

# Mineral Insulated Thermocouple model B

## MIT Measuring Insert with connection head

### In general

Reckmann GmbH temperature sensors (R58®) are used exclusively for measuring process temperatures in solid, liquid or gaseous media. The measuring insert (fig.1) is, so to speak, the carrier of the sensor element and the exchangeable unit of our thermometers of the design with protection fitting.

#### Range of application:

Fitted as standard in thermocouples according to DIN EN 50446.  
model AM / AK or for non-critical measurements with connection head.

**For installation-specific data, see installation instructions for MTE.**

**Type code 1R9-G0.**

### Technical datas

- **Connection head** (Fig. 1/1) according to DIN 50446,  
Preferred heads: Form B, B-KL, B-KS, BA-KL, BA-KS, BA-KLH, BA-KSH, B-VA, B-GR, B-KU, B-KUKL, B-KUHKL, IP 54.  
Dimensions see page 2.  
On request: IP 65 or IP 67
- **Measuring insert** (fig. 1/2) according to or similar to DIN 43735 installed in connection head (fig.1/1).
- **Sensor** depending on application:  
with 1 or 2 thermocouples according to IEC / EN 60584-1.  
Recommended application temperature depending on thermocouple type and diameter:  
Type K: Ø 3.0 mm up to 1070 °C, Ø 4.5; 6.0 and 8.0 mm up to 1100 °C.  
Type J: Ø 3.0 mm up to 520 °C, Ø 4.5 up to 620 °C, 6.0 and 8.0 mm up to 720 °C.  
Type N: Ø 3.0 mm up to 1070 °C, Ø 4.5; 6.0 and 8.0 mm up to 1100 °C.  
Type E: Ø 3,0 mm up to 650 °C, Ø 4,5 up to 730 °C, 6,0 and 8,0 mm up to 820 °C.  
Type T: Ø 3.0 mm up to 315 °C, Ø 4.5 / 6.0 and 8.0 mm up to 350 °C.  
Type S/R: Ø 1.5 / Ø 3.0 and 6.0 mm up to 1300 °C.

#### Note:

TYPE S/R only makes sense with sheath made of Pt10%RH for 0 °C up to max. 1300 °C.

- **Sheath material** design according to or similar to IEC / EN 61515.  
Preferred material 2.4816.  
Preferred diameter 3; 6 or 8 mm.
- **Process connection** via sliding compression fitting, union nut or welded-on compression fitting DIN 32676.
- **Optional:** Class 3 requirements (-200 °C to 40 °C) on request. For requirements of class 1 and class 3 only possible with specially selected sheath material, high expense and not with type T.

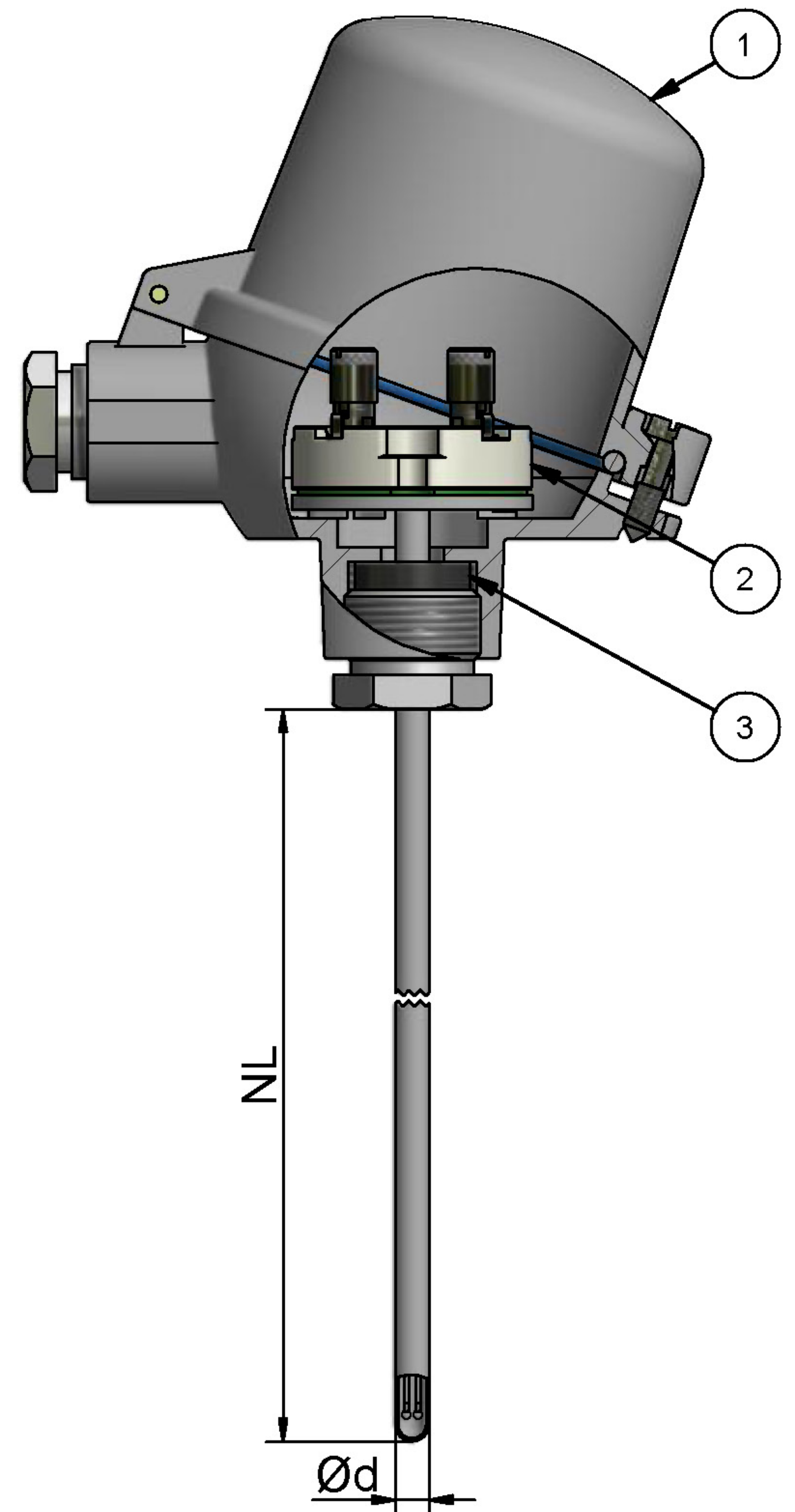
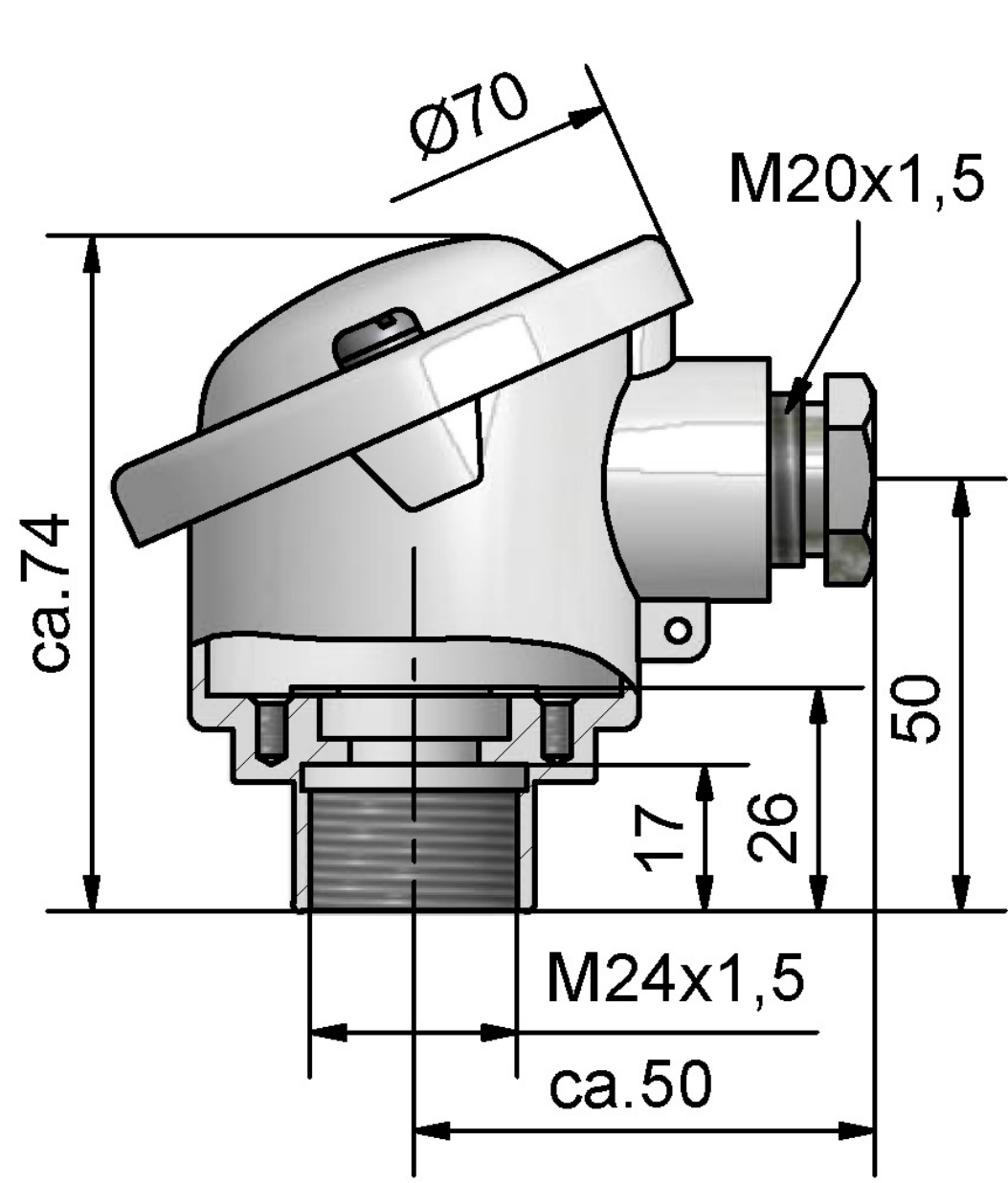


