

# Mineral Insulated Thermocouple model 4F

## MIT with protection shell model 4F according or similar to DIN 43722

In general   

Explosion-proof temperature sensors from Reckmann GmbH (R58®) are used exclusively for measuring process temperatures in solid, liquid or gaseous media. This design enables separate project planning and production of system parts and sensor technology. By supplying the welding sleeve (D-sleeve fig. 1/6-7) in advance, plant components can also be manufactured and pressure tested without a sensor. The temperature sensor is then installed by simply screwing it into the process connection of the welding sleeve.

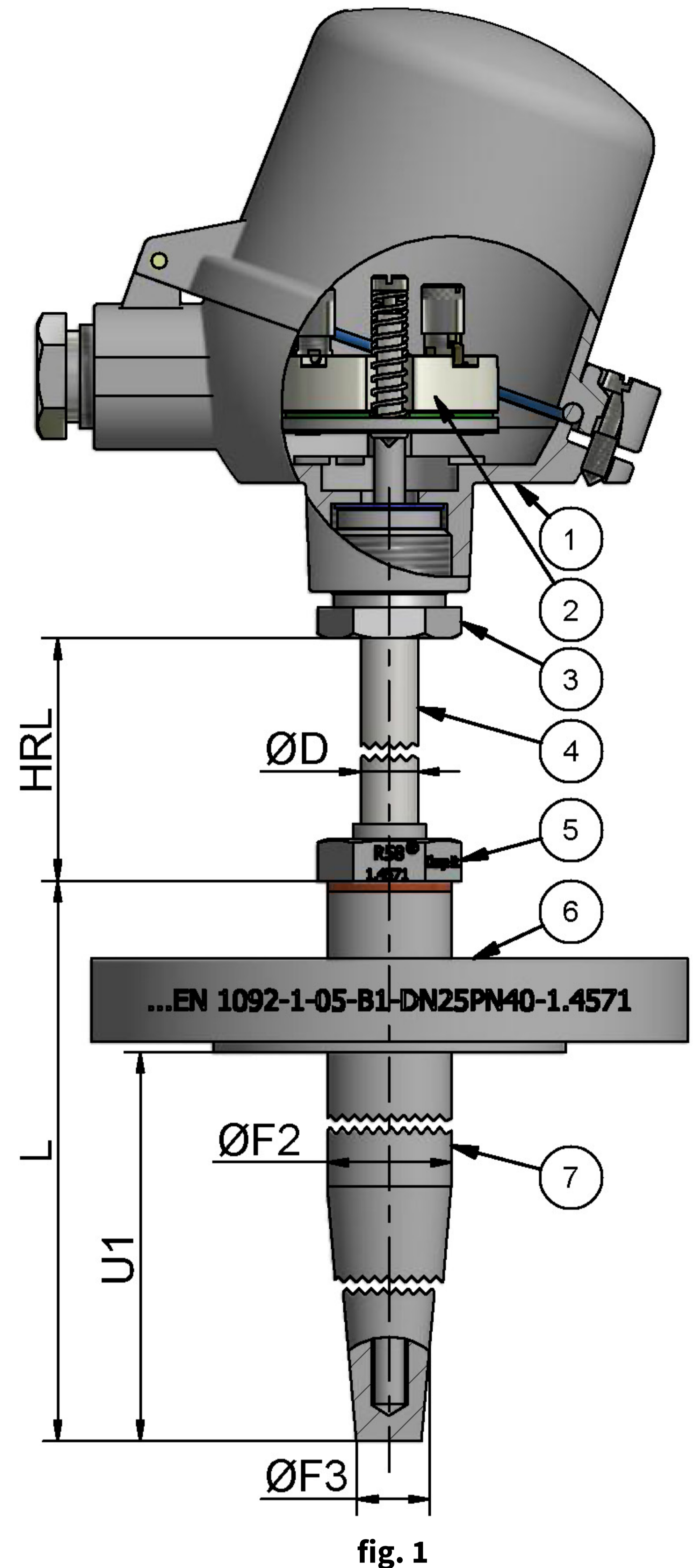
### Areas of application:

Autoclaves, machine and plant construction,  
food and chemical industries,  
energy and power plant technology,  
building materials industry, recycling, pipeline construction.

