

# Ex-Resistance Temperature Detector WR14 model D/DST

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 version with flexible sheath material allows to detect the temperature even in hard-to-reach places.

## Application area:

machine and plant engineering, chemicals industry,  
Research / Development, Food industry

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

II 1G Ex ia IIC T1...T6 Ga or

II 1D Ex ia IIIC T135 °C Da.

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

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

**Stock-number-code: WR14-O or WR14-P.**

## Technical datas

- **Measuring insert** (fig. 1/5) similar DIN 43735 without base, with sleeve (fig. 1/4) and connection cable (fig. 1/2).

**Sensor** depending on use:

thin film or ceramic according to IEC / EN 60751,

in 1 x 3- , 1 x 4- , 2 x 2-, 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.

**On request** also for -196 °C up to +450 °C.

**Notice:** process- and operating temperature are the same and depended on cable and plug connector

Process temperatures below -40 °C and above 450 °C are only possible with appropriate process decoupling. 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.

- **Sheath material** (fig. 1/5) according to IEC / EN 61515.  
Standard material 1.4404, Standard diameter 1,5 ; 3 or 6 mm.
- **Process connection via sliding compression fitting, union nut or welded-on clamping fitting DIN 32676.**  
**sleeve** (fig. 1/4) stainless steel, with or without Filler hole  
Standard dimension 4x30, 6x30, 6x50, 8x50, 9,5x55 mm, always with antikink spring (fig. 1/3).
- **Temperature range** static installation: PVC insulated - 40 °C to 80 °C or silicone / FEP insulated - 40 °C to 180 °C.
- **Temperature range** of the plug connector(fig.1/1):  
Compensation plug connector(Typ B) -40 °C up to 200 °C, Lemo -40 °C up to 200 °C and -40 °C M12 up to 85 °C.
- **Optional materials for gas and dust explosion protection:**  
please see our Ex-Operating Instructions chapter 4 Ex-Conditions.

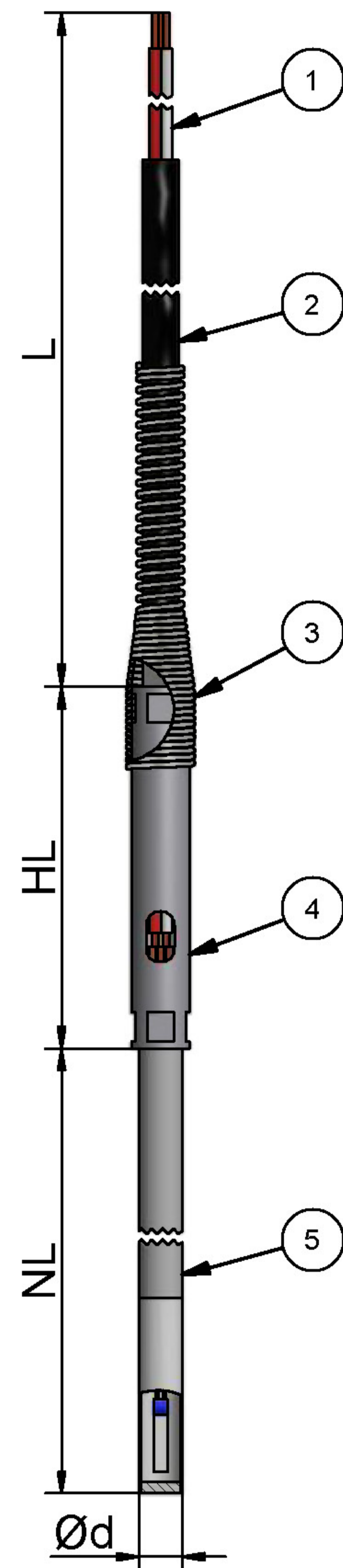
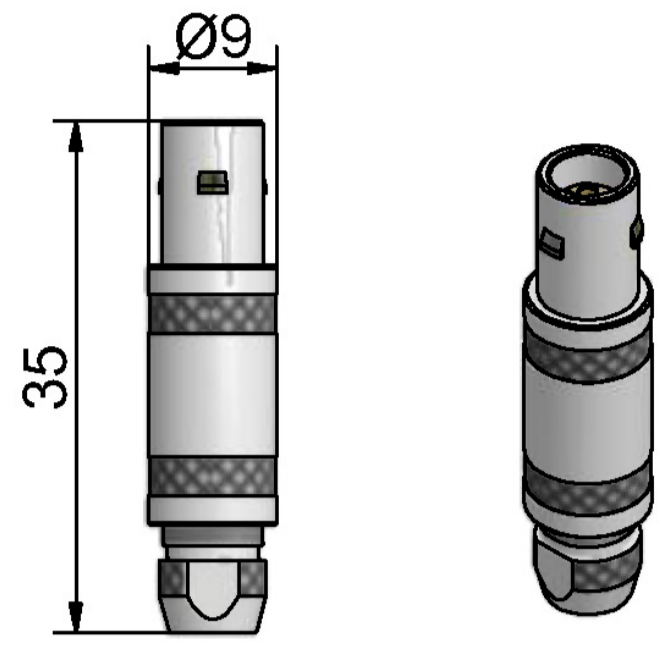


