

OTC

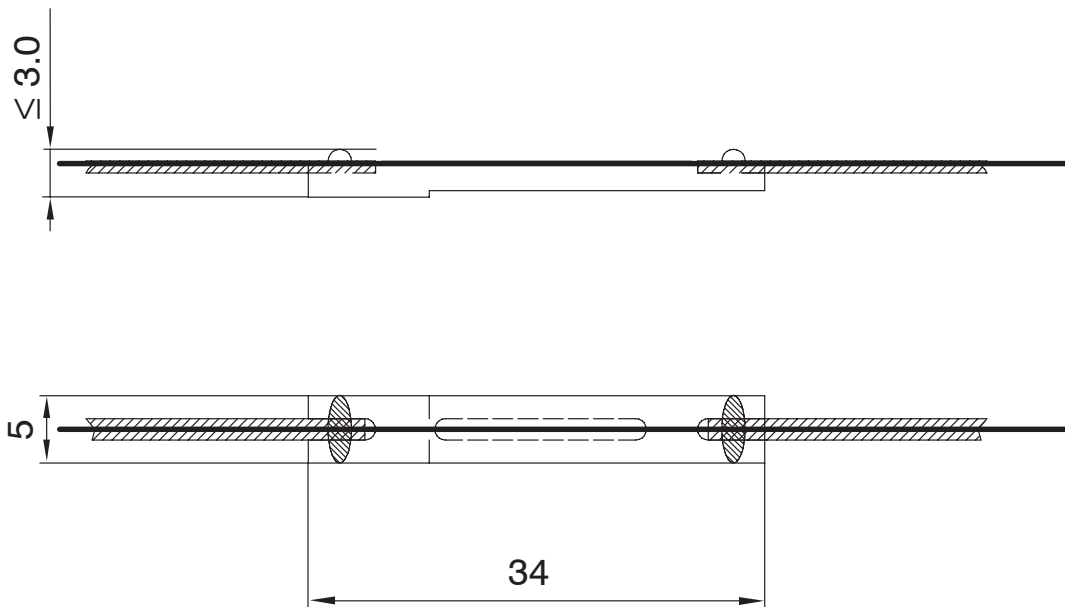
Optical temperature compensation sensor

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

Design		OptiMet-OMF-Glass fiber with Bragg grating glued on an aluminum base body
Core diameter of glass fiber, approx.	μm	6
Diameter of fiber cladding, approx.	μm	125
External diameter of coating, approx.	μm	195
Diameter with jacket, approx.	mm	1.5
Sensor dimensions		
Length	mm	34 ± 0.1
Width	mm	5 ± 0.1
Height	mm	≤ 3
Connection (plug) ¹⁾		FC/APC
Available Bragg wavelengths	nm	1520, 1525, 1530, 1535, 1540, 1545, 1550, 1555, 1560, 1565, 1570, 1575, 1580
Bragg wavelength tolerance	nm	± 1
Maximum degree of reflection	%	15
Reference temperature	°C	23
Operating temperature range	°C	-10 ... +80
Storage temperature range	°C	-20 ... +100
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 1,000μm/m	μm/m	< 1
Compensation error	μm/m/K	≤ 1
Time constant τ (exponential) ²⁾	s	< 10
Applicable bonding materials		
Cold curing adhesives		Z70
Adhesive foil		Included

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

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

Subject to modifications.

All product descriptions are for general information only. They are not to be understood as a guarantee of quality or durability.

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