

WISTSense Sprint

Compact, Dynamic Optical Fiber Sensor Interrogator

WISTSense Sprint is a lightweight, fast and compact FBG interrogator, ideally suited for dynamic sensing applications, e.g. strain or vibration sensing. Based on an agile, tuneable laser source, it offers high resolution interrogation at frequencies up to 25 kHz. Using an integrated processing module together with dedicated software, plug and play operation is enabled, even for the most demanding FBG sensing applications.



Fast Scanning and High Resolution

With parallel photodetector channels and high-speed gate array electronics, the interrogator offers parallel monitoring of four sensor arrays at extremely fast scanning frequencies and high resolution.

Robust Assembly

The tuneable laser source has a pure solid state design with no moving parts, offering highly reliable and stable operation. All WISTSense interrogators are manufactured in Kista, Sweden at Proximion's ISO9001:2015 certified site.

Key Features

- Fast scan of up to 64 sensors
- Incredibly fast per-sensor scan
- Ultra-high resolution
- Robust assembly with no moving parts
- Optional ATEX Certification
- Highly adaptable SW platform

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Optical performance	WISTSense Sprint
Optical wavelength range	1528 – 1568 nm
Number of channels	4 (8, 12 or 16 on request)
Number of sensors per channel	16
Measurement frequency	2.5 kHz all sensors (up to 25 kHz for single sensor)
Repeatability ^{1, 2}	<1 pm
Wavelength stability	< ±5 pm over operating temperature range, ±20 pm over 25 years
Dynamic Range	27 dB
Measurement resolution	< 1 pm per sample, < 50 fm with averaging
Suitable FBG profile (FWHM)	Minimum 0.2nm Recommended >= 0.5 nm

1. Measured over 1 minute, standard uncertainty (1 σ distribution).
2. Using recommended FBG profile.

Interface and software	WISTSense Sprint
Communication interface	Ethernet (UDP-IP) Option for OPC Unified Architecture
Optical interface	SC/APC
Software	WISTSoft Sprint

Physical properties	WISTSense Sprint
Dimensions	W150 x H130 x D250 mm
Operating temperature	0 to 40 °C
Power requirements	9-36 VDC or 115-240 VAC via power adaptor supplied
Power consumption	<6W
Weight	3.6 Kg

Certifications	WISTSense Sprint
Hazardous area certification (optional)	Per ATEX for hazardous zones 0, 1 or 2 with gas groups IIA, IIB or IIC.