fig. 1

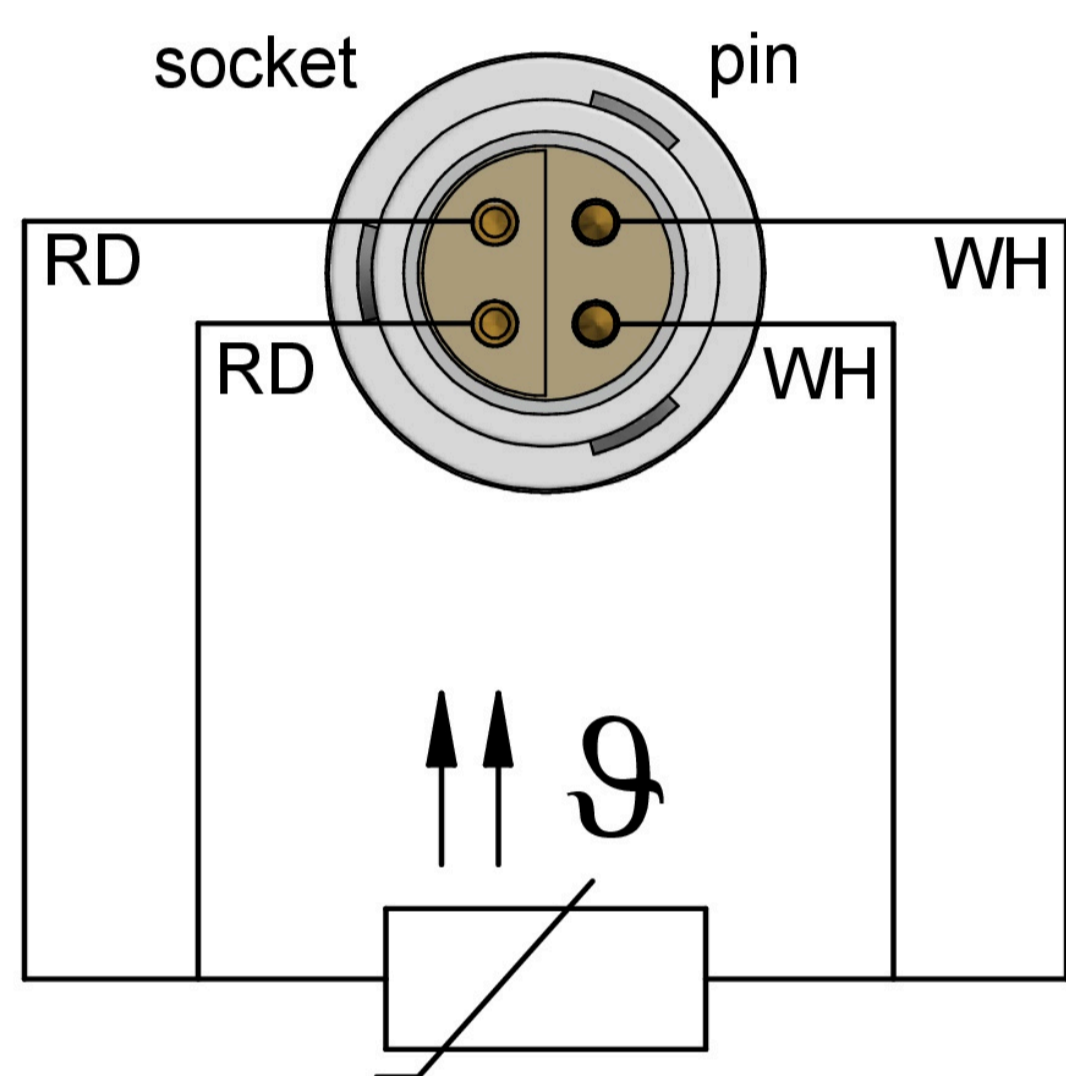


# Optional plug connector

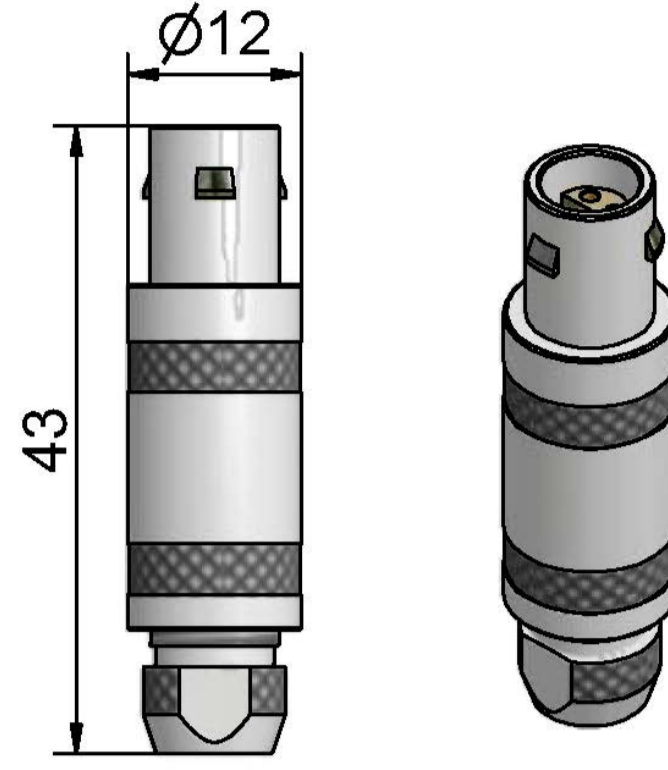
Connection cable with 30 mm free ends or with plug connector.



