O/E LAND INC.
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[OESEN-TEM-100, 200, 300]

Standard Temperature Fibre Bragg Grating Sensor

Applications:

- Bridges and highway
- Big buildings
- Dams
- Petroleum plants and pipelines
- Oil fields
- Electrical transformers
- Aerospace industry
- Biomedical
- Environment

Product description:

Low cost fibre Bragg grating temperature sensors are available at **O/E LAND INC**. Based on our design, these FBG temperature sensors can be widely used in construction, aerospace, electrical, petrochemical, biomedical, nuclear power stations and other industrial applications.

The **OESEN-TEM-100** has stainless steel body for harsh environments; the **OESEN-TEM-200** with Teflon material and the **OESEN-TEM-300** with ceramic material are suitable for non metal applications like high voltage transformer, micro wave and strong electromagnetic fields, as well as high temperature applications. The fiber cable can be packaged with armored cable to protect from damage in a harsh environment like rust, shock, corrosion, vibration, and sharp mechanical object.

Product specifications:

Parameters	OESEN-TEM-100A	OESEN-TEM-100B	OESEN-TEM-200	OESEN-TEM-300
Center wavelength (nm)	1310, 1550			
FWHM (nm)	0.2 ± 0.1			
Reflectivity (%)	> 75			
Temperature range (°C)	-50 - +120			
Resolution (°C)	0.1			
Precision (°C)	± 0.5	± 0.5	± 0.3	± 0.3
Size (mm)	10x25x6	ϕ4x30	10x45x6.5	ϕ(2,4,6)x30
Material	Stainless steel	Stainless steel	PTFE(Teflon)	Ceramic
Fibre cable	900 µm, 3 mm	3 mm	3mm	900 µm

** Some limitations apply.*
***Tuning range can significantly vary depending on FBG specifications.*
**** Recommended values. The ambient environment temperature can limit the performance, incl. the tuning range.*

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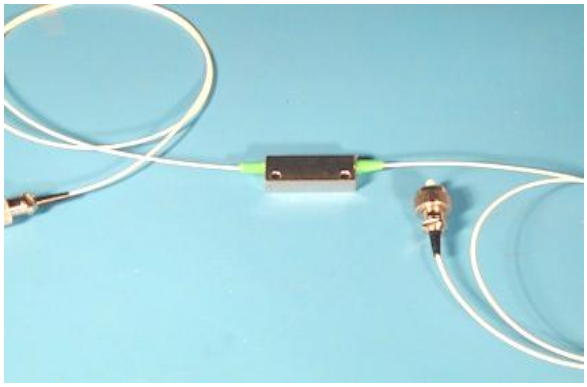

Fig1. FBG Temperature Sensor OESEN-TEM-100

Fig2. FBG Temperature Sensor OESEN-TEM-100B

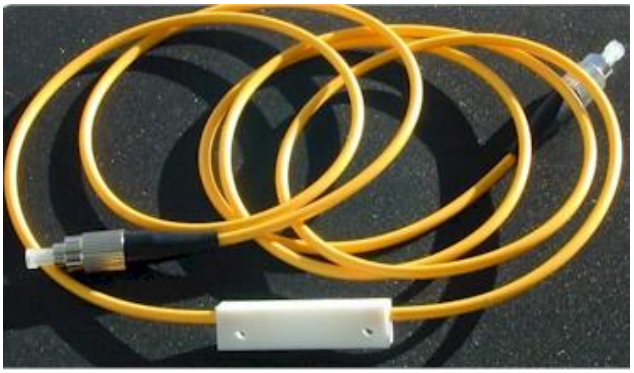

Fig3. FBG Temperature Sensor in PTFE (OESEN-TEM-200)

Fig5. FBG Temperature Sensor in Ceramic (OESEN-TEM-300), reflection and transmission types