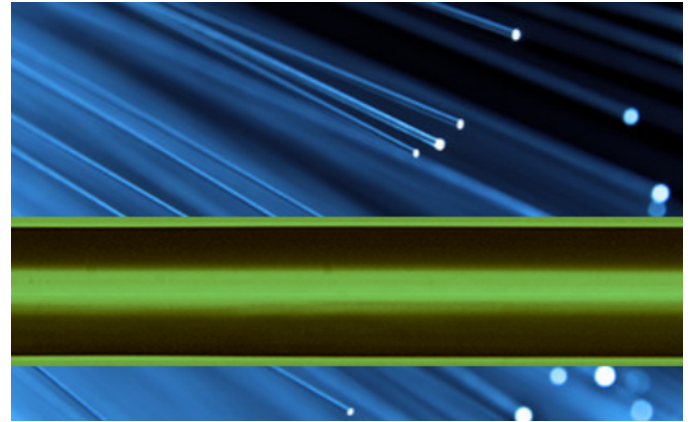


Description

The T99 is a Single-Mode (SM) Fiber based Fiber Bragg Grating (FBG) usable in environments to 500kpsi. Written Through-the-Coating and featuring wide choices of Bandwidths from 0.08nm to 50nm, Reflectivities from 1% to 99%, ultra-low Polarization Dependent Frequency Shift (PDFS) and Polarization Dependent Loss (PDL), with SLSR > 15dB.

Naturally packaged (written) directly in fiber, these high-strength sensors can be used as they are or they can be packaged into a variety of higher level sensors for use in optical sensing systems. Small-size and fast response time. Excellent wavelength to temperature and wavelength to strain linearity. The T99 FBG is designed to make handling and installation fast, easy and intuitive. Delivers advantages inherent to all FBG sensors. Equally sensitive as traditional strain and temperature sensors but immune to EMI.

For security, robotics, medical, civil & geotechnical engineering, oil & gas, aerospace, railways, roadways and advanced vehicles, performance gear, marine vessels & racing yachts, wind turbines and structures, pipelines, nuclear facilities, industrial processes, and for research laboratories worldwide.



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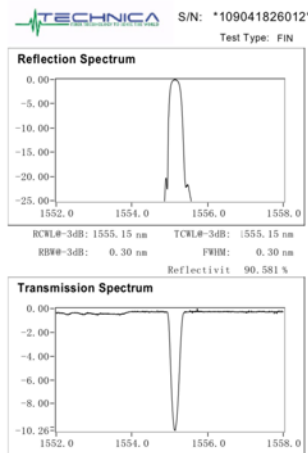
Key Features

Temperature and Strain Linearity. The precision made FBG structure written into the fibers' core for producing the T99 yields a simple transducer configuration of high resolution, linearity, and measurement repeatability. High SLSR.

Easy to daisy-chain. For monitoring strain, temperature and other parameters at many points. The T99 can be provided as single FBGs or in multi-FBG Arrays of various lengths and number of FBGs including ultra-high density FBG sensor arrays.

Low cost, easy installation, and long lifetime. The T99 was designed for projects that require both the availability of low-cost FBGs and stable operation for highly accurate measurements over the long-term. The original design makes handling and installation very easy. Fastening methods are by simple fiber bonding, laying, or embedding. Technica is happy to provide support and advice with regard to application specific installation and monitoring requirements.

Proven reliability and performance. The core technology used for volume production of the T99 sensor has been developed over several years and received excellent customer feedback. The T99 is a reliable core sensing element for a wide range of applications.



Parameter	Specifications
Wavelengths / Tolerance	1458 to 1622nm, +/-0.5nm; 980, 1060, 1310nm, other
Reflection BW (FWHM)	0.08nm to 1.5nm Standard; 1.5nm to 50nm Chirp
Reflectivity %	1% to 99%
FBG Length	0.8mm to 24mm
SLSR	>15dB; other options
Response Time (Strain, Temp)	0.01ms, 0.1ms
Temperature Range / Sensitivity	-40°C to +100°C; ~10pm/°C other options available
Strain Range / Sensitivity	>30,000µε with 1.2pm/µε; other options available
Fiber Type and Coating	Single-Mode Fiber with Premium Acrylate Coating, other options available
Fiber Pigtail Length	1m, other options
Fiber Bend Radius	>17mm, other options
Optical Connector	FC/APC, LC/APC, or custom

Applications include Security, Medical, Robotics, Structures, Energy, Industrial and R&D

Technica undertakes a rigorous development process before products release. The company is also firmly committed to continuous improvements after release to insure performance to the highest standards, hence, specifications are subject to update without notice.

Technica Optical Components / 3657 Peachtree Rd, Suite 10A, Atlanta, 30319, USA, info@technicasa.com, www.technicasa.com