

SC24 AC Magnetic Field Sensor

- 3-axis AC magnetic field sensor
- Optimised for SC22 and SC24 AC magnetic field cancelling when there are no DC fields
- May be used for AC field measurements with the SC11/SI laptop based analysis system
- Very low 1/f noise for magnetic field cancelling
- Fast recovery after overload for use with TEMs and dual beam systems
- Field Ok indicator (green)



Overview

This 3-axis AC magnetic field sensor was developed at Spicer Consulting for the SC24 generation of field cancelling systems. It has lower noise levels and a faster overload recovery than the previous model.

Use this sensor and an SC22 or SC24 control unit to stop beam disturbances due to AC line fields.

The sensor contains 3 orthogonal coils. The built-in electronics integrates and amplifies the coil signal to provide a measurement of magnetic flux density.

The bandwidth of the sensor is optimised for very low 1/f noise. This means that when used with a magnetic field cancelling system, it generates negligible low frequency magnetic field.

The sensor recovers quickly after an overload caused by large step changes in the DC field generated by the microscope. These occur during TEM magnification changes or operating mode changes of dual beam systems.

Specifications

Weight:	750 g
Dimensions:	120 x 70 x 65 mm
Axes:	3 Cartesian (X, Y, Z)
Sensor type:	Pickup coil
Compatible with:	SC22 field cancelling system SC24 field cancelling system Not designed for use separately
Measurement range:	± 20 mG (± 2.0 μ T)
Bandwidth:	25 Hz - 20 kHz (-3 dB)