

ELECTRIC FIELD PROBES HI-6122 Electric Field Probe

ETS-Lindgren's laser-powered HI-6122 Electric Field Probe embodies the latest innovations in isotropic sensor design and low noise, miniaturized electronics. Designed to be single range reading, the HI-6122 can read data continuously over the entire dynamic range. Data values for each axis (X, Y, and Z) can be read individually or summed.



ETS-Lindgren's Model HI-6122 EMF Field Probe is a laser-powered probe that provides broadband EMF frequency coverage and wide dynamic range that satisfies the demands of most test requirements. To take advantage of this capability, the HI-6122 was designed to be single range reading so data can be read continuously over the entire dynamic range. Data values for each axis (X, Y, Z) can be read individually or summed.

Fiber optic signal and power lines link the Model HI-6122 field probe to either the model HI-6100 Field Monitor, or as a direct connect to a PC with the HI-6113 Laser Data Interface and ProbeView™ Laser Software.

The HI-6100 Field Monitor provides manual functions and programmed control via IEEE-488 and RS-232 Serial Data Interfaces. Readings from up to four probes can be displayed simultaneously.

The EMCenter™ Modular RF Platform along with the EMSense™ interface card can be used with the HI-6000 series field probes as a Field Monitor in addition to its capability as a system level platform.

The HI-6113 Laser Data Interface provides the laser power and communications for the HI-6122 Electric Field Probe. A USB connection to the PC allows for quick and easy data collection, using ProbeView Laser software.

Key Features

- Laser Powered - Permits Extended Testing
- Frequency Range: 10 kHz to 1 GHz
- Dynamic Range 2.0 to 800 V/m (Single Range)
- Provides Individual and Summed Axis Values
- A2LA Accredited Calibration Report
- Suitable for MIL Standard Specs:
 - MIL-STD 461E Radiated Susceptibility (RS)
 - Suitable for Automotive Specs:
 - SAE J1113/27GMW 3091/3097/3103
 - Suitable for Commercial Specs:
 - EN/IEC61000-4-3
- Radiated Immunity
- Operates with Most 3rd Party Immunity Software

Specifications

Electrical Specifications

Detection: Isotropic (X, Y and Z Axis Readings)

Frequency Response with Correction: 10 kHz to 1 GHz \pm 0.9 dB

Frequency Range: 10 kHz to 1 GHz

Frequency Response: 10 kHz to 30 kHz +0.5, -2.5 dB, 30 kHz to 1 GHz \pm 1.0 dB

Resolution: 0.01 V/m

Isotropic Deviation: \pm 0.5 dB @ 400 MHz dB

Linearity: \pm 0.5 dB

Sample Rate (Typical): >70 Samples per Second Maximum

Overload Withstand: >1500 V/m CW

Physical Specifications

Physical Interface:

- Duplex Optical Fiber (62.5 Micron Multimode)
- FC Connectors for Laser Cable, Integral 1m Optical Cable
- ST Connector for Transmitter Cable, Integral 1m Optical Cable

Operating Temperature Range: 10 to 40° C (50° to 104° F), 5 to 95% Relative Humidity Non-condensing

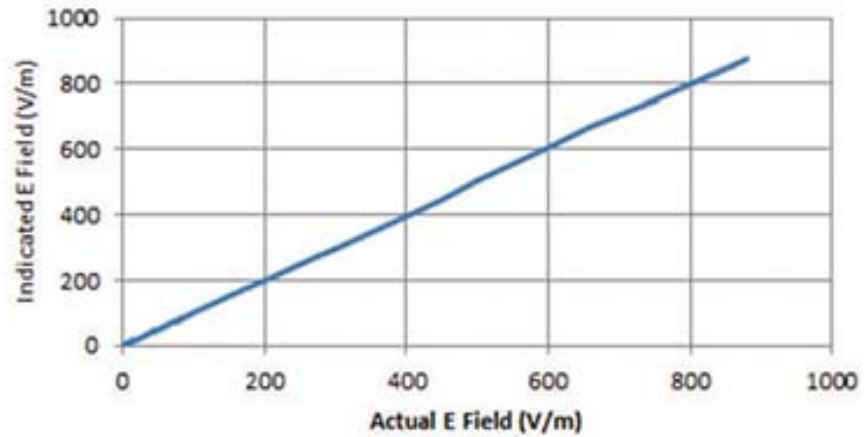
Dimensions (Housing): 36 mm (1.42 in); 32 mm x 32 mm x 32 mm (1.26 in x 1.26 in x 1.26 in)

Other Specifications

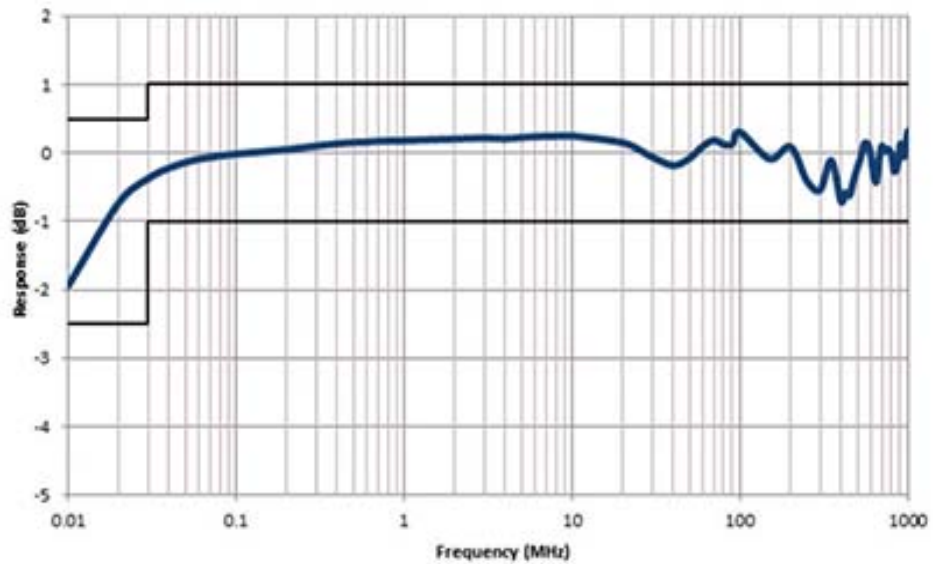
- Manual
- Probe Assembly
- A2LA Traceable Calibration Report
- 10m Optical Cable
- Bulkhead Connector (2)
- Carrying Case
- Fiber Cleaning Kit and Swabs

Product Charts

Linearity Response at 27 MHz



Typical Frequency Response with Limits



**Typical HI-6122 Isotropic
Deviation Data recorded at
400 MHz - Field Level 20 V/m**

