

Ex-Mineral Insulated Thermocouple model B

for operation in the hazardous area with gas or 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 IIC 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: TR14-J-D / TR14-J-Q

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, IP 54. Dimension see page 2.
on request: up to IP 65 or IP 67
- **Measuring insert** (fig.1/2) replaceable according to DIN 43735 mounted in connection head (fig. 1/1).
Sensor depending on use:
with 1 or 2 thermocouples according to IEC / EN 60584-1.
Operating temperature MIT (fig. 1/5)
depended on the thermocouple type and diameter -40°C up to:
Type J: Ø 3,0 mm up to 520°C, Ø 4,5 up to 620°C, 6,0 und 8,0 mm up to 720°C.
Type K: Ø 3,0 mm up to 1070°C, Ø 4,5; 6,0 and 8,0 mm up to 1100°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 und 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.
- **Notice:** Process temperatures above 450 °C are only possible with appropriate process decoupling. MTE ground welded or Sensors with Ø 3 mm and more than 4 inner conductors, Ø < 3 mm, Ø > 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.
- **Sheath material** type according to IEC / EN 61515.
Standard - material 2.4816.
Preference diameter 3 or 6 mm.
- **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.

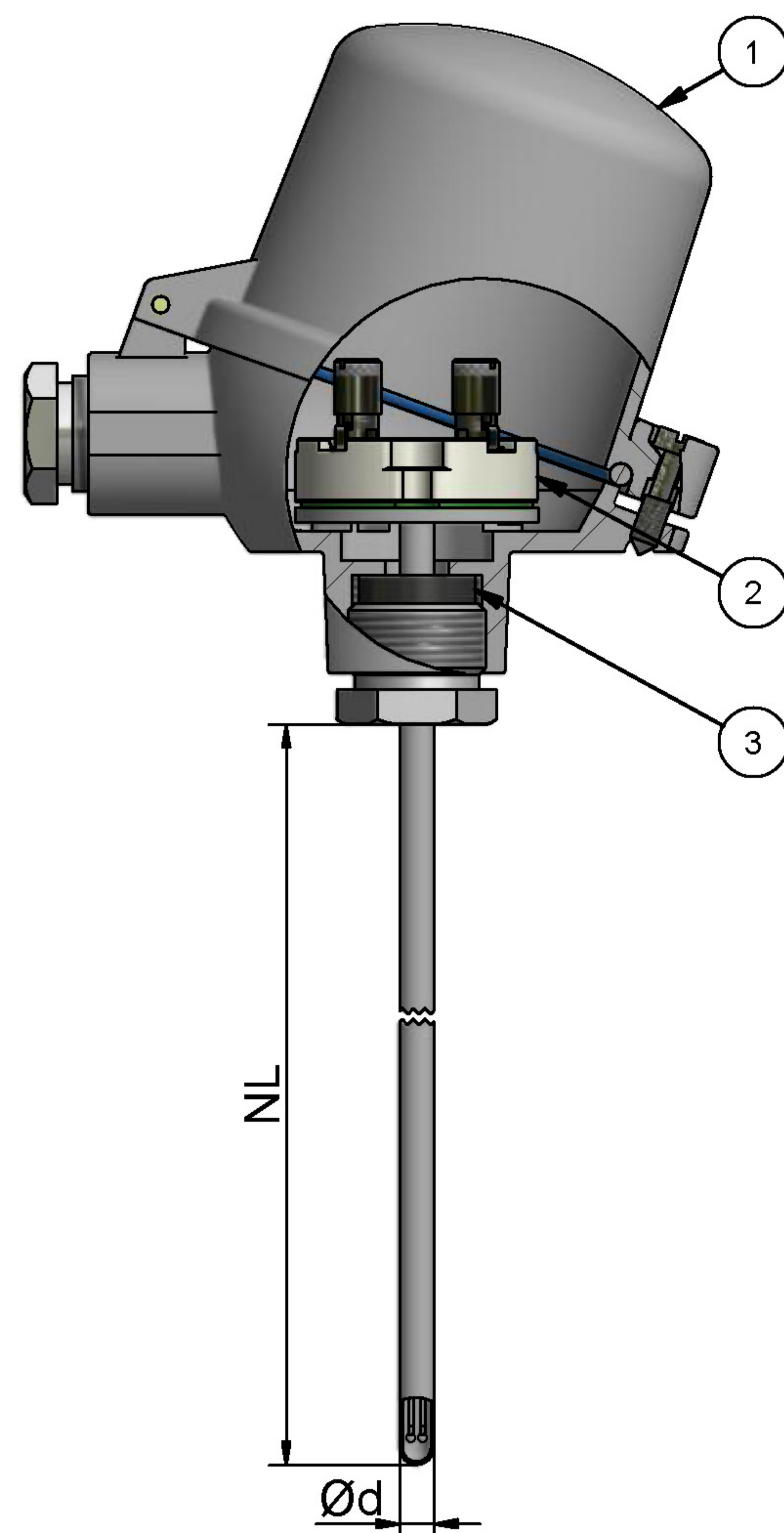
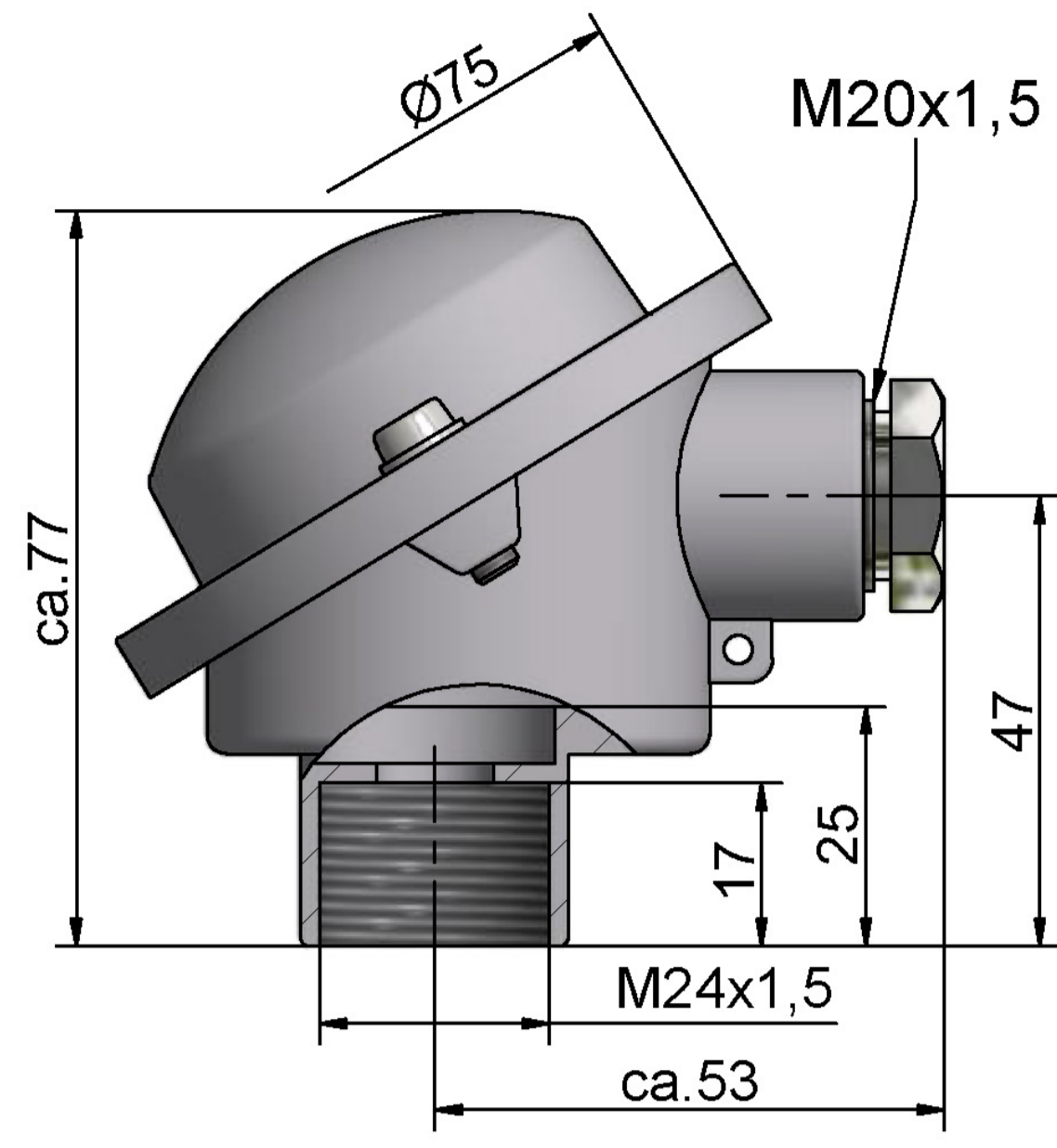