fig. 1

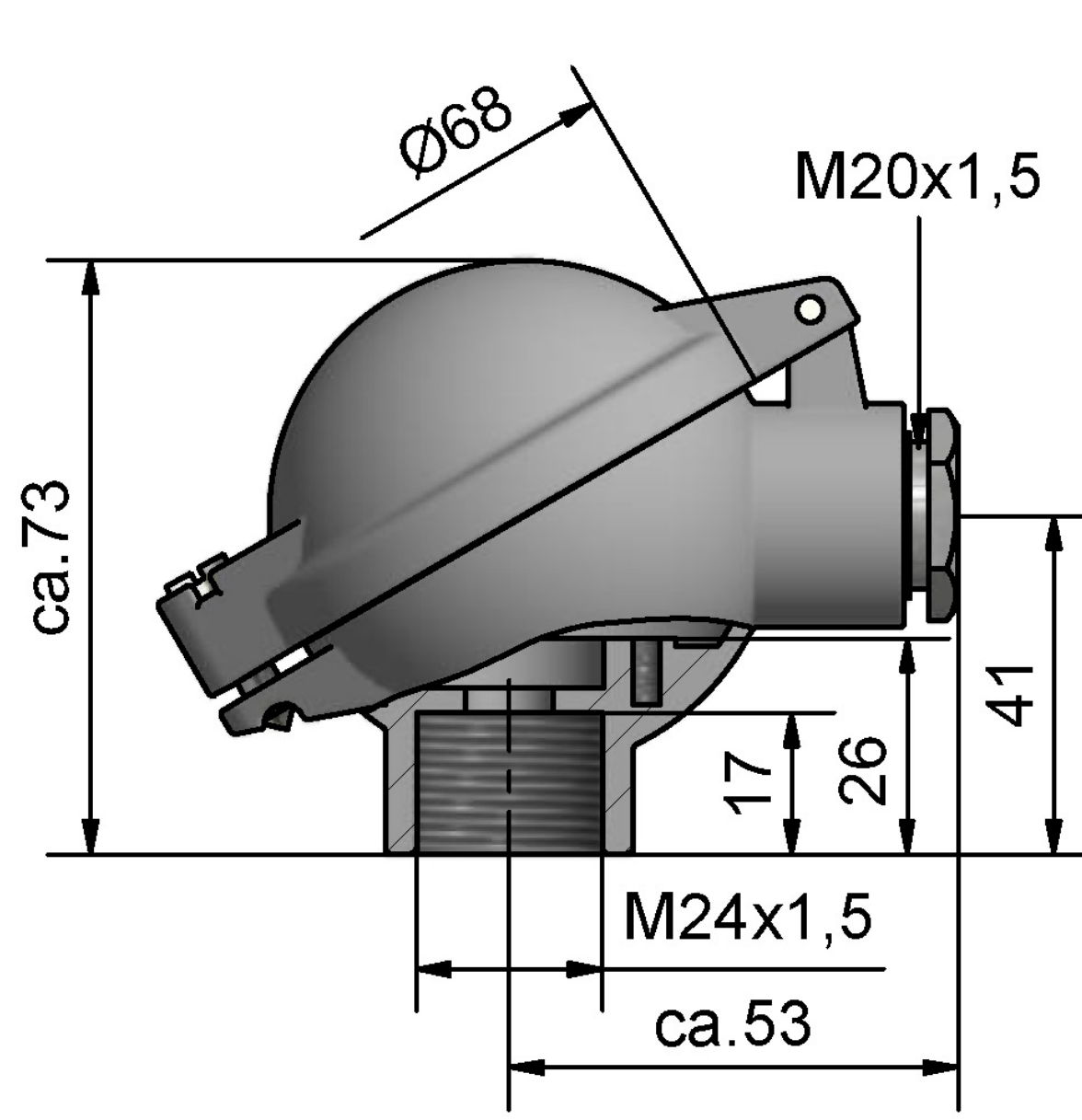


## Optional connecting heads / circuit diagram

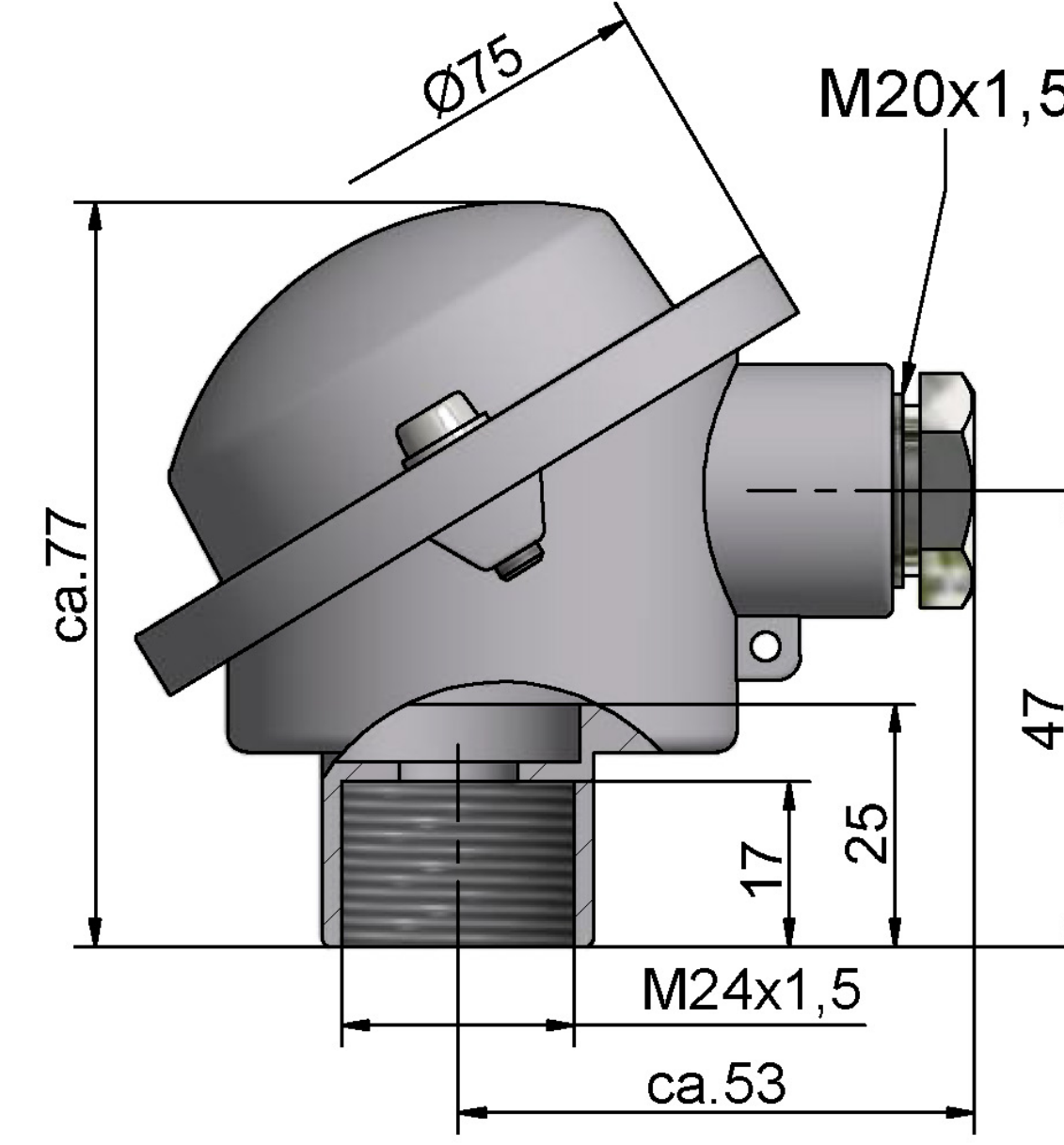
As an alternative to the cable gland, an M12 built-in connector is possible. On request also available with "quick-release fastener" made of plastic or grey cast iron.