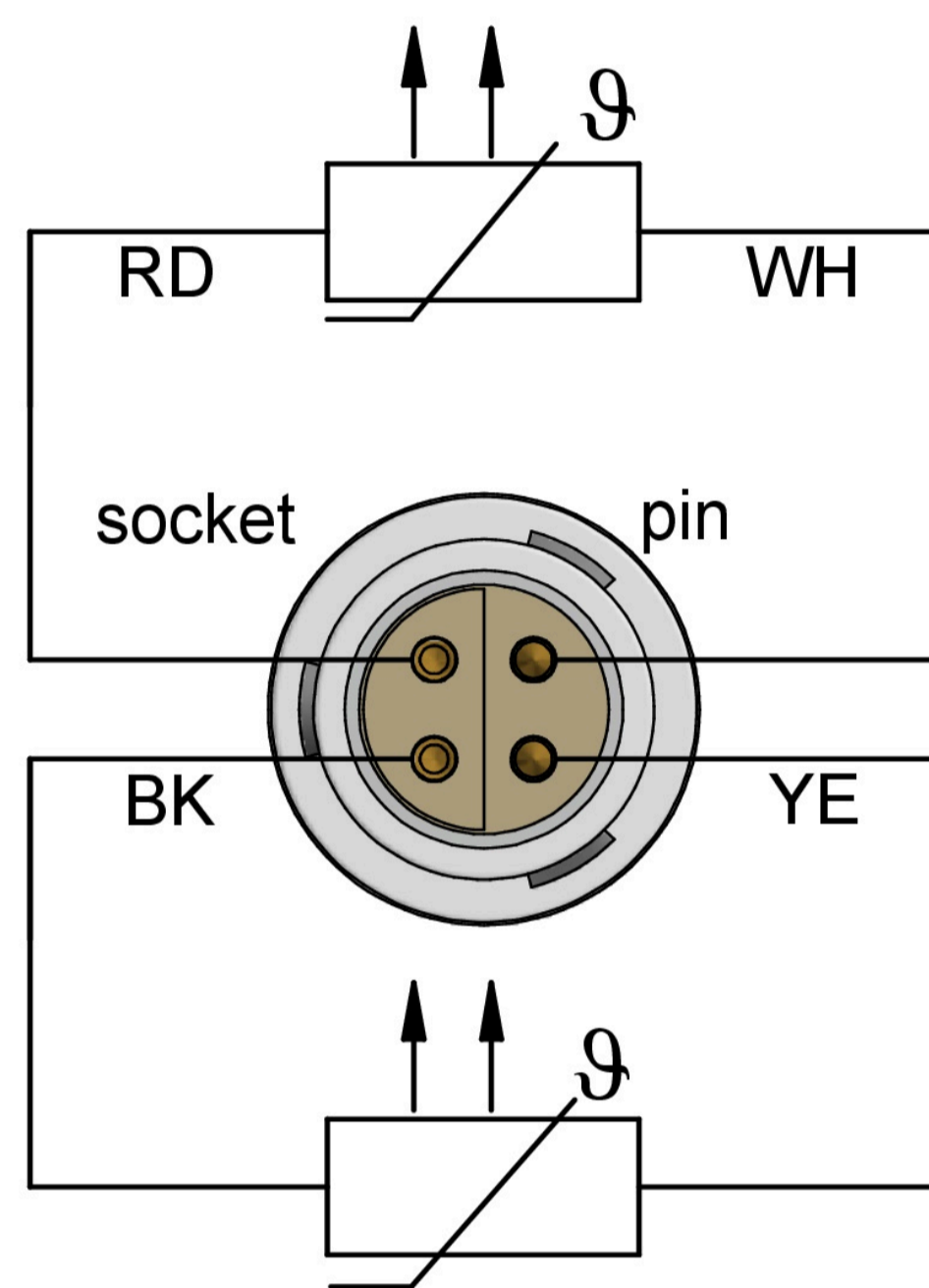
Lemo plug size 0



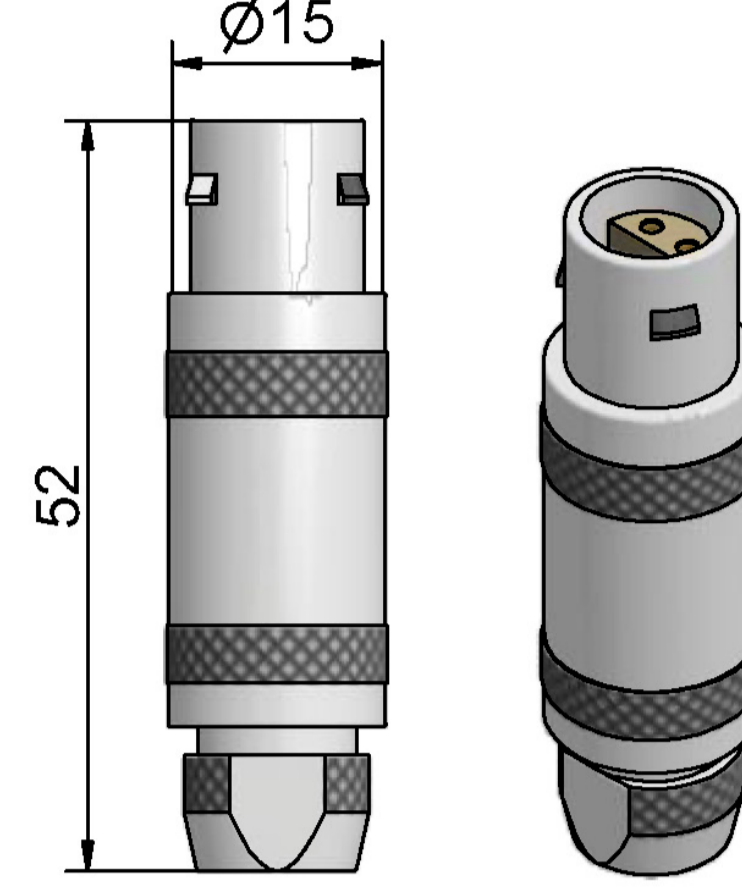
Lemo plug 1 x 4 wire front view



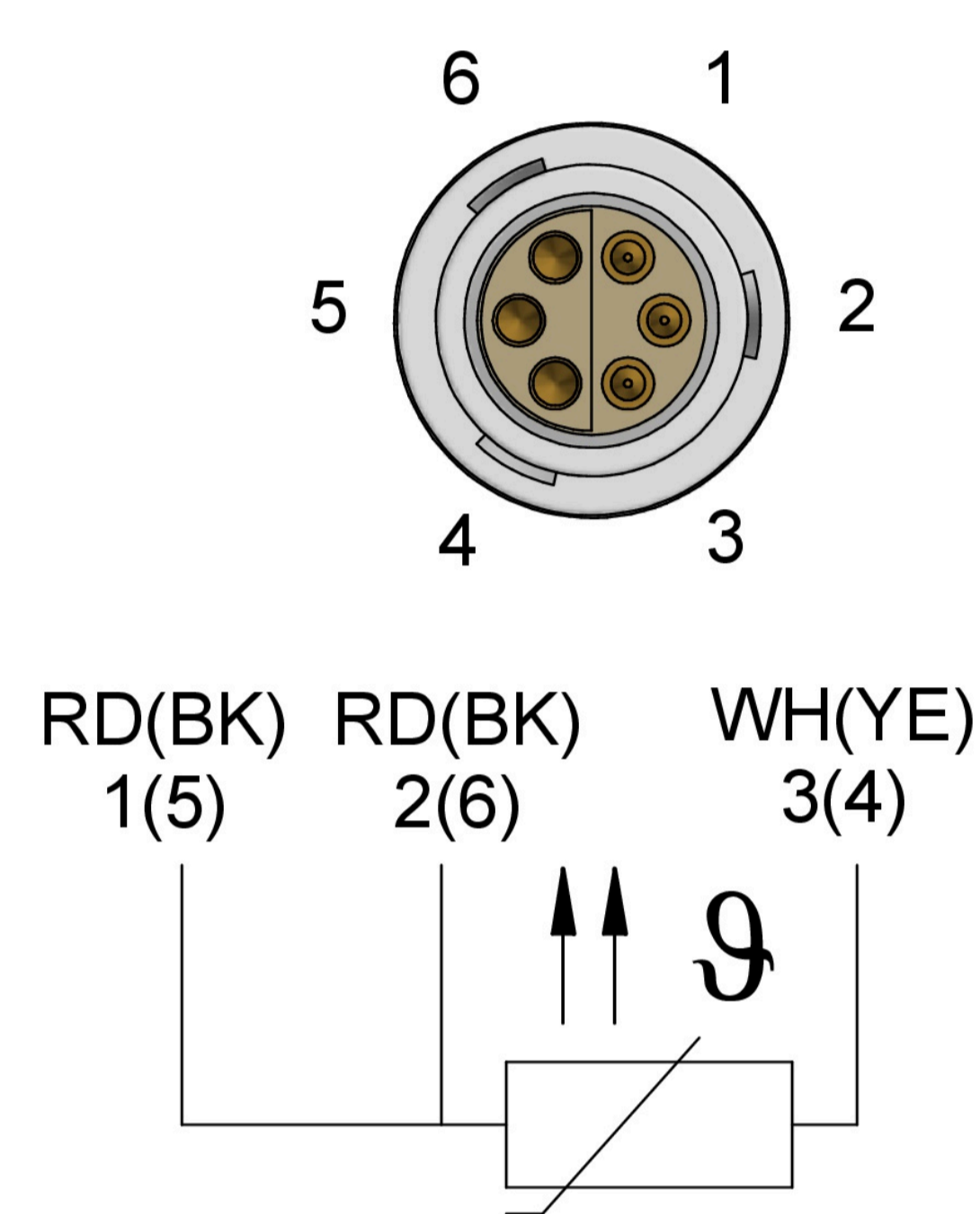
