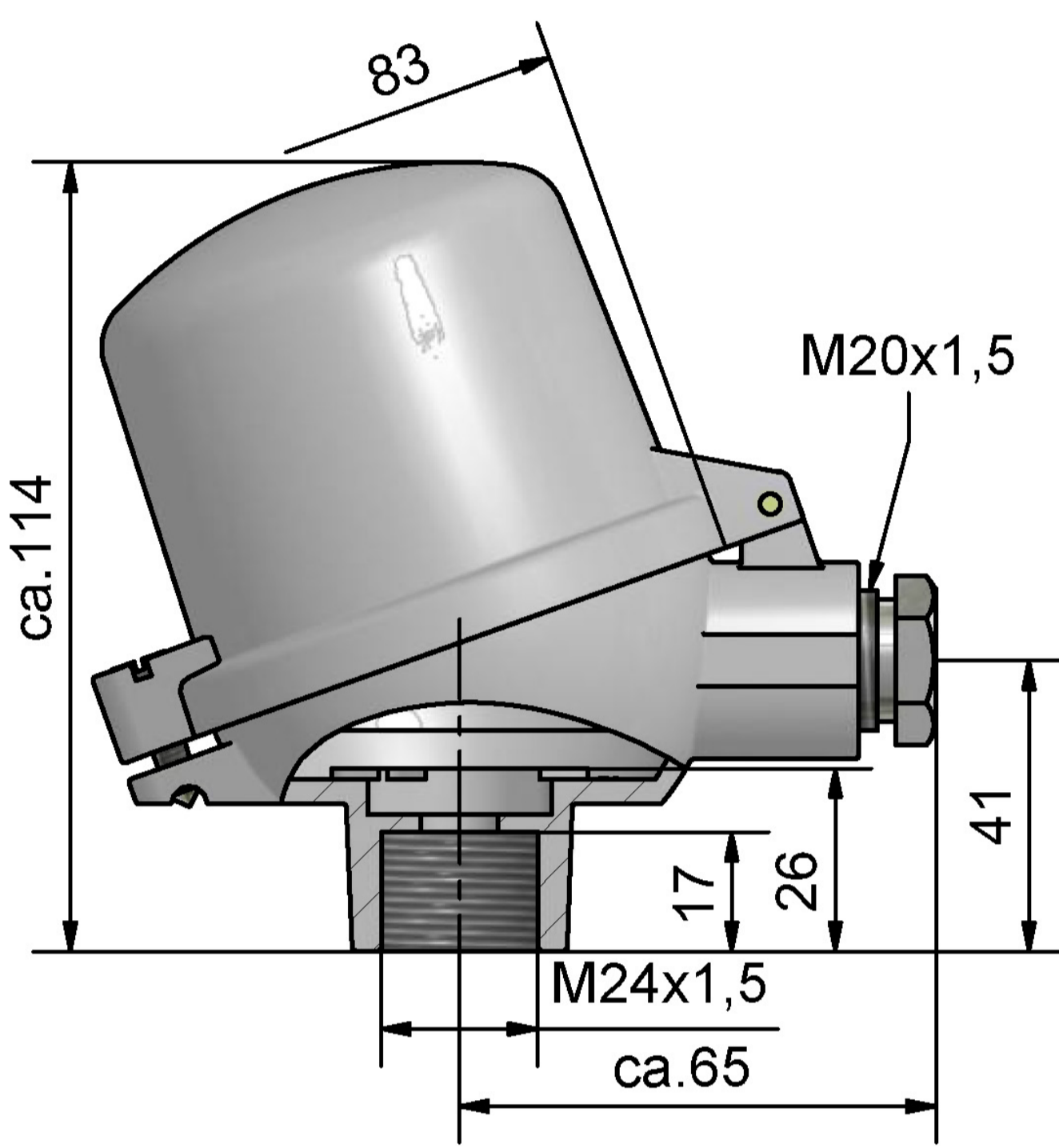
connection head model B-KL
M24 x 1,5



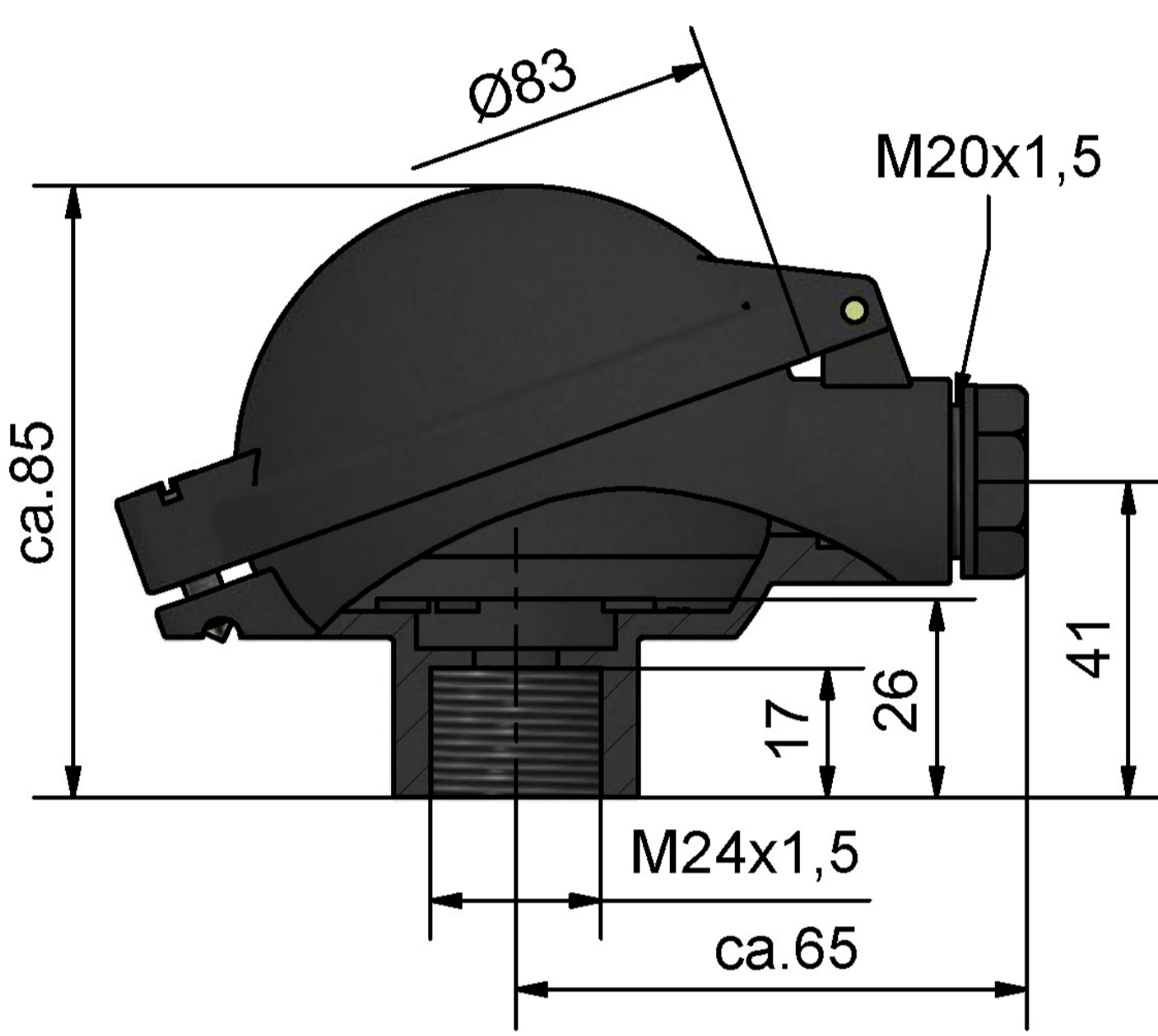
connection head model B-VA