**For installation-specific data, see installation instructions**  
Type code 1R9-D1.

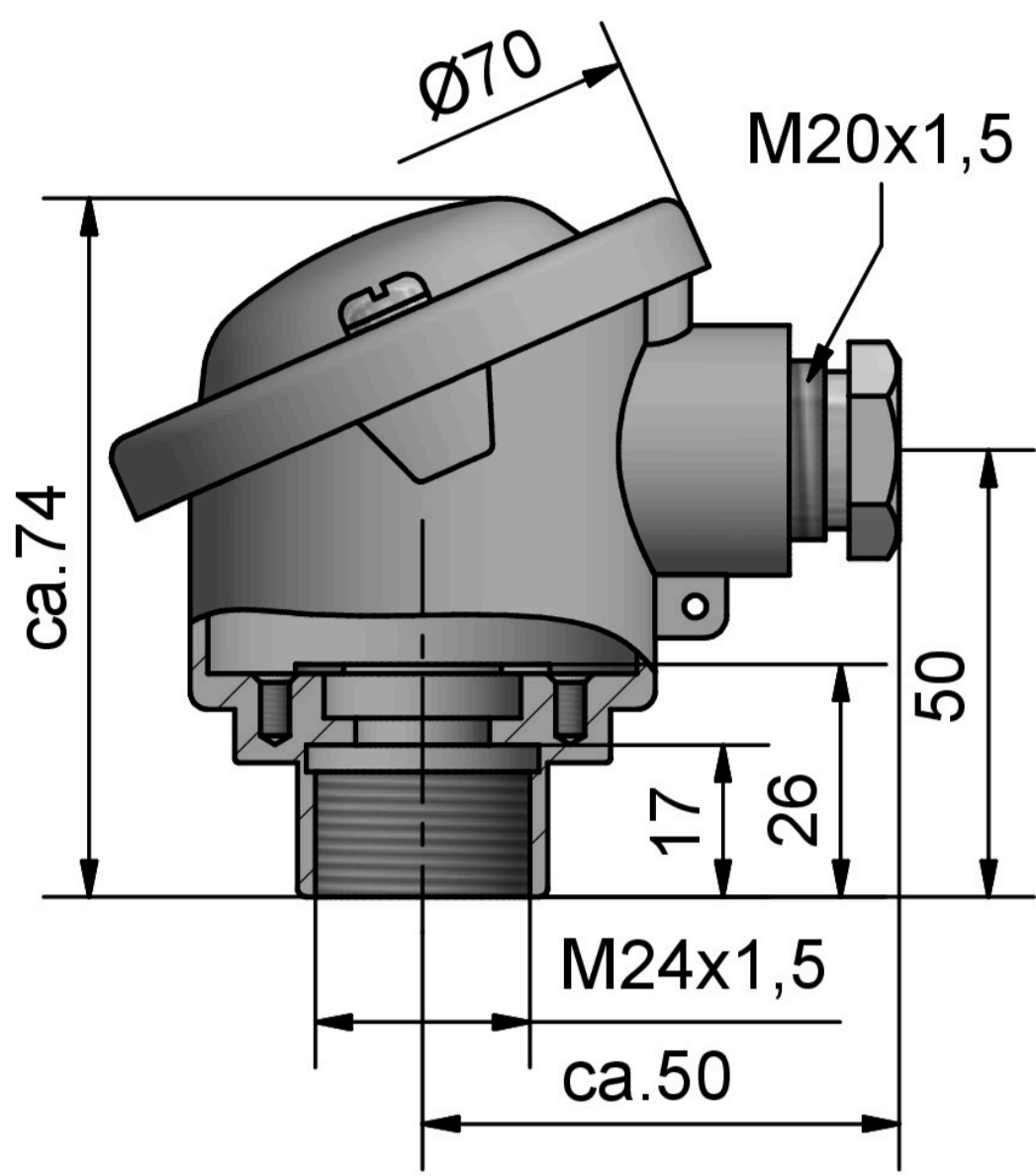
## Technical datas

- **Connection head** (fig. 1/1) according to DIN EN 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.
- **Protection shell** (fig. 1/3 to 6) according to or similar to DIN 43772,  
Standard material: 1.4571.
- **Process connection** erfolgt über Einschweißhülsen (fig. 1/6)  
(D - sleeve): nominal length (L und U) 140/65 mm, 200/65 mm and  
200/125 mm, 260/125 mm.  
Standard thread (N) M14x1,5 or M18x1,5 with welded  
Blindflange according DIN EN 1092-1 Type 05 or ASME B 16.5.  
Standard flange DN25 / DN50 PN40 model B1,  
Standard diameter (F2/F3) 24/12,5 mm.
- **Measuring insert** (fig. 1/2) exchangeable, according to or similar to DIN  
43735.  
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, 6.0 and 8.0 mm up to 1100 °C.  
Type J: Ø 3.0 mm up to 520 °C, 6.0 and 8.0 mm up to 720 °C.  
Type N: Ø 3.0 mm up to 1070 °C, 6.0 and 8.0 mm up to 1100 °C.  
Type E: Ø 3,0 mm up to 650 °C, 6,0 and 8,0 mm up to 820 °C.  
Type T: Ø 3.0 mm up to 315 °C, 6.0 and 8.0 mm up to 350 °C.
- **Sheath material** Design according to IEC / EN 61515.  
Preferred material 2.4816. Preferred diameter 3 or 6 mm.
- **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.

