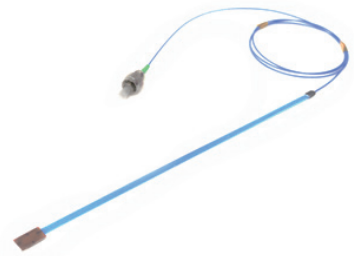
FBG Strain Sensor

FBG strain sensor is a strain measurement sensor based on fiber Bragg grating. It can monitor the strain

cycles (±1500uε)



Specification

		Specification
	pm/uε	
	uε	

		Specification

		Specification
Reflectivity		≥10
		≥15

		Specification
	L(mm)×W(mm) ×T(mm)	
		Optical fiber ribbon +0.9mm tube

Microstrain (με) Calculation Formula:

$$\mu\varepsilon = \frac{\lambda_\varepsilon - \lambda_1}{k_\varepsilon} \times 10^3 - (26.0 + \Delta) \times (T_\varepsilon - T_1)$$

λ (nm): The wavelength is measured at ambient temperature T) with the strain gauge installed.

λ (nm): The wavelength is measured under load when the ambient temperature is T) and the strain gauge is installed.

Δ(/): The difference in the linear expansion coefficient is defined as that between the measured material under test and the strain gauge substrate material. It is calculated as Δ=(α-18.4×10)×10 , α is the coefficient of linear expansion of the measured material under test.