M24 x 1,5



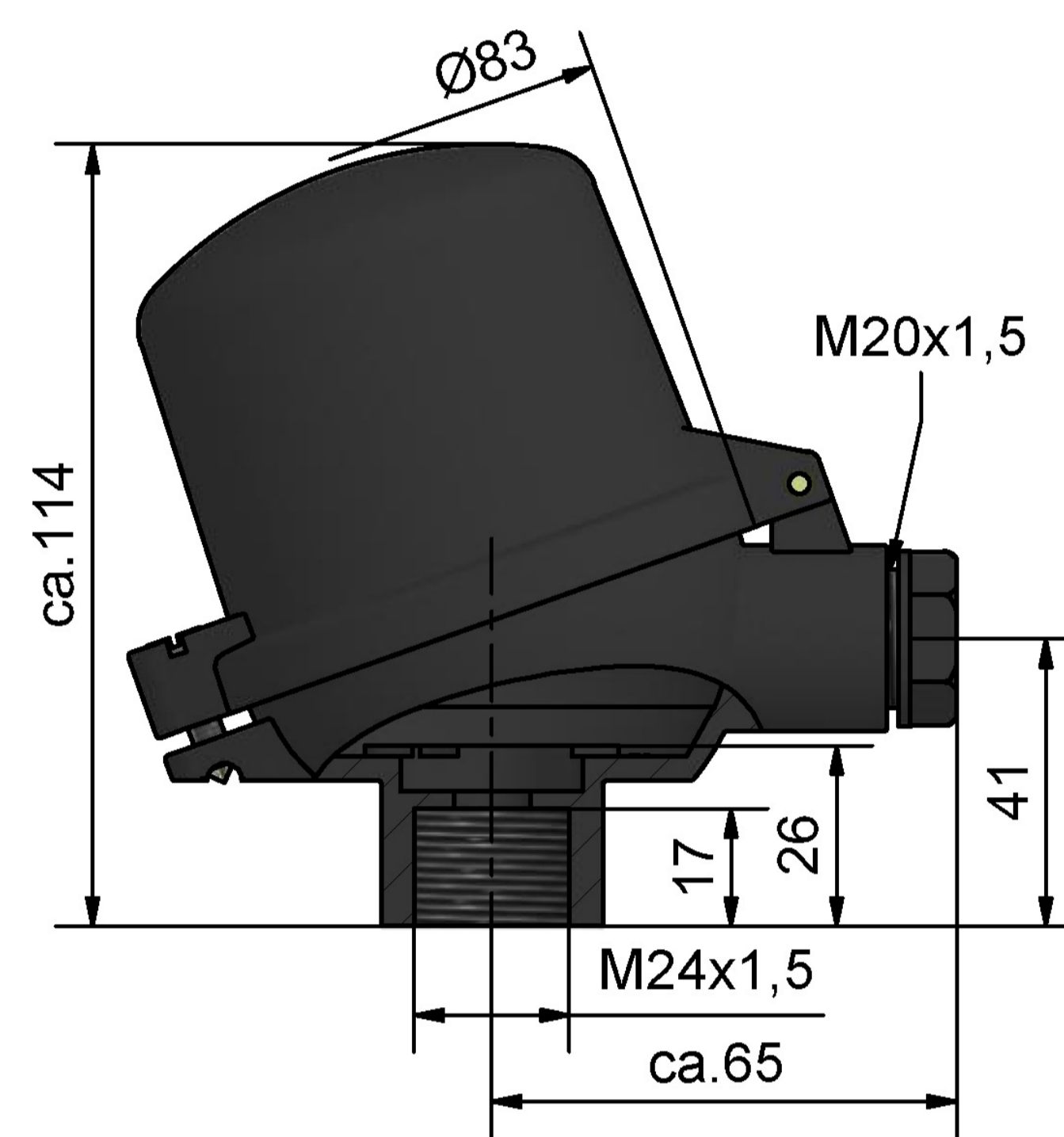
connection head model BA-KL
M24 x 1,5



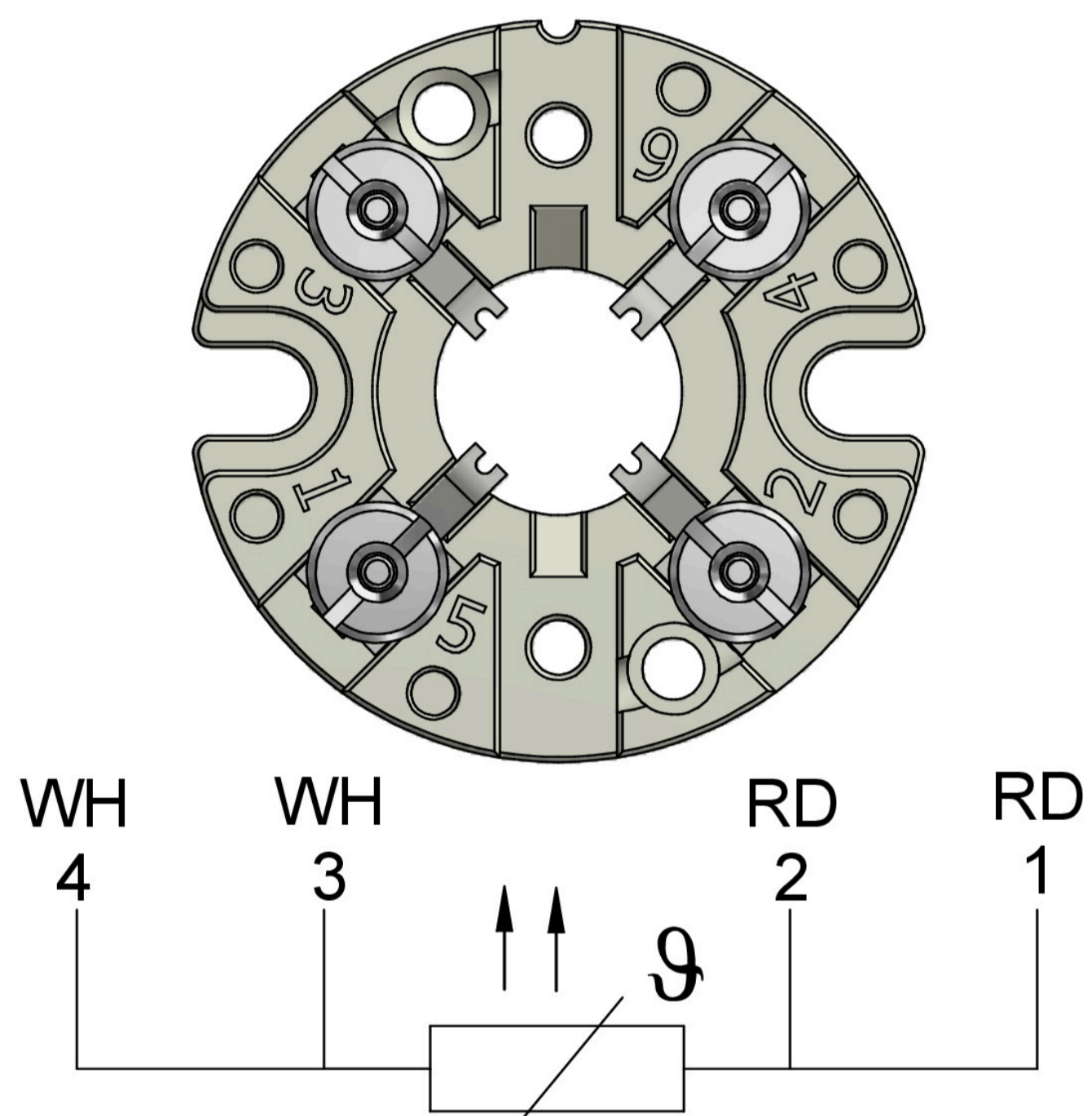
