

# Mineral insulated thermocouple model D / DK / DKM / DL / DM12

## MIT with sleeve, connecting cable and optional with connector

### In general

Reckmann GmbH temperature sensors (R58®) are used exclusively for measuring process temperatures in solid, liquid or gaseous media. This design with bendable sheath material makes it possible to measure the temperature even in places that are difficult to access.

#### Range of application in almost all industrial sectors:

Aluminium/non-ferrous metals, industrial furnace construction/heat treatment, chemicals, plant/mechanical engineering, energy, automotive/electromobility, plastics/hot runner, research and development, cement/construction materials, paper, pipeline and container construction, food and beverages, sanitary, heating and air-conditioning technology.

For installation-specific data, see installation instructions MIT

Type code 1R9-I0, I1, I2, I3 or I4.

### Technical datas

- **Measuring unit** (fig. 1/5) according or similar to DIN 43735 without terminal base, with sleeve (fig. 1/4) and connecting cable (fig. 1/2).
- **Sensor** depended on use:  
with 1 or 2 thermocouples according to IEC / EN 60584-1.
- **Sheath material** (fig. 1/5) Design according to IEC / EN 61515.  
Preferred material 2.4816, 1.4541 depending on temperature range.  
Preferred diameter 0.5; 1.0; 1.5; 3; 6 or 8 mm.
- **Process connection** with compression fitting, union nut or welded-on compression fitting DIN 32676.
- **Transition sleeve** (fig. 1/4) made of stainless steel with or without filling hole.  
Standard dim. 4x30, 6x30, 6x50, 8x50, 9,5x55 mm.  
Optionally with anti-kink spring (fig. 1/3).
- **Operating temperature** MTE depending on thermocouple type and diameter:  
Type J: Ø 0.5 and 1.0 mm up to 260°C, Ø 1.5 and 2.0 mm up to 440°C, 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 K: Ø 0.15 mm up to 400°C, Ø 0.25 and 0.34 mm up to 500°C, Ø 0.5 and 1.0 mm up to 700°C, Ø 1.5 and 2.0 mm up to 920°C, Ø 3.0 mm up to 1070°C, Ø 4.5; 6.0 and 8.0 mm up to 1100°C.  
Type N: Ø 0.25 mm up to 500°C, Ø 0.5 and 1.0 mm up to 700°C, Ø 1.5 and 2.0 mm up to 920°C, Ø 3.0 mm up to 1070°C, Ø 4.5; 6.0 and 8.0 mm up to 1100°C.  
Type E: Ø 0.5 and 1.0 mm up to 300°C, Ø 1.5 and 2.0 mm up to 510°C, 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 0.5 and 1.0 mm up to 260°C, Ø 1.5 and 2.0 mm up to 260°C, 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 mm, Ø 3.0 and 6.0 mm up to 1300°C.
- **Application temperature connecting cable** (fig. 1/2) fixed :  
Insulation PVC up to 105°C, silicone up to 180°C, FEP up to 205°C, Kapton up to 250°C, PTFE up to 260°C, glass fibre up to 350°C.
- **Connector application temperature** (fig. 1/1):  
Compensating connectors -40°C to 200°C / HT- to 350°C / Ceramic- to 650°C,  
Lemo -55°C to 200°C and M12 -40°C to 85°C.

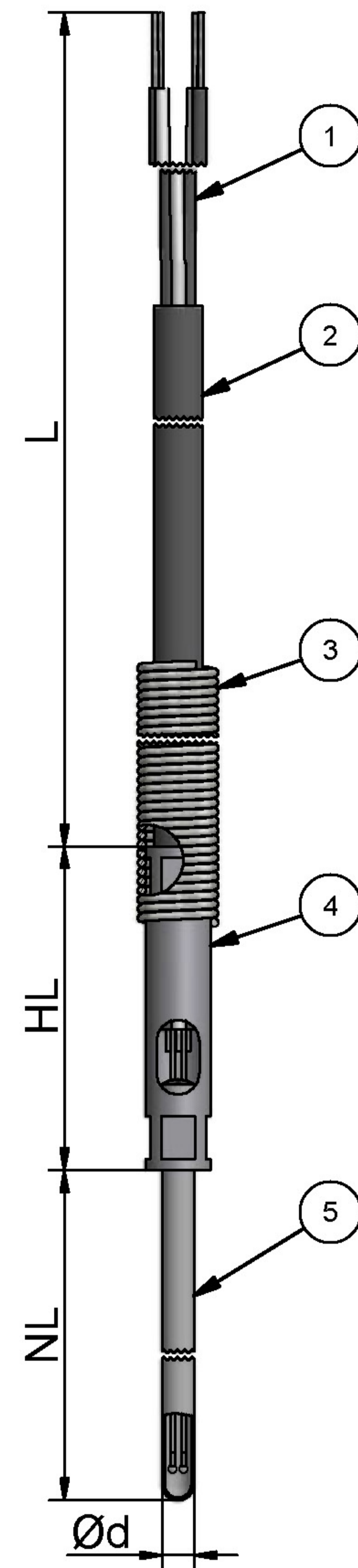
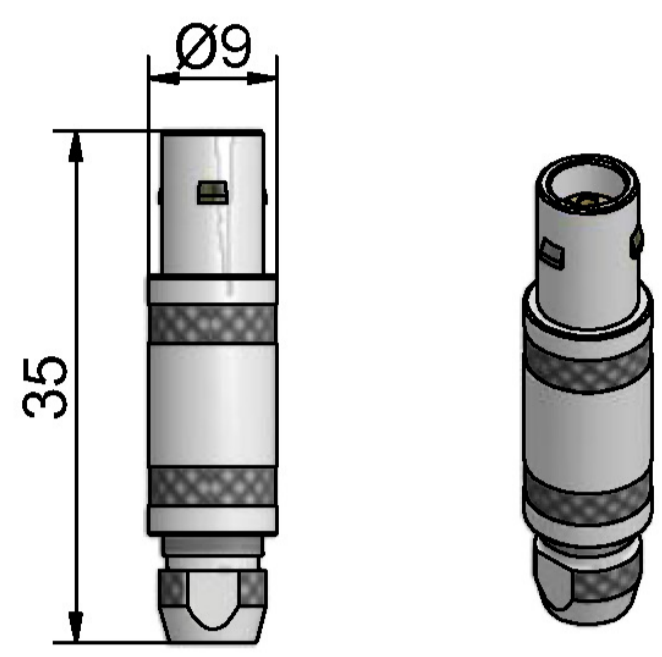


