

New Vibrating Sample Magnetometers from Lake Shore Cryotronics



From 2017, Lake Shore's new 8600 VSM will be the most sensitive commercial instrument available



Lake Shore's new entry-level 7400-S VSM features variable gap electromagnets providing field strengths up to 3.42 T

The new 8600 Series VSM from **Lake Shore Cryotronics** raises the bar for magnetometer performance and convenience by combining high sensitivity, rapid measurement speeds, and ease of operation for faster and more accurate measurements.

The entire **8600 Series** system has been conceived with a focus on a clean, ergonomic design that simplifies the researcher's interaction with the system. For example, a motorised head brings the sample to a comfortable height for easy, one-handed exchange of the sample rods.

Temperature options include a cryostat, high-temperature oven, and single stage variable temperature insert. The combined temperature range of the options is 4.2 to 1273 K, and all three options quickly slide into place and are auto-detected by the system's software - **video demonstration**.

8600 Series Features

- 0.33×10^{-7} emu noise floor at 10 sec/point
- 10 ms/pt data acquisition rate
- 5000 Oe/s field ramp rate
- Rapid, repeatable temperature option exchange
- High stability of $\pm 0.05\%$ per day
- Fields to 3.26 T
- Widest temperature range: 4.2 K to 1273 K



Lake Shore VSMs are designed by scientists for scientists

The magnet poles are also easily adjusted with a specially designed indexed positioning system that allows the pole gap to be set at one of six repeatable positions, eliminating the need to recalibrate after each change.

7400-S Series

Available in three different variable gap electromagnet configurations providing fields up to 3.42 T, Lake Shore's new entry-level systems are sensitive, low-noise floor electromagnet-based VSMs that feature a broad temperature range capability of -269 to 1000 °C. Able to measure a wide range of sample types, the 7400-S is an ideal tool for materials research applications or magnetic material quality control.

An assortment of options, including low temperature cryostats, a high temperature oven, a single stage variable temperature assembly, vector coils, autorotation, and an MR probe can expand the system's functionality.

Please **contact us** for more details.

More CE-certified laser filters from NoIR LaserShields



NoIR LaserShields continues to expand their range of CE-approved filters for laser safety. Recent additions include the CT2 for use in the **visible**, and CTR, HYG and YGH filters for the **infrared** region of the spectrum.

NoIR have been manufacturing high-quality internationally-certified safety eyewear for the protection of laser users in a broad range of fields and applications for many years now, offering protection from:

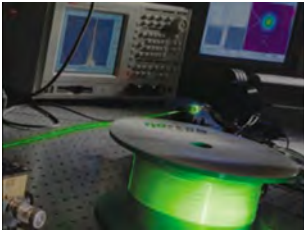
- UV, visible, and IR lasers and other ultra-bright light sources
- Multiple waveband devices
- Therapeutic and cosmetic treatments (Patients and clinicians)
- Laser pens (For pilots and the emergency services)



Elliot Scientific's expert advice will guide you to the best in cost-effective laser safety. Academics, beauticians, clinicians et al, we can protect your eyes from laser mishaps.

Contact us with details of your laser or ultra-bright light source application and we will be happy to help you choose the correct filters for spectacle frames or goggles.

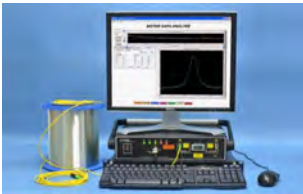
NuSENSOR™ fibres are available with Polyimide, Carbon/Acrylate, or Carbon/Polyimide sheathing



The NuSENSOR™ product line, from **Nufern**, features graded index multimode (MM) fibres designed for Distributed Temperature Sensing (DTS), and single-mode (SM) fibres designed for Distributed Temperature and Strain Sensing (DTSS) and Fiber Bragg Grating (FBG) based sensors. Both the MM and SM fibres are available with polyimide coverings and either pure silica or germanium doped core glass compositions.

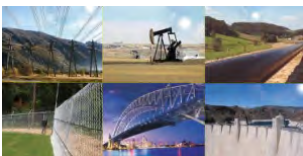
Nufern also offers these fibres with composite coatings: carbon/acrylate for temperatures up to 150 °C, or carbon/polyimide for up to 300 °C, making them also ideal for H₂ rich environments. Details about the NuSENSOR™ range can be obtained by **contacting us**.

Brillouin Optical Time Domain Reflectometry advances Foresight™ from OZ Optics



The addition of BOTDR (Brillouin Optical Time Domain Reflectometry) single-ended fibre measurement to the **Foresight™** Distributed Strain and Temperature Sensor (DSTS) from **OZ Optics** has given the company a strategic lead in construction, energy, and security applications.

Utilising Brillouin scattering in an optical fibre, the system can simultaneously sense changes in both temperature and strain along the length of a simple fibre, or the rapid detection and location of a major disturbance within a second, up to 70 km away.



- Live measurement of strain and temperature
- BOTDA and OTDR, and/or BOTDR
- Fibre configuration:
 - Loop - Up to 100 km round trip
 - Single-ended - Up to 70 km
- Multiple channel monitoring
- Real-time fault point detection
- High spatial strain and temperature resolution

For more information about Foresight™ and BOTDR, download the **datasheet**, or **contact us** directly.

Winter Holiday Schedule



Elliot Scientific's offices will be closed from end of business on:

* Friday, December 23rd. 2016

We re-open at 08:30 GMT on:

* Tuesday, January 3rd. 2017



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