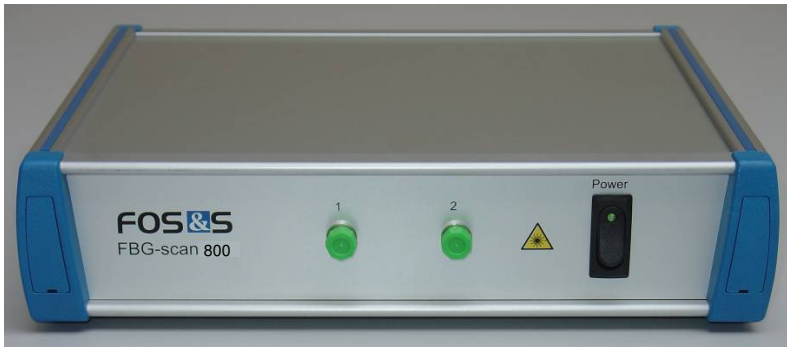
FBG-Scan 800

Description

The FBG-Scan 800 is a dynamic, high accuracy measurement device for Fibre Bragg Grating (FBG) sensors. The system can measure up to 40 FBG sensors using 2 input channels. Both input channels are simultaneously monitored using an optical coupler at a scan rate up to 50Hz.



The system is delivered together with the 'IllumiSense Wave' software which exists of an user friendly user interface to read out the spectral information from a laptop over USB 2.0 and calculate the peak wavelengths real time. Furthermore, the system is also compatible with the 'ILLumiSense Strain' software (optional) which can be used to convert the wavelength data into temperature compensated strain data.

The system can further be extended up to 8 or 16 different optical lines using the optical switch OS1x8 or OS1x16. This will allow to increase the number of sensing points under static scan conditions (1 Hz).

Features

- Fibre optic measurement device for FBG sensors.
- High dynamic range
- High number of sensors
- High wavelength accuracy.
- Excellent wavelength precision

Laser Safety Information

This device is a Class 1 laser product according to IEC 60825-1 (2001).

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Standard specifications

Parameter	FBG-Scan	
	800	800+
Optical		
Wavelength range	1515-1590 nm	
Number of Bragg sensors	40	
Number of channels	2 (same optical line: 1x2 optical coupler)	
Wavelength precision	±1 pm	
Absolute wavelength accuracy (EOL)	±40 pm	±20pm*
Dynamic range	30 dB with user selectable control	
Scan and report rate	up to 50 Hz	
Optical connector	FC/APC	
Laser Class (IEC 60825-1; 2001)	1	
Electrical		
Power supply	5 VDC	
Environmental		
Operating temperature	10°C to 40°C	
Operating Humidity	0% to 80%, non-condensing	
Storage Temperature	-10°C to 60°C	
Storage humidity	0% to 95%, non-condensing	
Mechanical		
Dimensions	260 mm x 230 mm x 60 mm	
Embedded PC		
Communication	USB2.0	

** with integrated optical reference cell*

Ordering information

Example:

F	B	G	-	S	C	A	N	-	8	0	0	x

Absolute wavelength accuracy	
800	±30 pm
800+	±15 pm

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