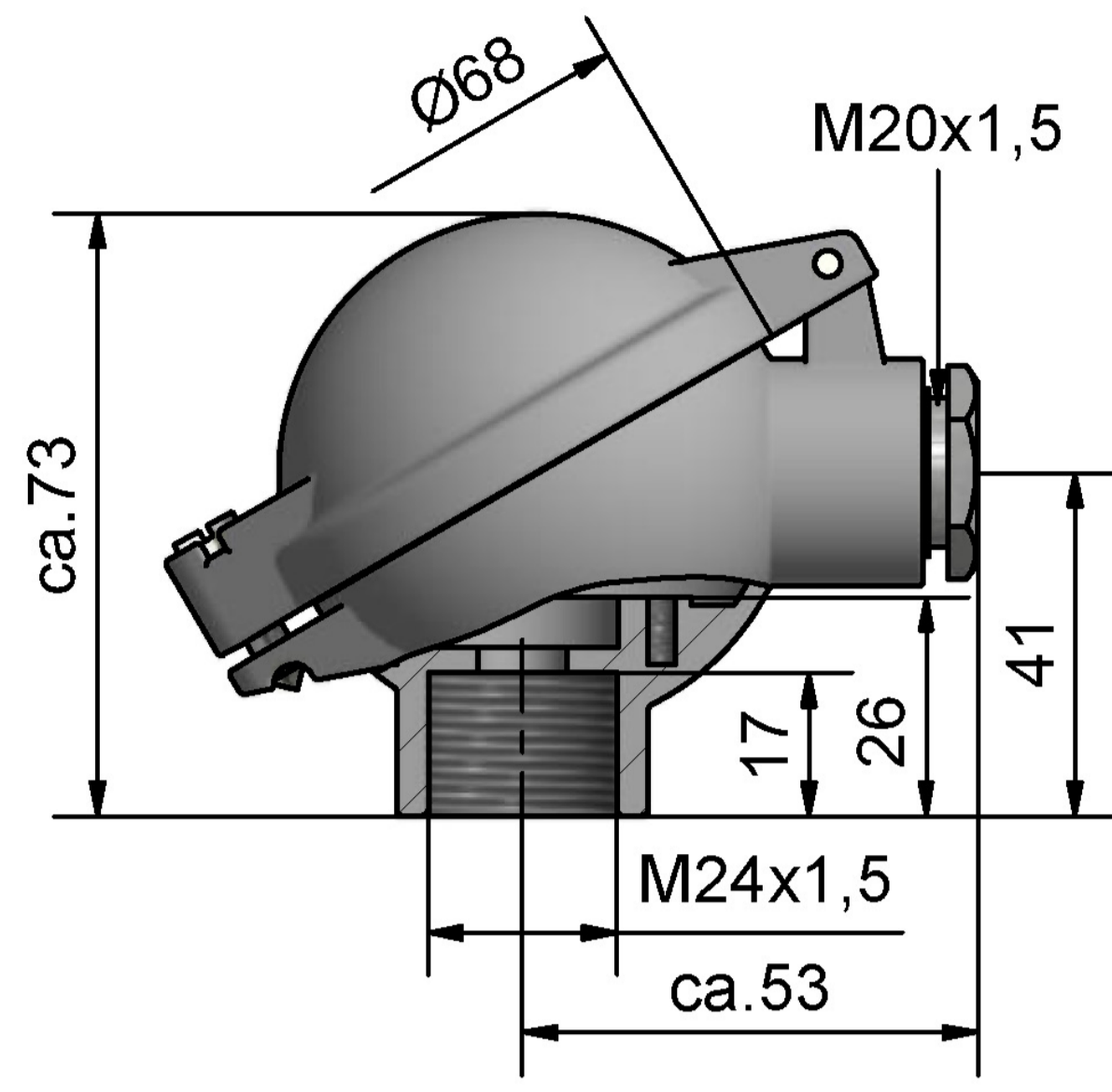
fig. 1

Optional connecting heads / circuit diagram

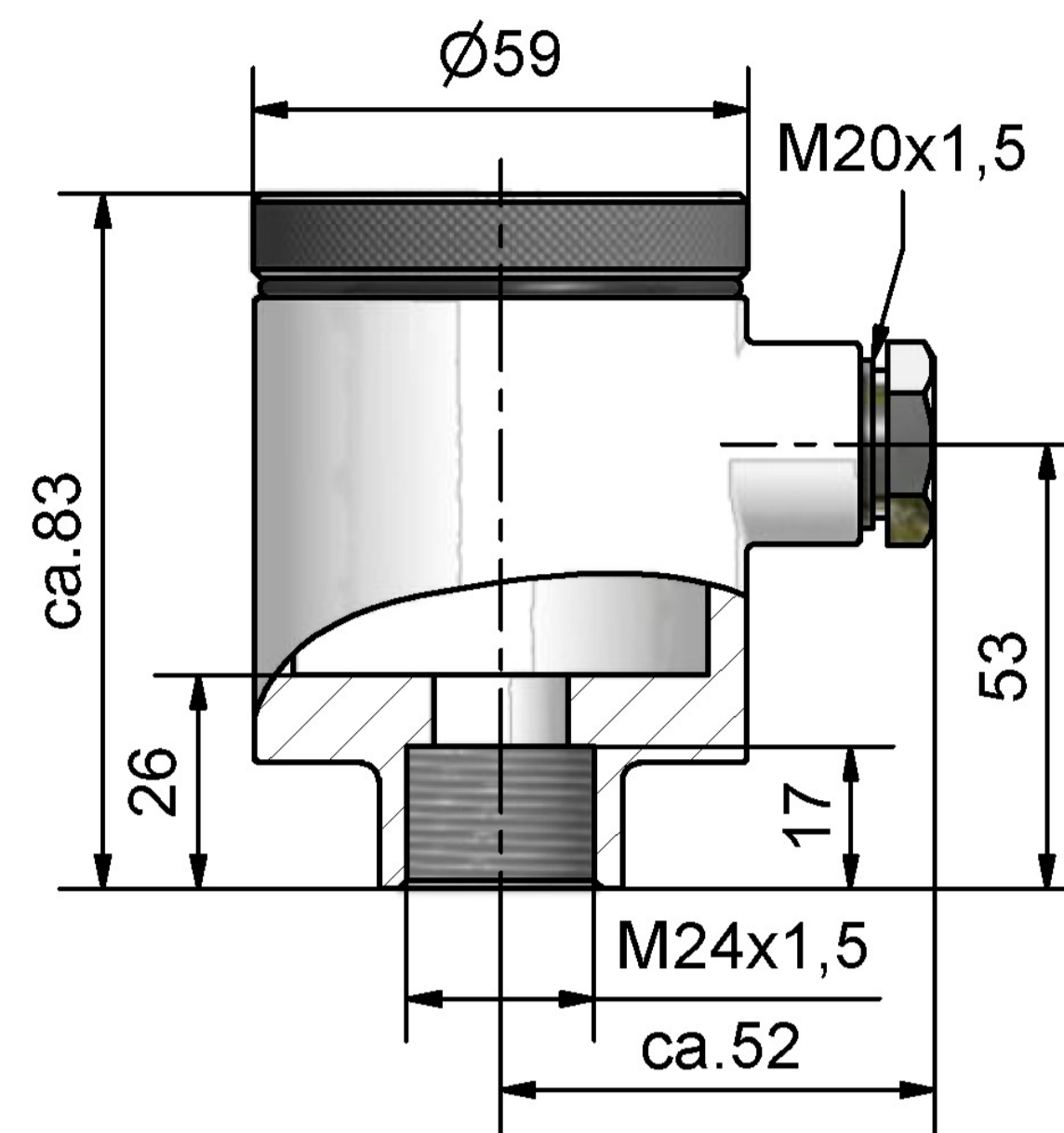
As an alternative to the cable gland, an M12 flush-type connector is possible.