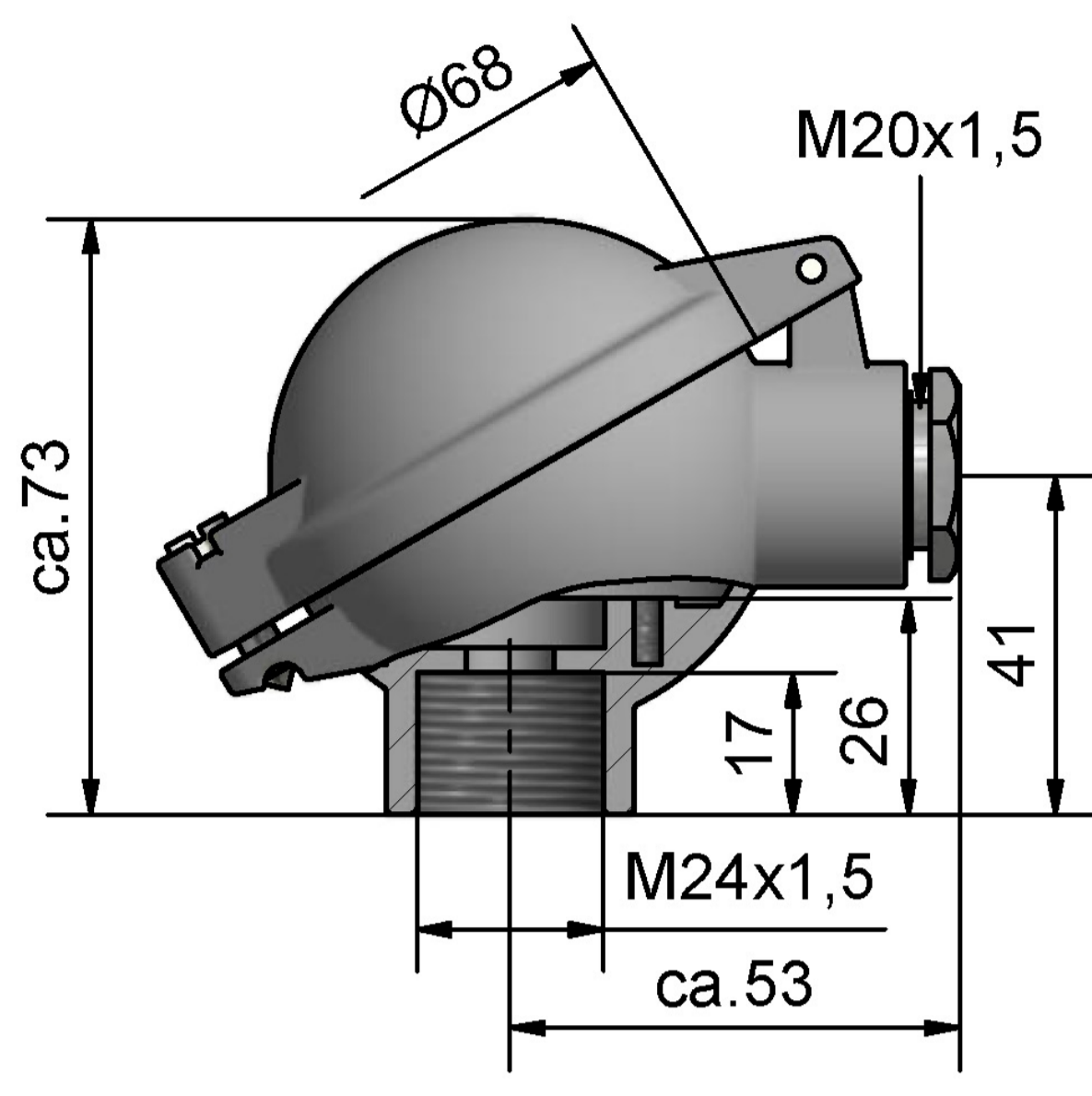


# Optional connection heads / connection diagrams

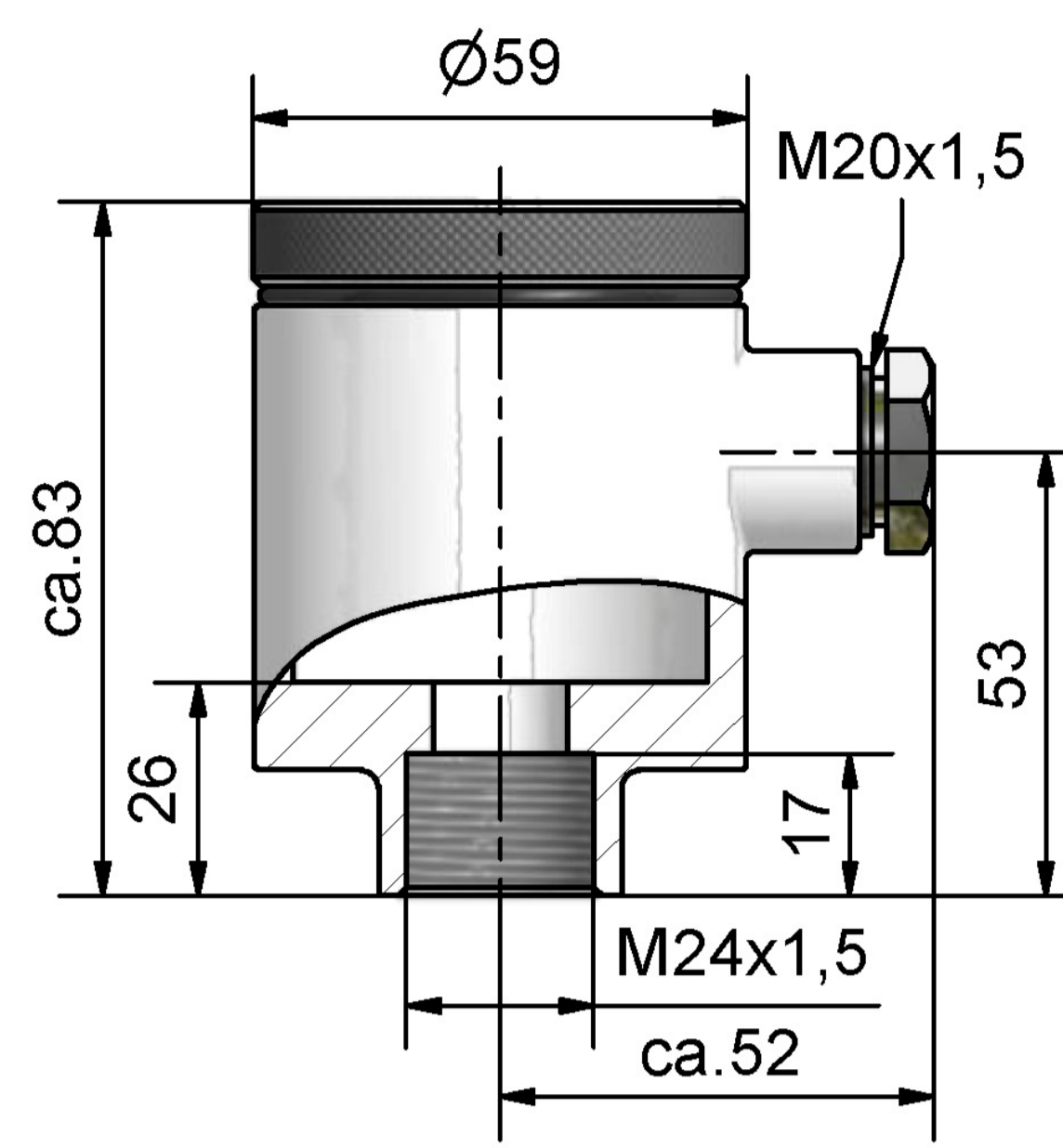
As an alternative to the cable gland, an M12 flush-type connector is possible.