fig. 1

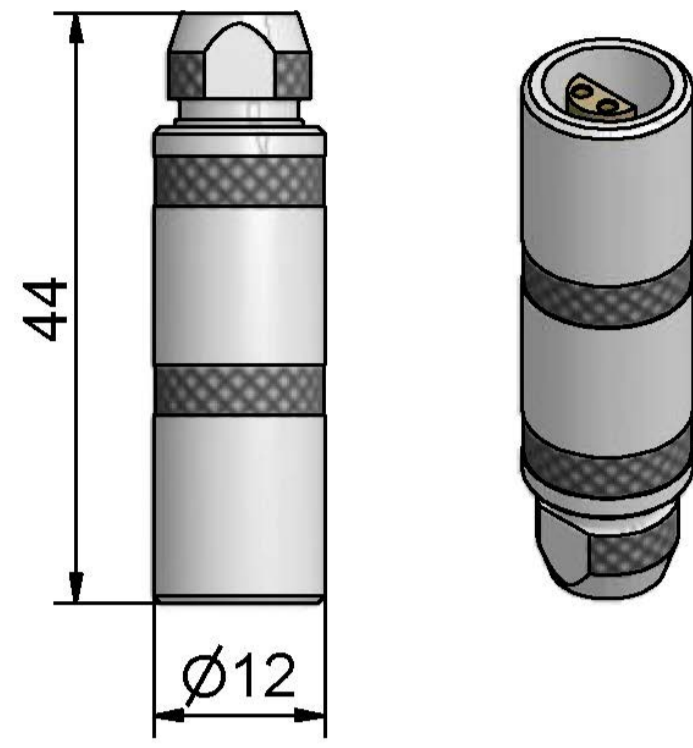


# Optional connectors / circuit diagram

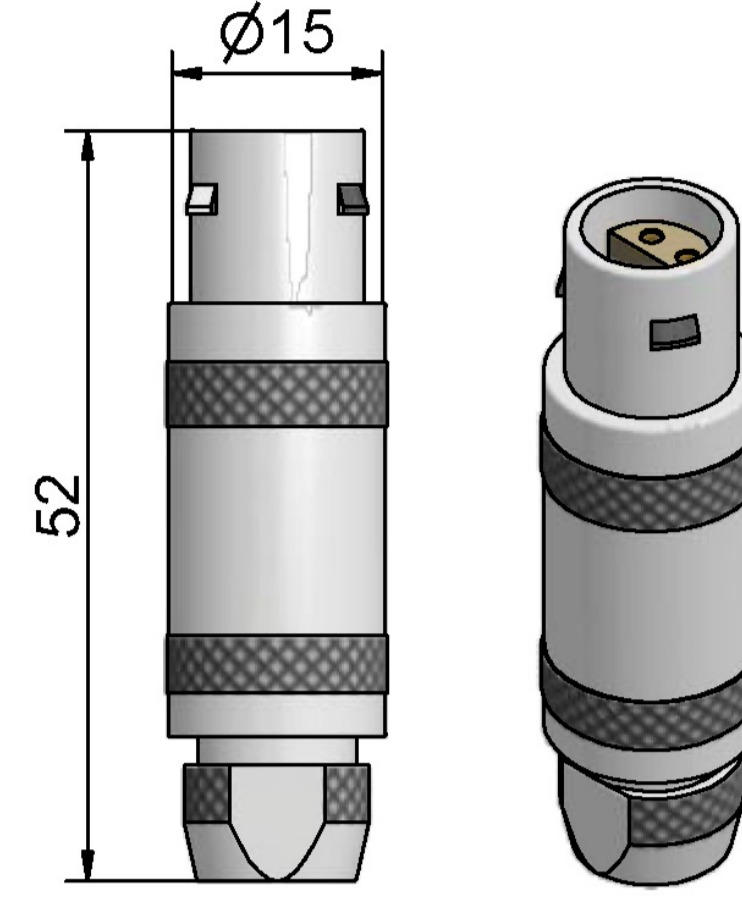
cable standard with 30 mm free ends or on request with connector



