

# BRUsens Temperature 85 °C heatable

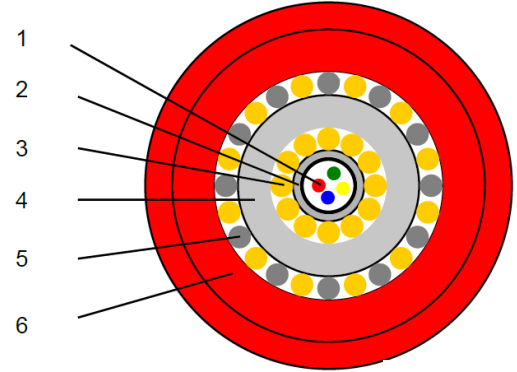
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LLK-BSTH 85 °C 6.8 mm

Small fibre optic temperature sensing cable with central metal loose tube, 2 stranded copper conductors for active sensing, stainless steel strength member and dual layer PA outer sheath, fast thermal response, for up to 4 fibres

**Construction:**

- 1) Optical fibers with dual layer acrylate coating for increased micro bending performance
- 2) Gel filled, stainless steel 316L, metal loose tube
- 3) Internal copper conductor
- 4) Inner insulation layer
- 5) Armoring and strain relief made of stainless steel 316L wires in combination with copper conductors
- 6) Dual layer PA outer sheath



**Description:**

- Central metal loose tube with up to 4 fibers, hermetically sealed
- High tensile strength and crush resistance
- Excellent rodent protection
- High chemical resistance
- Compact design, high flexibility, small bending radius
- Abrasion resistant, double layer outer sheath for electrical insulation and protection
- Halogen-free cable sheath
- Insulation of outer sheath monitored with spark test, operating voltage max. 600/1000 V (AC or DC)
- Fast temperature response

**Temperature range:**

- Operating temperature: -40 °C ... +85 °C
- Storage temperature: -40 °C ... +85 °C
- Installation temperature: -10 °C ... +50 °C

**Cable sheath color:**

- Red, similar RAL 3000
- Other colors upon request

**Standards:**

- Cable tests complying with IEC 60794-1-2

**Remarks:**

- Fiber color: 1 red, 2 green, 3 yellow, 4 blue
- Standard cable marking with meter marks, special labeling of outer sheath upon request
- Accessories such as loops, fan-outs, connectors, mounting brackets etc. available
- Deployment training upon request

**Applications:**

- Temperature monitoring
- Sensing applications, Raman, Brillouin
- Active sensing applications with heated cables
- Harsh environment, outdoors
- Deployment in conduits or directly in the ground

**Standard optical fiber:**

- Multimode fiber: ITU-T G.651, 50 µm
- Single-mode fiber: ITU-T G.652.D or G.657
- Other fiber types and fiber quality available upon request

**Technical data at 20 °C:**

Type	Max. no. of fibres units	Cable ø mm	Weight kg/km	Max. tensile strength	
				installation N	operation N
2F ... 4F	4	6.8	78	2000	1500

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## Distributed Sensing Cables

### Technical data at 20 °C:

Type	Min. bending radius		Max. crush resistance N/cm	Electrical loop resistance Ω/km
	with tensile mm	without tensile mm		
2F ... 4F	20xD	15xD	1000	24

### Optical fiber data (cabled) at 20°C

Fiber Type	Attenuation, dB/km				Modal Bandwidth, MHz·km	
	850 nm	1064 nm	1300 / 1310 nm	1550 nm	850 nm	1300 nm
MMF 50/125	≤ 3.0	≤ 2.6	≤ 1.0	NA	400	600
SMF	NA		≤ 0.36	≤ 0.25	NA	NA