Lemo plug size 1



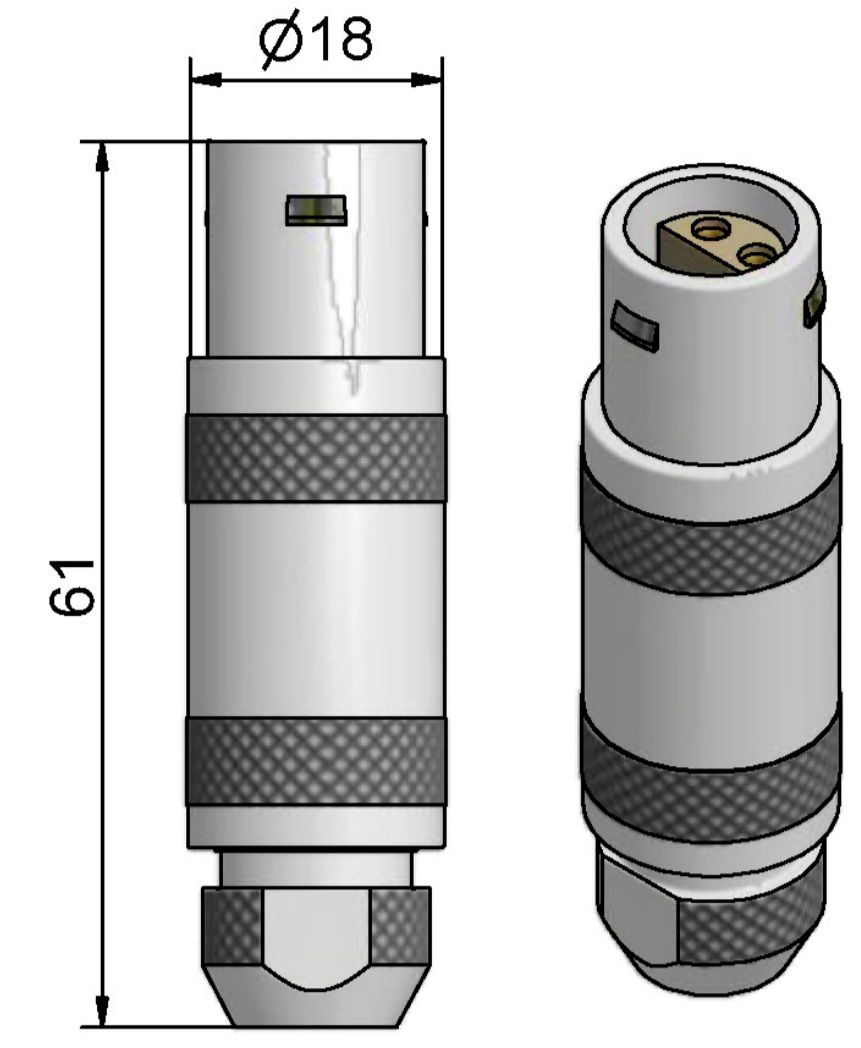
Lemo plug 2 x 2 wire front view



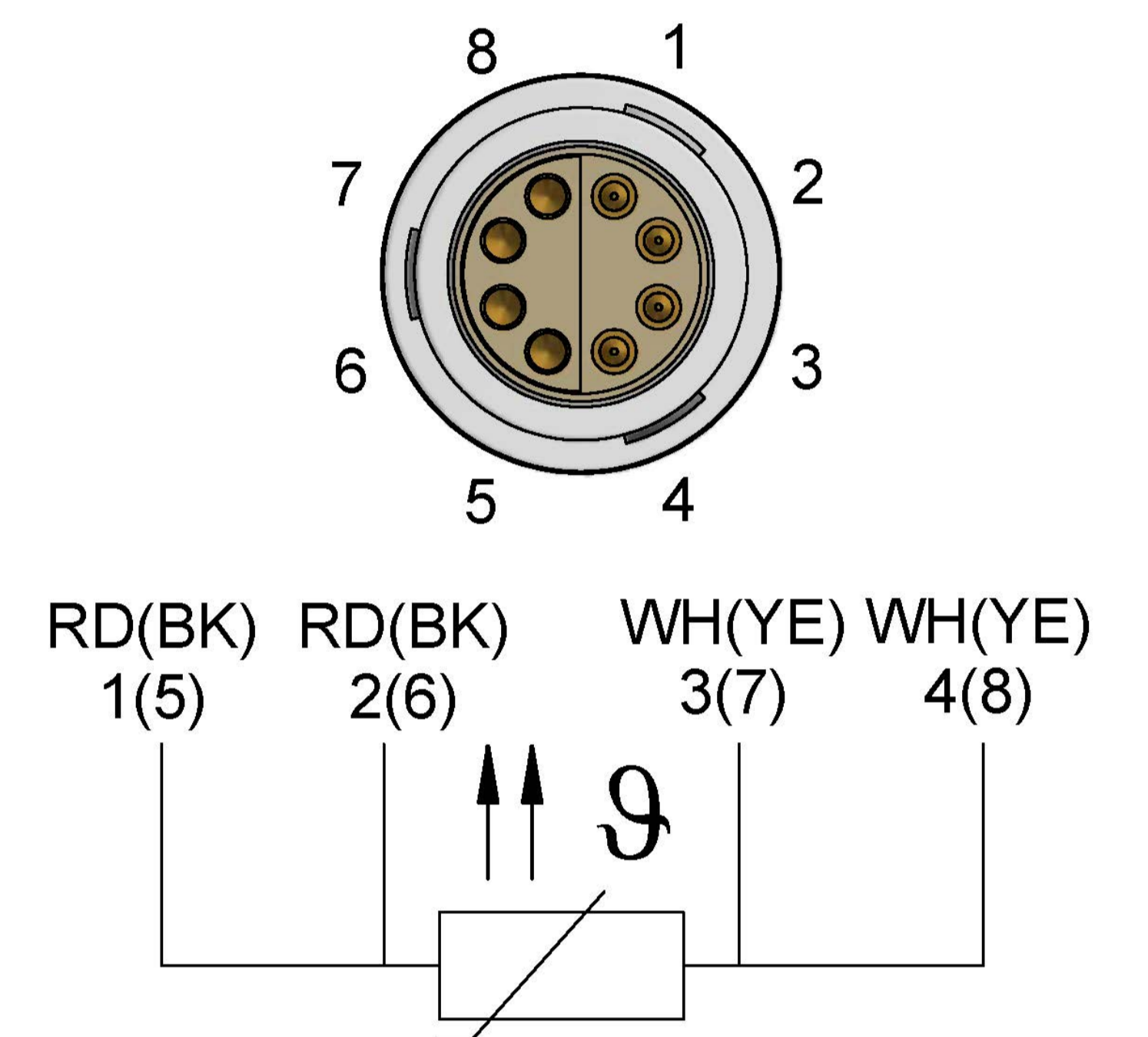
Lemo plug size 2