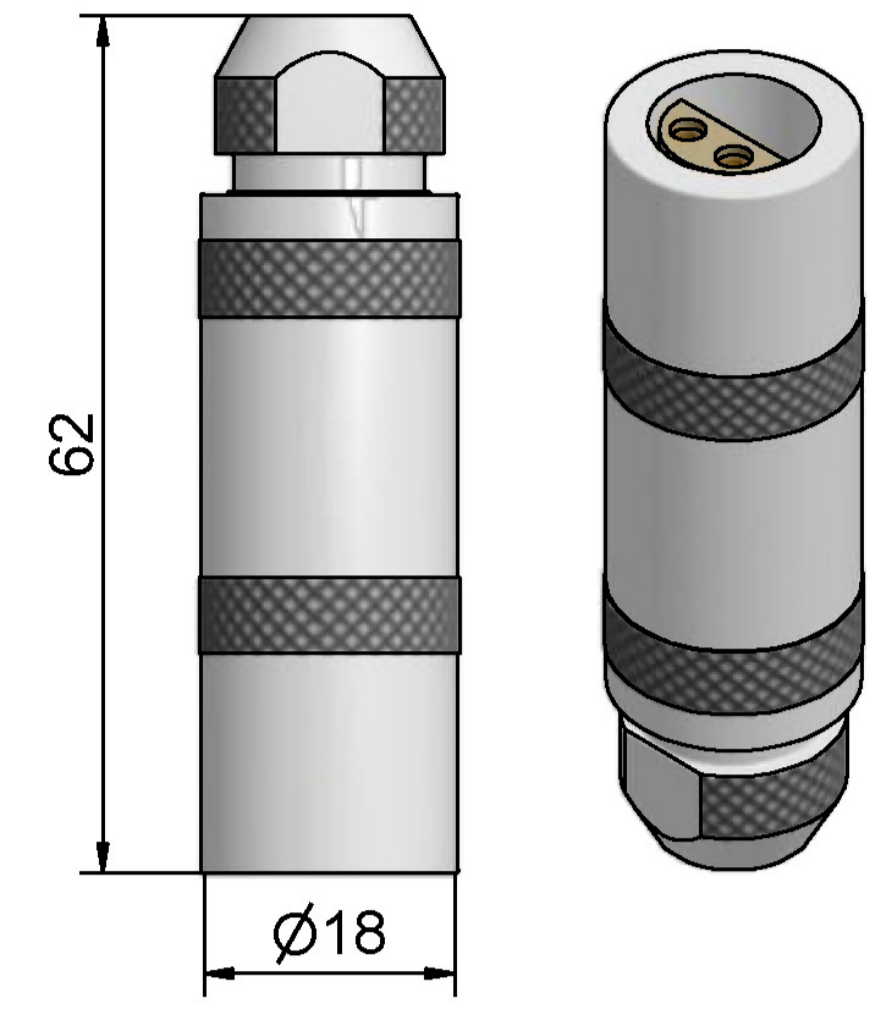
Lemo-plug size 0



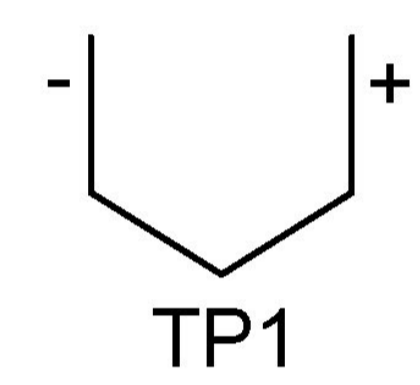
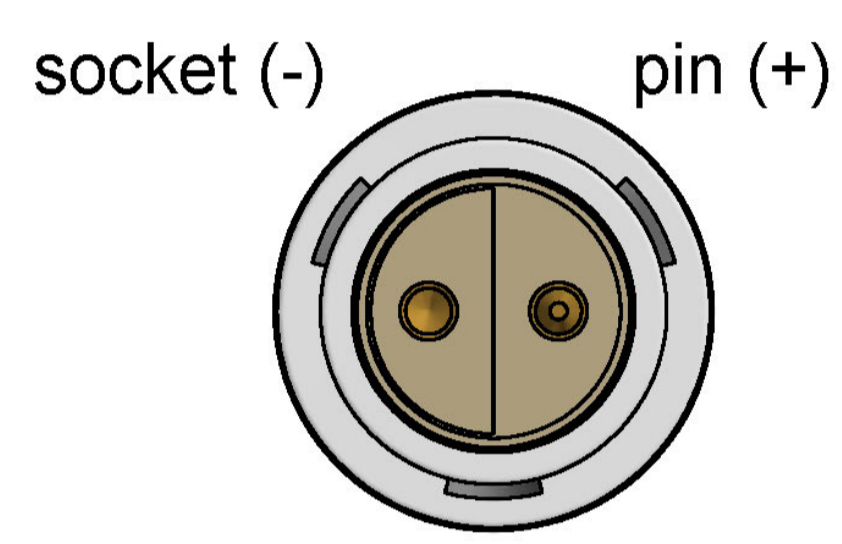
Lemo-socket size 1



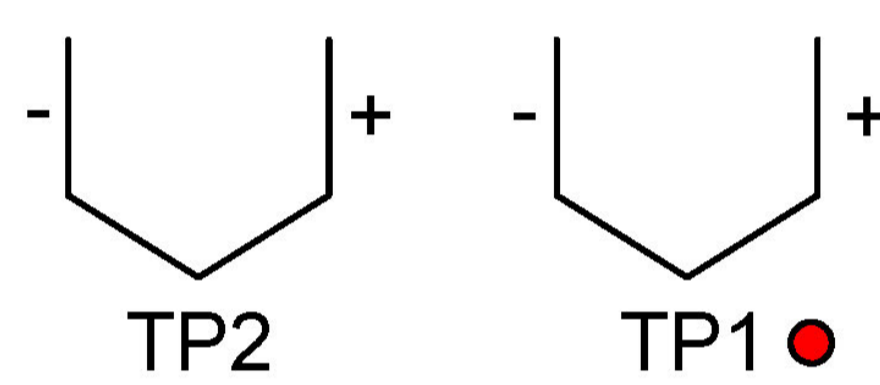
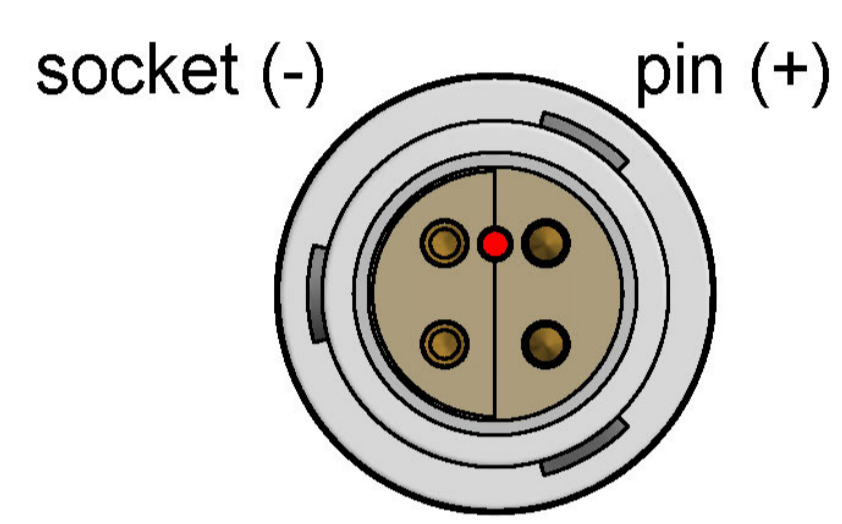
Lemo-plug size 2



