

4.4 FBG Displacement Sensor

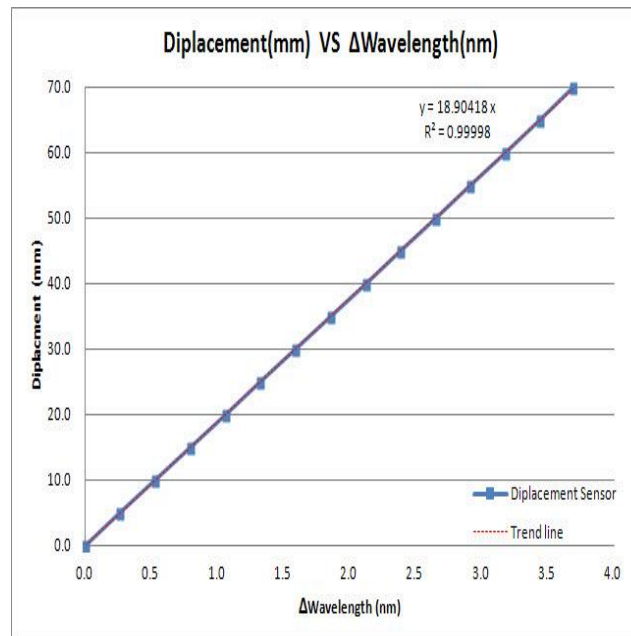


- ✓ Safety evaluation of structures
- ✓ Displacement Measurement for the deflection of structures
- ✓ Displacement Measurement for the crack of structures
- ✓ Measurement for the contraction and expansion of structures
- ✓ Measurement for the relaxation of joints of structures
- ✓ Displacement Measurement for the crack of joints of structures
- ✓ Built-in FBG Temperature sensor for temperature compensation

Compared with other companies of which FBG Displacement Sensors are operated broad bandwidth in the range of wavelength by using “TWO FBG” sensors, our sensors can be operated at half of that because they use only “ONE FBG” for Displacement measurement and have high accuracy. Therefore Interrogator cost can be reduced.

Wavelength set division

Model	FBG-DI-310
Measurement range(mm)	10~100, 150~400 (Depending on user's demand)
FWHM (-3 dB point)	≤ 0.3 nm
Resolution(%F.S)	± 0.05
Accuracy(%F.S)	$\pm 0.3, 0.5, 1$ (Depending on user's demand)
Wavelength(nm)	1,511 ~ 1,590
Reflectivity(%)	≥ 70
Operating temperature(°C)	-20 ~ 80



SET-A		SET-B	
No.	Operating Wavelength range (nm)	No.	Operating Wavelength range (nm)
1	1511.1~1516.2	1	1514.1~1519.2
2	1517.1~1522.2	2	1520.1~1525.2
3	1523.1~1528.2	3	1526.1~1531.2
4	1529.1~1534.2	4	1532.1~1537.2
5	1535.1~1540.2	5	1538.1~1543.2
6	1541.1~1546.2	6	1544.1~1549.2
7	1547.1~1552.2	7	1550.1~1555.2
8	1553.1~1558.2	8	1556.1~1561.2
9	1559.1~1564.2	9	1562.1~1567.2
10	1565.1~1570.2	10	1568.1~1573.2
11	1571.1~1576.2	11	1574.1~1579.2
12	1577.1~1582.2	12	1580.1~1585.2
13	1583.1~1588.2		

- 13 kinds of Set-A, 12 kinds of Set-B.
- Can make a total of 25 kinds from FBG Displacement Sensor.