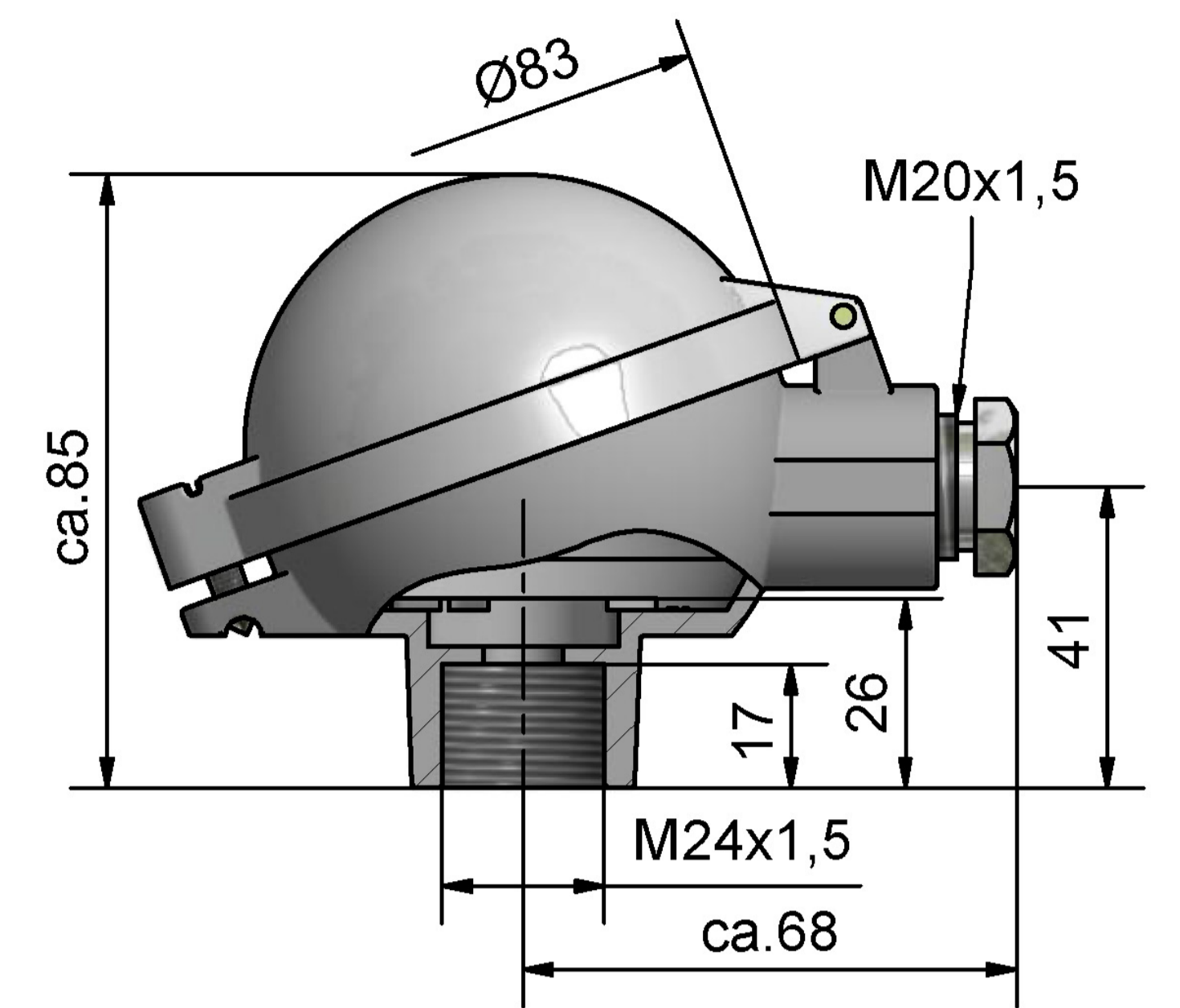
connection head model B-G12
M24 x 1,5



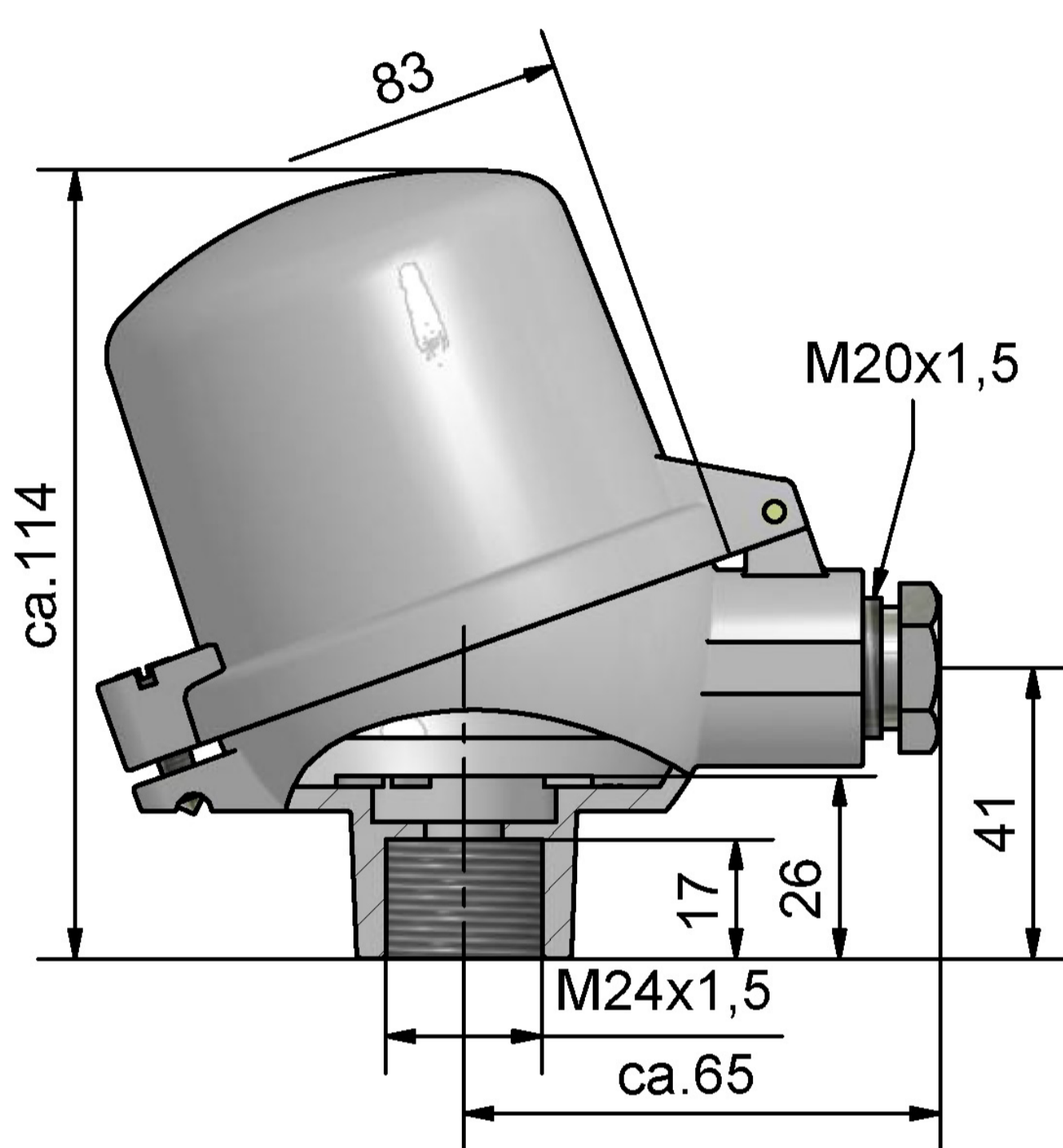
connection head model B-KL
M24 x 1,5