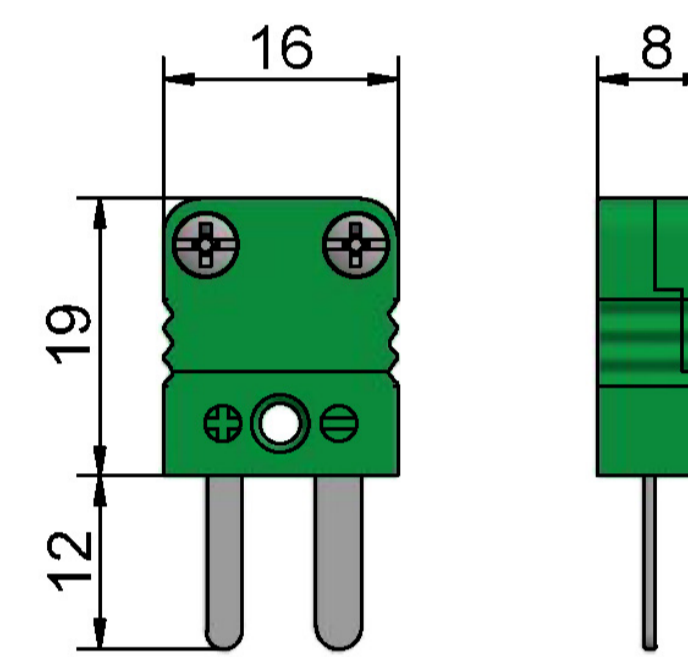
Lemo-socket size 3



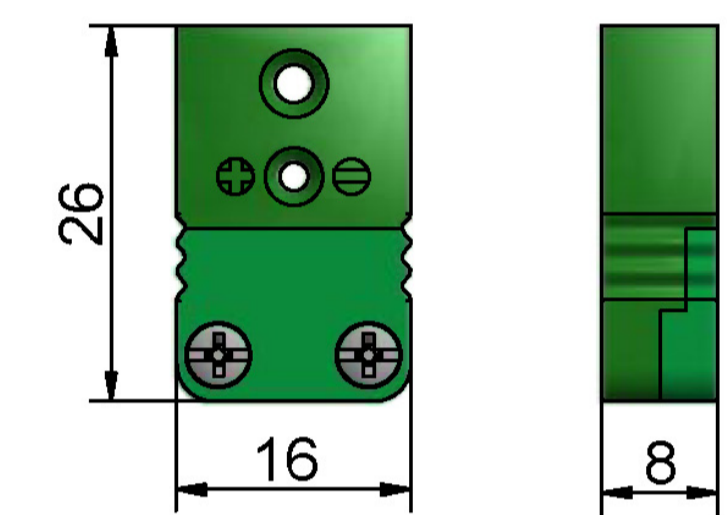
Lemo plug front view



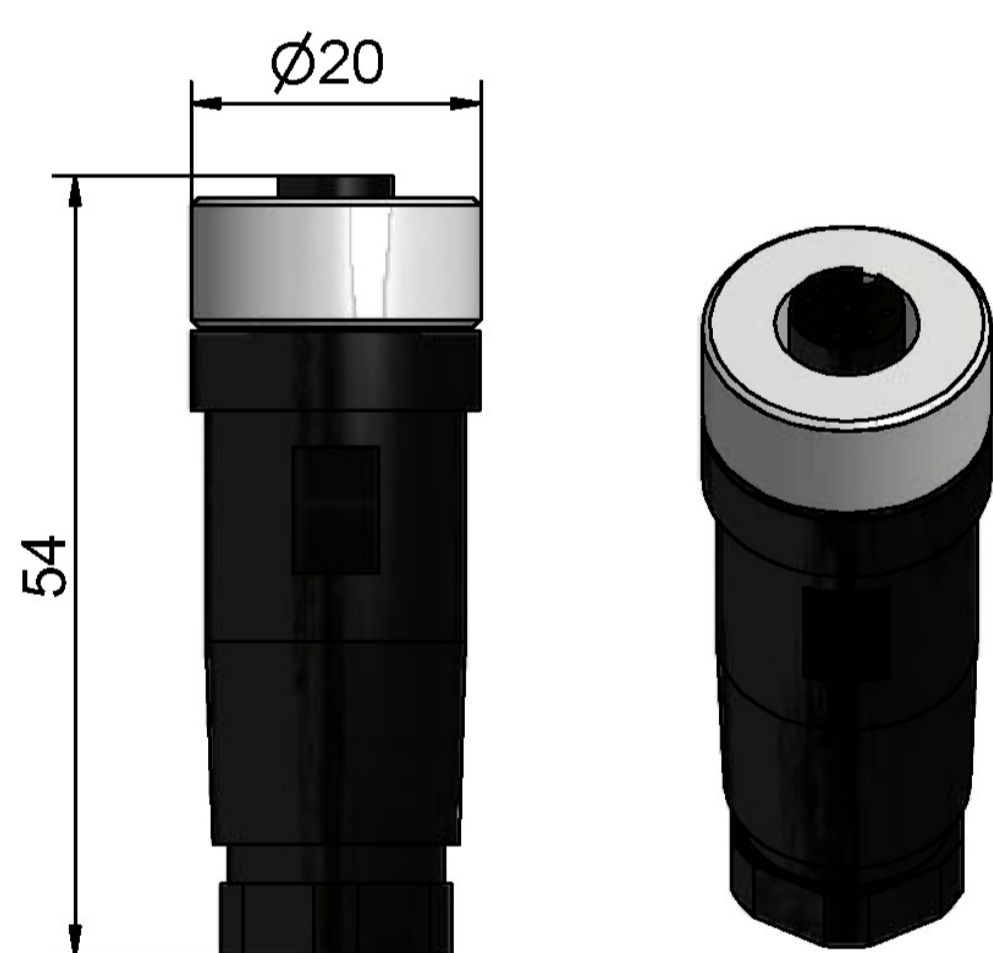