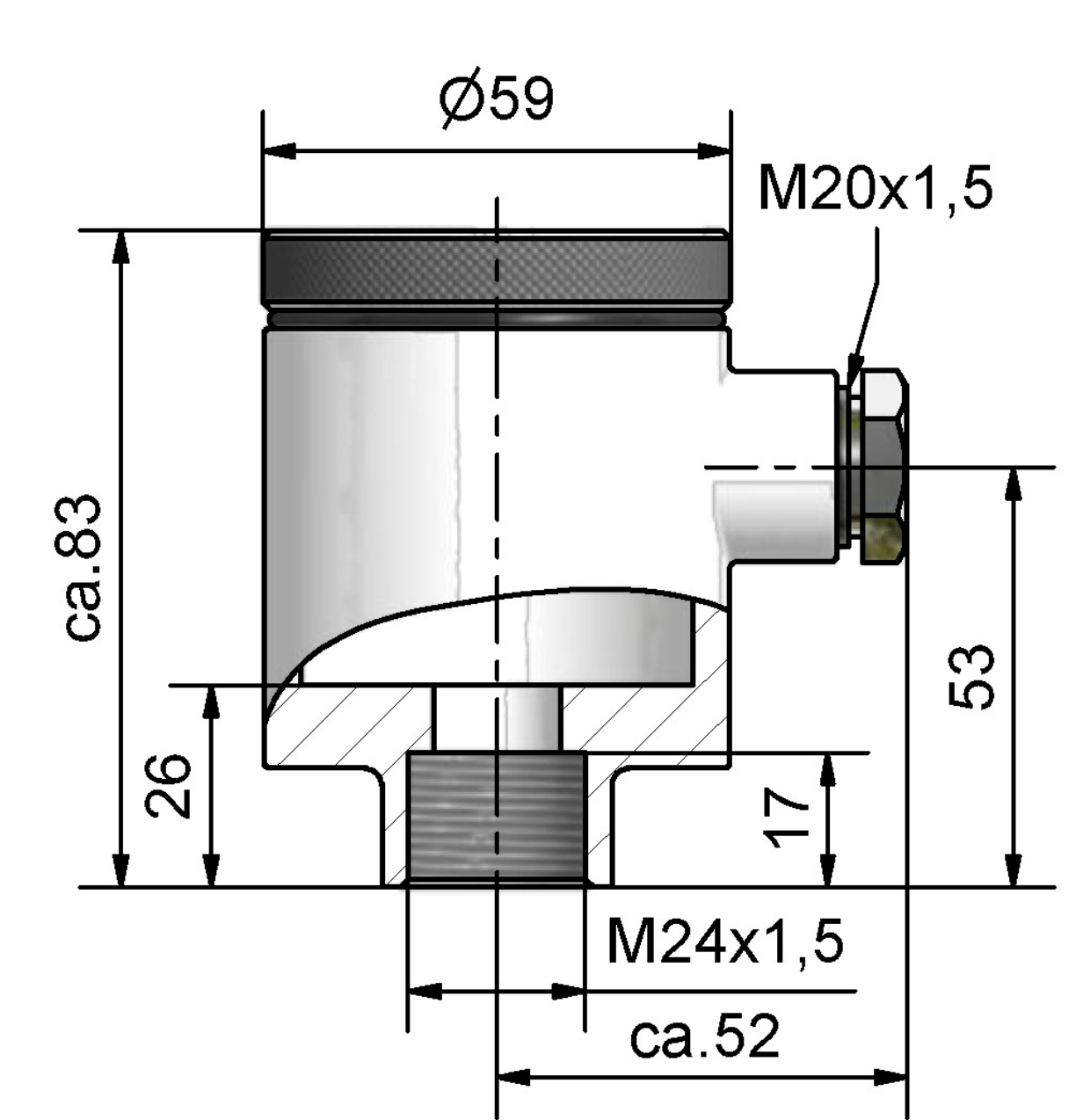
head model B  
M24 x 1,5



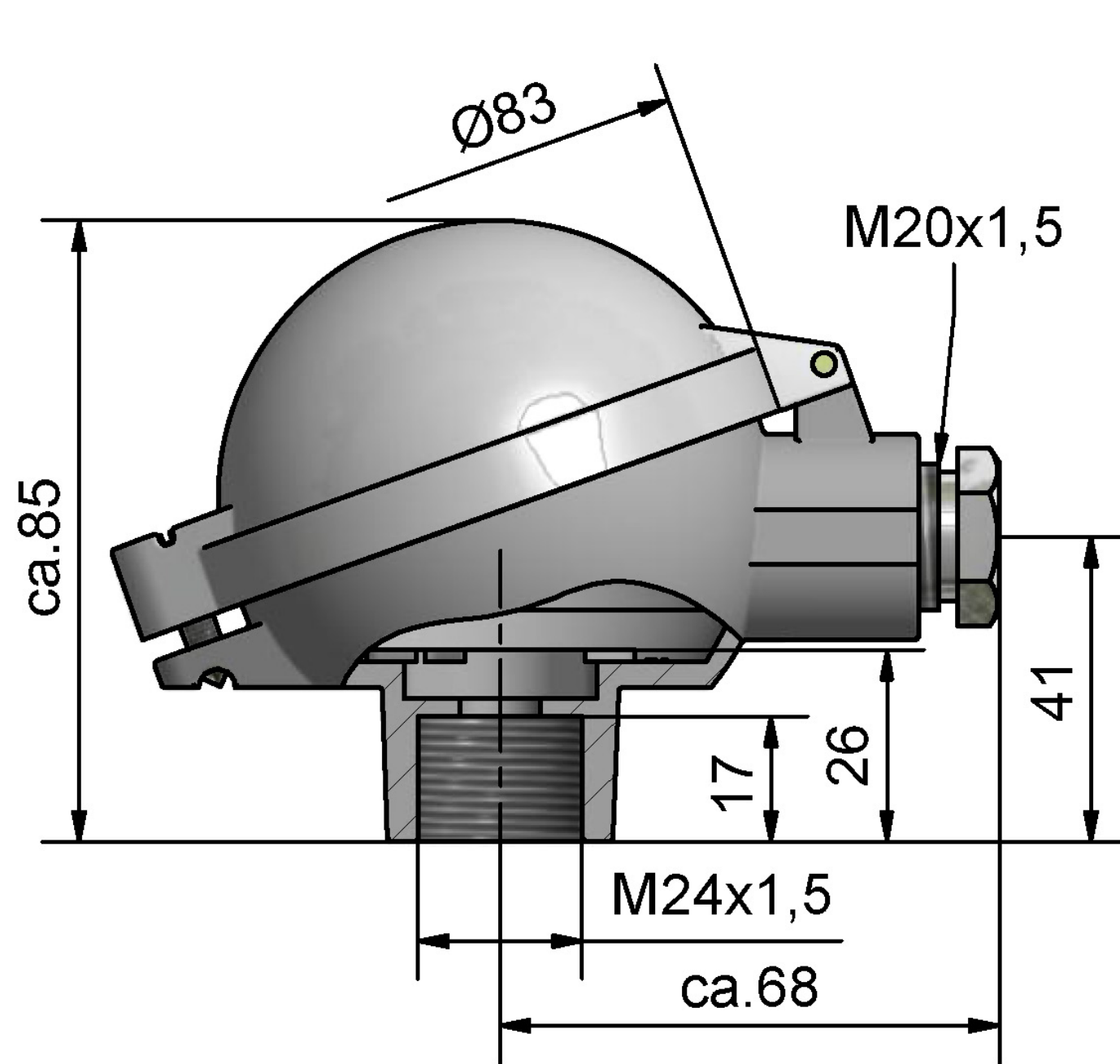
head model B-KL  
M24 x 1,5



