



D*Sense™ 24K Interrogator



The IFOS D*Sense™ 24K interrogator offers a cost effective, lightweight and small footprint solution for monitoring up to 160 Fiber Bragg Grating (FBG) sensors.

Key features and benefits include:

- High resolution, accuracy, and dynamic range
- Multiple sensors multiplexed on a single fiber
- Automatic calibration
- Remote monitoring system for up to 100 km
- Multiple fiber connection capabilities
- Solid state with no moving parts
- Compact and lightweight, with low power consumption
- Operates in harsh and demanding environments
- Long life and high reliability
- Integrated intelligent monitoring system
- Customizable end-user displays
- Fiber or wireless backhaul transmission capability
- Highly effective at data management with inherent decision-making capabilities

The D*Sense™ 24K interrogator provides simultaneous data display and storage for all its channels with high precision, auto-calibration, remote monitoring, long life, large dynamic range, and high measurement bandwidth. Different sensing elements can be deployed on a single optical fiber, enabling a mix of strain, acceleration, displacement, tilt, pressure, temperature, and other types of sensors including chemical and biochemical sensors, to best meet varying customer needs at single locations or a series of locations. Customized sensors are available upon the customer's request.

D*Sense™ 24K Product Specs

Number of Fibers	1 (16 optional with the external switch module)
Sensors per fiber at $\pm 2000 \mu\text{strain}$	16
Sensors per fiber at $\pm 200 \mu\text{strain}$	160
Detection Speed	5 kHz
Resolution	1 μm
Absolute Accuracy	$\pm 10 \mu\text{m}$
Dynamic Range	50 dB
Maximum Reach	100 km
Optical Connectors	FC/APC (standard)
Operating Temp. Range	0-40 °C
Optical Power	5 to 14 dBm
Power Supply Voltage	85-240 V
Power Consumption	< 5 watts
Dimensions (WxDxH)	213 x 254 x 50 mm ³
Weight	1.8 kg (excludes power supply)
Wavelength Range	C + L band
Interface	USB2, RS422
Software	LabVIEW GUI / Library FyberView™