Lemo plug front view



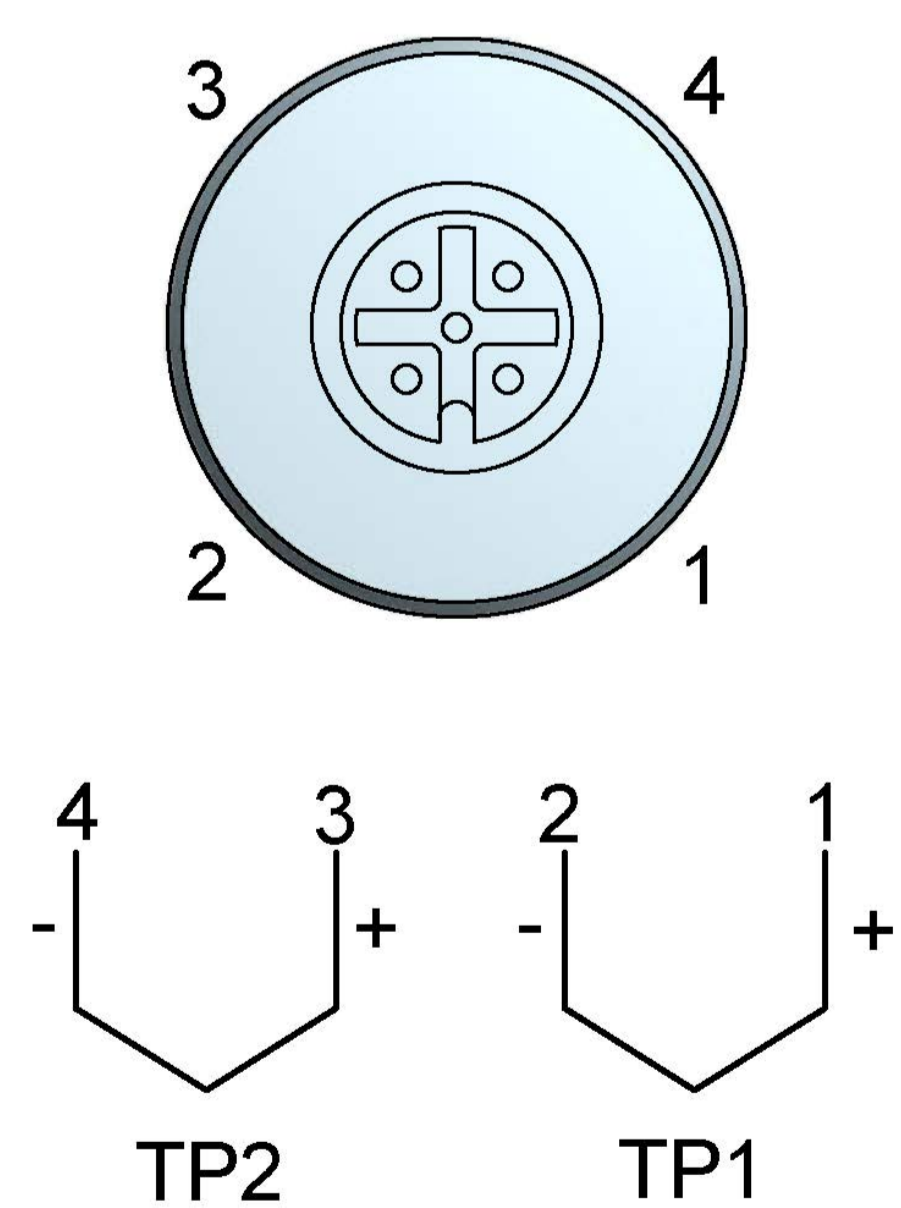
Mini plug Type K



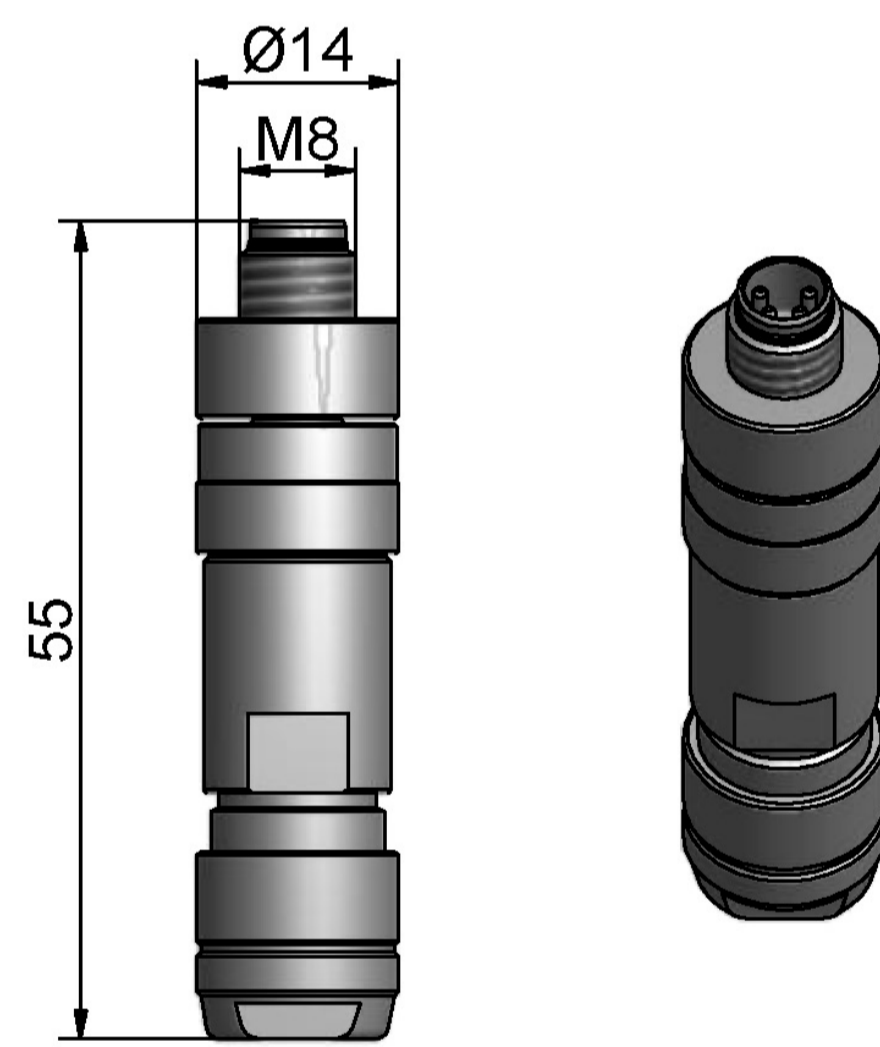
