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 $\varnothing < 1.0$ mm
- Realtime data acquisition
- High application flexibility

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.

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