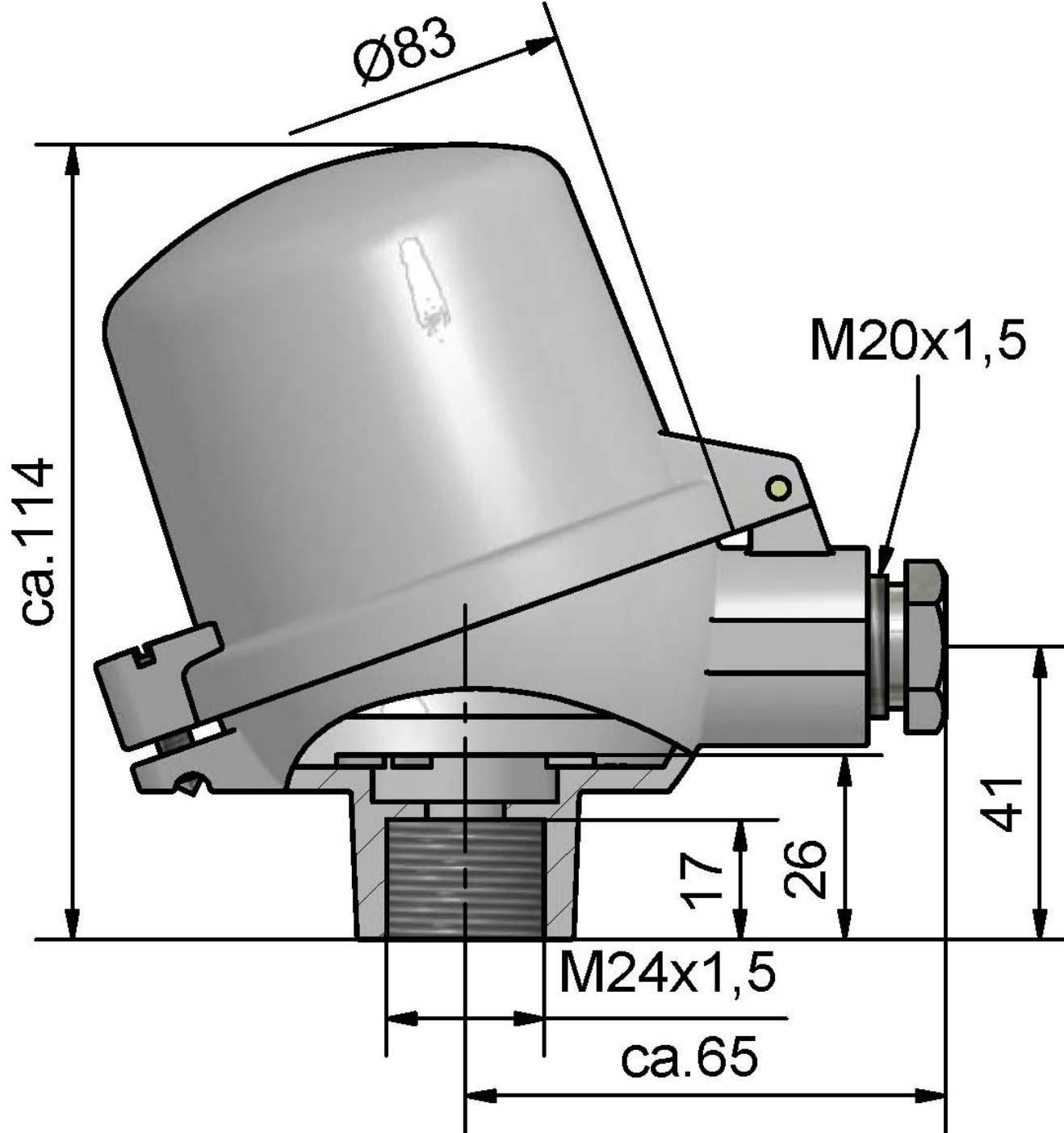
head model B-g12  
M24 x 1,5



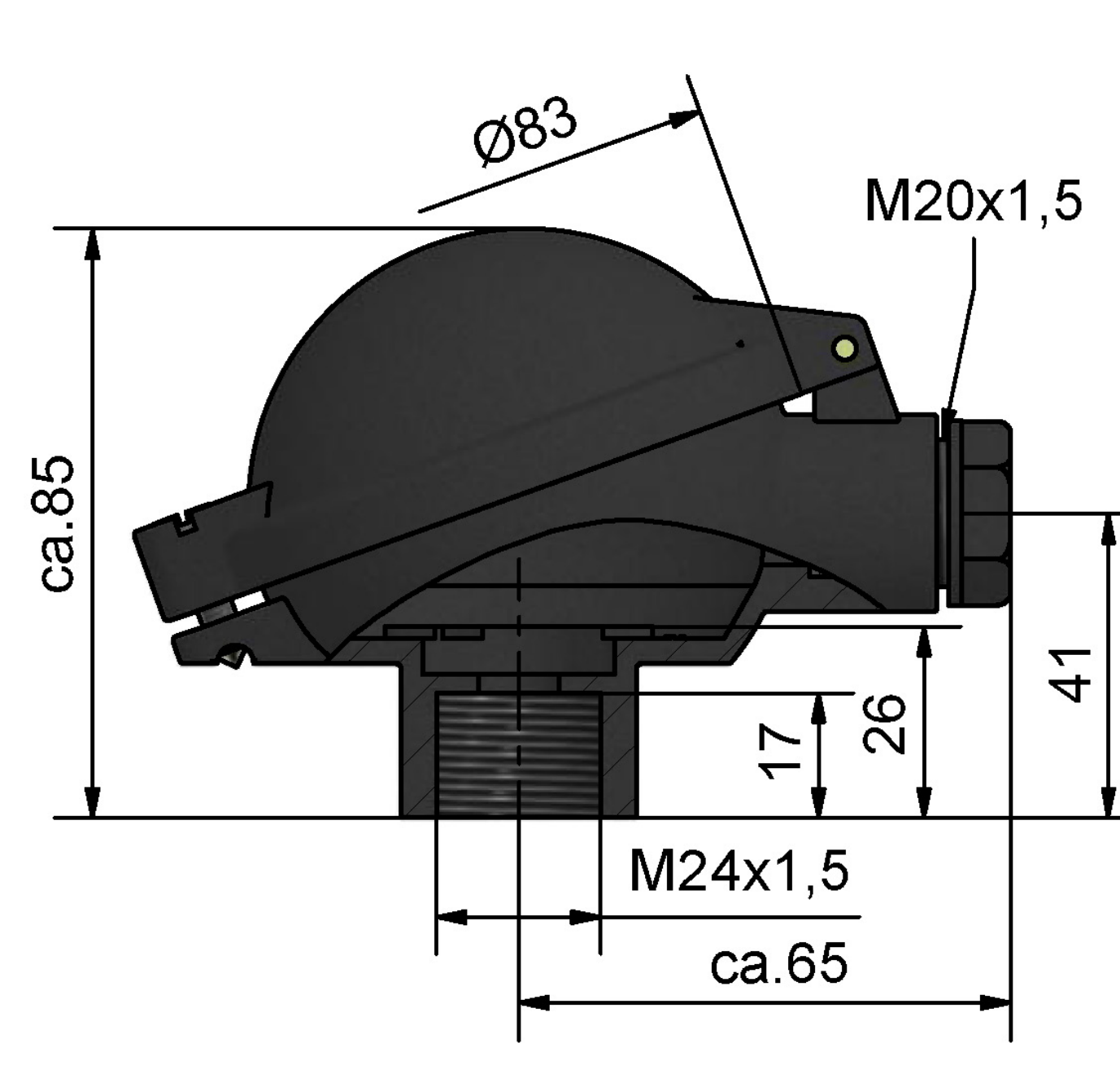
head model B-VA  
M24 x 1,5



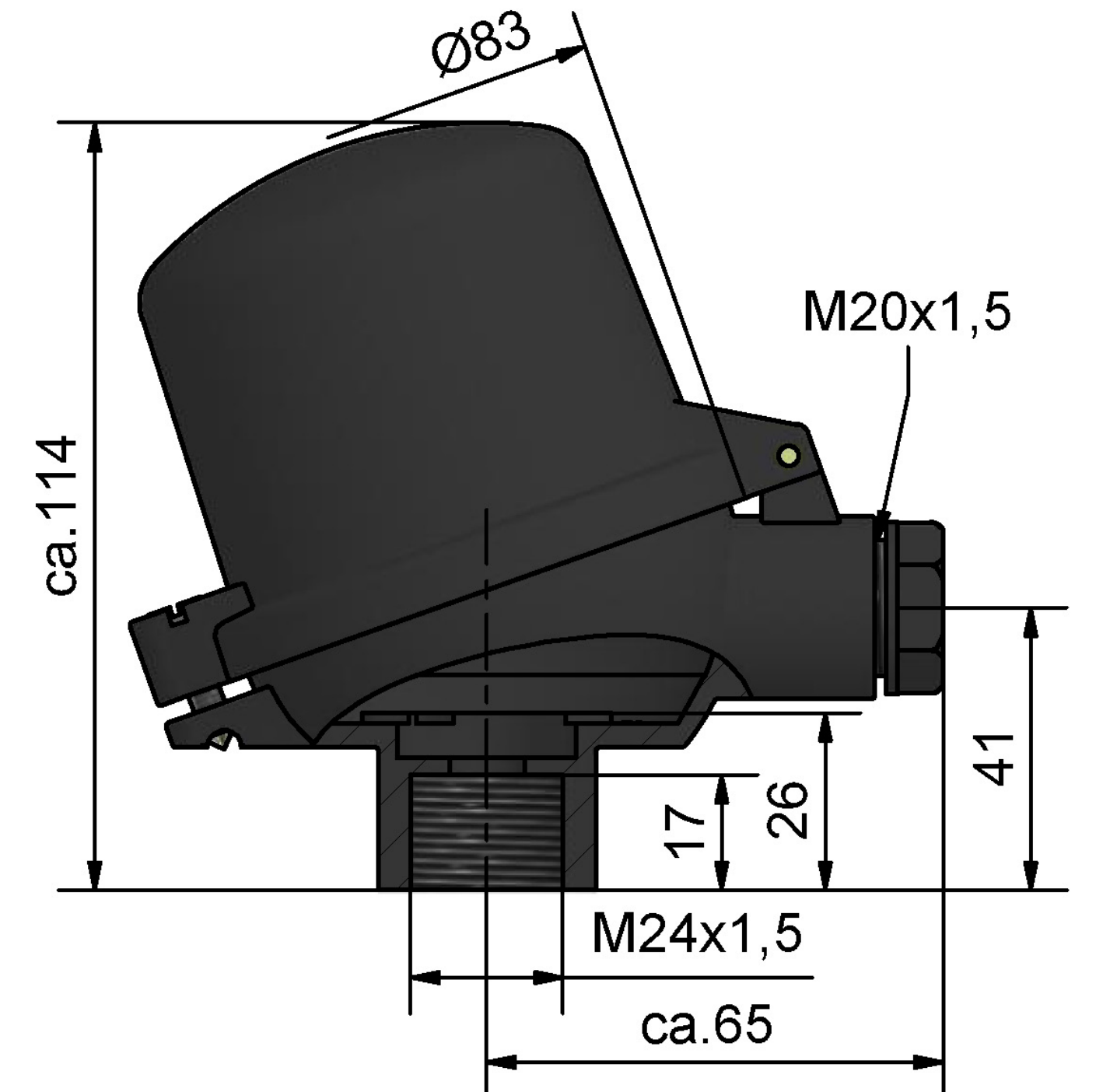