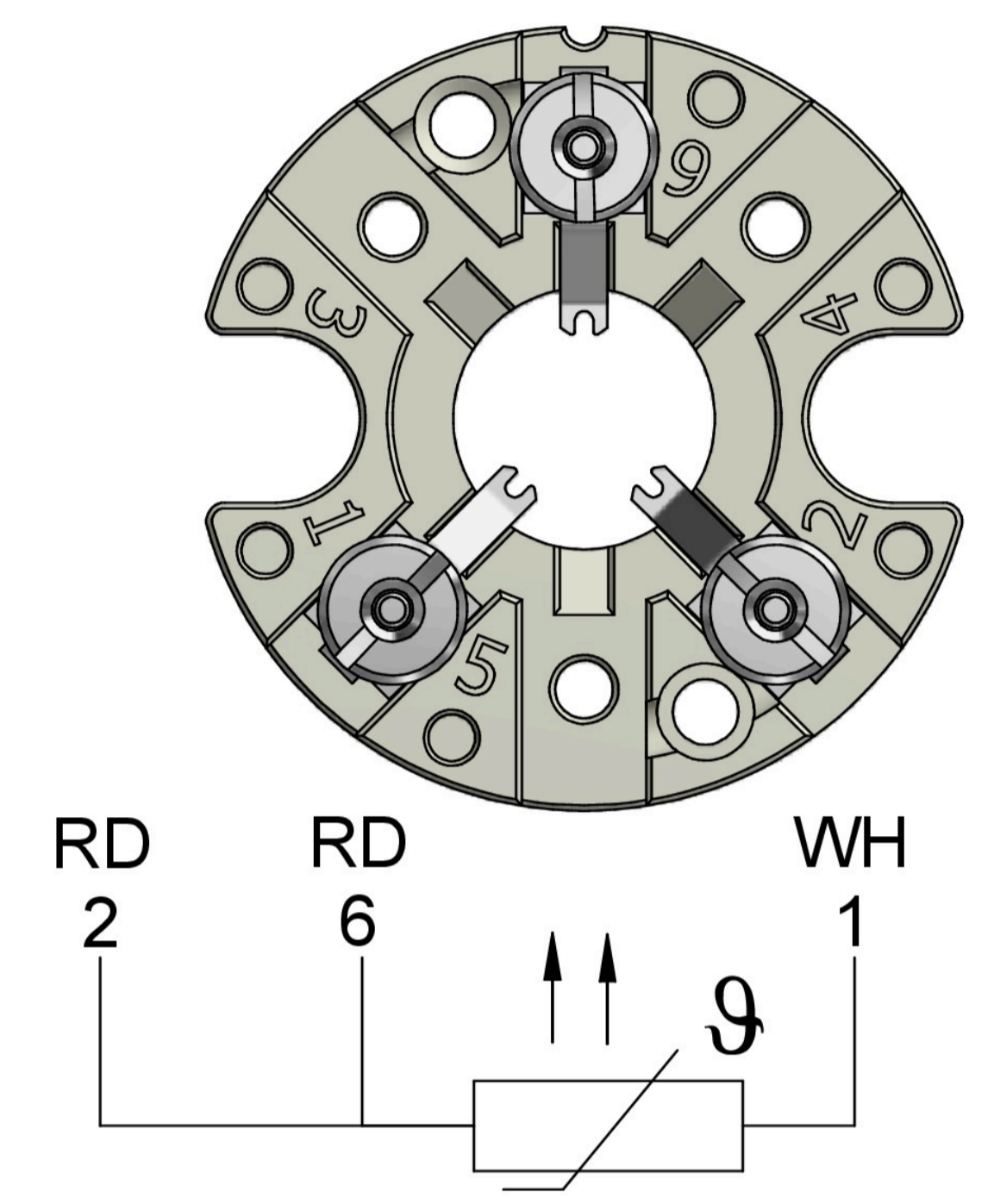
connection head model BA-KLH
M24 x 1,5



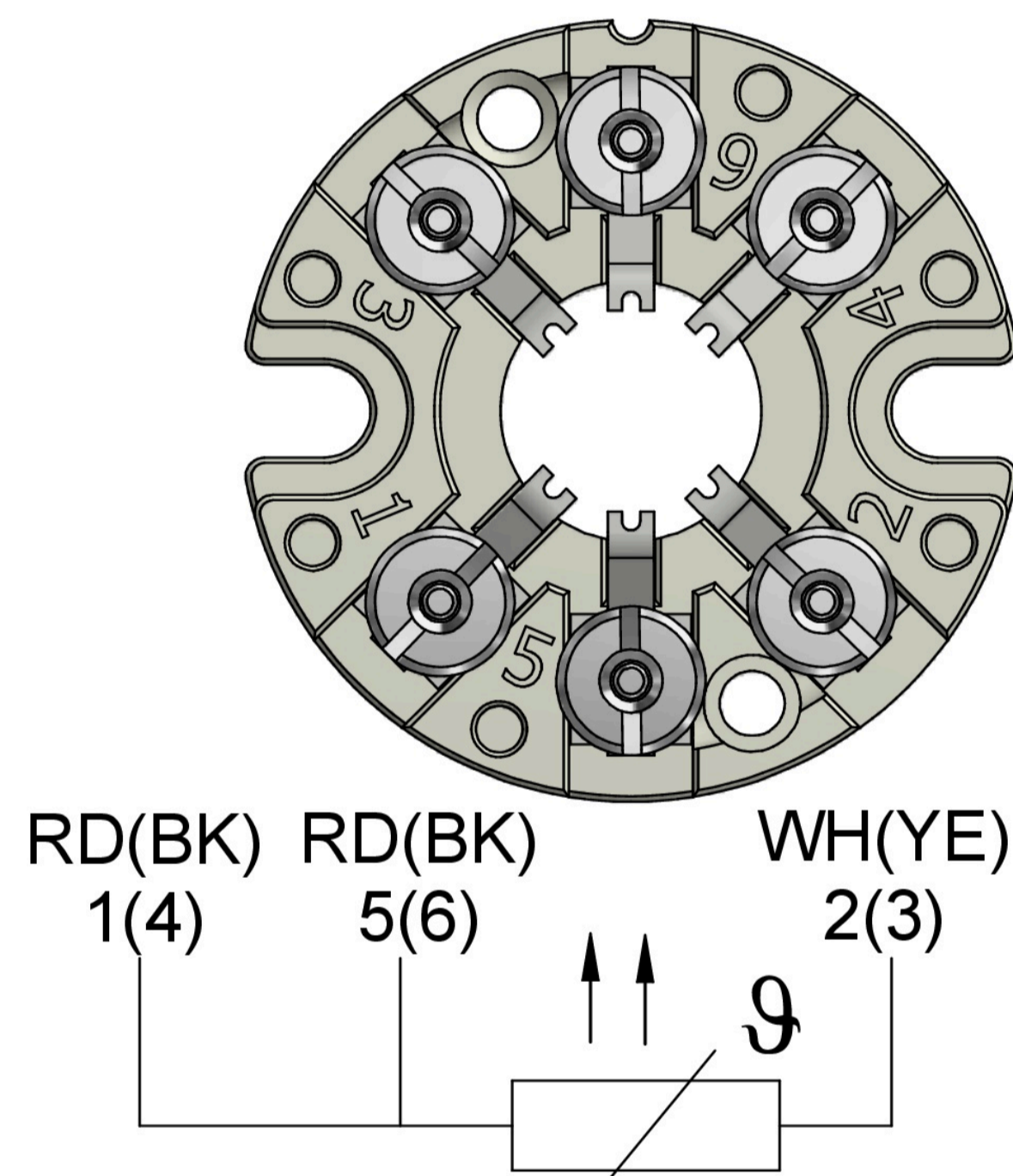
connection head model B-KUKL
M24 x 1,5



