

DynoSense 300

Description

The DynoSense 300 is a measurement device for monitoring Fibre Bragg Grating sensors at scan rates up to 3.3 kHz. It can monitor a single optical input that can contain multiple FBG-sensors within the wavelength range from 1520 to 1580 nm. The device needs to be controlled externally via a laptop or PC using a USB-interface.



The system contains a broadband light source and performs spectral analysis by means of an Optical Spectral Analyzer (OSA) containing diffractive optics and a linear photodiode array. The OSA can measure the optical spectrum and perform multiple peak detection. The read-out speed can go up to 3.3 kHz and therefore this interrogator is ideal for dynamic measurements like e.g. for vibrational analysis. For this purpose, the user interface calculates online the Fast Fourier Transform (FFT) of the measured signal.

Features

- Scan rates up to 3.3 kHz for a single optical line; ideal for dynamic measurements
- 60 nm wavelength window
- Excellent wavelength repeatability and sub-picometer resolution

Standard specifications

Optical parameters	Value
Wavelength range	1520 nm-1580 nm
Wavelength accuracy ¹	35 pm
Wavelength repeatability	< 5 pm
Wavelength resolution	< 1 pm
Number of optical lines	1
Number of FBGs	40
Scan rate	3.3 kHz
Dynamic range ²	> 20 dB
Optical connector	FC/APC
Laptop connection	USB
Power supply	12 V
Operating temperature	0 °C to 40°C
Weight	2.5 kg
Dimensions	117 mm x 240 mm x 120 mm

¹ Guaranteed over at least one year

² The maximum FBG-peak power minus the noise floor. Maximum peak power is reached for FBGs having a reflectivity of 100%.

Standard package includes

- DynoSense 300 interrogator
- power supply
- software for laptop / PC control
- USB cable
- Instruction manual

Ordering information

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