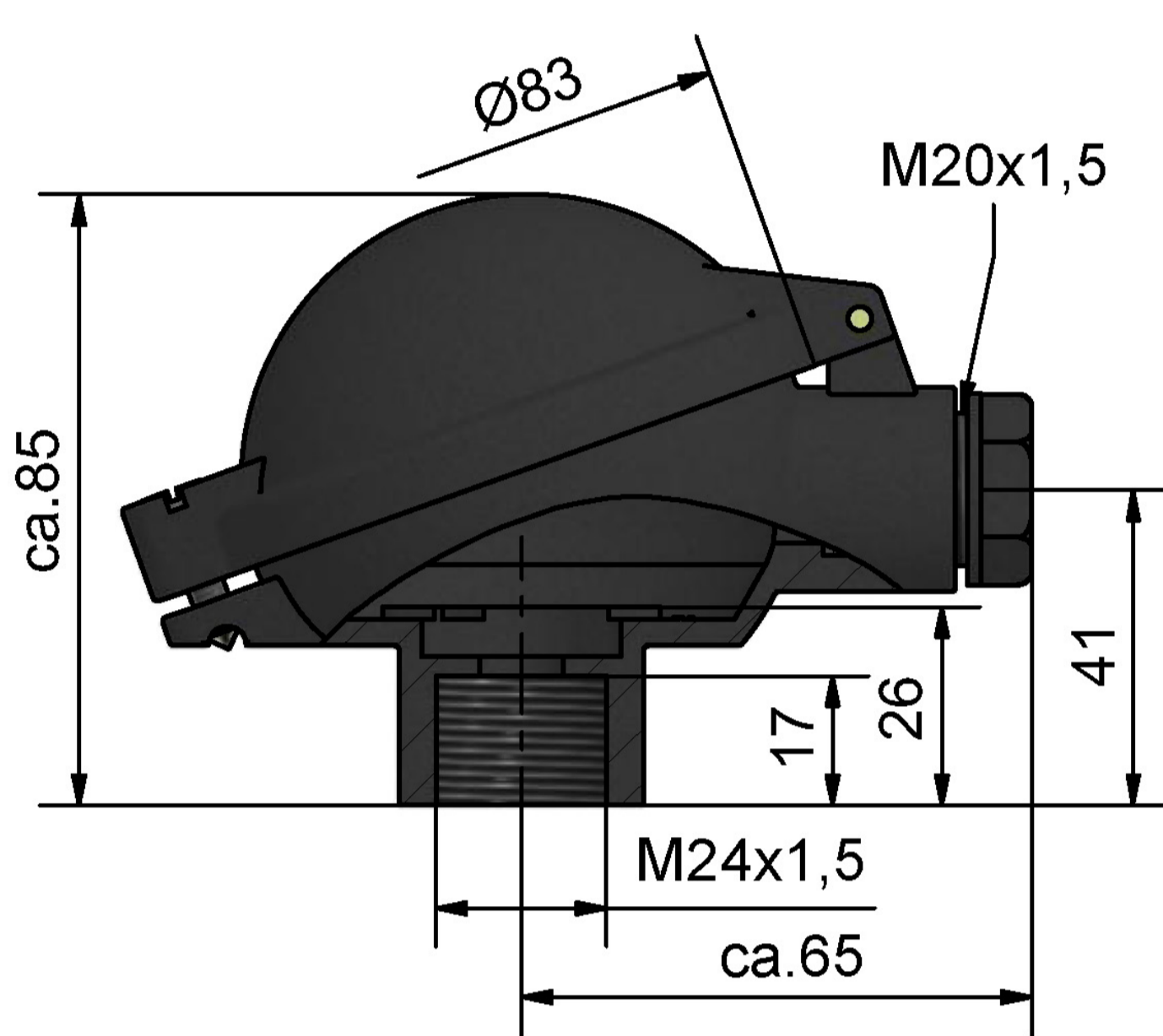
connection head model B-VA
M24 x 1,5



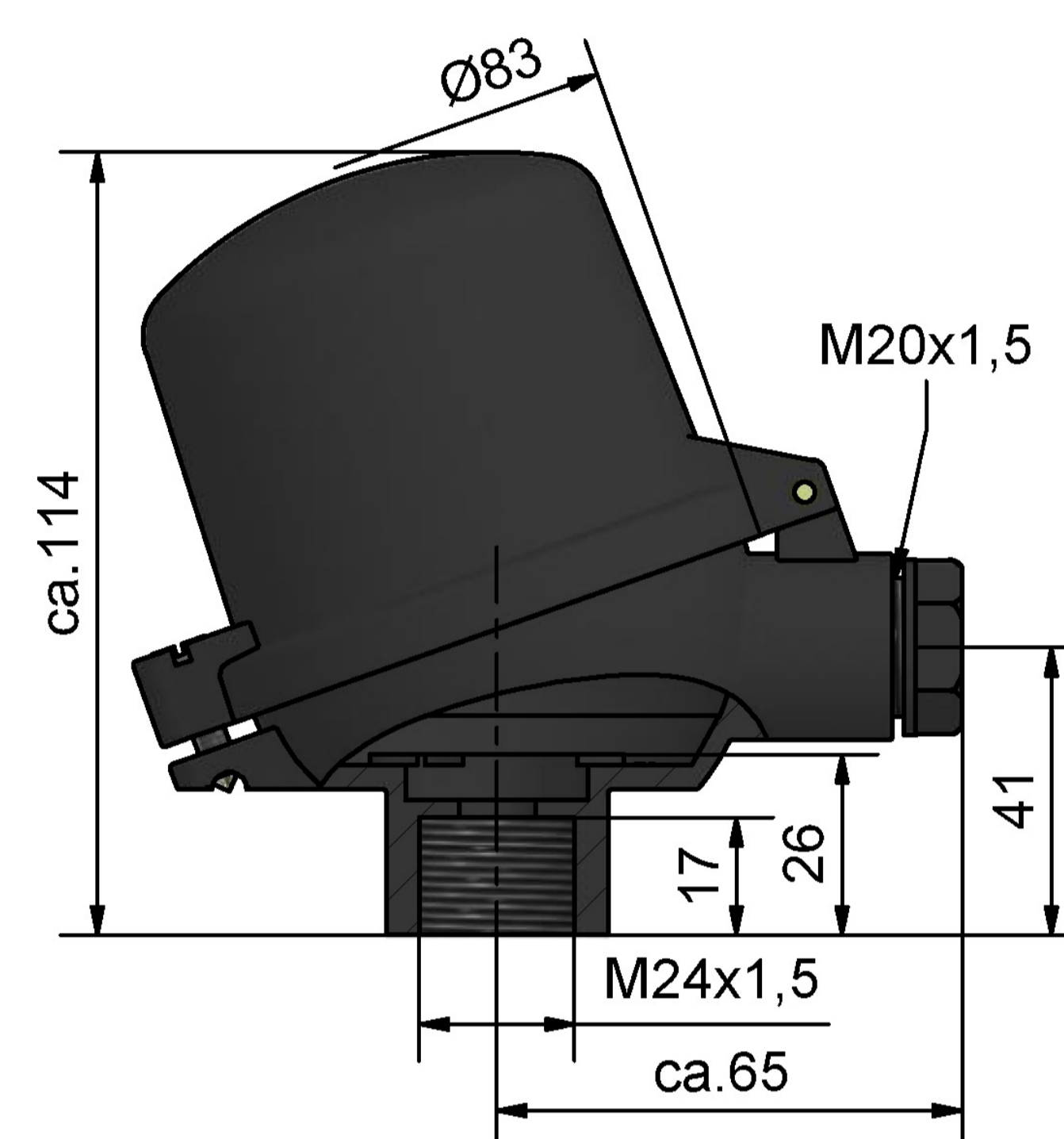
connection head model BA-KL
M24 x 1,5



