

WISTSense Ultra

Industrial Grade Optical Fiber Sensor Interrogator

WISTSense Ultra is a high-resolution spectrometer, ideally suited for most FBG sensing applications, offering a unique combination of high resolution, high speed, self calibration, plug and play operation with an integrated light source and dedicated software.



Proven Reliability

WISTSense Ultra is based on the WISTOM optical engine, originally developed for telecommunication, and consequently complies to the highest quality standard requirements of this industry, NEBS level 3.

All WISTSense Ultra interrogators are manufactured in Kista, Sweden at Proximion's ISO9001:2015 certified site.

High Multiplexing Capability

WISTSense Ultra has the capacity to monitor more than 100 sensors per channel and with up to 43 channels in a single interrogator, more than 5000 sensors per device.

Fast Scanning Speed and High Resolution

WISTSense Ultra can scan across the full spectrum in less than 40 microseconds which enables rapid full spectrum data acquisition for dynamic measurements.

Key Features

- Capacity of +5,000 sensors
- Fast scan of optical spectrum
- Robust assembly with no moving parts
- Customization alternatives
- Highly adaptable SW platform

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Optical performance	WISTSense Ultra
Optical wavelength range	1520 - 1580 nm
Number of channels	5, 13, 28 or 43
Number of sensors per channel	128
Max no. of sensors	5504
Typical measurement frequency vs number of channels used ^{1, 2, 4}	22 Hz @1 channel 12 Hz @4 channels 5 Hz @13 channels 2 Hz @28 channels 1 Hz @43 channels
Measurement resolution ¹	0.1 pm
Wavelength accuracy	1 pm

1. With 128 averages per datapoint.
2. Subject to comms bandwidth restrictions.
3. Profibus and Profinet are available via Modbus media converters
4. Industrial Bus data bandwidth can limit measurement rates

Interface and software	WISTSense Ultra
Communication interface	Ethernet (UDP-IP) (to connected PC) OPC UA ⁴ ModBus ^{3, 4} (from connected PC)
Optical interface	SC/APC or LC/APC
Software	WISTHeat Monitor

Physical properties	WISTSense Ultra
Dimensions	420 x 235 x 128 mm
Operating temperature	0 to 50 °C
Power requirements	90 - 240 VAC
Power consumption	23.5 W
Weight	5.7 Kg