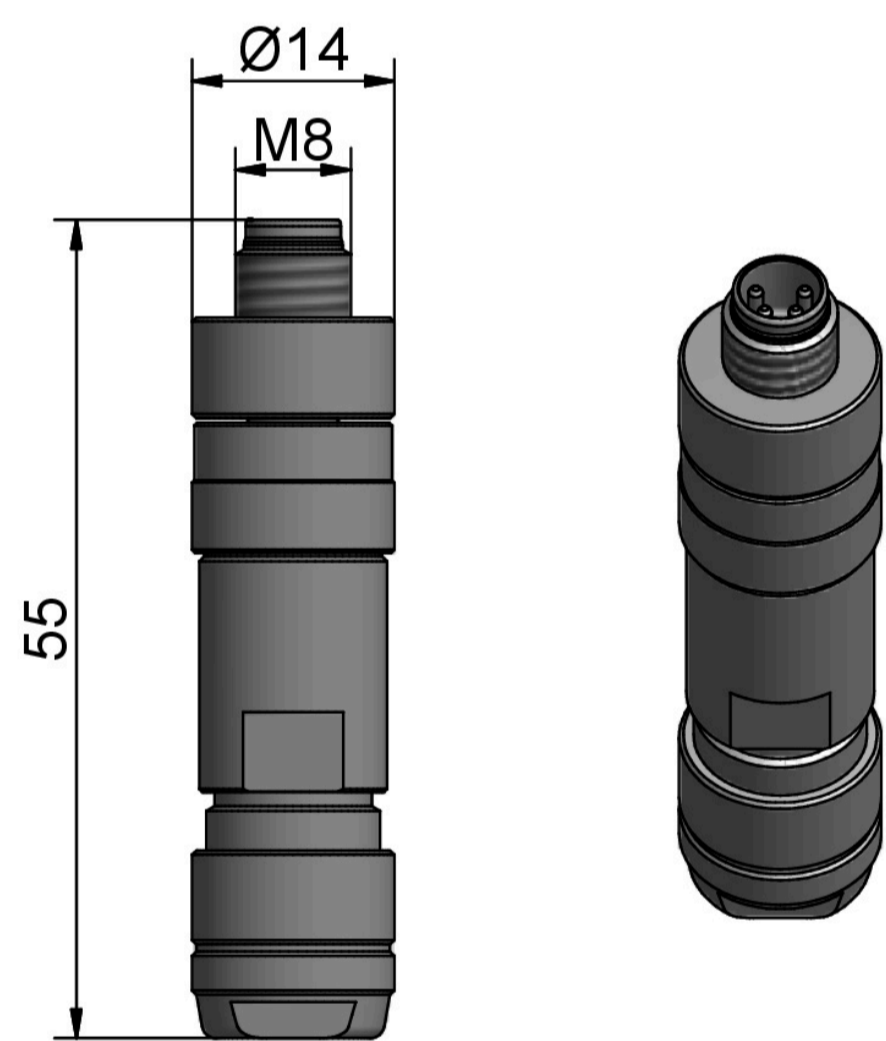
Lemo plug 2 x 3 wire front view



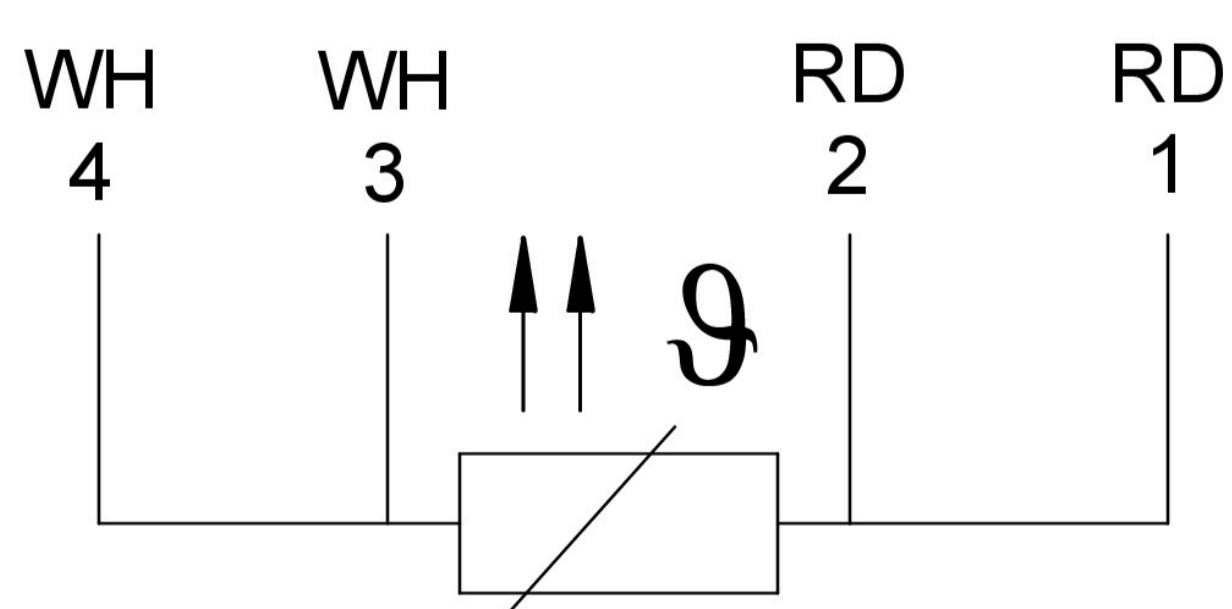
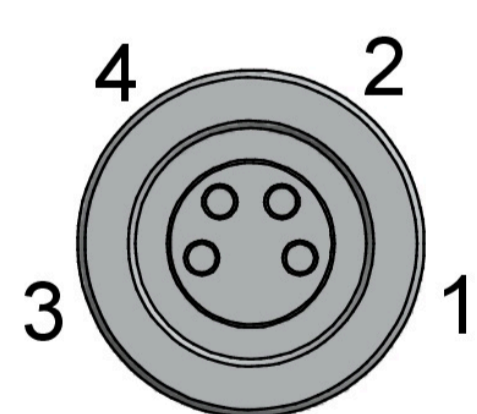
Lemo plug size 3