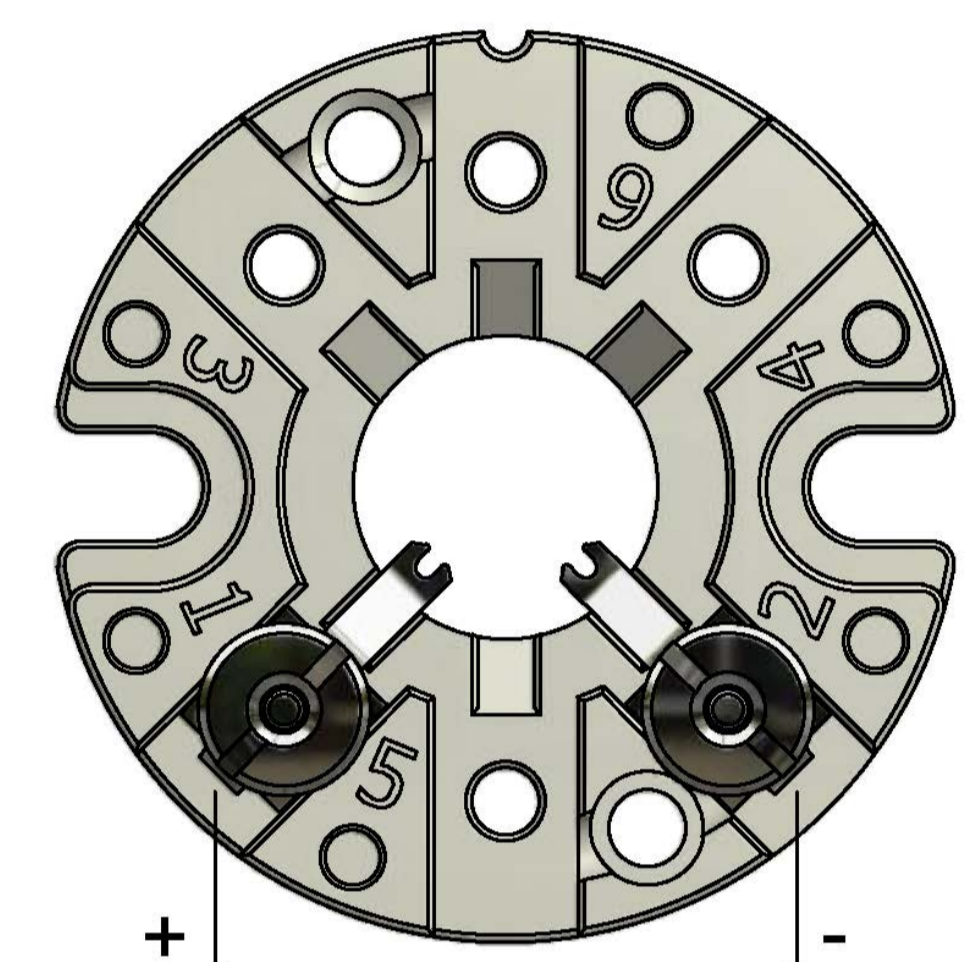
connection head model BA-KLH
M24 x 1,5



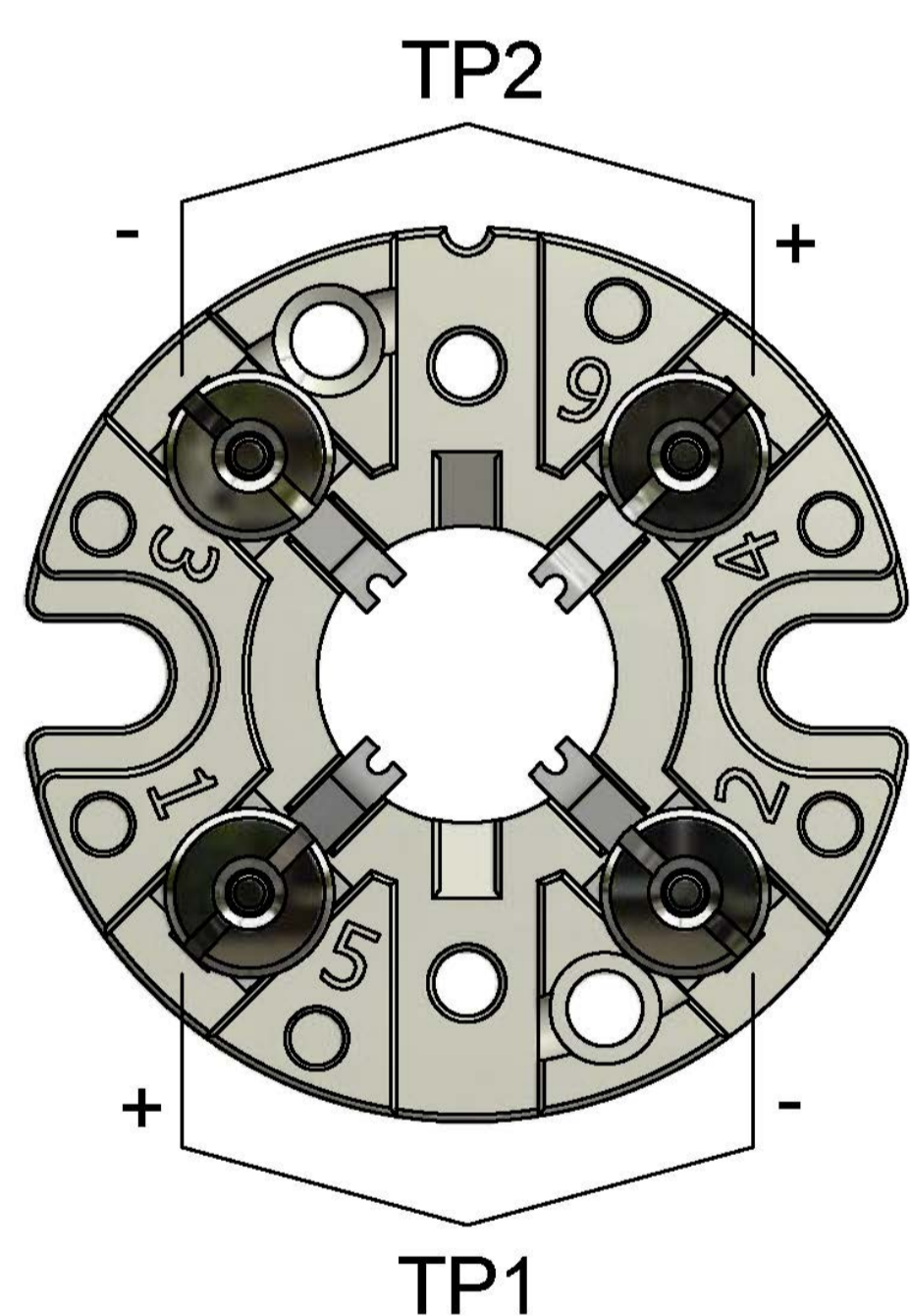
connection head model B-KUKL
M24 x 1,5