Mini socket Type K



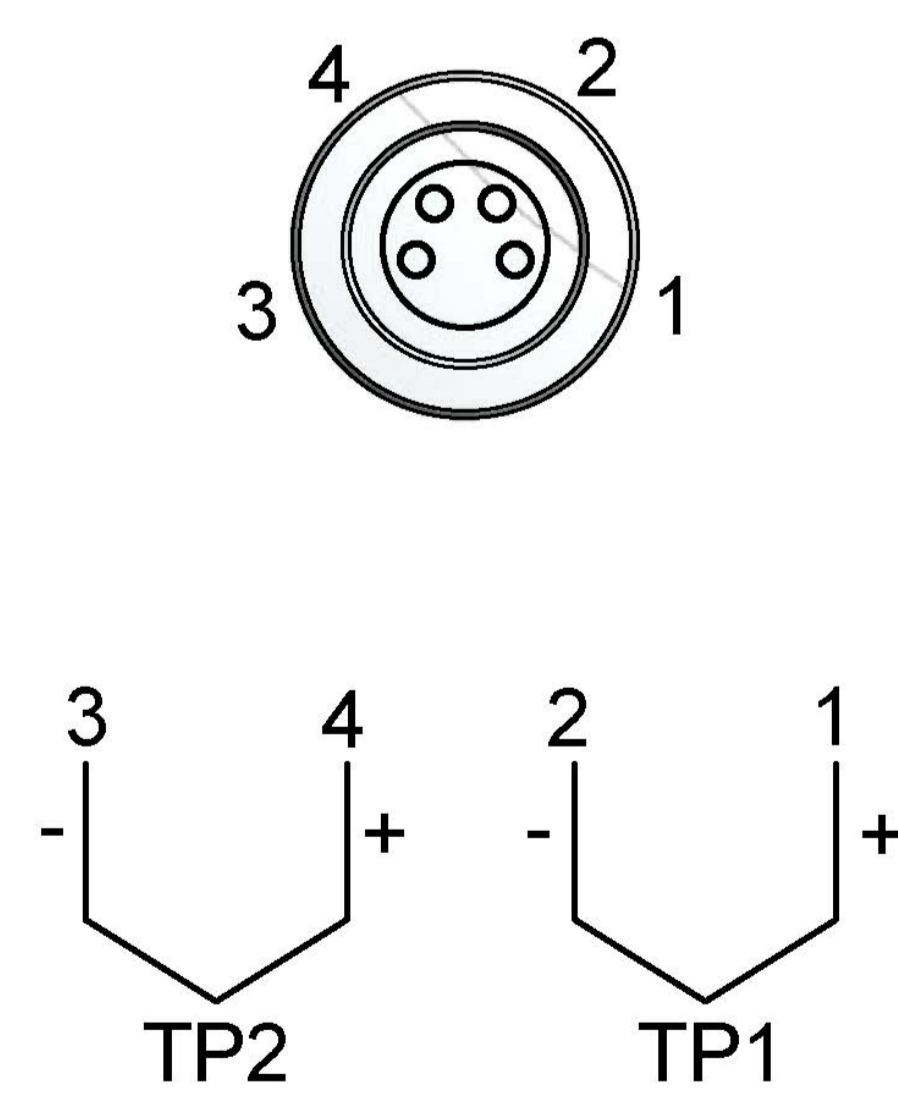
M12 socketed 8 terminal



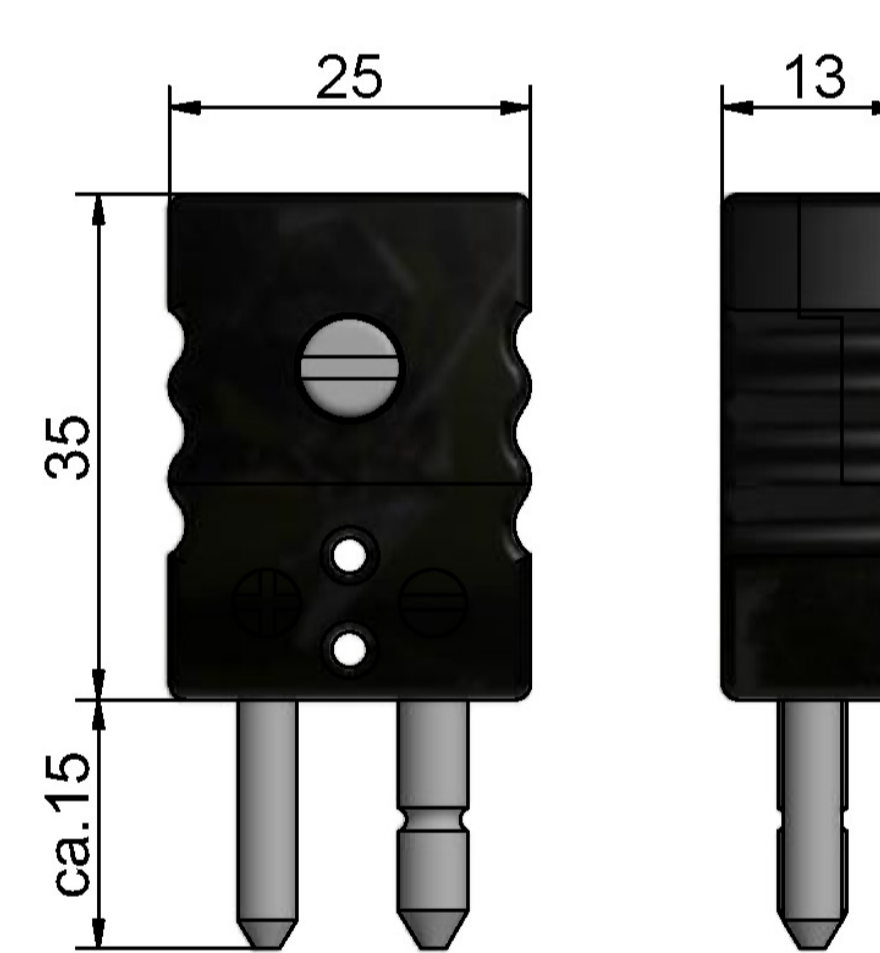
M12 socketed front view