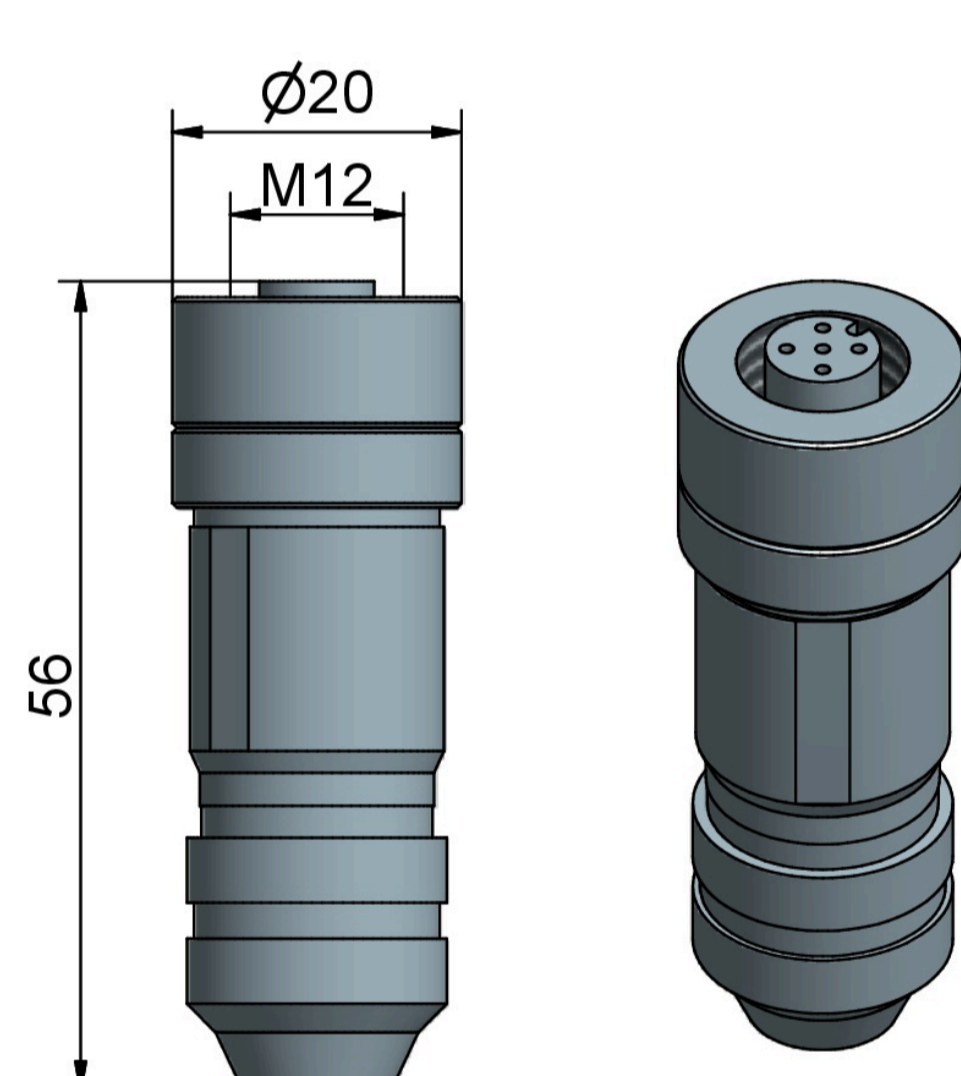
Lemo plug 2 x 4 wire front view



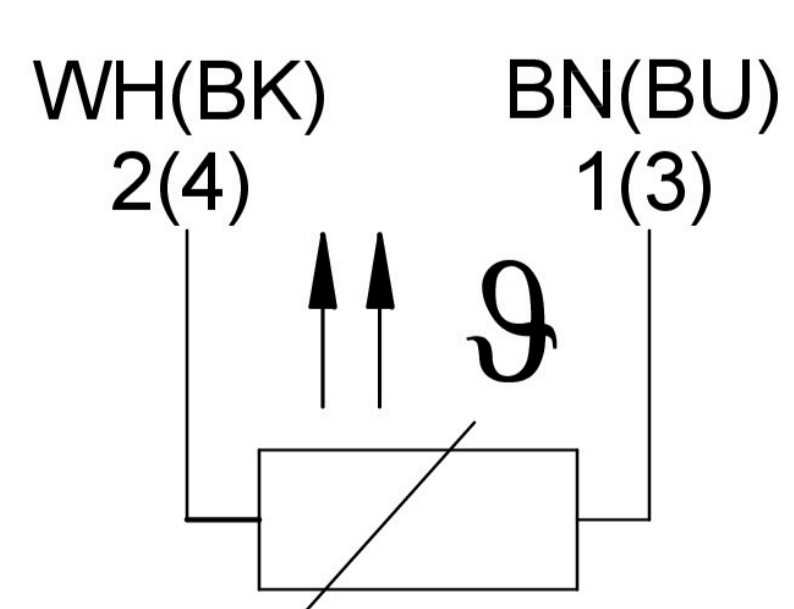
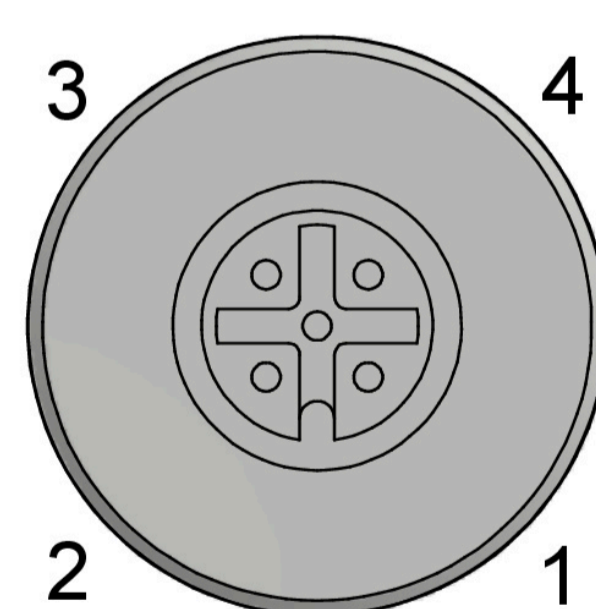
M8 socket 4-terminal screened



