

**Green Technologies
For a Safer and Better Living
In Smart City**



Fiber Bragg Grating Temperature Sensor (Model#: OTS-100)

- The Fiber Bragg Grating-based temperature sensor is designed for high precision temperature measurement with an accuracy of better than 0.1 °C*. Daisy-chain connection of several sensors for multi-point sensing is possible when employing FBG-based sensor and hence complicated wiring can be avoided. We offer three packaging formats designed for various installation environments, wavelengths of 1550nm region with standard operational measurement range of -60 – 100 °C are available. (*Depends on interrogator wavelength measurement accuracy)

Features

- Three Packaging Formats
- Wide Operational Temperature Range
- Custom Measurement Range Available

| Specification | | | |
|-------------------------------|--|-----------------|------------------|
| PERFORMANCE PROPERTIES | | | |
| Operation Wavelength | 1550 nm | | |
| Measurement Range | -60 °C – 100 °C | | |
| Resolution | 0.05 °C | | |
| Operation Temperature | -60 °C – 100 °C | | |
| Sensitivity ¹ | 10 (28) pm/°C typ. | | |
| PHYSICAL PROPERTIES | | | |
| Sensor Format | Block | Tube | Plate |
| Dimension | 50 x 20 x 5.8 mm | Φ10 x 46 mm | 15 x 30 x 1.6 mm |
| Weight | 25 g | 12 g | 3 g |
| Material | Stainless Steel | Stainless Steel | Stainless Steel |
| Fastening Method | Spot Weld / Epoxy | Direct Buried | Epoxy |
| OPTICAL PROPERTIES | | | |
| FBG Peak Reflectivity | >70 % | | |
| FBG FWHM (-3 dB) | 0.25 nm (+/- 0.05 nm) | | |
| FBG Isolation ² | >15 dB (+/- 0.4 nm around center wavelength) | | |
| Optical Fiber Type | SMF-28e compatible | | |
| Cable Length | 1 m (other on request) | | |
| Cable Type | 3 mm armoured cable | | |
| Optical Connector | 2 x FC/APC (others on request) | | |

1 Value In bracket denotes the high sensitivity type temperature sensor

2 At +/- 0.4 nm of center wavelength.

*The Company reserves the right to make any changes without prior notice.

AVARON TECHNOLOGIES LIMITED

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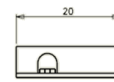
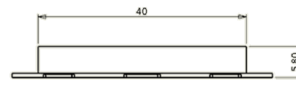
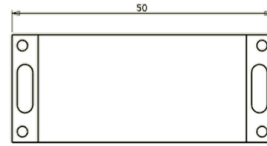
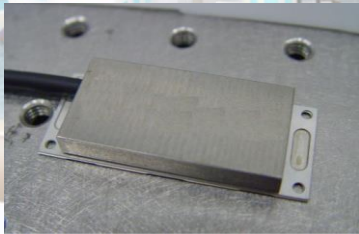
Tel.: +852 9088-5985

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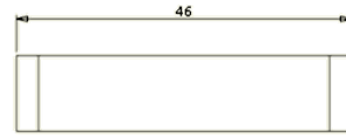
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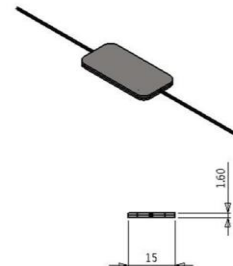
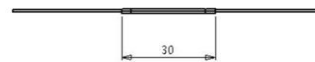
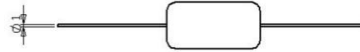
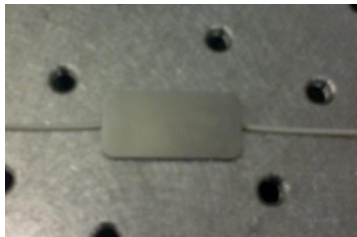
DIMENSIONS- BLOCK FORMAT



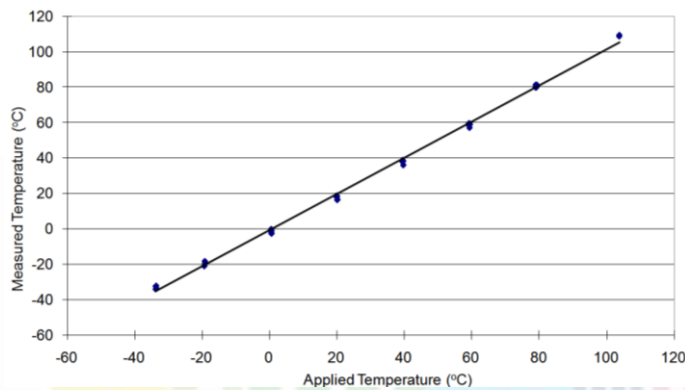
DIMENSIONS- TUBE FORMAT



DIMENSIONS- PLATE FORMAT



TYPICAL PERFORMANCE (1550 FBG)



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