Sensors

Magnetic and Electric Field Sensors for Natural-Source and Controlled-Source Electromagnetic Methods

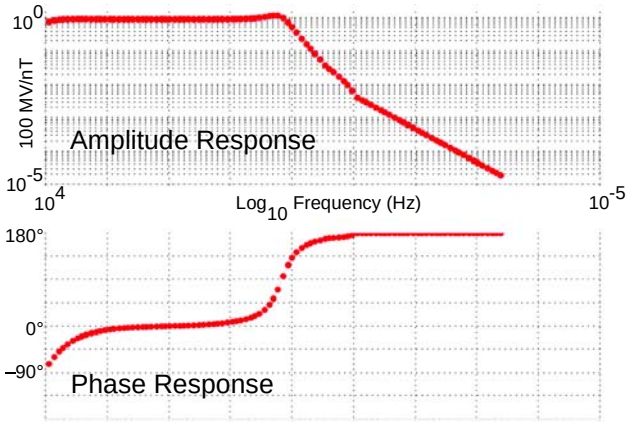
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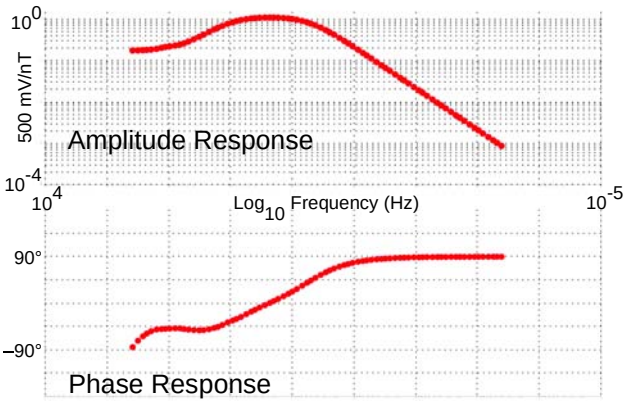
Magnetic Induction Coils

With Built-in Pre-amplifers



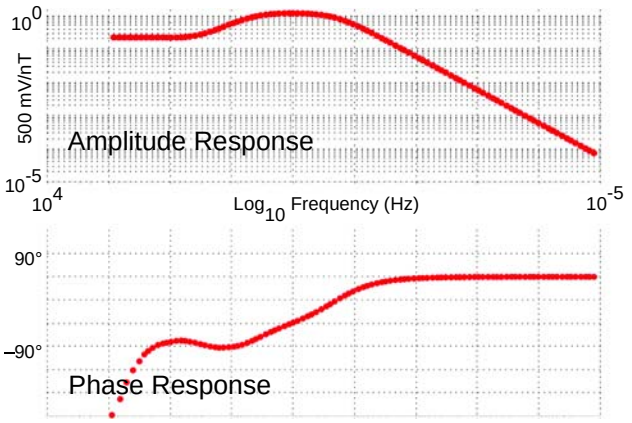
AMTC-30 *for* AMT, CSAMT, FDEM

- 82 cm x 6 cm dia., 3 kg
- Frequency range:
  10 000 Hz to 0.1 Hz



MTC-80H *for* MT

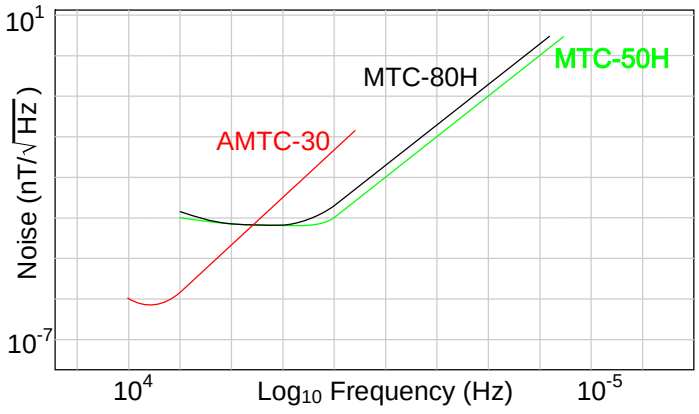
- 97 cm x 6 cm dia., 5 kg
- Frequency range:
  400 Hz to 10 000 seconds



MTC-50H *for* MT

- 144 cm x 6 cm dia., 8.2 kg
- Frequency range:
  400 Hz to 50 000 seconds





Typical Spectral Plot of Sensor Noise

New!
MTC-150
Sensor

Magnetic Field Sensor for Natural-Source and Controlled-Source Electromagnetic Methods

