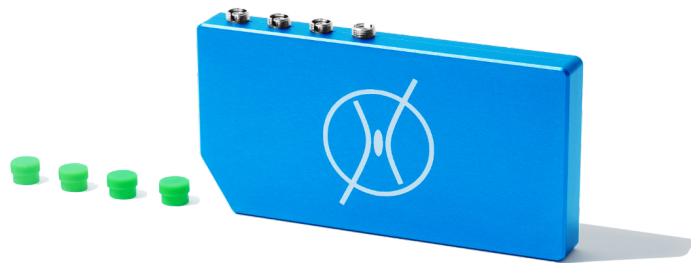


Ultra-miniature, precise and rugged fully-integrated FBG Interrogator with embedded light source and on-board processing.

## Overview

With an unprecedented small size, the FBG X400 integrates all necessary components for the accurate analysis of up to 120 fiber Bragg grating (FBG) sensors. Its compact and energy-efficient design enables FBG based applications where space and power is limited.



## Key Features

Plug & Play	High Thermal Stability
Ultra-compact	Energy-efficient
Low Weight	On-board FBG Analysis
High Precision	

## Applications

Process Control  
 Predictive Maintenance  
 Condition Monitoring  
 Thermal Mapping

## Used for

Force  
 Strain  
 Pressure  
 Temperature

## Performance Properties

Number of Channels	4
FBG Sensors per Channel	30
Sampling Range	1-200Hz (simultan.)
Wavelength Range	808-880nm
Measurement Precision	from 0,1°C   1µe (10Hz)
Digital Measurement Res.	0,01°C   0,01µe
Thermal Stability	<0,1°C/°C
Polarization Dependency	±7µe/±0,7°C

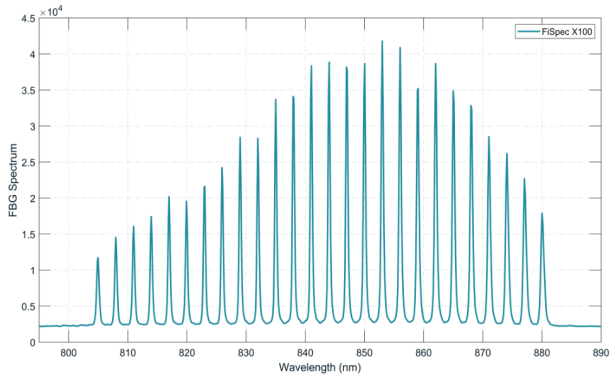
## Physical Properties

Operating Temperature	0-60°C
Storage Temperature	0-80°C
Dimensions	130 x 68.5 x 15.3mm
Weight	120g
Power Consumption	1,5W

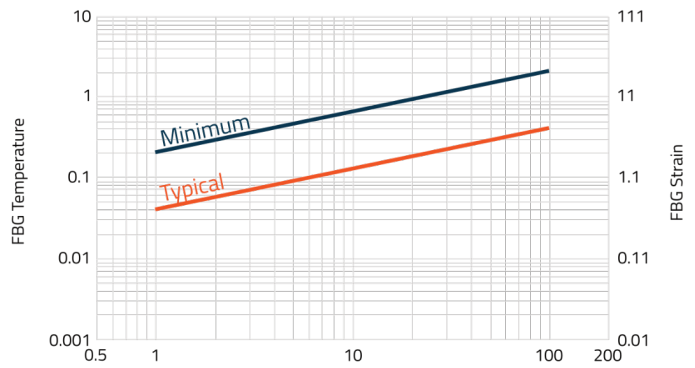
## Communication

Optical Interface	FC/APC
Electrical Interface	USB-C, UART (RS-232)
Software Protocol	User Data Protocoll (UDP)
Hardware Protocol	Direct Serial Communication

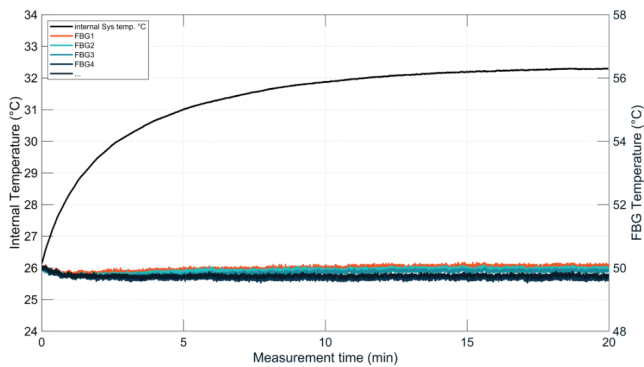
## Exemplary FBG Spectrum @ 850nm



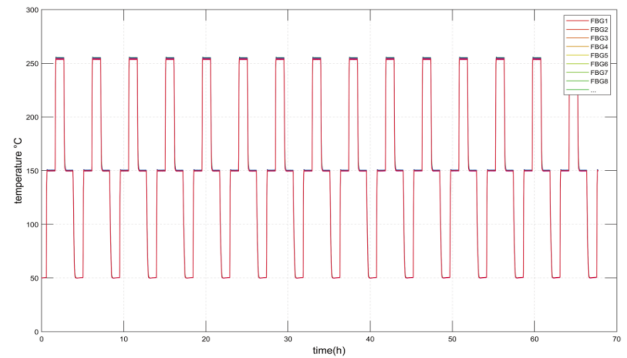
## Precision 2σ noise level



## Heat-up Behaviour



## High Repeatability



## Technical Drawing