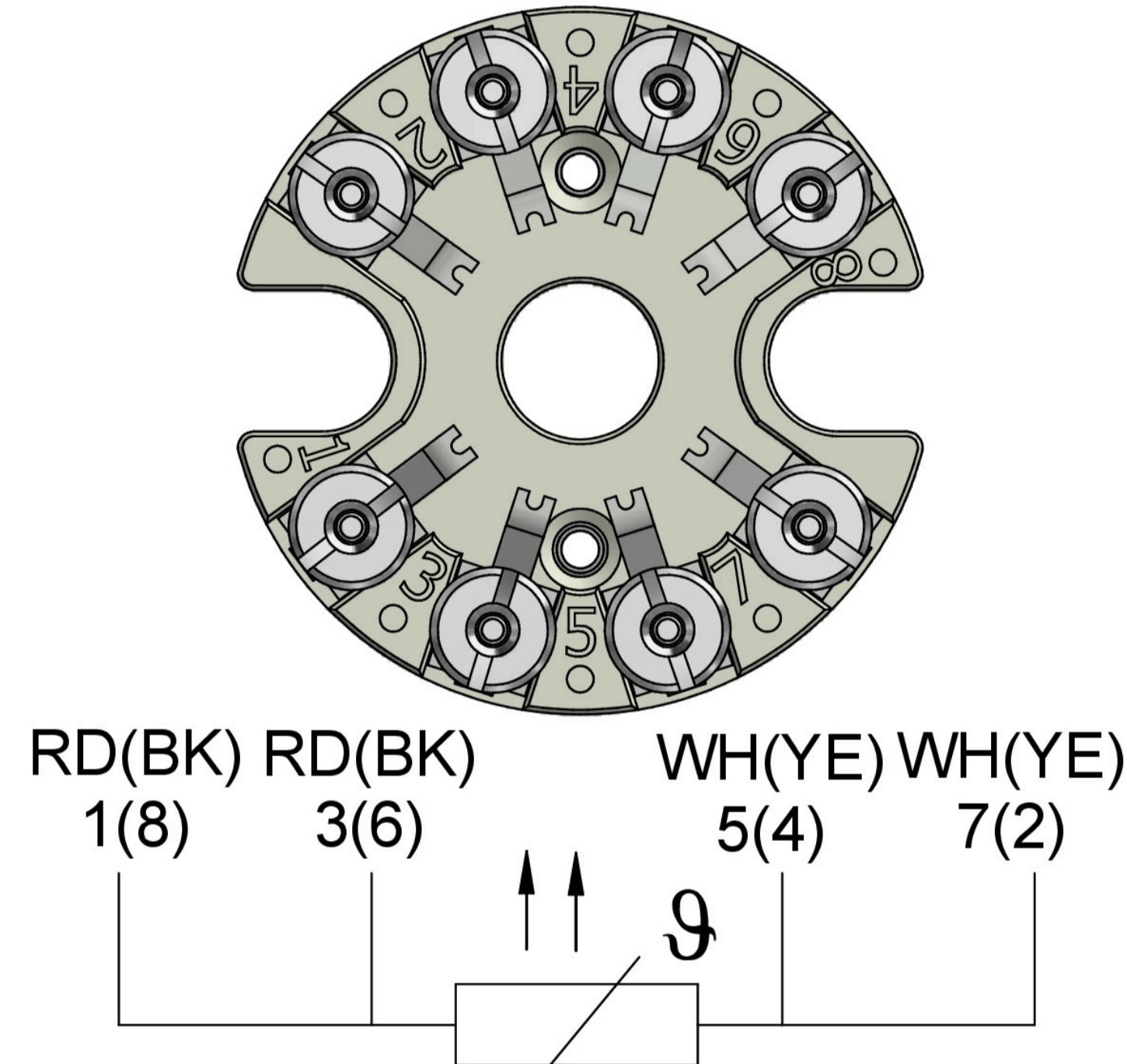
connection head model B-KUHKL
M24 x 1,5



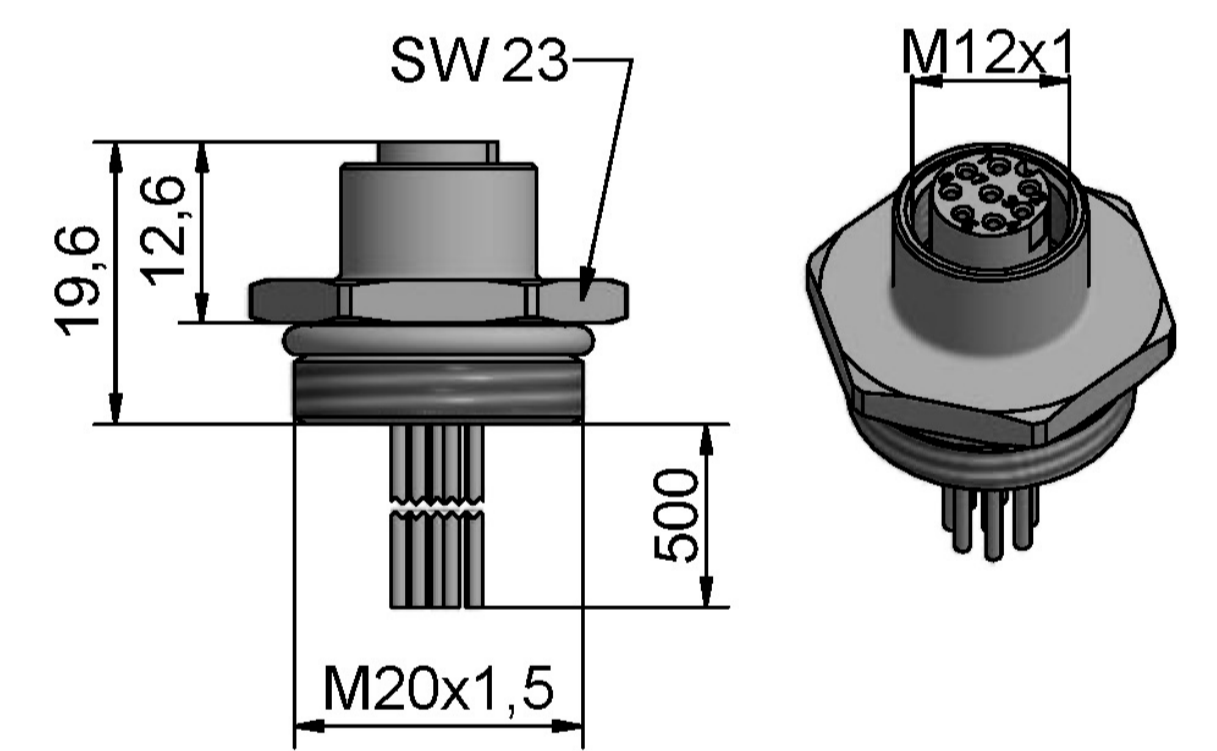
terminal base