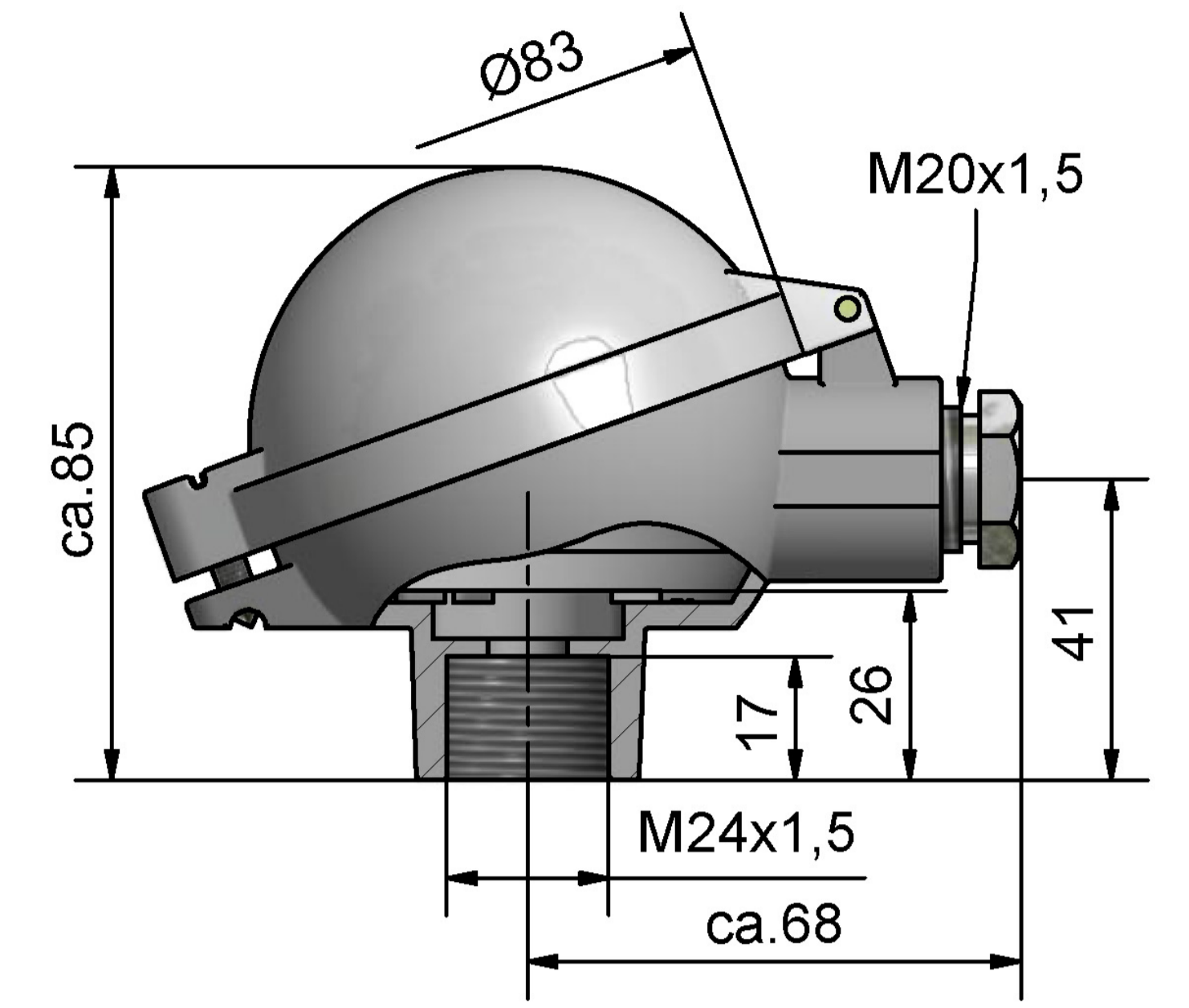
head model B  
M24 x 1,5



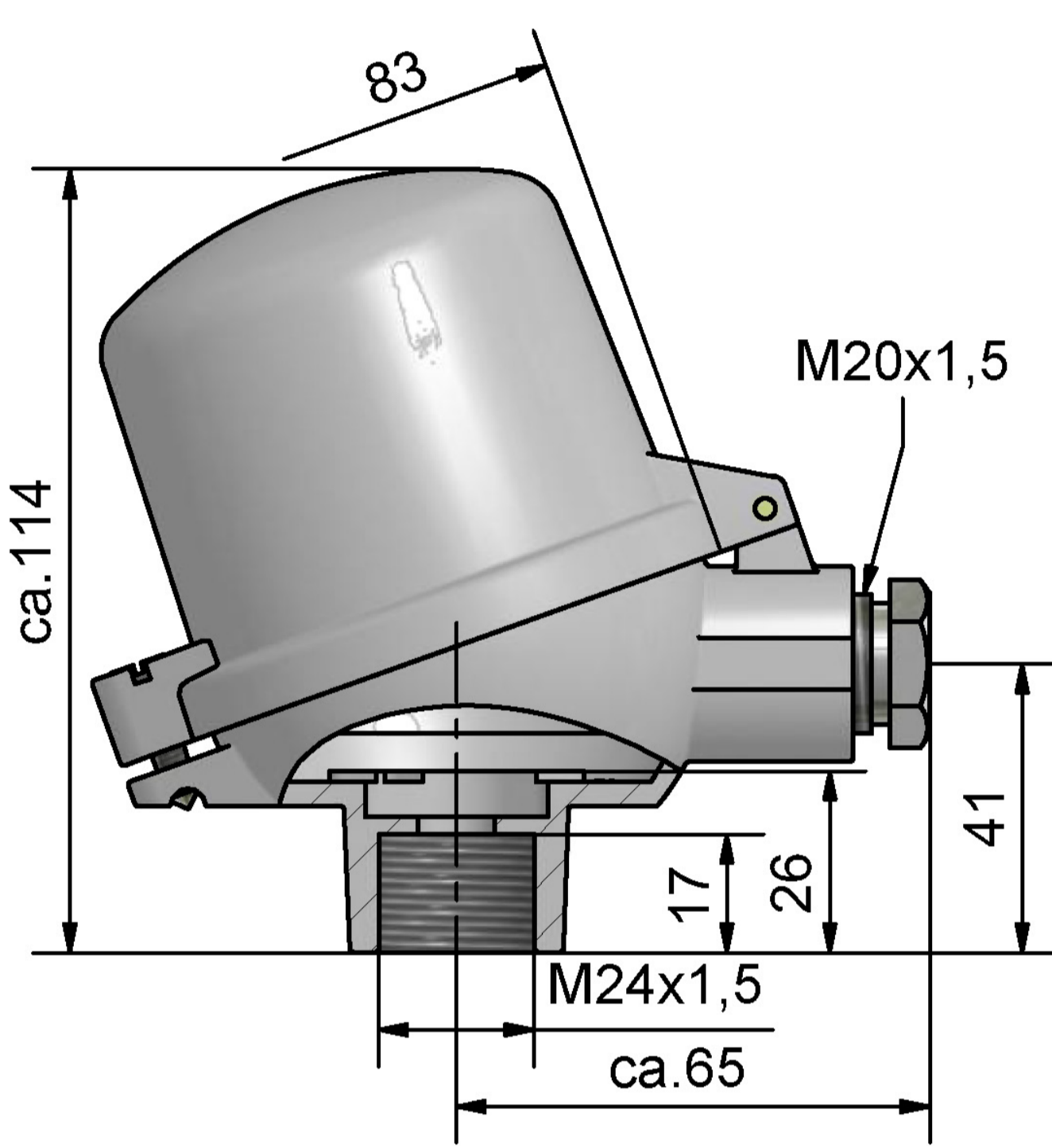
head model B-KL  
M24 x 1,5



