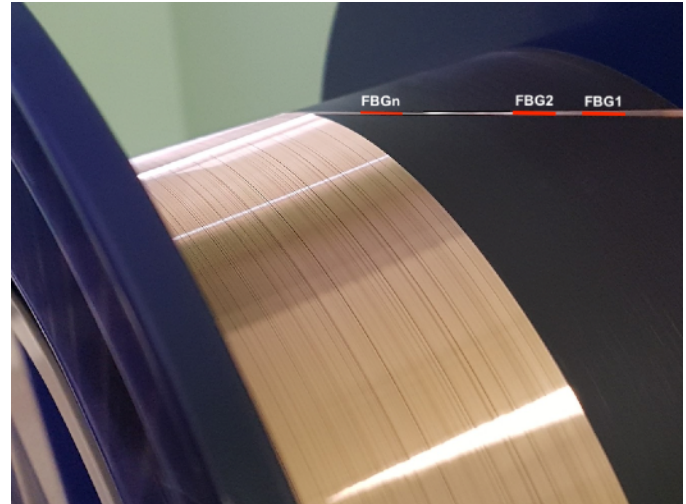


Description

The T24 is a Fiber Bragg Grating (FBG) inscribed in single-mode (SM) Copper Coated Fiber.

Available in a wide range of optical specifications. Standard operation from -269°C to +300°C. Also available with temperature rating to +450°C. The FBG area can be left uncoated or can be recoated with Gold. Naturally packaged (written) directly in fiber, these sensors can be used as they are or they can be packaged into a variety of higher level sensors (see T890) for use in optical sensing systems and for field installations via well established metal-to-metal bonding techniques. Small-size and fast response time. Excellent wavelength to temperature linearity. The T24 FBG handling and installation is fast, easy and intuitive. Delivers the advantages inherent to FBG based sensors.

The T24 series FBGs are fabricated using licensed and proprietary state-of-the-art laser manufacturing and chemical processing technologies to fit a wide range of field applications. Mass manufactured and commercially available with standard lead-time.



Key Features

Temperature linearity. The precision made FBG structure written into the fibers' core for producing the T24 yields a simple transducer configuration of high resolution, linearity, and measurement repeatability. Customer specified BW (FWHM), REF, and SLSR.

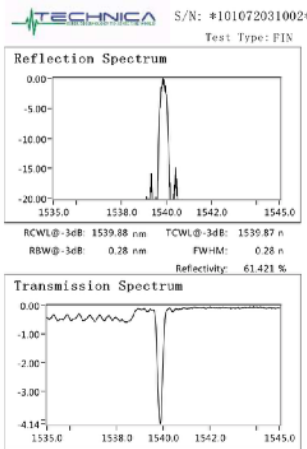
Designed for applications where hermetic sealing and/or metal-to-metal bonding is required. Factory processed to allow mounting and/or bonding to be applied on virgin or recoated areas of the fiber.

Packaging and protection options. The FBG element within the T24 sensor is available coated with Gold or can be left uncoated, as the application requires. Options available for ideally balancing cost by pig-tailing the component with other types of fibers (acrylate coated, polyimide coated) for further increasing the envelope of addressable commercial solutions. Premium performance and reliability.

Available as single point sensor or as multi sensor array. For measuring a single point or many. The T24 can be manufactured in arrays of various lengths with a flexible number of FBGs.

Ready for OEM designs. The T24 FBG is a core sensing element that can be used AS IS, or it can be further packaged into higher level sensors. Inquire with us about OEM packaging.

Lower-Cost. Copper coated fiber based FBG sensors are a lower cost metallized fiber alternative to Gold coated fiber based FBGs.



FBGs manufactured and sold by Technica under United Technologies Corp International License

Parameter	Specifications
Wavelengths / Tolerance	1460 to 1620 nm, +/-0.5 nm; 1310 nm, other options
Reflection BW (FWHM)	0.1 nm to 2.0 nm; other opt.
Reflectivity	> 70% typical, 1% to 95% avail.
FBG Length	10 mm typical, 1 - 24 mm avail.
SLSR	15 dB; other options
Response Time	1 ms
Operating Temperature	-269°C to +300°C standard -269°C to +450°C option
Fiber Type / Coating Fiber DIA / Total DIA	Single Mode / Copper Coating 125 um / 165 um
Sensor Configurations	Single-Ended, Double-Ended, or Multi-Sensor Array
Fiber Bend Radius	> 17 mm
Fiber Pigtail Length	1 m, other options
Fiber Pigtail Splices	Available upon request
Optical Connector	FC/APC, LC/APC, other options
Optional Higher-Level Protection Packaging	Available in Teflon, Steel, or Inconel Sensing Probes

Applications in Industrial, Materials and SHM Test Labs, Aviation, Energy, and Research

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.