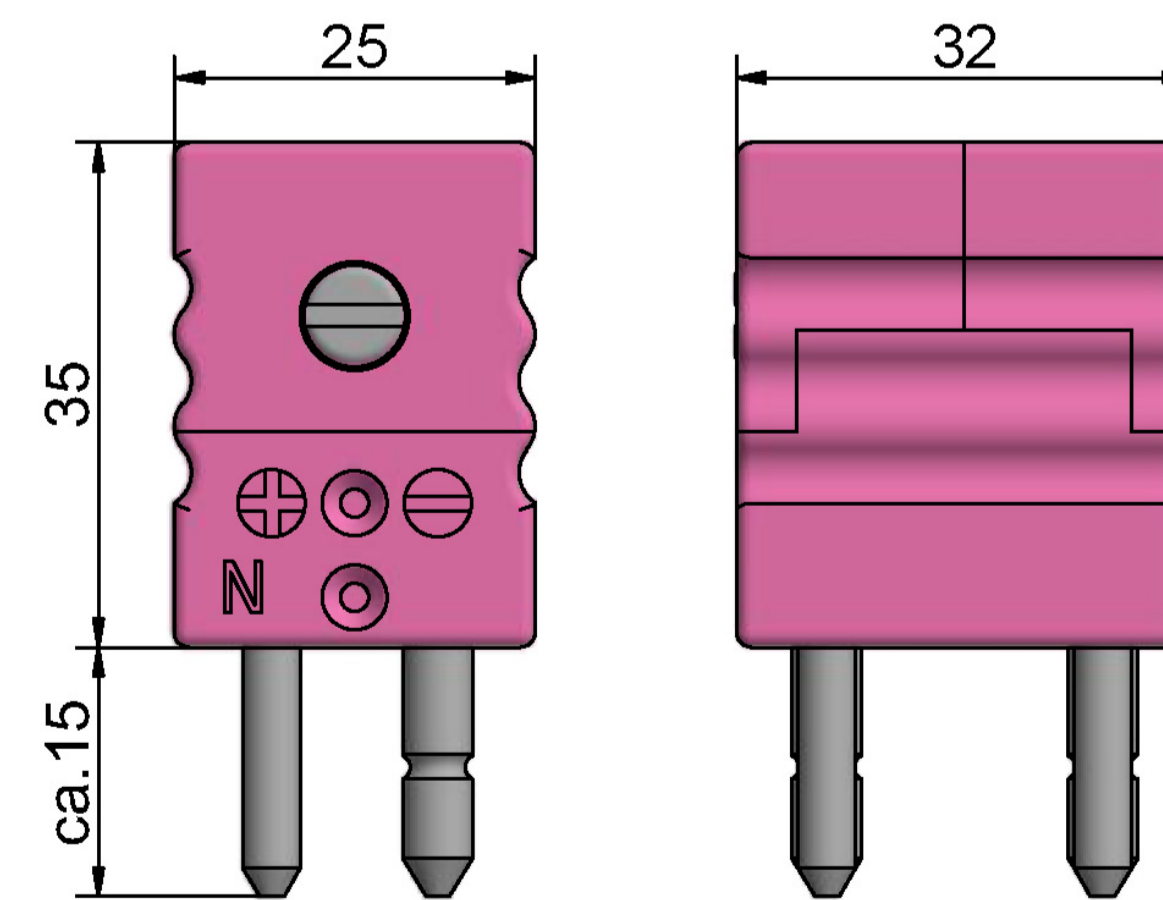
M12 plug screened 4 terminal



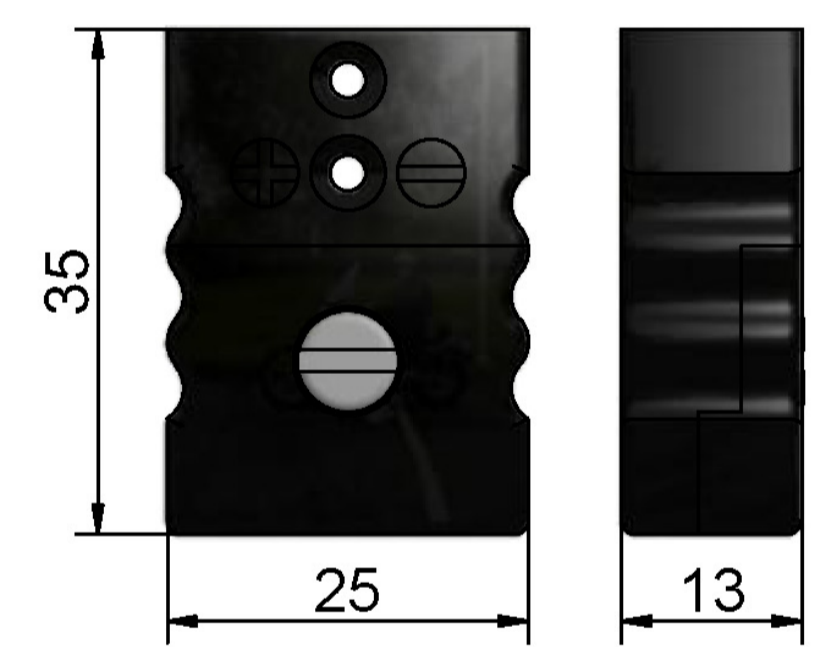
M8 socketed front view



