

## Measurement Device FBG-Scan 700 / 800



## Description

The FBG-Scan 700 and 800 are dynamic, precise measurement devices for Fiber Bragg Grating (FBG) sensors based on spectrometer technology. The system offers a cost effective solution and 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 5kHz.

The sampling is done using the internal clock or can be controlled by an external trigger signal to synchronise the measurements with other devices.

The system is supplied with the "ILLumiSense" software, which is used to visualise and save the spectral information on a PC over USB 2.0, calculate the peak wavelengths and convert the wavelength data into temperature and temperature compensated strain data.

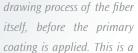
CLASS 1 LASER PRODUCT

## Features

- High dynamic range
- High sampling rate
- External triggering
- High number of sensors can be connected
- Excellent wavelength precision
- Extendable with 1x8 or 1x16 optical switch supporting 1 Hz measurements

Laser Safety Information

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



coating is applied. This is a cost effective production process for high quality Fiber Bragg Gratings. This offers unique characteristics such as extremely high breaking strength, insensitivity to bending, spliceless array configurations and uniform coating coverage. FBG parameters and coating material can be selected based on customer needs.

Fiber Bragg Gratings reinvented

Draw Tower Gratings (DTG<sup>®</sup>s)

are produced during the

Devenuestar	<b>FBG-Scan</b>					
Parameter	700	800				
Optical						
Wavelength range	1525-1565 nm	1510-1590 nm				
Minimum wavelength spacing <sup>1</sup>	0.4 nm	0.8 nm				
Number of optical lines <sup>2</sup>	2 (same optical line: 1x2 optical coupler)					
Wavelength precision	± 1 pm					
Absolute wavelength accuracy (EOL) <sup>3</sup>	± 30 pm	$\pm$ 40 pm				
Dynamic range	30 dB with user selectable control					
Scan and report rate	5 kHz					
Optical connector	FC/APC					
Laser class (IEC 60825-1)	1					
Electrical						
Communication	USB 2.0					
Trigger signal	TTL signal (3.3 V), SMA connector					
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 (W x D x H)	260 mm x 230 mm x 60 mm					

- <sup>1</sup> Based on FBG with FWHM of 100 pm.
- <sup>2</sup> Extendable with 1x8 or 1x16 optical switch supporting 1 Hz measurements
- <sup>3</sup> Higher absolute wavelength accuracies available on request.

## Ordering information

Example:									v	Wavelength range					
F	В	G	-	S	С	A	N	-	X	0	0 0		7	7	1525-1565 nm
												8	4	1510-1590 nm	

FBGS International NV reserves the right to make changes without further notice to any products herein. FBGS-International NV v15001\_1. All rights reserved.