FBG Displacement Sensor

The FBG Displacement Sensor are designed to monitor the extension and compression displacement respectively. Double FBGs are packaged inside the housing. One FBG is used of its strain sensitivity to monitor the displacement. The second FBG is used as temperature compensation. The sliding rod can move freely over a customized distance from 10mm to 350mm.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Wavelength Range</td>
<td>nm</td>
<td>1510–1590</td>
</tr>
<tr>
<td>Displacement Range</td>
<td>mm</td>
<td>10–350</td>
</tr>
<tr>
<td>Resolution</td>
<td></td>
<td>0.05%FS</td>
</tr>
<tr>
<td>Displacement Accuracy</td>
<td></td>
<td>1%FS</td>
</tr>
<tr>
<td>Temperature Resolution</td>
<td>°C</td>
<td>0.1</td>
</tr>
<tr>
<td>Temperature Accuracy</td>
<td>°C</td>
<td>1</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>°C</td>
<td>-20–85</td>
</tr>
<tr>
<td>Connector</td>
<td></td>
<td>FC/APC</td>
</tr>
<tr>
<td>Material</td>
<td></td>
<td>AlMg3</td>
</tr>
<tr>
<td>Standard Dimension</td>
<td>mm</td>
<td>280(L)*20(W)*25(H)</td>
</tr>
</tbody>
</table>

Applications

- Fiber Sensor
- Power station
- Railway
- Oil gas

Key Features

- Mini-Size
- Fast response
- High stability and reliability
- Immune to electrics
- Single Sensor Technical
- RoHS compliant

Performance Specifications

For more Info

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DK Photonics reserves the right to change any specifications without prior notice. December 2017
**FBG Based Sensor**

**FBG Displacement Sensor**

**Displacement Calibration**

![Displacement Calibration Graph](image1)

**Displacement calibration**

![Displacement Calibration Graph](image2)

**Ordering Information For Custom Parts**

If you need to customize other specifications, please provide detailed description for your requirement.

**Web-site:** http://www.dkphotonics.com/  
**Email:** sales@dkphotonics.com