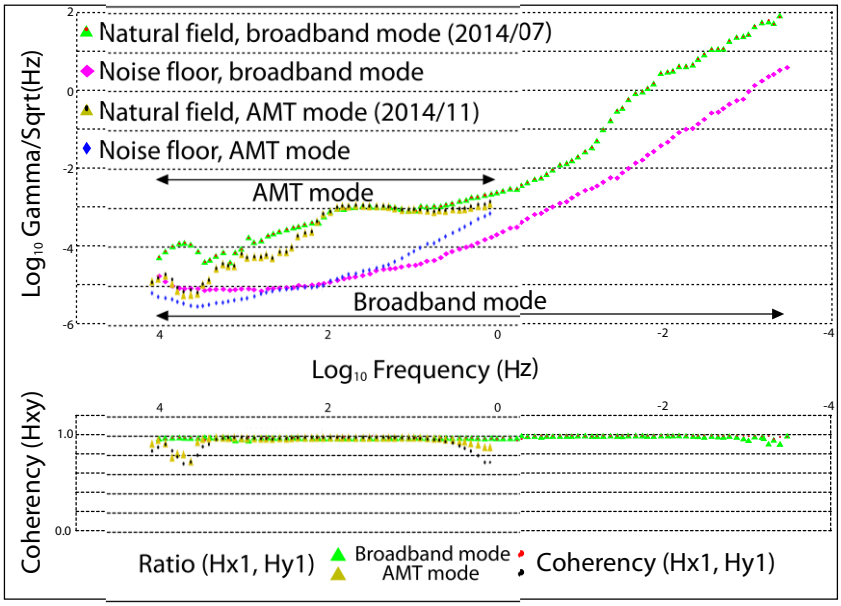


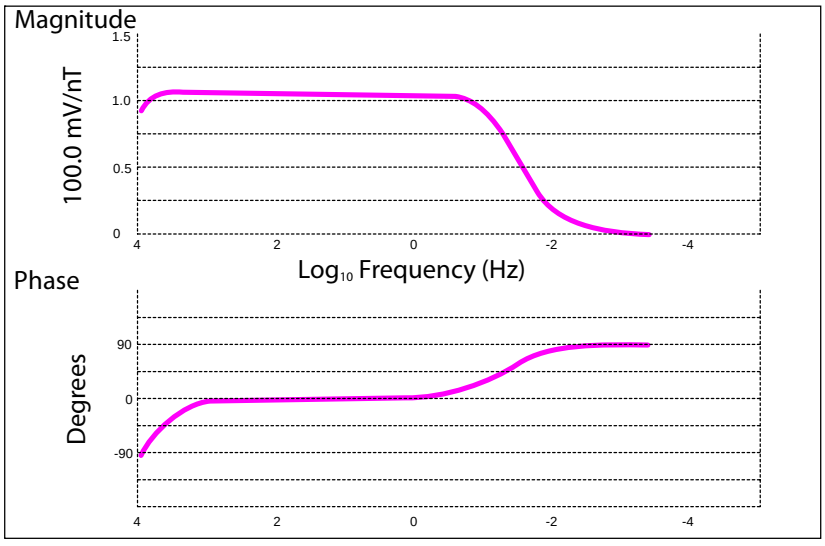
New in 2015! MTC-150 Broadband Sensor

- Range: 10 000 Hz to 10 000 seconds
- Sensitivity: 25 mv/nT
- Output range: Fully differential 0–5 V
- Dimensions: 144 cm x 6 cm dia.
- Weight: 6 kg
- Operating: –30°C to +70°C
- Environmental: IP68 dust- and water-resistant
- Compatible with all Phoenix receivers (V8, MTU-A)

Typical amplitude (natural spectrum and noise) and noise floor

Typical coherency between two sensors





Typical calibration curves

New! PE5 Electrode

Long life: slow to dry, easily rehydrated

- **Only 13 cm x 7.25 cm dia., 0.75 kg**
- **Flat response from DC to 10 000 Hz**
- **Low noise, low offset, low drift**
- **Porous ceramic contact surface and conductive slurry prevent polarization**
- **Heavy-duty PVC and ABS construction protects against foul weather and temperature variations when buried in the earth**



New! TEM-AL MulTEM Loop



- Only 3.2 kg; 55 cm x 53 cm x 6 cm
- Effective area: 100 m^2
- Built-in bubble level
- Bandwidth: 40 kHz, critically damped
- Low noise (4×10^{-7} nT/$\sqrt{\text{Hz}}$ at 1 kHz)
- Anti-saturation circuitry
- Operating temperature: –40 to 50 °C

Independent tests proved that the performance of the new Phoenix TEM-AL loop equals or surpasses the performance of previous-generation loops (Phoenix or Geonics). The late-time response has been improved without compromising early-time response. The dramatic reduction in size and weight makes it easy to deploy multiple loops for up to three simultaneous EM measurements at the V8 receiver.

AL-100, FDEM and TDEM/LoTEM Loops

- Various models available; please enquire for specifics