Datasheet: 3MH2 DIGITAL 3D TRANSDUCER

*** Preliminary Data Sheet ***

High-quality 3-D Digital Transducer

DESCRIPTION:

SENIS 3MH2 High-Quality 3-D Digital Transducer is an indispensable high-quality instrument engineered to excel in demanding measurement applications. Offering a DC measurement accuracy of less than 0.1% (1'000ppm) and remarkable stability in digital readings, the 3MH2 ensures reliable and precise data acquisition. Its compact 3D Hall IC in the C Probe Type provides an impressive spatial resolution of 0.10 x 0.01 x 0.10 mm³.

This versatile transducer guarantees probe interchangeability by storing calibration data in an integrated EEPROM and exhibits high-temperature stability of less than 100ppm/°C. With magnetic DC resolution better than 1ppm @ ±2T and up to four selectable magnetic field ranges, it adapts to a wide range of applications.

Featuring USB2.0 and LAN connectivity, a 24-bit A/D converter, and various triggering modes, the 3MH2 is ideal for mapping magnetic fields, characterizing undulator systems, current sensing, laboratory and production line applications, quality control and monitoring of magnet systems (generators, motors, etc.). Experience high-quality performance with the SENIS 3MH2.
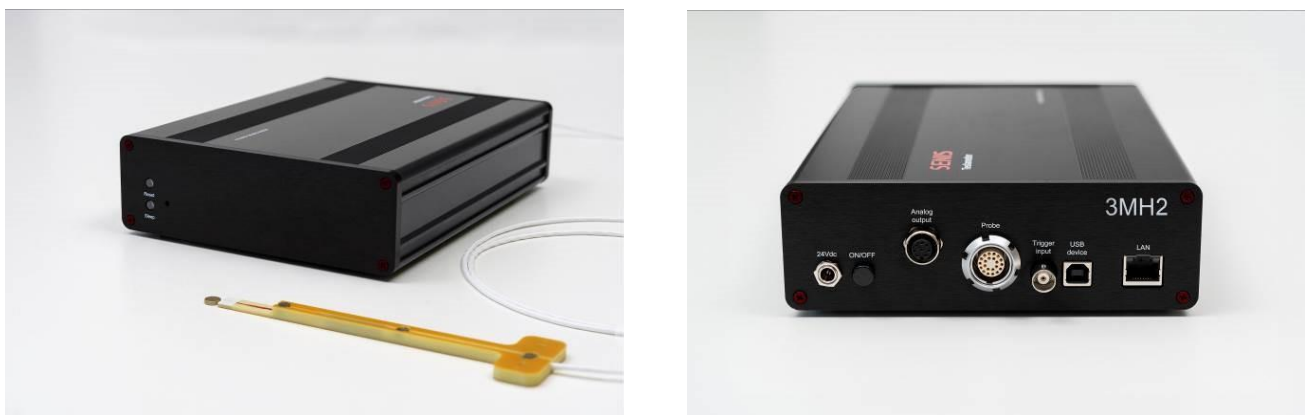

Figure 1: 3-channel digital transducer 3MH2: front panel (left); rear panel (right)

KEY FEATURES:

- High measurement DC accuracy: < 0.1% (1'000ppm)
- Very good stability of the digital readings
- Very high spatial resolution: FSV of the applied 3D Hall IC in the C Probe Type is only 0.10 x 0.01 x 0.10 mm³
- Probe interchangeability is ensured: Calibration data of each Hall probe are stored in an integrated EEPROM
- High temperature stability: < 100ppm/°C
- Very high magnetic DC resolution: better than 1ppm @ ±2T range
- Up to 4 (four) selectable magnetic field ranges: 100mT, 500mT, 2T, 20T (calibrated up to 9T)
- USB2.0 serial communication and LAN
- Triggers Internal and External – Single shot, Manual and Continuous
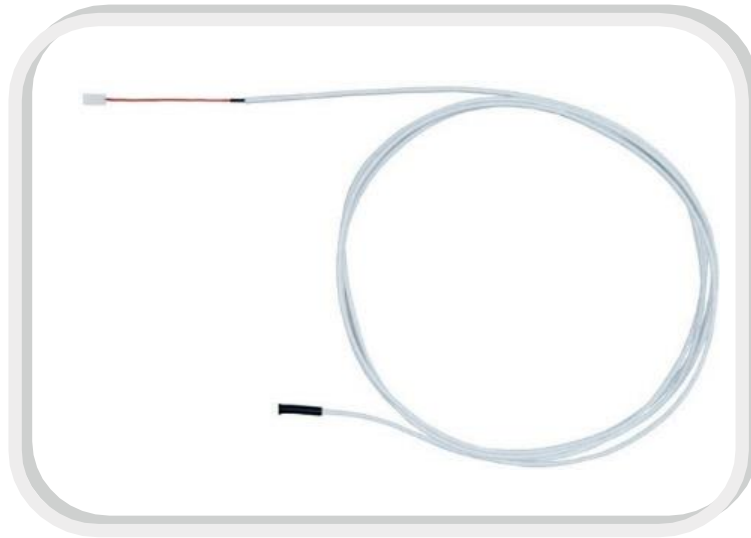- 24-bit A/D Converter

Figure 2: Photo of the integrated 3-axis Hall Probe

TYPICAL APPLICATIONS

- Mapping magnetic fields
- Characterization of undulator systems
- Current sensing
- Application in laboratories and in production lines
- Quality control and monitoring of magnet systems (generators, motors, etc.).