1 x PT100 4 wire



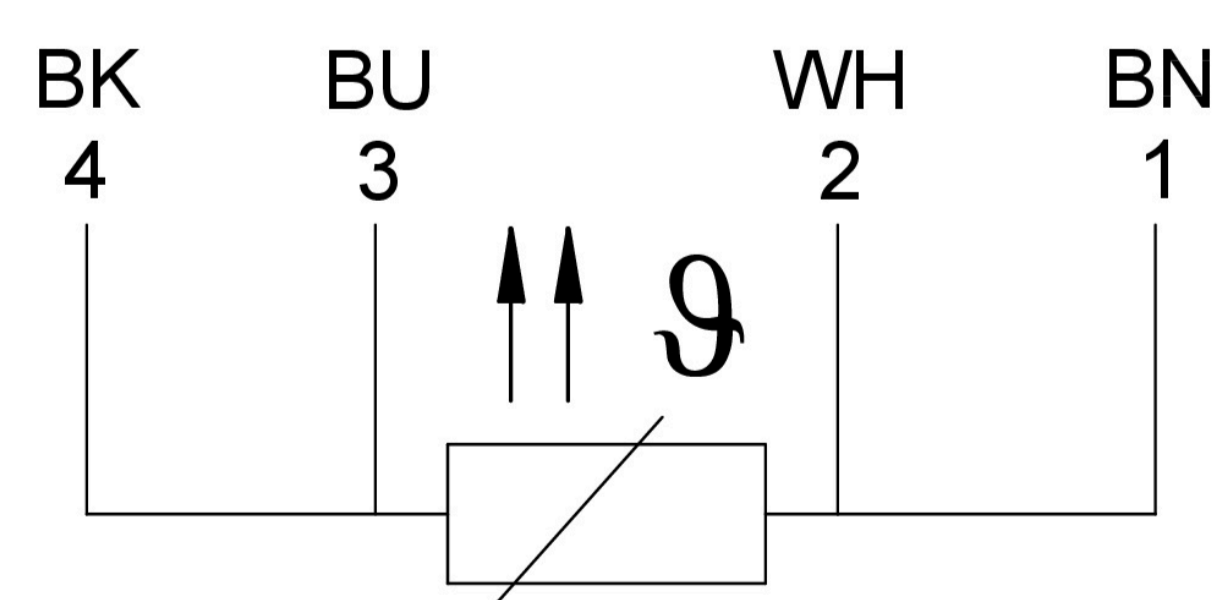
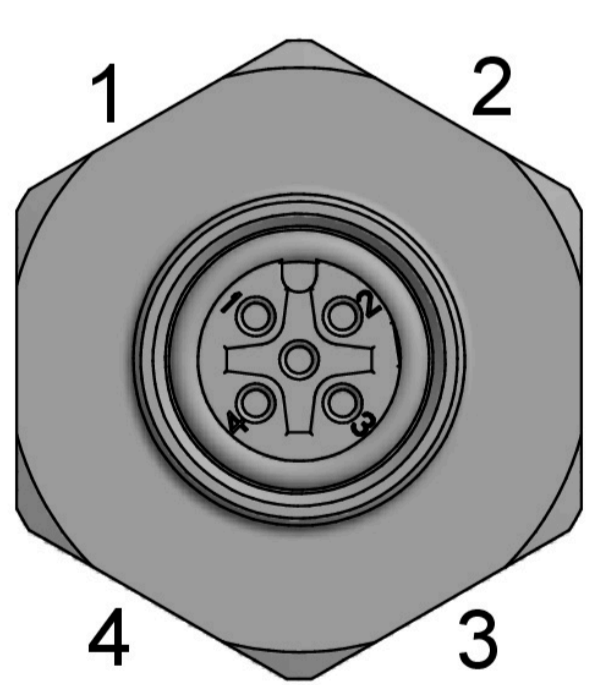
terminal base
2 x PT100 3 wire



