



# 33P TRIPLE PROBE

## Electric, Magnetic and Magnetostatics Field

### Main Features:

#### 33P (Electric Probe): E field

- Frequency Range: 1 Hz + 400 kHz
- Dynamic: > 86 dB
- Directivity: Isotropic

#### 33P (Magnetic Probe): B field<sup>1</sup>

- Frequency Range: 1 Hz + 400 kHz
- Dynamic: > 94 dB
- Directivity: Isotropic

#### 33P (Magnetostatic Probe): $E_{DC}$ field

- Frequency Range: DC
- Dynamic: > 70 dB
- Directivity: Isotropic

### Compatibility:

- NHT3D Meter

### Main applications:

- Energy
- Medical
- Automotive
- Railways
- Industrial
- Military



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MICR  RAD

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## Electric, Magnetic and Magnetostatics Field

**Description:**

The Microrad 33P probe consists of three different sensors combined into one: an electric field sensor (E), a magnetic induction sensor (B) and a static magnetic field sensor ( $B_{DC}$ ). The operator can select the required sensor type by means of the switch located at the base of the probe.

Each sensor within the probe is based on a set of three mutually orthogonal sensitive elements. The signals from the sensors, corresponding to the spatial components of the selected field, are used by the NHT3D instrument to calculate the isotropic value.

| <b>TECHNICAL SPECIFICATIONS</b> |                                      |  |                            |
|---------------------------------|--------------------------------------|--|----------------------------|
|                                 | E field                              | B field                                  | $B_{DC}$ field             |
| Field type                      | Electric                             | Magnetic induction                       | Magnetostatic              |
| Sensor type                     | Capacitor                            | Coil                                     | Hall                       |
| Bandwidth                       | 1 Hz ÷ 400 kHz                       | 1 Hz ÷ 400 kHz                           | DC                         |
| Response type                   | Flat                                 | Flat                                     | -                          |
| Frequency response              | $\pm 1$ dB (10Hz÷400kHz)<br>@ 200V/m | $\pm 1$ dB (10Hz÷400KHz)<br>@ 20 $\mu$ T | -                          |
| Measurement range               | 1 V/m ÷ 20 kV/m                      | 300 nT ÷ 16 mT                           | 1 $\mu$ T ÷ 4 mT           |
| Dynamic                         | 86 dB                                | 94 dB                                    | 72 dB                      |
| Linearity                       | $\pm 0.7$ dB (>200V/m)<br>@50Hz      | $\pm 0.7$ dB (>2 $\mu$ T)<br>@50Hz       | $\pm 0.5$ dB (>10 $\mu$ T) |
| Directivity                     | Isotropic                            | Isotropic                                | Isotropic                  |
| Isotropy                        | $\pm 1$ dB                           | $\pm 1$ dB                               | $\pm 1$ dB                 |

| <b>GENERAL CHARACTERISTICS</b>   |                   |
|----------------------------------|-------------------|
| Recommended calibration interval | 24 months         |
| Operating temperature            | 0°C ÷ 50°C        |
| Size                             | 365 x 120 Ø □(mm) |
| Weight                           | 300 g             |
| Country of origin                | Italy             |

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