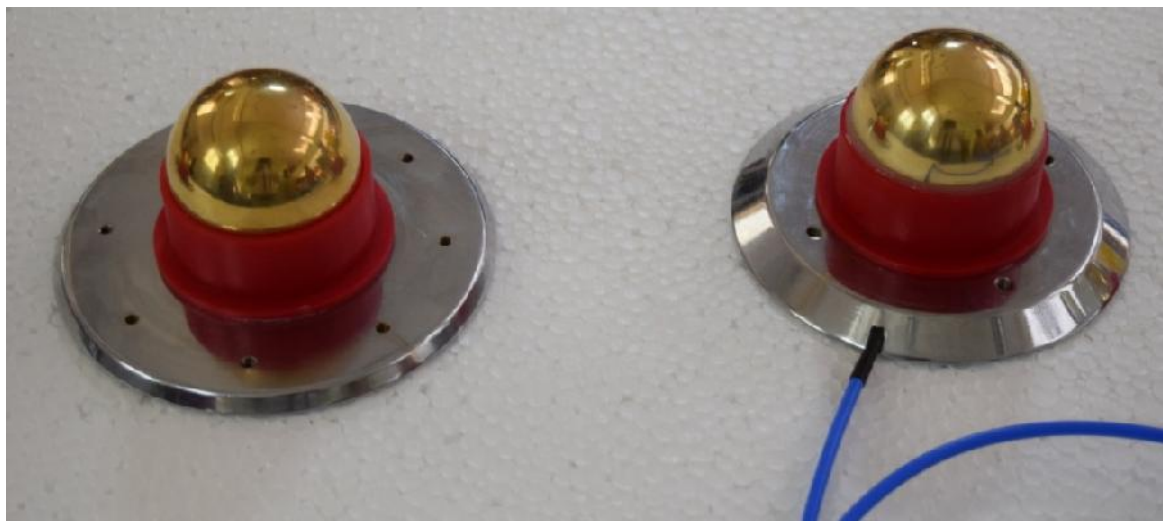




**ZEONICS SYSTECH**  
DEFENCE & AEROSPACE ENGINEERS (P) LTD.



# Electric & Magnetic Field Sensors



Any electric field in free space or in a bonded space can be measured through a sensor. This sensor is typically like an antenna, different types of Antennas can be manufactured.

We have spherical antenna whose area has been calculated and terminated into a  $50\Omega$  impedance. This particular voltage is taken and given to an integrator and calibrated for giving integrated output on an oscilloscope. These sensors can be used for rise times as low as 1 nano sec or frequencies like 1 GHz.

**Proudly Made in INDIA**



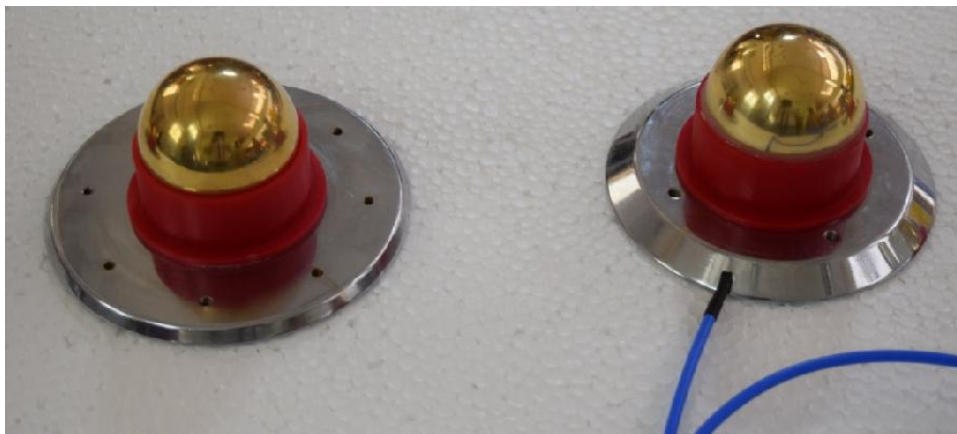
## Applications

The sensors are used in fields which are very high voltage in nature, where direct measurements are not possible, or only the electric field between plates have to be measured.

## Advantages

These are non-contact type sensors. They truly measure the field in and around objects and once calibrated with a proper integrator and field measurement device, these are non-invasive probes which do not interfere in the field but still give the proper indication.

## Specifications



1. Max Field : 100kV/Meter
2. Rise Time :  $\approx 1$ sec
3. Frequency : 1GHz
4. Ratio : 1kV : 22mV  
: 20kV : 440mV
5. Type No : Z/26/110 (E-field)



## Magnetic Field Sensor Type No : Z/32/103 ( Y- 923)&Pin Probe (E field Probe)

1. Maximum Voltage : 100kV field strength
2. Maximum Frequency :  $\approx \geq 10$  Giga Hertz
3. Rise Time : 100ps ON
4. Type : Non-contact for field type
5. Suggested Oscilloscope : Better than 40 Giga Hertz

### Installation requirements

Most of the probes are terminated into semi rigid or rigid cables with SMA Connector into a  $50\Omega$  impedance line, which requires an Oscilloscope to be placed at the output.

Oscilloscope should be preferably a  $50\Omega$  Oscilloscope, otherwise a  $50\Omega$  terminator needs to be used.

### Types available

There are several types of these field sensors which are manufactured as per different requirements and surface requirements between plates, field, or free field. One can enquire with us and we can design a system for them.

We also make B-field sensors (Z/20/3) and other designs of E-field sensors (Z/36/154).

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