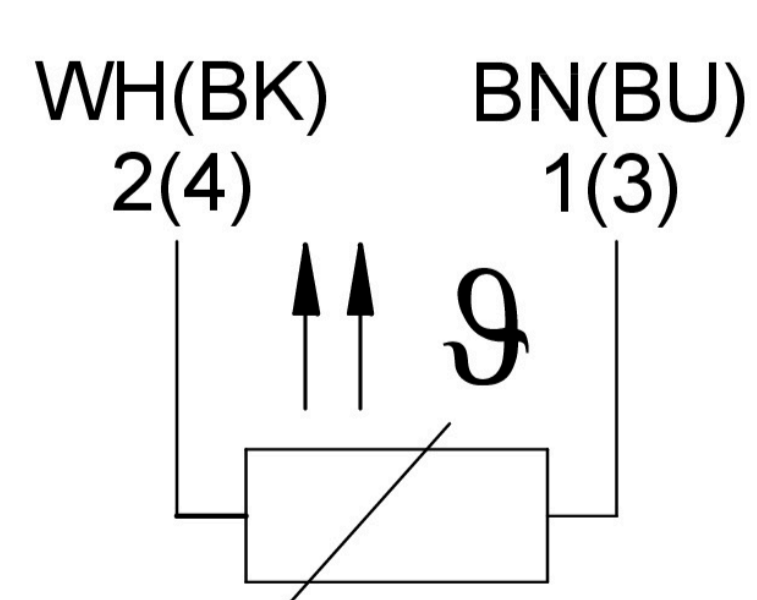
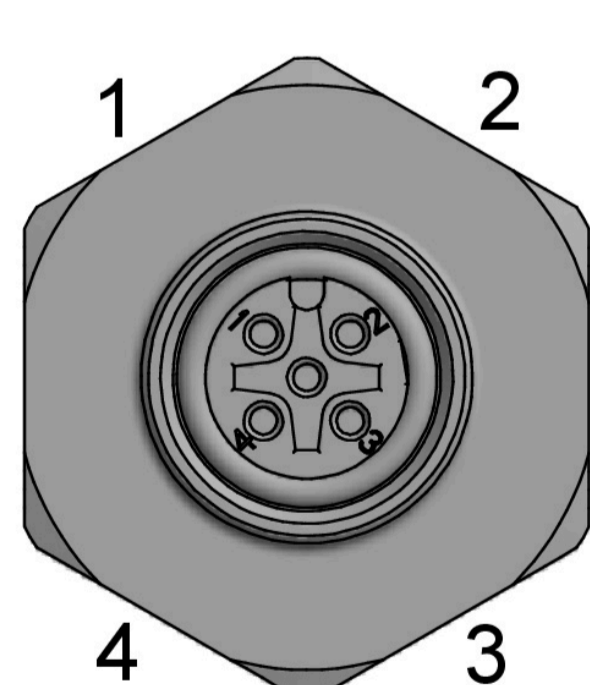
terminal base
2 x PT100 4 wire



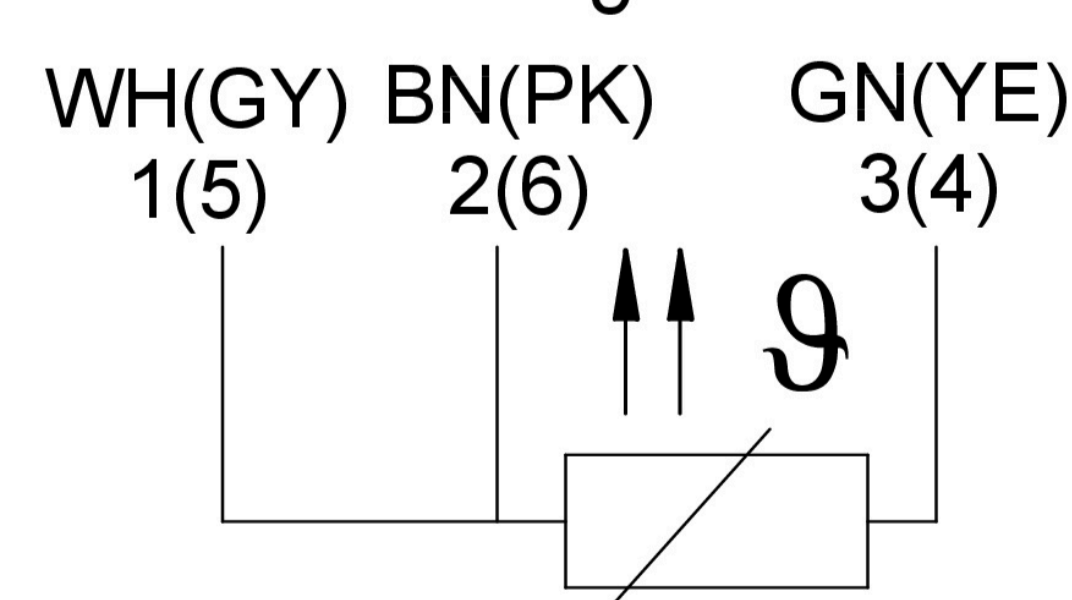
