

I*Sense® 48K-MS-HC



The IFOS I*Sense® 48K-MS-HC offers a cost effective, multi-switch, high FBG count, high-speed, lightweight and small footprint solution for monitoring up to 60 Fiber Bragg Grating (FBG) sensors per node

Key features and benefits of the IFOS I*Sense® 48k-HC are:

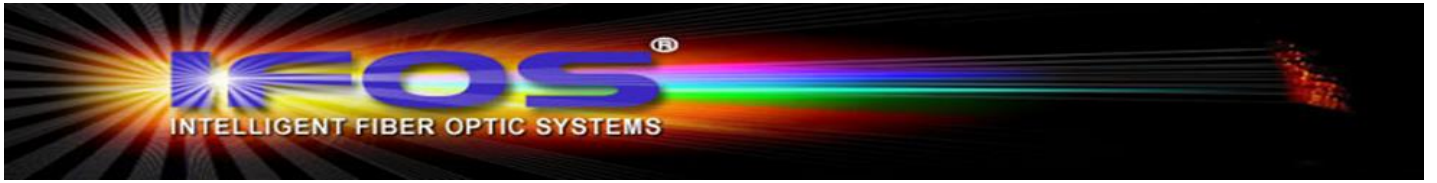
- Highly scalable and expandable to over 1,000 FBGs
- Multi-optical band auto-switching with S, C, L, U bands
- Fast inter-fiber FBG array auto-switching capabilities
- Full GUI control for connecting any one source to any one fiber in an array of FBGs at very high speeds
- Directly measures and plots temperature-compensated static and dynamic strain, vibration and acoustics
- High speed of up to 6 kHz for every FBG per fiber
- High resolution, accuracy, and dynamic range
- Automatic temperature compensation
- Remote monitoring system for up to 100 km
- Solid state, no moving parts
- Compact, lightweight, low power consumption
- Operates in harsh and demanding environments
- Long life and high reliability
- Integrated PC for single box intelligent monitoring system
- Customizable decision aid algorithms and displays
- Fiber or wireless backhaul transmission capability

The I*Sense® 48k-HC provides very high FBG counts in a highly scalable, expandable system with real-time data display and storage for all its channels with every FBG seeing the full bandwidth, offering high precision, remote monitoring, long life, large dynamic range, and high measurement range with multiple optical bands available for expansion. Different sensing elements can be deployed on a single optical fiber enabling a mix of strain, temperature and derivative measurements for e.g. displacement, tilt, pressure, chemical and biochemical measurements, to best meet varying customer needs at a series of discrete locations. Customized sensors are available upon request.

I*Sense® 48K-MS-HC Product Specs*

Number of Fibers	4 switchable at high-speeds
Light source Optical Bands	S, C, L and U bands switchable at high speeds
Number of Sensors per Fiber	15 (S,C, L and U bands)
Maximum number of Sensors	60 per node up to 20 nodes
Strain Range	± 2,000 µstrain
Detection Speed	6 kHz per FBG per fiber
Resolution	0.1 pm
Absolute Accuracy	+/- 2 pm
Dynamic Range	50 dB
Optical Connectors	FC and E2000 APC
Operating Temp. Range	0-55° C (-10-70° C optional)
Optical Power	5 to 14 dBm
Power Supply Voltage	85-240 V
Power Consumption	58W including all optics, electronics, PC, excluding monitor
Dimensions (W x D x H)	22 x 19 x 3.5 "
Weight	21 lbs. (includes switch, excludes small power supply)
Lifetime	>25 years
Interface	USB2.0
Software	Windows 7 GUI

**These specifications are indicative and may change without notice*



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