

OTC

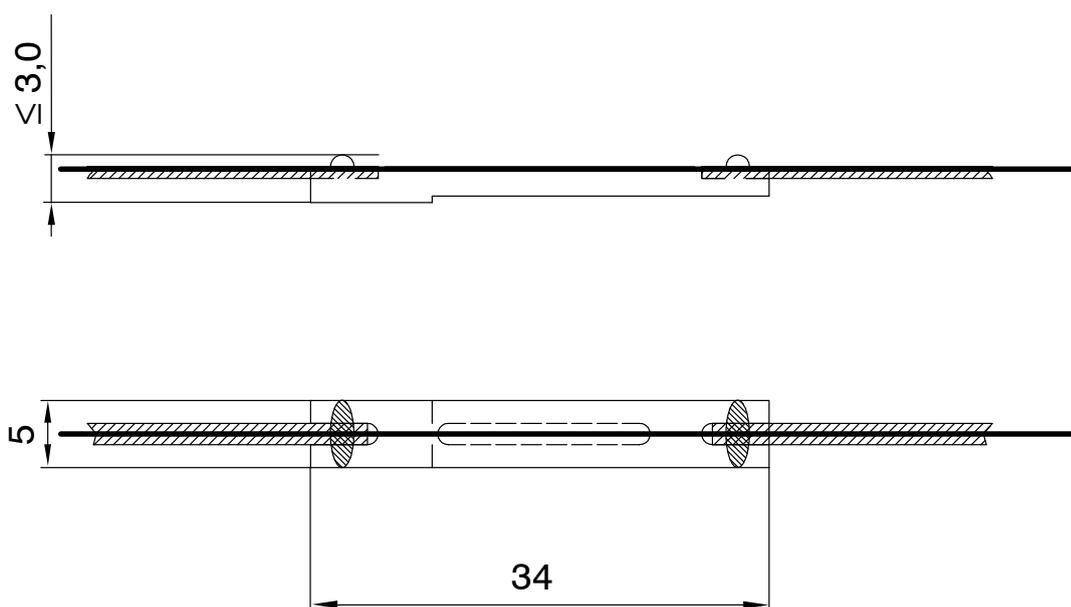
Optical Temperature Compensation Sensor

Special features

- Optical temperature compensation sensor with an aluminum sensor body
- Up to 13 optical sensors per glass fiber possible
- Simple installation
- Insensitive to electromagnetic interferences
- Application in Ex-areas possible
- Lower mass of glass fiber compared to standard connecting cables



Dimensions (in mm; 1 mm = 0.03937 inches)



Specifications

Construction		Glass fiber with fiber Bragg grating glued on an aluminum base body
Outside diameter of glass fiber	μm	185
Core diameter of glass fiber, approx.	μm	5
Diameter with buffer, approx.	mm	1.5
Dimensions		
Length	mm	34 ± 0.1
Width	mm	5 ± 0.1
Height	mm	≤ 3
Connector (plug) ¹⁾		FC/ACP
Available Bragg wavelengths	nm	1520, 1525, 1530, 1535, 1540, 1545, 1550, 1555, 1560, 1565, 1570, 1575, 1580
Bragg wavelength tolerance	nm	± 1
Reference temperature	°C [°F]	23 [73.4]
Operating temperature range	°C [°F]	-10 ... +80 [14 ... +176]
Storage temperature range	°C [°F]	-20 ... +100 [-4 ... +212]
Temperature response	μm/m/K	30.6
Tolerance of temperature response	μm/m/K	1
Resulting strain display with a strain on measurement object of 1,000 μm/m	μm/m	< 1
Compensation error	μm/m/K	≤ 1
Time constant τ (exponential) ²⁾	s	< 10
Glass fiber, minimum radius of curvature	mm	5
Applicable bonding materials		
Cold curing adhesives		Z70
Adhesive foil		included

¹⁾ Spliced fiber optic cable with plug and buffer is available as an option (length as requested by customer).

²⁾ Determined using a K-OTC sensor installed with Z70, sensor not covered.

Modifications reserved.

All product descriptions are for general information only. They are not to be understood as a guarantee of quality or durability and do not constitute any liability whatsoever.

Hottinger Baldwin Messtechnik GmbH

Im Tiefen See 45 · 64293 Darmstadt · Germany
 Tel. +49 6151 803-0 · Fax: +49 6151 803-9100
 E-mail: info@hbm.com · www.hbm.com

measure and predict with confidence

