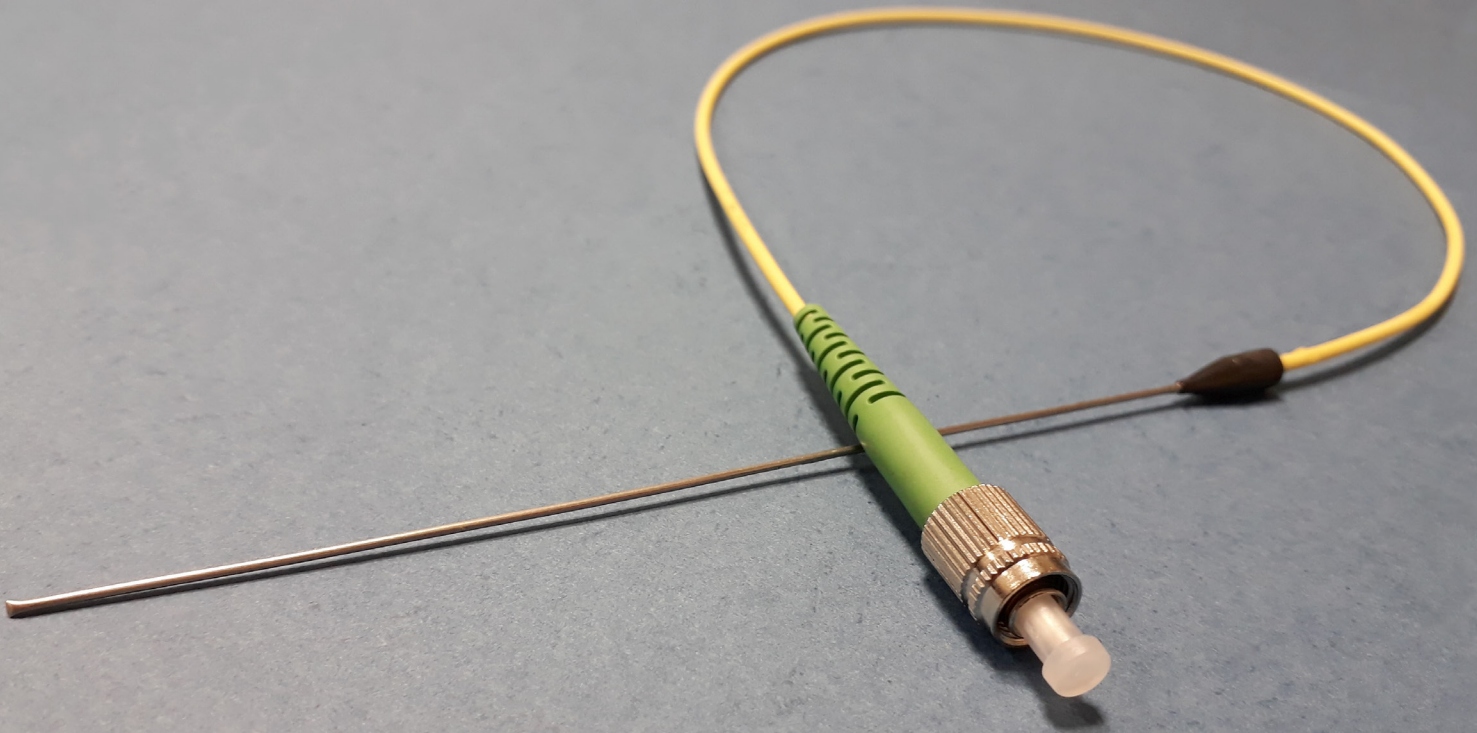


FIBER OPTICAL SENSOR FOR HIGH TEMPERATURE MEASUREMENTS



AT A GLANCE

Fiber optical sensor for high temperature measurements.

Features

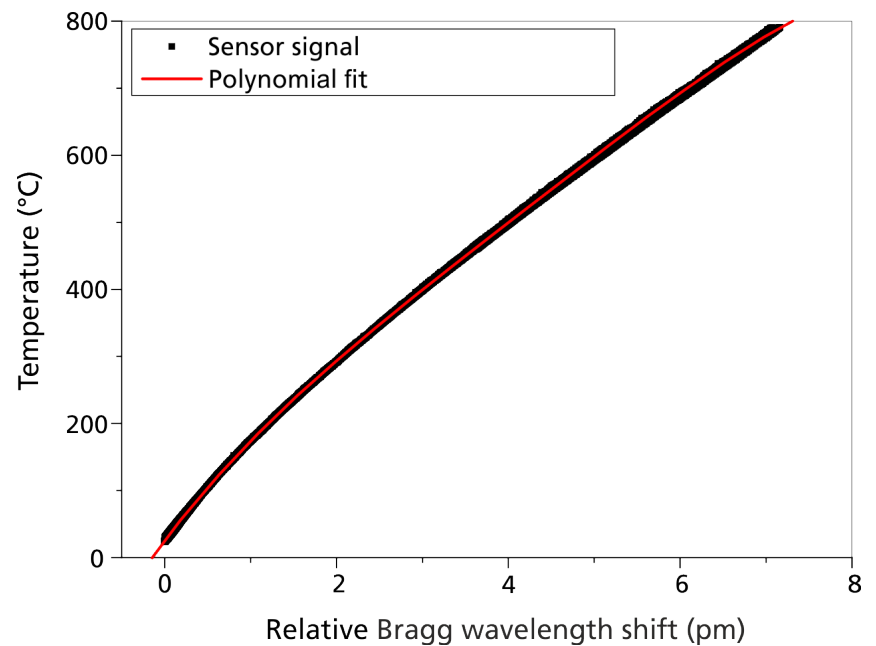
- High temperature sensor up to 1000°C
- Microsized dimension $\varnothing < 1.0\text{mm}$
- Realtime data acquisition
- High application flexibility

Applications

- Monitoring of industrial processes (e.g. melting of aluminium)
- Measurement in explosive area
- Measurement in corrosive medium

Technical Background

The fiber optical high temperature sensor is based on the fiber Bragg grating (FBG) technology and enables temperature monitoring up to 1000°C with high accuracy. In combination with the novel and ultracompact FBG interrogation system, the fiber optical high temperature sensor can be deployed in various applications.



Measurement of the fiber optical temperature sensor: Relation between temperature and the Bragg wavelength shift

Specifications

- Resolution
0.2 K (depending on interrogation system)
- High temperature sensor
< 1000°C
- Accuracy
6.5 K (absolute, for temperature range 0°C – 1000°C)

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