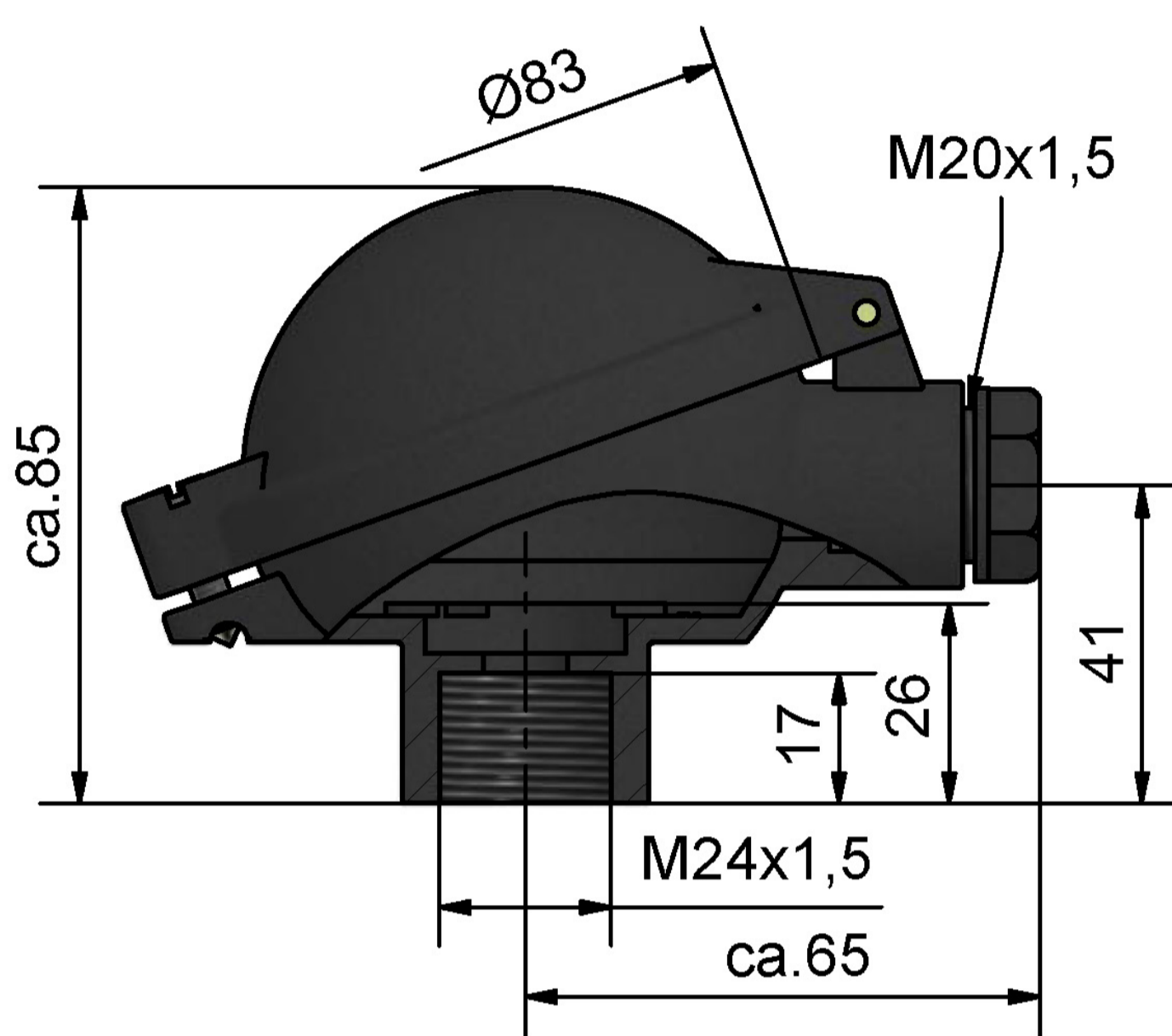
head model B-VA  
M24 x 1,5



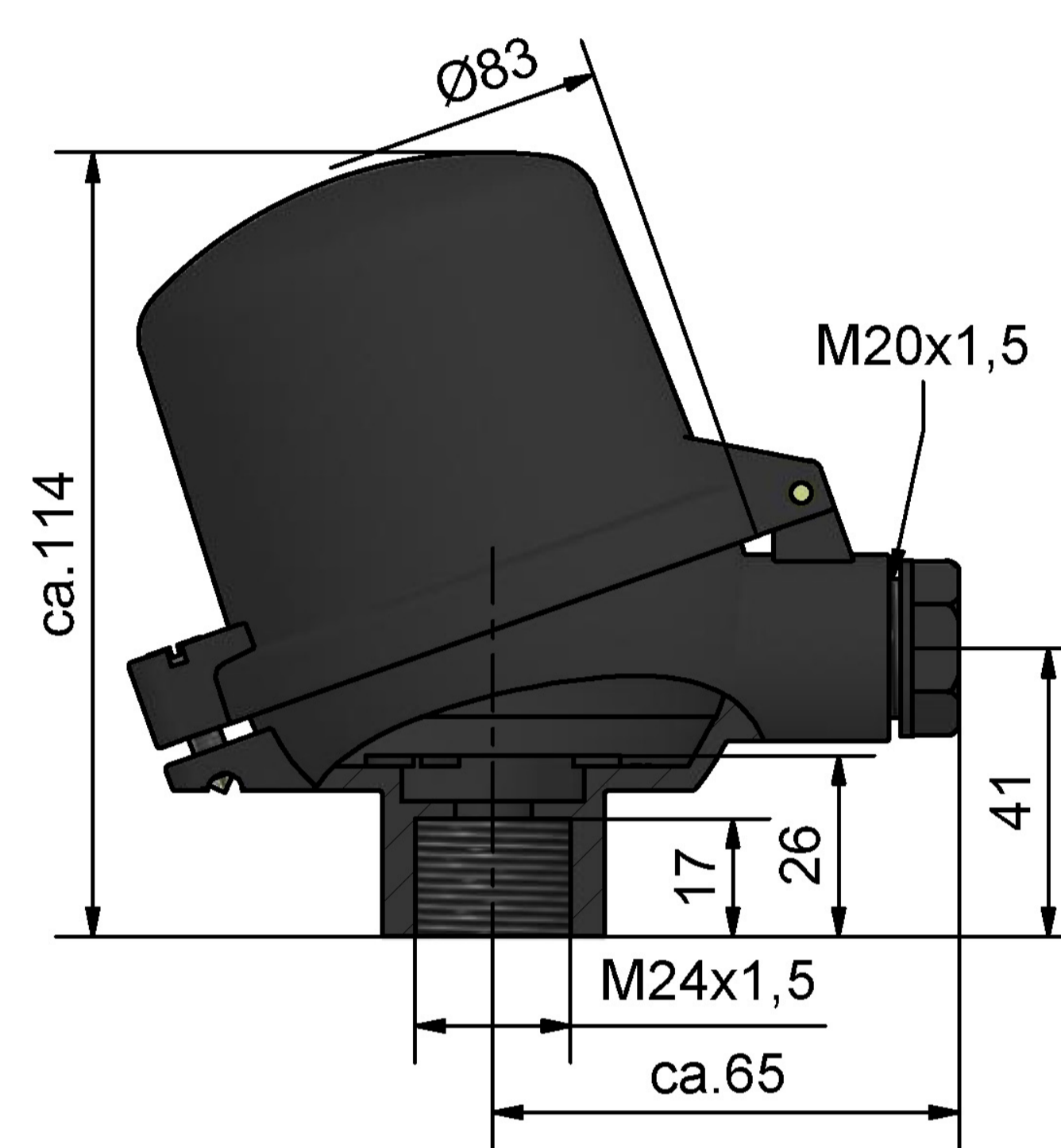
head model BA-KL  
M24 x 1,5



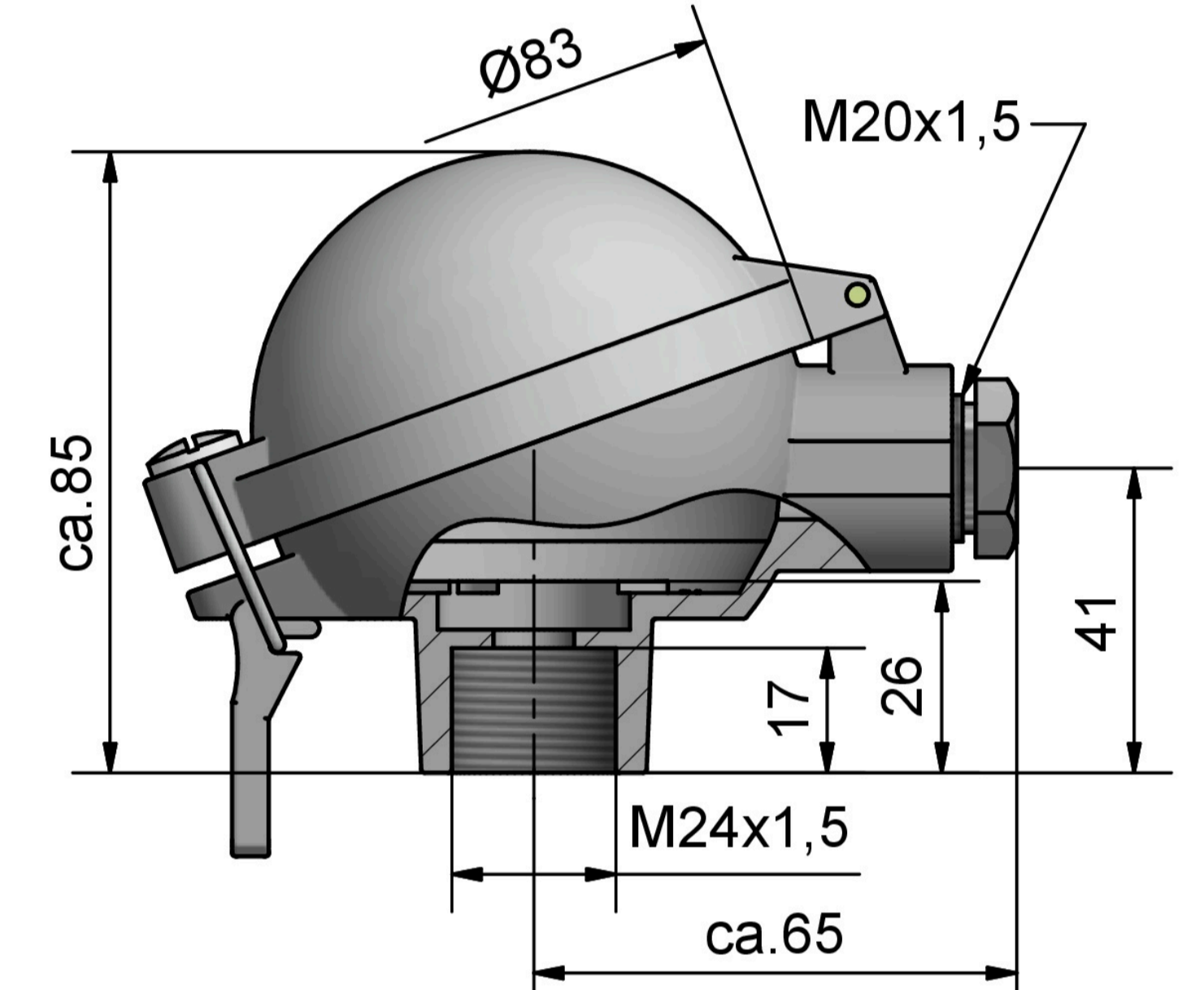