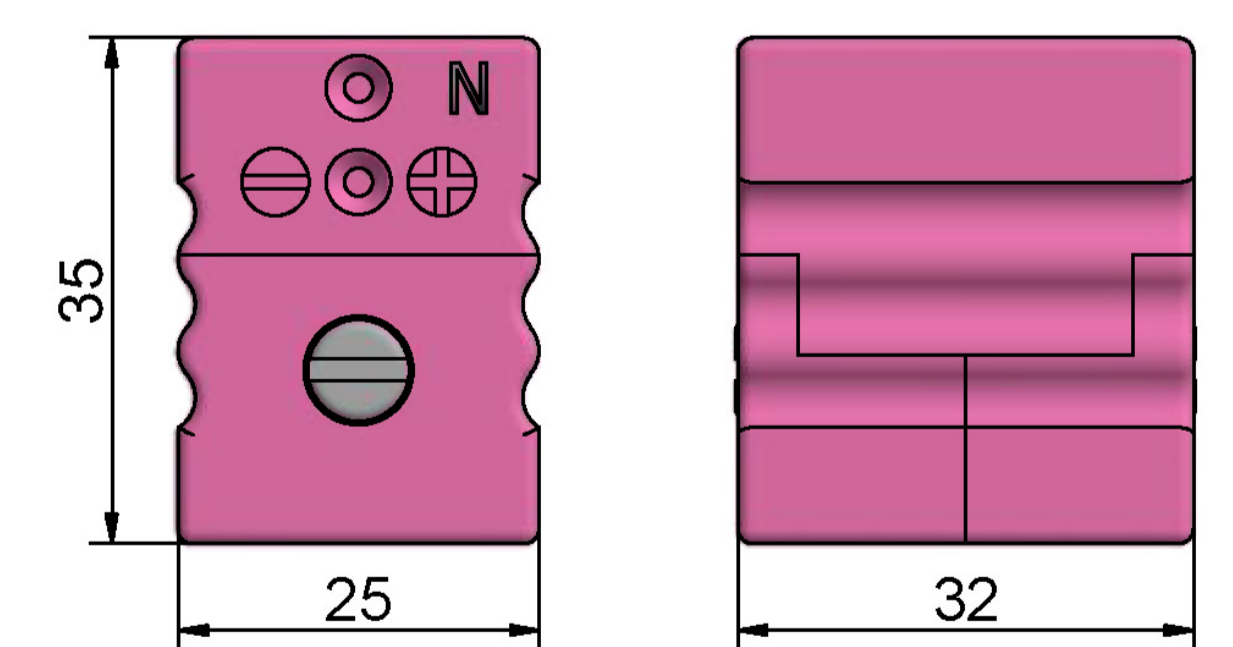
Standard plug Type J



double standard plug type N



Standard socket Type J



double standard socket type N