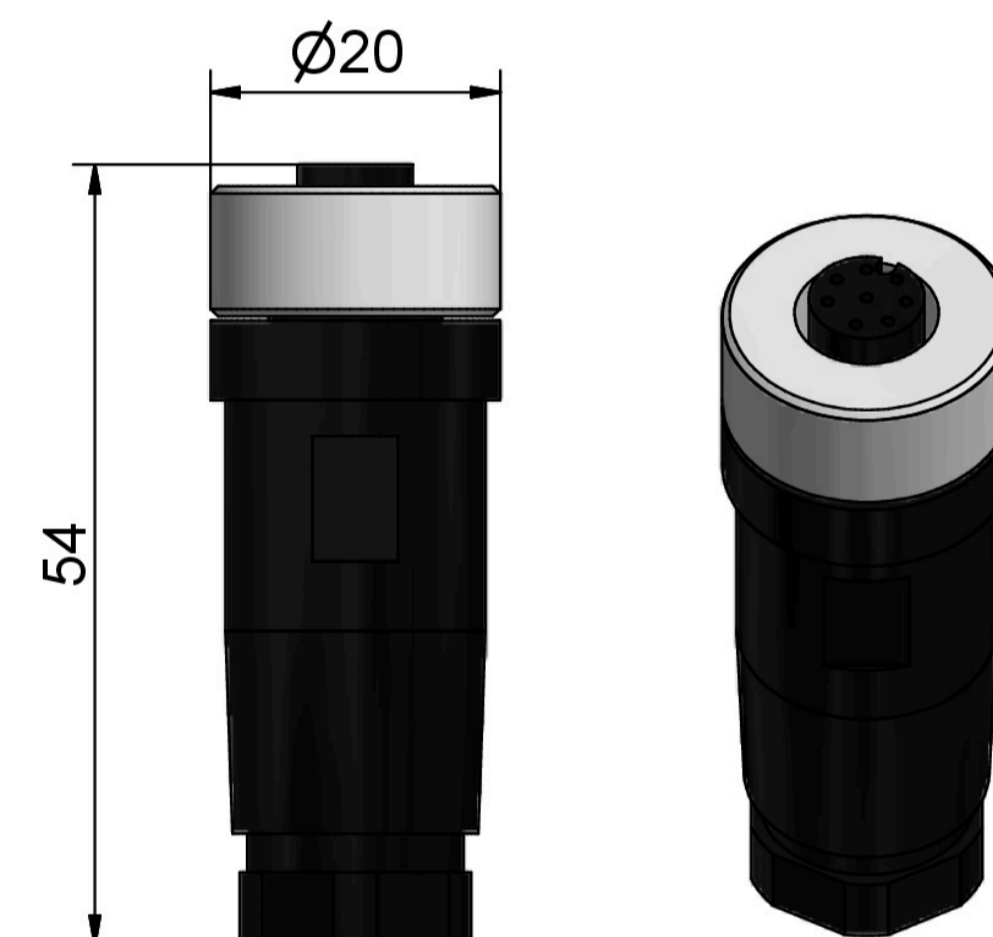
M8 socket 1 x 4 wire front view



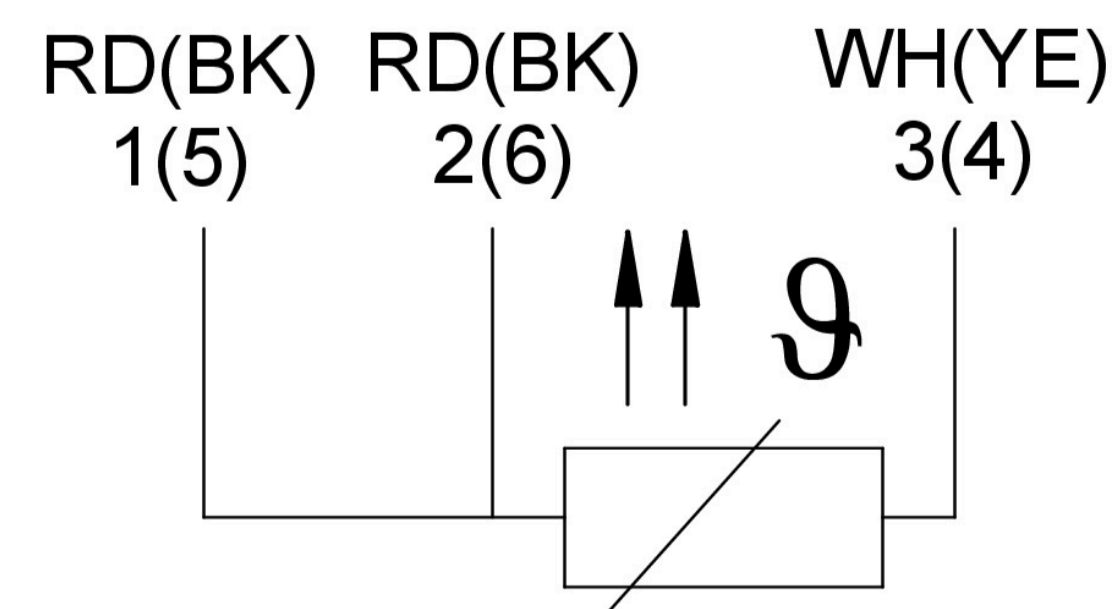
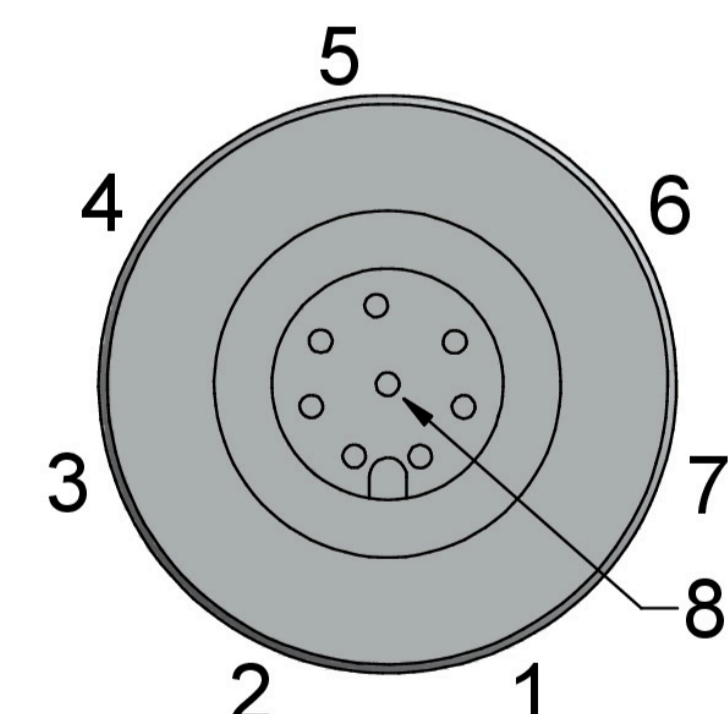
M12 socket 4-terminal screened



