Frequency range 5 Hz to 10 MHz
Built to MIL-STD-461A, 462D and 461E
Individually calibrated
Shielded twin-wire connection
Spacing plate 7 cm (MIL-STD-461/462, DEF STAN 59-41) and 5 cm (VG standards)

The shielded and individually calibrated Magnetic Field Pickup Coil HZ-10 allows magnetic field strengths in the frequency range from 20 Hz to 200 kHz to be measured in line with standards MIL-STD-461/462, DEF STAN 59-41, GAM EG 13 and VG95377 Part 13. It comes with a calibration certificate for the frequency range from 5 Hz to 10 MHz.

The coil is covered by an aluminium shielding for high isolation and connected via a shielded twin-wire line to avoid measurement errors caused by galvanic surface currents induced in the shielding.
Shielding of electric and electronic equipment against low-frequency magnetic fields requires elaborate and costly measures. Therefore, the field strengths in the vicinity of such equipment must be limited as a prerequisite. Military EMC standards such as MIL-STD-461/462, DEF STAN 59-41, GAM EG13 and the VG standards 95370 to 95377 give limits for the magnetic flux density in the frequency range 20 Hz to 50 kHz or 200 kHz and prescribe an electrostatically shielded coil with a defined number of turns for measuring the magnetic flux density.

According to MIL-STD-461/462, DEF STAN 59-41 and GAM EG13 the magnetic flux density has to be measured at a distance of 7 cm from the EUT, and to VG standards at a distance of 5 cm. To ensure that these distances are maintained when searching for the maximum RFI, an asymmetrical spacing plate can be fitted to the HZ-10 (accessory supplied; see cover photo on the left).

The HZ-10 is supplied with a calibration certificate for the frequency range from 5 Hz to 10 MHz. In the calibration facility the HZ-10 is arranged parallel with a single-turn transmitting coil. The mean value of the magnetic flux density in the HZ-10 is precisely calculated. By operating the system as a transmitting and receiving coil, the calibration obtained is based on a high-precision attenuation measurement, and the transducer factor is calculated from the attenuation.

The HZ-10 is provided with a 1/4" thread for mounting on a camera tripod.