

YORK INSTRUMENTS



Introducing



—a revolution in
MEG technology

- Superior HyQUID sensors
- Liquid helium free
- State-of-the-art electronics
- Fast, accurate data capture
- Adult & pediatric options available

Think you know MEG? Get ready to think again.

MEGSCAN™ from York Instruments offers high-sensitivity HyQUIDs and cryogen-free operation, combined with modern electronics and software. The new system breaks fresh ground for MEG.

Why MEG?

Magnetoencephalography (MEG) offers efficient functional brain imaging with excellent spatial and temporal resolution. The scans are completely non-invasive and silent. Neuroscientists appreciate the sensitivity of MEG to even the subtlest of brain signals. For clinicians, the information gained through MEG leads to better surgical outcomes, especially in cases of severe epilepsy or brain lesions near eloquent cortex. York Instruments has incorporated recent dramatic developments in cryogenics, sensors, electronics and software into MEGSCAN. This revolutionary new MEG system is robust, accurate and highly modular. Above all, its flexibility of design is intended to keep pace with ongoing technological developments.

Improved Sensors

The quality of the magnetic field sensors at the heart of every MEG system ultimately dictates the usefulness of the MEG instrument.

York Instruments has exclusive rights to use HyQUIDs, developed at Royal Holloway University, which are much more sensitive and have lower noise, especially in low frequencies, than traditional SQUIDs. This allows for recordings of slow wave activity during resting state and supports applications where these are symptomatic of underlying pathology. The new

sensors open the door to diagnostics of traumatic brain injury and post-traumatic stress disorder. At the other end of the spectrum, ultra-high frequency oscillations are also easily measurable.

Liquid Helium Free

York Instruments has taken advantage of recent advances in cryogenics to make a unique liquid helium free MEG. Eliminating refilling and complex recycling of cryogenics is one of the most significant changes to MEG technology in decades. The new system is more compact, has a lower operating cost, can be turned off and on quickly, and can be located in regions where it is difficult to ensure a regular liquid helium supply.



Specification Highlights

- Helmet accommodating 98% of adult males.
 - Pediatric option available.
 - 320 baselength-optimized axial gradiometer sensors plus 32 references.
 - HyQUIDs with excellent white and low frequency noise performance.
 - Vibration-free pulse tube cooling—entirely liquid helium free.
 - Advanced electronics with sampling up to 64 kHz, including trigger and analog inputs/outputs.
 - Up to 128 simultaneous EEG channels.
 - A full suite of peripherals including modern subject monitoring, stimulation and response.
- Upgrade to:
- Continuous head position monitoring.
 - Video recording synced with MEG capture.



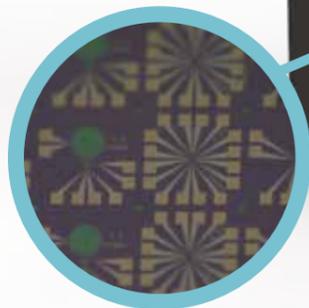
Ease of Use

MEGSCAN users enjoy dramatically improved usability and flexibility in data acquisition and review. York Instruments' software uses a plug-in architecture, permitting users to add their preferred protocols and tools to the control suite.

Users can then easily export data files to open-source analysis packages. Data is readable across all platforms using standard formats, while users will benefit from interface design that is effective and modern.

Cloud Solution

Securely store, distribute and review large data sets in the cloud. All patient information is safely anonymized to ensure confidentiality and HIPPA compliance.





About York Instruments

The York Instruments team is comprised of industry-leading scientific and management professionals, with expertise in all areas of MEG technology and applications. The company, together with its world-class corporate and

academic partners, is dedicated to advancing the field through state-of-the-art technology and an improved user experience. We are strongly committed to continual R&D and are dedicated to increasing the utility of MEG, particularly among

disorders involving brain network interruptions. The company is well supported for growth and innovation—our parent Croton Healthcare was formed specifically to maximize the potential of modern MEG and its applications.

YORKINSTRUMENTS

We welcome input and questions—help us make MEG better.

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