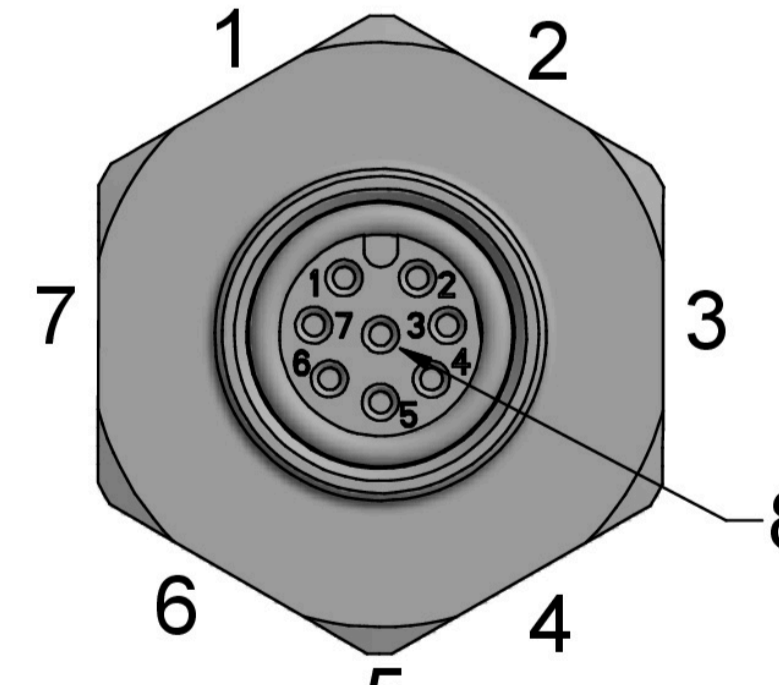
M12 insert socket
8 - terminal



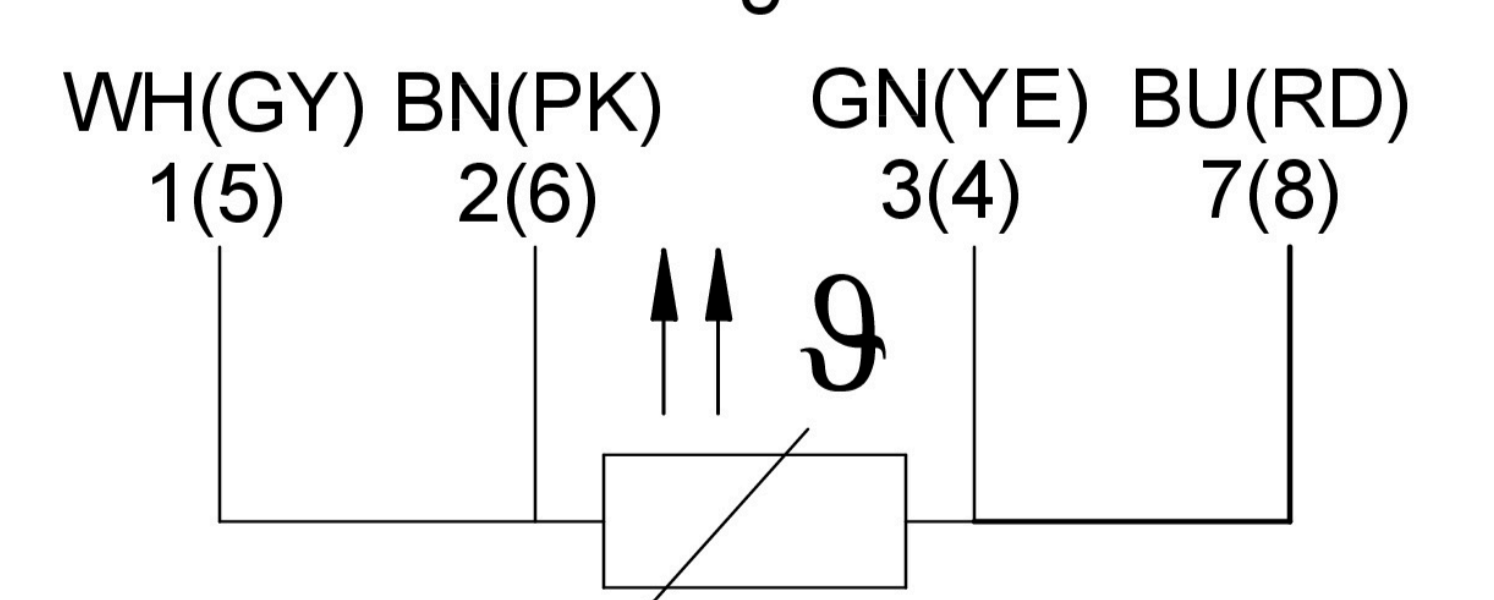
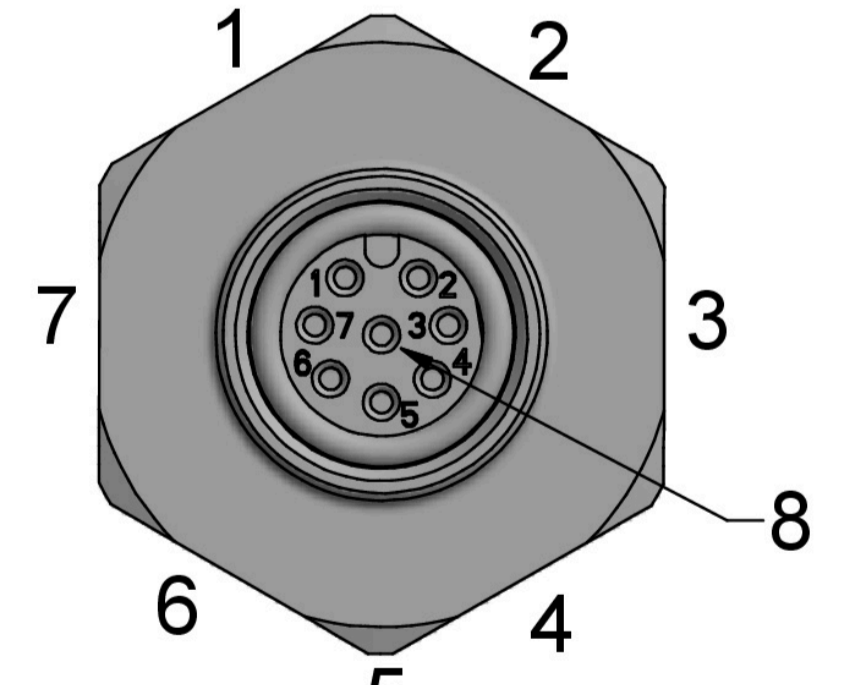
M12 insert socket
1 x PT100 4 wire



M12 insert socket
2 x PT100 2 wire



M12 insert socket
2 x PT100 3 wire



M12 insert socket
2 x PT100 4 wire