



PR No. 1000034086

Rfx No. 6100001475

Technical Specifications for Field Cancellation System

A. UNITS

Gauss, Tesla, selectable

B. FIELD CANCELLING

- | | |
|--------------------------------------------------|-------------------------------|
| I. Co-ordinates | X, Y, Z rectangular Cartesian |
| II. Components Cancelled | X, Y, Z fields |
| III. Measurement range (X & Y) ^{NOTE 1} | 4.8 μ T pk-pk |
| IV. Measurement range (Z) ^{NOTE 1} | 3.3 μ T pk-pk |

1. With Sensor SC24/AC

- | | |
|-------------------------------------------|-------------------|
| a) Field Cancelling Factor | >50 X at 50/60 Hz |
| b) Bandwidth | 2.5 Hz – 5000 Hz |
| c) Cancelling Noise limit (0.5 to 5000Hz) | 0.6nT RMS total |

2. With Sensor SC24/DC+AC

- | | |
|-------------------------------------------|--------------------------------------------------|
| a) Ambient DC field limit | $\pm 200\mu$ T max |
| b) Field cancelling factor | > 100 X at 50/60 Hz
400 X at DC (incremental) |
| c) Bandwidth | DC – 5000 Hz |
| d) Cancelling noise limit (DC to 5000 Hz) | 0.7 nT RMS total |
| e) DC drift ^{NOTE 3} | < 2 nT/24 hours |



C. FIELD MEASUREMENT

1. Types

Real-time field
AC RMS and pk-pk
DC incremental (Sensor SC24/DC+AC)

2. Display

- a) Sensor dynamic range 4.2 μ T pk-pk
- b) Accuracy ^{NOTE 2} $\pm 1.0\%$ of reading ± 1 nT

3. X, Y, Z real time field outputs

- a) Scaling 10V/ μ T (1.0V/mG)
- b) Range ± 12 Volts
- c) Source resistance 10k Ω
- d) Connectors 3 x BNC
- e) Bandwidth 25Hz – 10kHz (SensorSC24/AC)
DC – 10kHz (SensorSC24/DC+AC)

4. TEST FIELD GENERATOR

- a) Sine wave AC line frequency (50/60Hz) -line locked
- b) Square wave 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000 Hz

5. POWER

120/240 V 50/60 Hz, 100 VA

Note 1: The measurement range is stated with standard cancelling cables. A larger range is available for extreme fields with custom cables. Measurement range is stated at the nominal AC power input of 120 or 240 volts RMS De-rate linearly for lower voltages

Note 2: Sensors are calibrated with 50Hz, 1 μ T RMS square wave field.

Note 3: Drift (@23⁰C \pm 2⁰C, after 2 hour warm-up)

D. Warranty – 5 Years