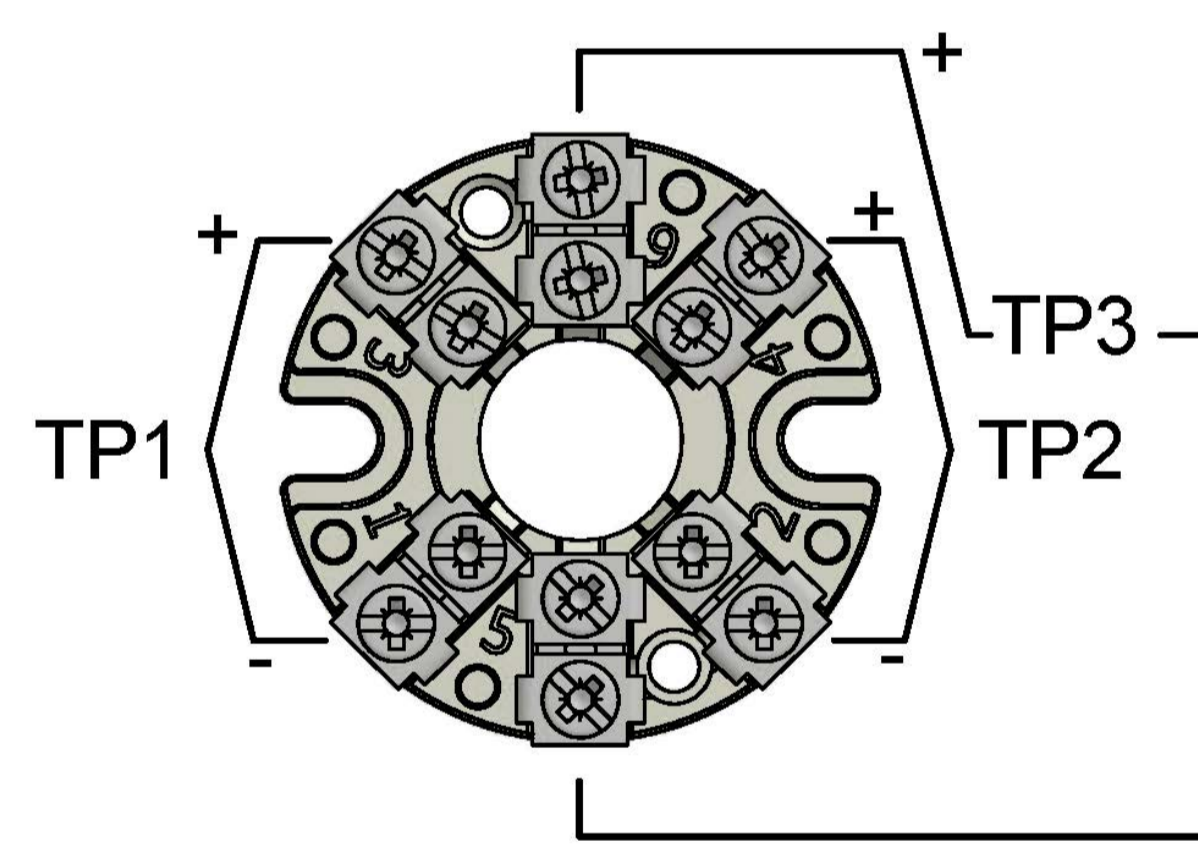
connection head model B-KUHKL
M24 x 1,5



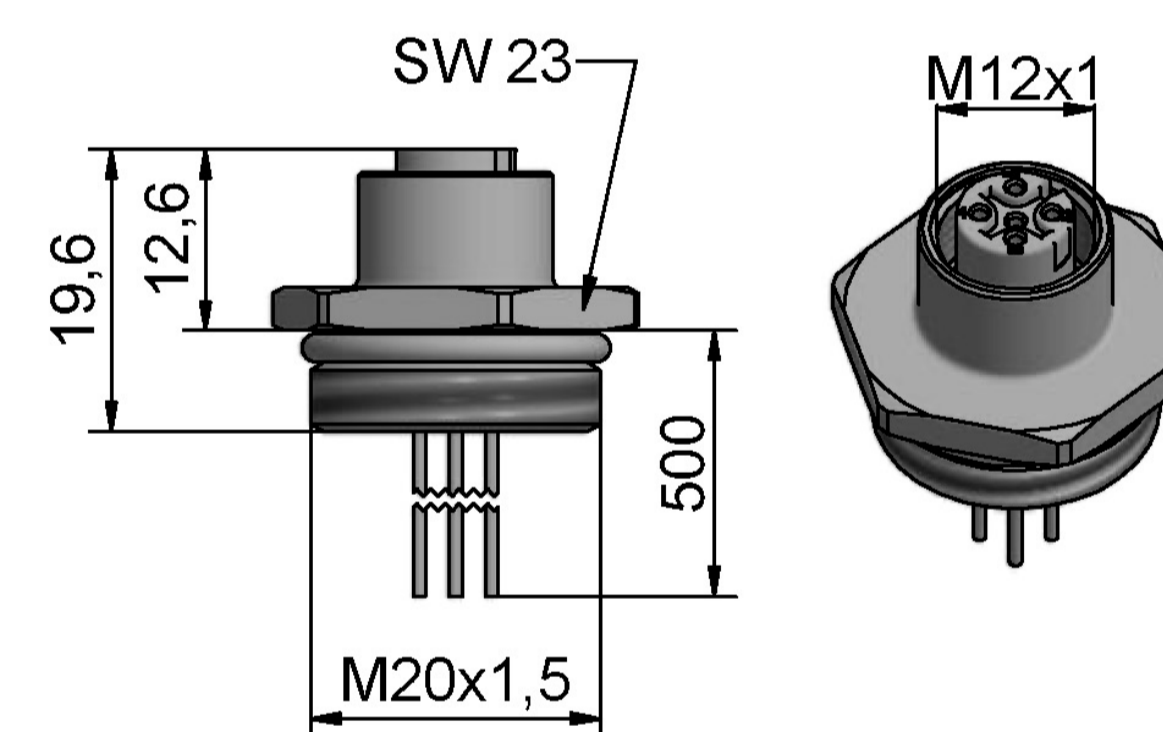
TP1
terminal base
1 thermocouple