head model BA-KLH  
M24 x 1,5



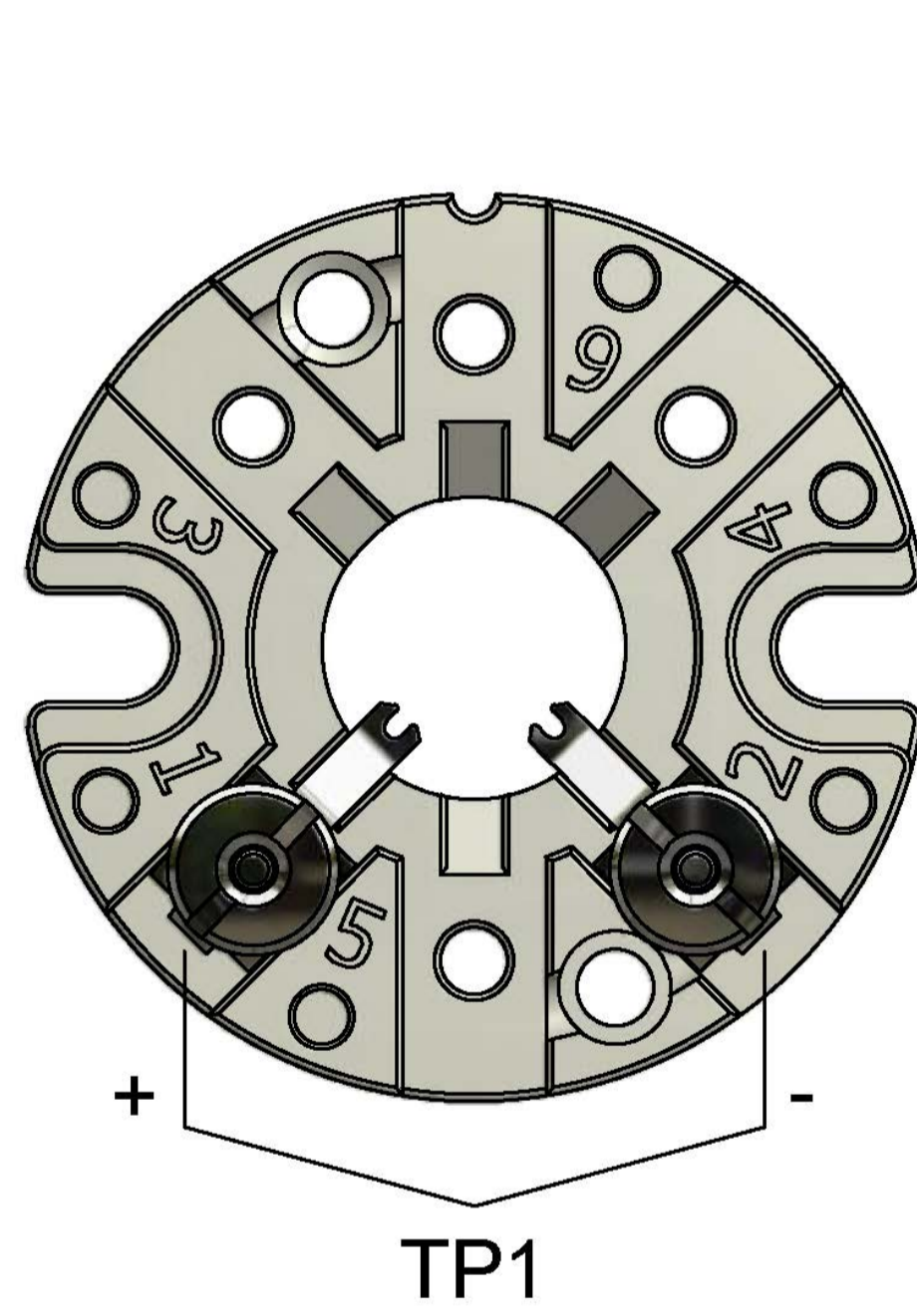
head model B-KUKL  
M24 x 1,5



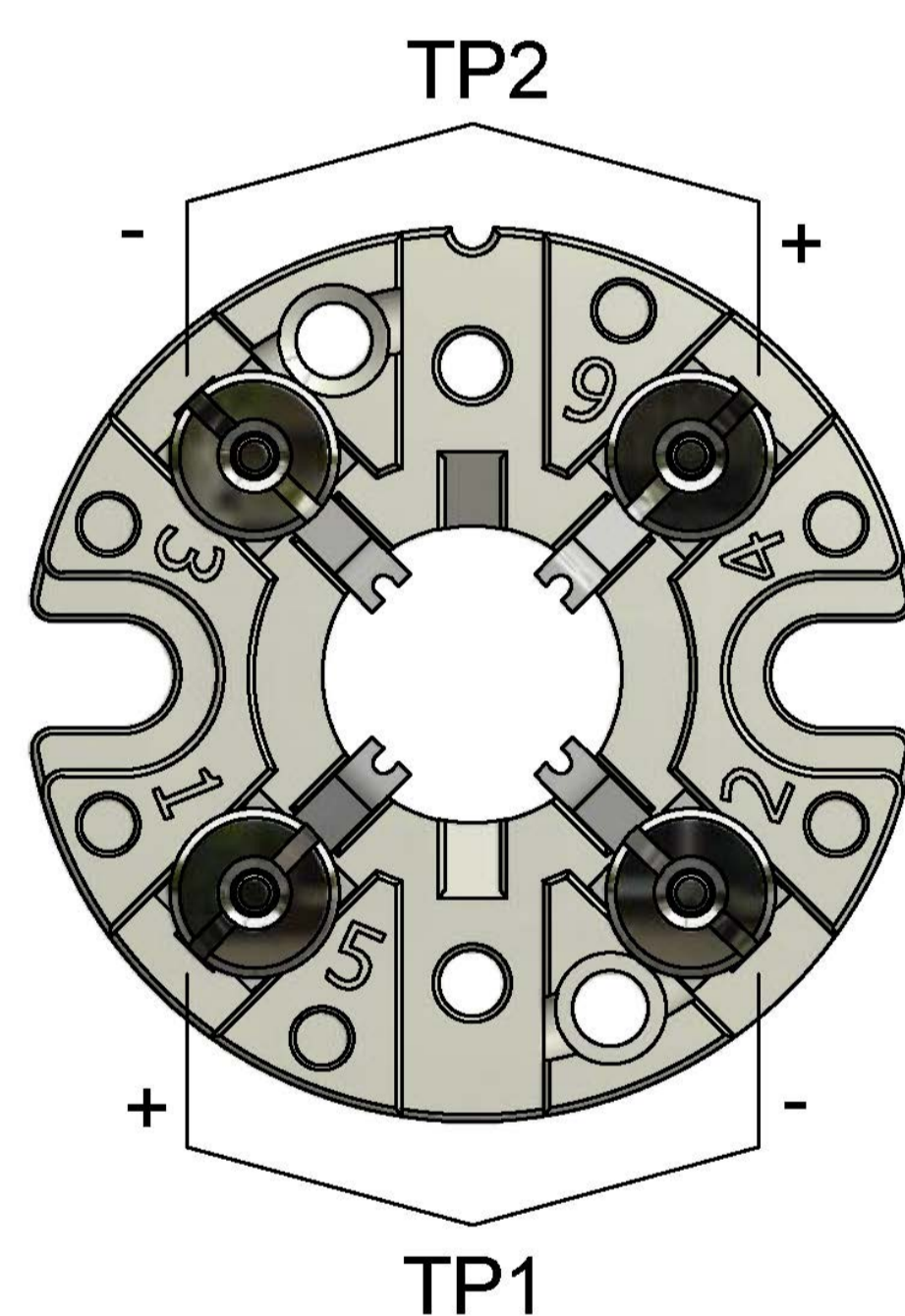
