

## CAL 1250

### Magnetic field calibrator 50 / 60 Hz



- Generation of magnetic fields by 3-channel generator/amplifier combination for calibration purpose
- Complies to IEEE644
- Loop sensor for field verification is included
- Application Software WIN7 compatible
- Connection to computer via USB-port

#### **Description**

The magnetic field calibration device uses a triaxial Helmholtz coil to generate a three dimensional magnetic field.

The CAL 1250 has three independent channels which each consists of an internal generator and a power amplifier.

<b>Specifications</b>	
<b>Generator</b>	
Number of channels	3
Frequency range	50 / 60 Hz
Phase resolution	1 °
Signal	Sine wave
<b>Amplifier</b>	
Number of channels	3
Output voltage	±15 V
Output current	1,5 A
Frequency range	15 Hz - 50 kHz
<b>Voltage input (loop sensor)</b>	
Frequency range	3 Hz - 200 kHz
Input impedance	2 kOhm
Connector	XLR, balanced
Max. input voltage	100 mV
Gain	40 dB
<b>Loop Sensor</b>	
Diameter	133 mm
Shielding	Electrostatic
Correction factor	see calibration sheet (50 Ω / 600 Ω / 1MΩ)
DC resistance	~ 10 Ω
Inductance	~ 340 μH
Connector	XLR
<b>Triaxial Helmholtz Coil System</b>	
Edge length / Coil separation	
X axis	50 cm / 28 cm
Y axis	46 cm / 25,8 cm
Z axis	42 cm / 23,6 cm
Number of turns (per coil)	26
Min field strength	10 mG
Max field strength	3000 mG
Resolution of field strength	0,1 mG
Field Homogeneity	± 0,1% (sphere diameter < 100mm) ± 1,0% (sphere diameter 100mm - 200mm)
Frequency range	DC - 10 kHz
Nominal current	5 A
DC resistance	~ 4 Ohm
Inductance	~ 15 - 20 mH
Uncertainty	± 1%
<b>Ordering information</b>	
Art.-Nr.: CAL 1250	Magnetic field calibrator; turn key test system including triax coil, loop sensor & complete cabling; Application software WIN NT/2000/XP/Vista