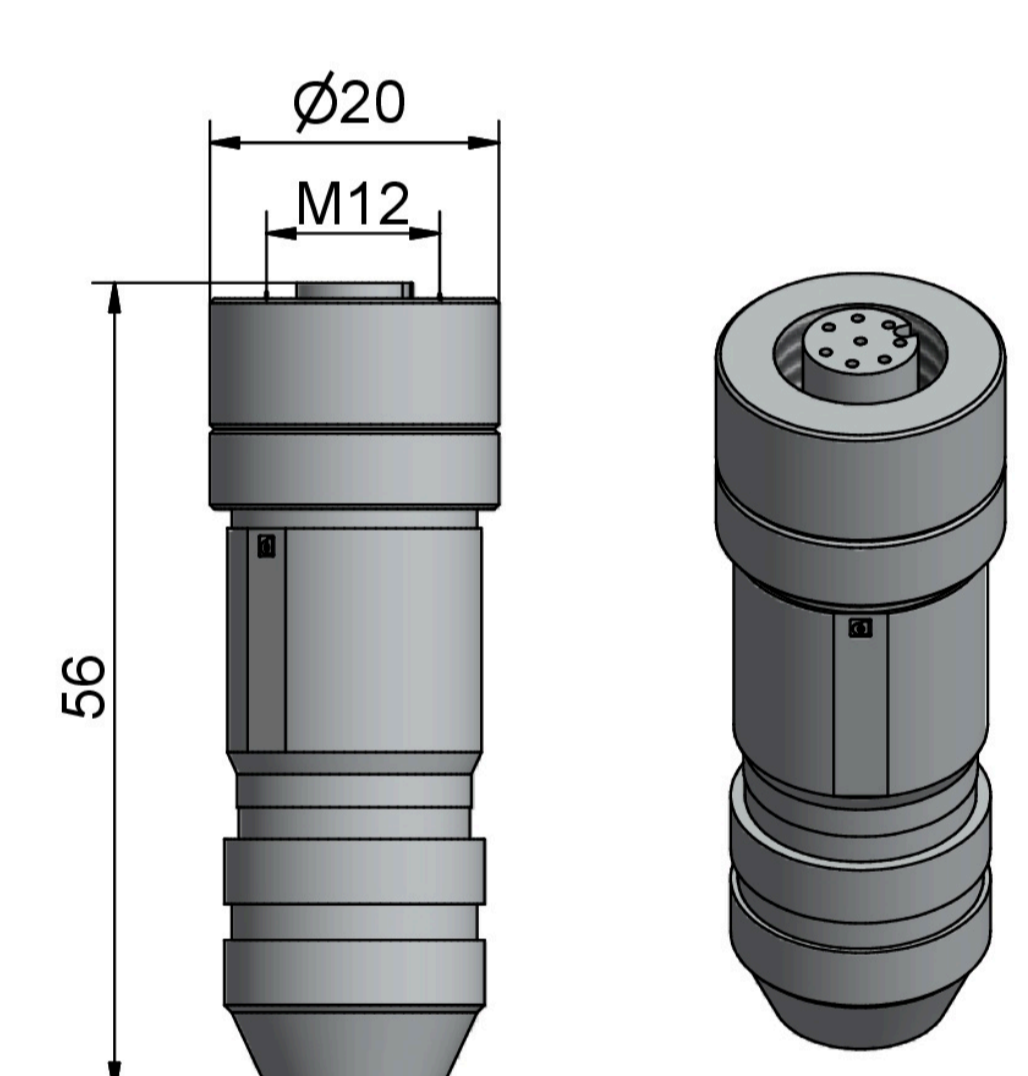
M12 socket 2 x 2 wire front view A-code



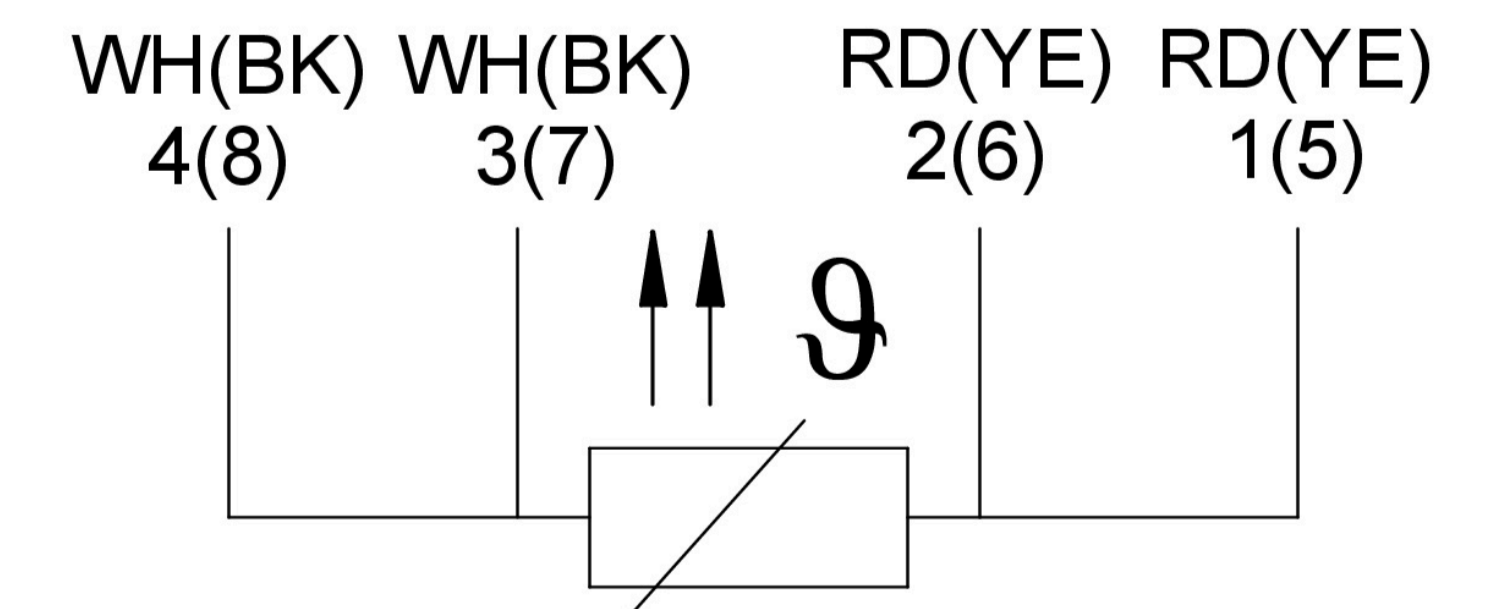
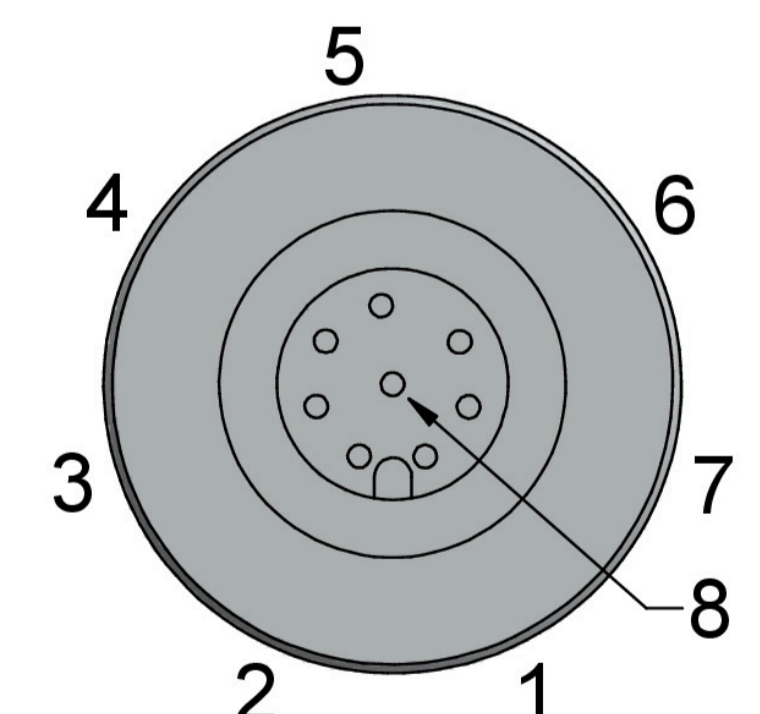
M12 socket 8-terminal



M12 socket 2 x 3 wire front view A-code



M12 socket 8-terminal screened



M12 socket 2 x 4 wire front view A-code