

## 12.2040 MUST-GO PORTABLE READING UNIT



PRELIMINARY

### GENERAL DESCRIPTION

The MuST GO (Multiplexed Strain and Temperature Monitoring System) Reading Unit is a Fiber Bragg Grating (FBG) demodulator designed for portable measurements of FBG strain and/or Temperature sensors. The standard configuration allows to simultaneously measure up to 4 sensor strings with up to 10 FBG sensors per string, with a typical acquisition rate of 1 Hz.



### TECHNICAL DESCRIPTION

The MuST GO reading Unit meets the growing demand for measuring static strain and temperature in remote monitoring applications where both high accuracy and portability are required. The small, accurate, rugged and portable MuST GO combines autonomous battery operation with an high-power, low-noise swept laser source.

The MuST GO Reading Unit is fully compatible with the SDB software suite including SDB Pro, View, SPADS and Real-Time (see separate datasheets). The results can be stored in a standard SDB database and can be integrated with measurements from other sensors (e.g. static SOFO<sup>®</sup>, ADAM, DiTeSt, 3DeMoN ...). The user can therefore view and analyze all its data with a single interface

The MuST GO reading unit provides a high optical power and 1 Hz measurement rate for all connected sensors. It has been designed with an advanced tunable laser capable of a 80 nm range. The data is stored on the local hard disk and can be downloaded through a USB memory stick or a standard Ethernet connection. Remote connection is possible via modem or wireless LAN.

### FEATURES

- Static measurements
- Compatible with all FBG sensors
- High resolution and precision
- Full-spectrum information
- Intuitive user interface via touch screen
- On-board data display and storage
- Battery power supply for field operation
- Robust design for 24/7 operation
- Compatible with SDB software

## OPTIONS

- 1 to 4 channels for simultaneous FBG string measurements

MuST GO model	300	500
Number of channels	1	4
Repeatability	0.5 pm, (0.5 $\mu\text{E}$ / 0.05 $^{\circ}\text{C}$ )	
Resolution	1 pm, (1 $\mu\text{E}$ / 0.1 $^{\circ}\text{C}$ )	
Wavelength range	1510 to 1590 nm	
Power dynamic range	50 dB	
Measurement frequency	1 Hz	
Optical connector	FC/APC	

## TECHNICAL CHARACTERISTICS

Input voltage	9-18 VDC
Power consumption	90 W typical (run time approx. 3.5 hours on a full charge)
Dimensions	L x W x H: 360 mm x 100 mm x 275 mm
Weight	~7.3 kg
Color LCD display	12.1" touchscreen
Operating temperature	0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$
Operating humidity	>90% Rh at 40 $^{\circ}\text{C}$
Interface	12.1" touchscreen GUI, Ethernet, USB

## ORDERING INFORMATION

Number of needed channels (1 or 4)