head model BA-KL  
M24 x 1,5



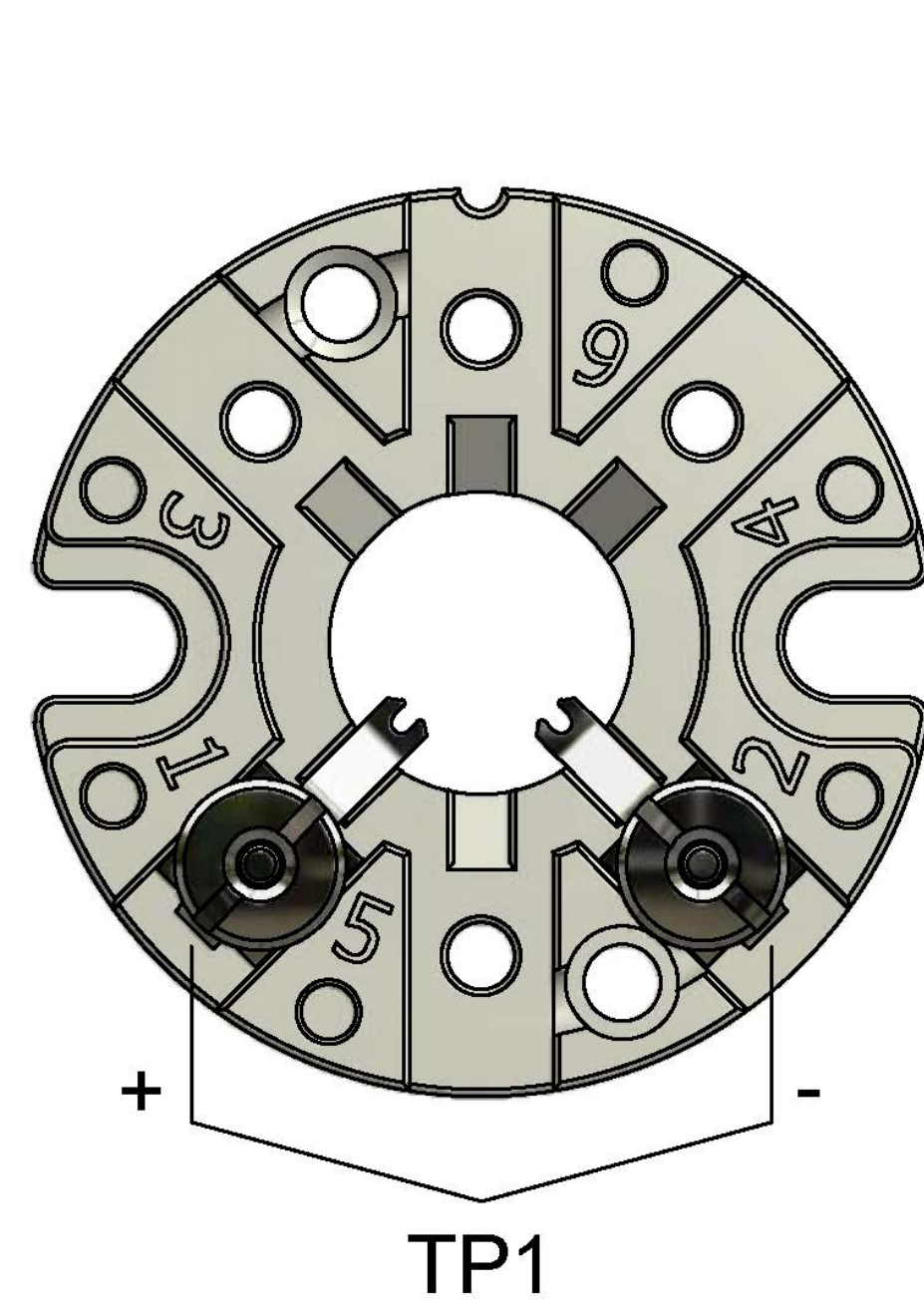
head model BA-KLH  
M24 x 1,5



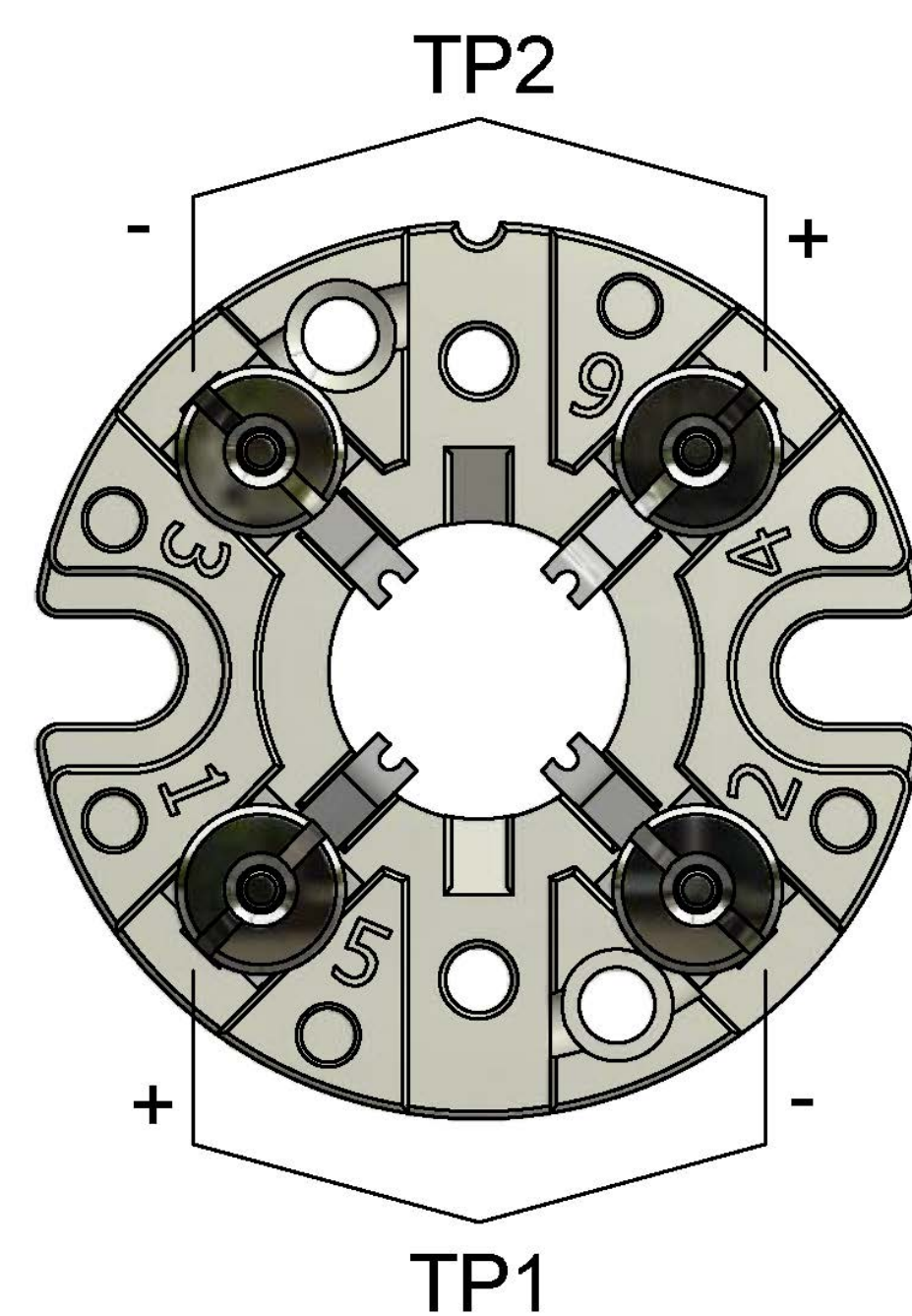