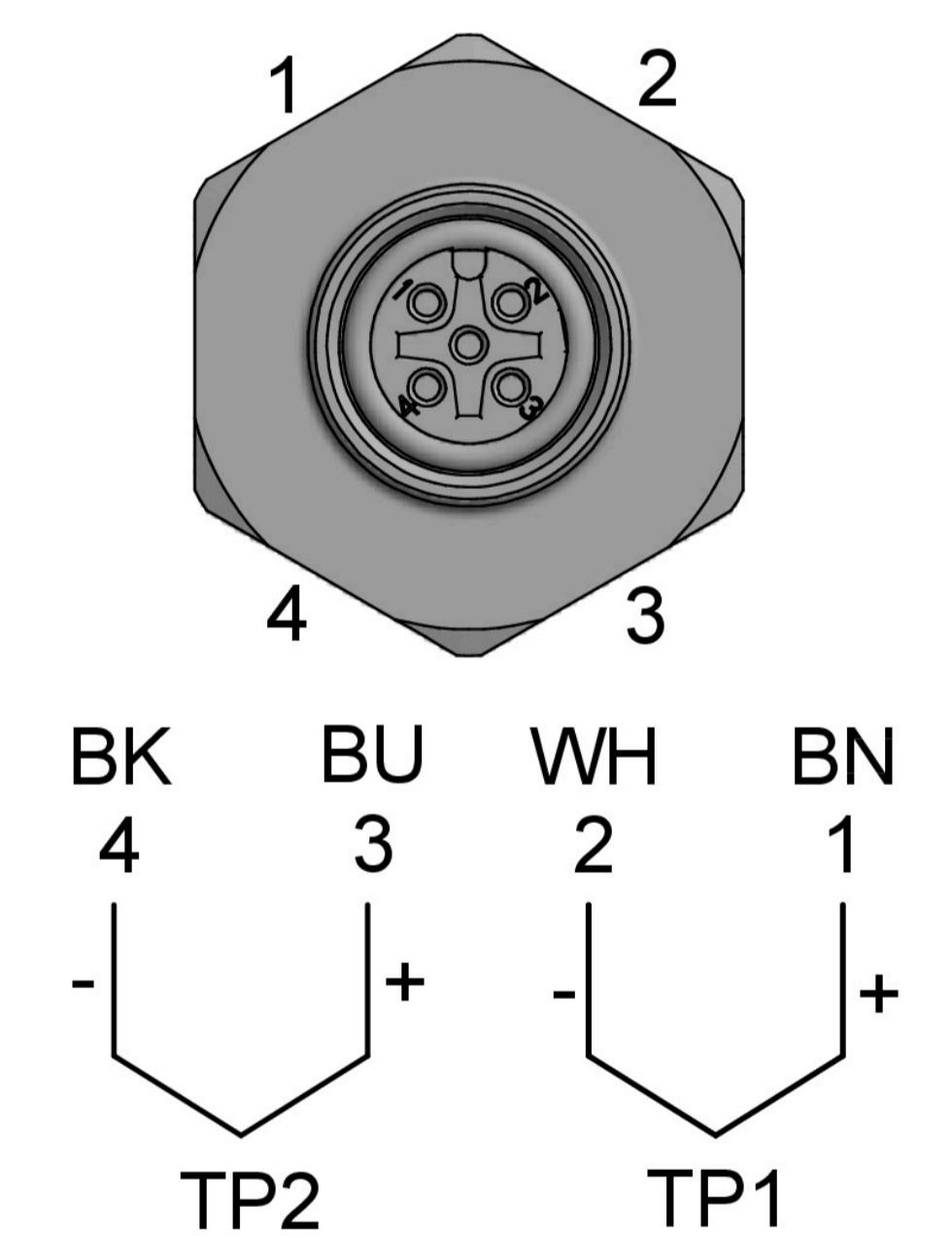
TP1
terminal base
2 thermocouples



TP1
terminal base
3 thermocouples



M12 insert socket
4-terminals



M12 insert socket
2 thermocouples