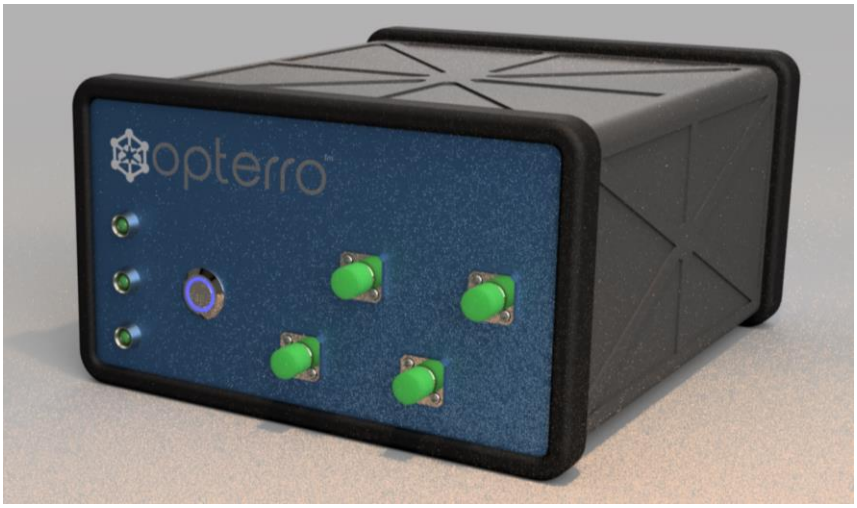
i*Sense® VHS50K-48CxP-PI FiberSense™ Interrogators



A state-of-the-art portable interrogator for monitoring up to 12 Fiber Bragg Grating sensors per fiber, and sensors distributed over 1 to 8 fibers

Key features and benefits of i*Sense® VHS50K-48CxP-PI (x = 1 to 8) are:

- FiberSense™ configurations include 1, 4, and 8-channel interrogator systems
- Concurrent measurement speed of up to 50 kS/s on all FBGs on each fiber
- Spectrum: C band from ~1525 nm to ~1570 nm (~40+ nm band coverage)
- FBG wavelength spacing: user-specified: from ~3 nm to ~20 nm
- Wavelength resolution & precision: < 1 pm; accuracy & repeatability: < 5 pm
- Directly measures temperature, static strain, and dynamic strain
- Directly measures vibration and acoustic emission (AE) signals
- Multiple sensors multiplexed and concurrent measured on each fiber
- Very high speed; high resolution, accuracy, and dynamic range
- Scalable with multiple fiber connection capabilities (up to 8 fibers)
- Solid state, no moving parts; long life and high reliability
- Portable, compact, lightweight, low power consumption
- Ruggedized structure with lightweight composite chassis and IP40 protection
- GPS time stamping and internal clock (PTPv2Synchronisation)
- Operates reliably in harsh and demanding environments
- Automatic sensor calibration and intelligent monitoring system
- Integrated built-in computer and at least 60GB of on-board data storage
- Autonomous headless operation without external computer
- Powerful iSenseView™ software with algorithmic data analytics
- Data management with inherent decision-making capabilities
- Customizable decision aid algorithms and graphical user displays
- Modular Li-ion battery, charger, and charge controller for UPS (external)

Opterro's i*Sense® VHS50K-48CxP-PI FiberSense™ provides simultaneous data display and storage for all fiber channels with every FBG seeing the full speed on each fiber, offering high precision and extended strain measurement dynamic range. Different sensing elements can be used on optical fibers enabling strain, temperature, vibration, acoustic emission and derivative measurements, to meet customer needs. Customized FBG sensing fibers are available upon request.

i*Sense® VHS50K-48CxP-PI Specs	
Number of Fibers	1 to 8
Sensors per fiber	Up to 12
Sampling Speed	50 kS/s (adjustable sampling rate)
Sensing Temperature	300°C (option for up to 800°C)
Strain Range	±1350 με (12 FBGs/fiber) ±4000 με (4 FBGs/fiber)
Resolution	< 1 pm (< 0.1°C)
Absolute Accuracy	± 5 pm (± 0.5°C)
Dynamic Range	90 dB
Optical Connectors	FC / APC
Operating Temp. Range	0ºC to +65ºC
Source Optical Power	10 dBm (adjustable power option)
Wavelength Range	C Band ~1525 to 1570 nm
Power Consumption	~15 W
Dimensions (WxDxH)	21.8 x 26.0 x 12.0 cm^3
Weight excluding PC	<1.5 kg
Product Warranty	12 months
Power Supply Voltage	85 – 240 VAC (universal 50/60 Hz) and 12 – 18 VDC (powered by AC or DC)
Interface	Ethernet and WIFI
Software	iSenseView™

Opterro, Inc., 4425 Fortran Drive, San Jose, CA 95134, USA
Tel: 408-565-9000 • Fax: 408-565-9003 • www.opterro.com • E-mail: sales@opterro.com