head model B-KUKL  
M24 x 1,5



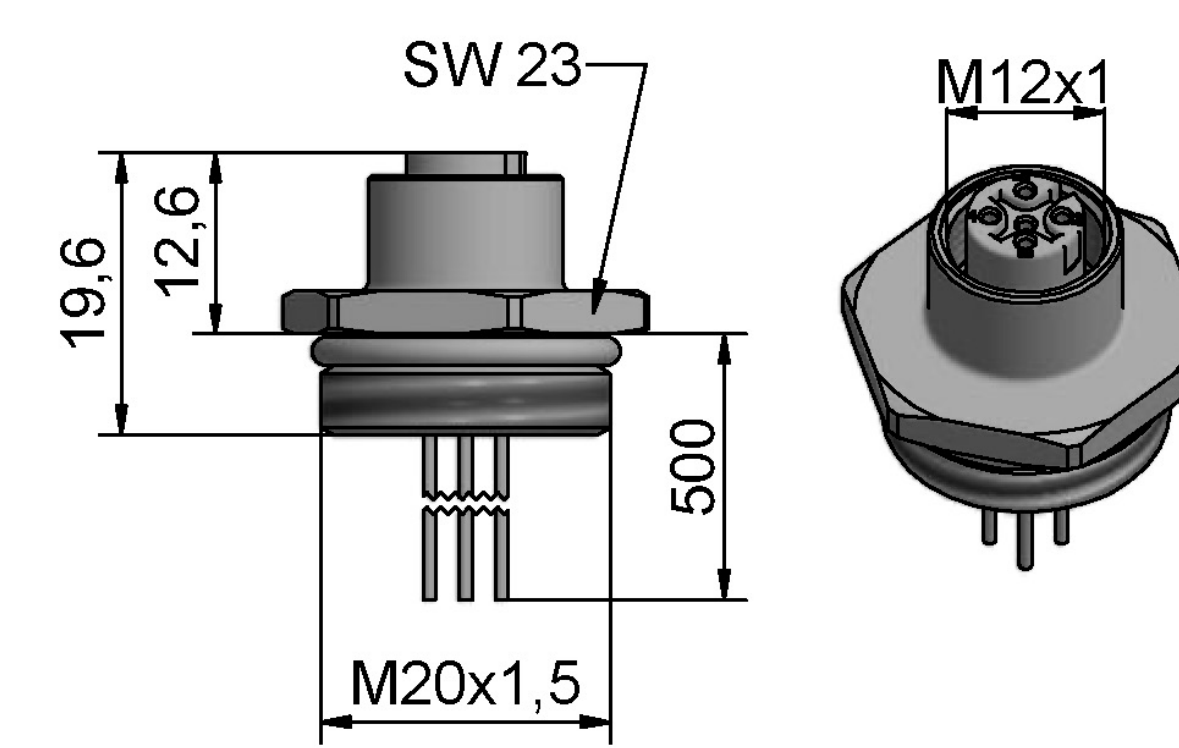
head model B-KUHKL  
M24 x 1,5



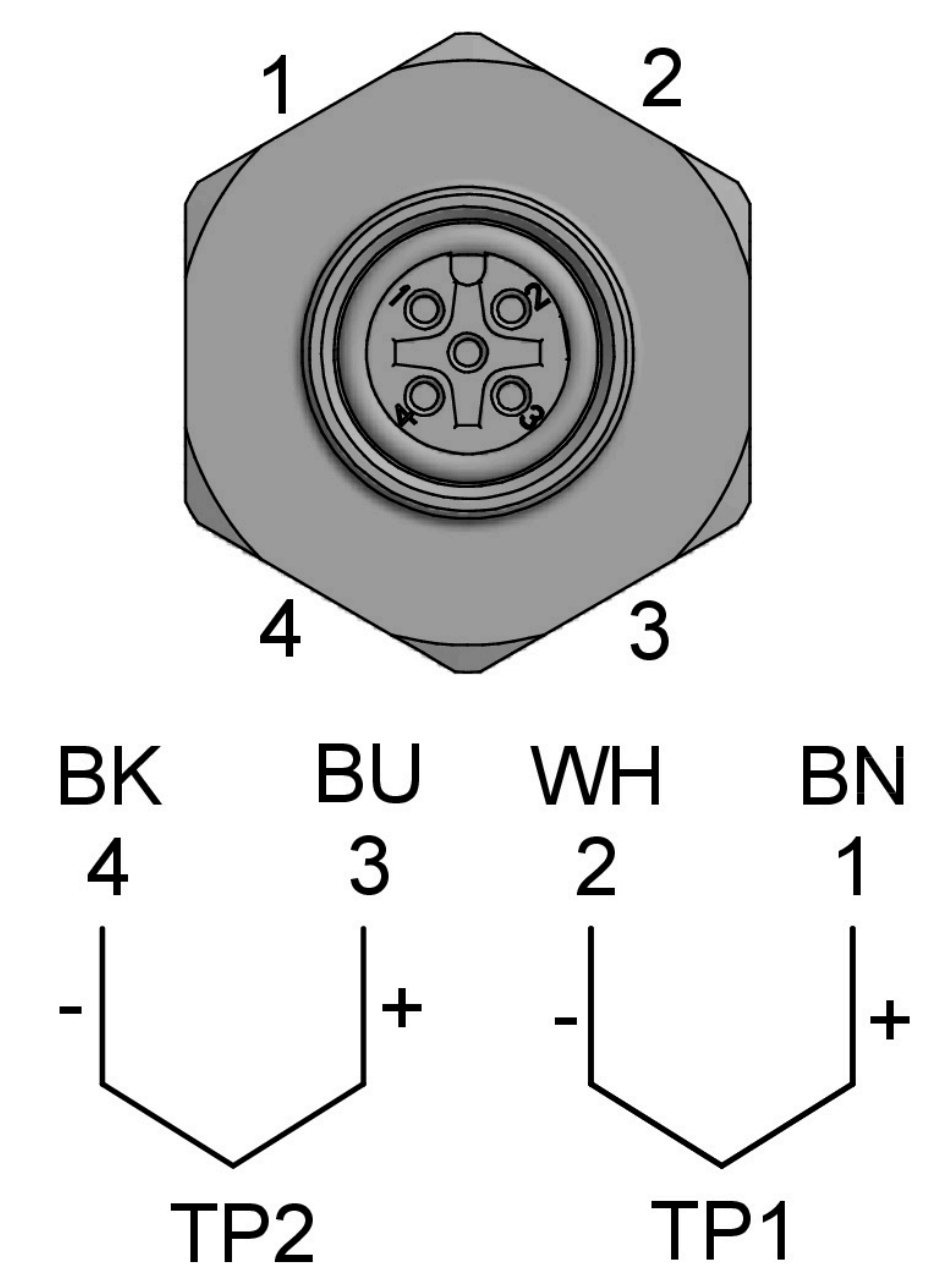
Terminal base model B  
1 thermocouple



Terminal base model B  
2 thermocouples



M12 Insert socket  
4 terminals



M12 Insert socket  
2 thermocouples