head model B-KUHKL  
M24 x 1,5



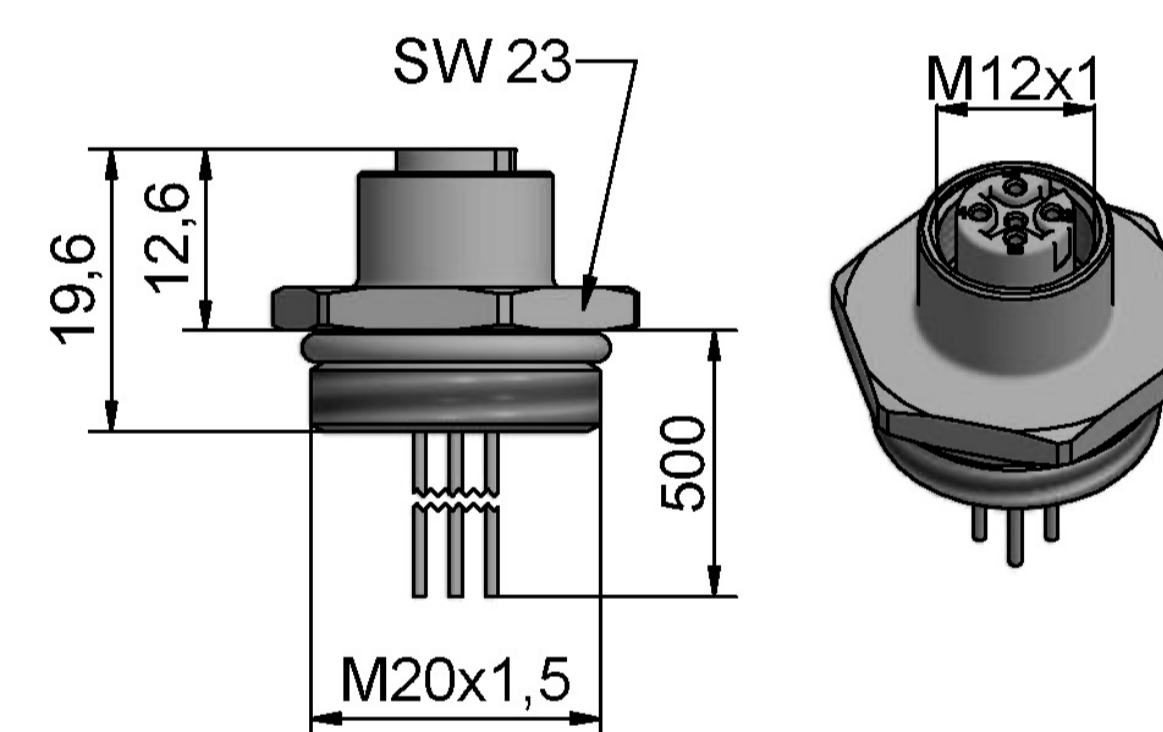
head model BA-KS  
M24 x 1,5



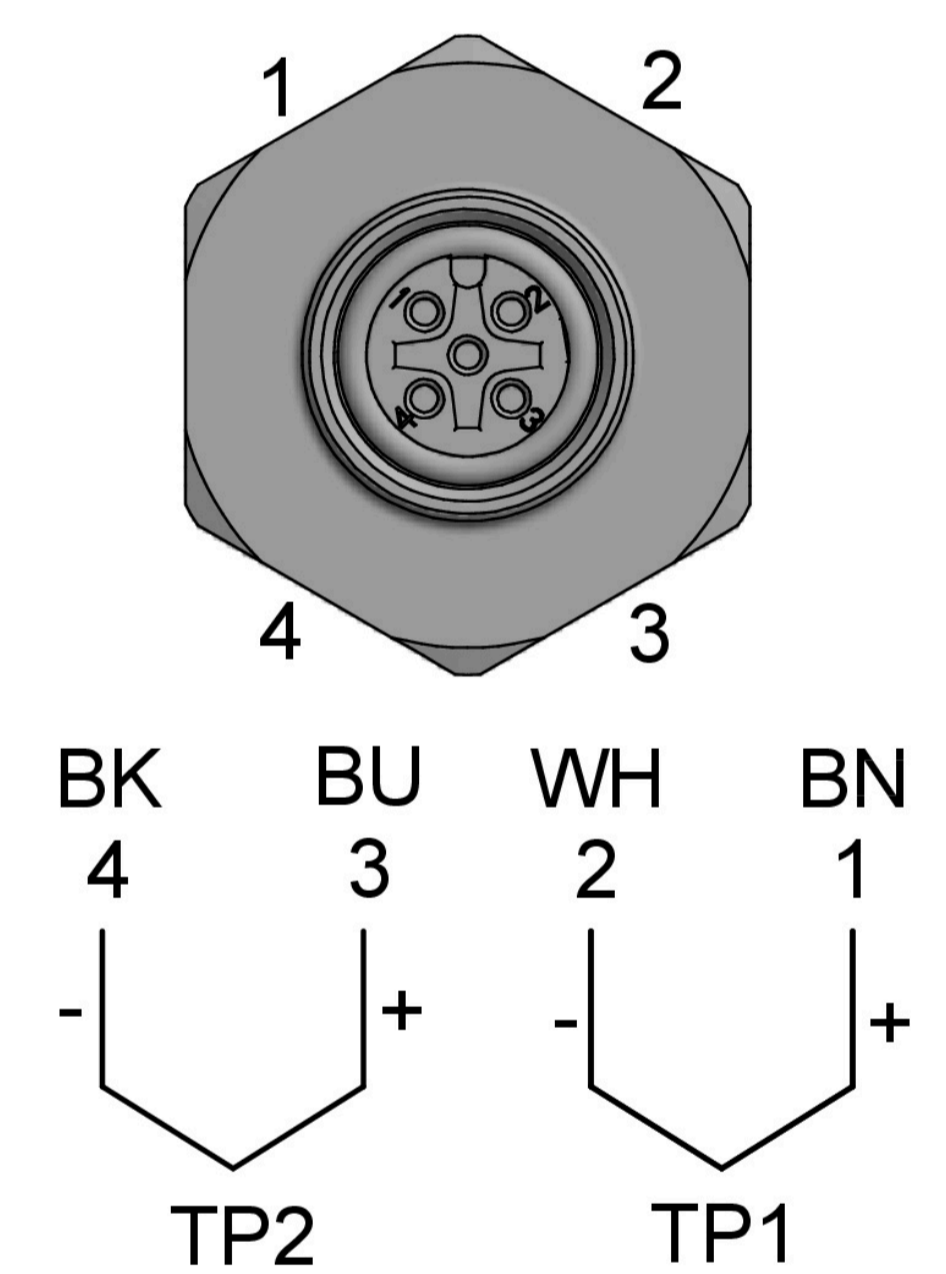
Terminal base model B  
1 thermocouple



Terminal base model B  
2 thermocouples



M12 Insert socket  
4 terminals



M12 Insert socket  
2 thermocouples