

JCI 114 Electrostatic Fieldmeter Data Sheet



The JCI 114 is a compact instrument for easy, sensitive and reliable measurement and monitoring of electrostatic fields.

Many materials, in particular plastics, easily become electrostatically charged when rubbed against other materials. Such 'triboelectric' charging causes problems in many areas of industry. It can lead to ignition of flammable gases, vapours and powders, and give shocks to personnel. It can make thin films and light fabrics cling, attract airborne dust and debris, damage semiconductor devices and upset the operation of microelectronic equipment.

The risks and problems arising from static electricity are best avoided by ensuring that static charge can dissipate over and through the surfaces of materials and away to earth more quickly than charge is generated.

The JCI114

The JCI 114 is a compact sensitive instrument for the measurement of electric fields. Sharing the same field mill technology as the JCI 140, there is no need to switch-on in a static free environment, no need for measurements to be made within a limited time and no need to worry about the influence of air ionisation. The electrostatic field sensitivity at the sensing aperture can be switched between 20kV/m and 200kV/m full scale. Measurements are shown on a 3½ digit LCD with decimal point and low battery indication. An audible alarm gives warning of any electric fields above a user set threshold level.

Specification

SENSITIVITY	20kV/m & 200kV/m full scale
RESPONSE	3dB at ~115Hz ±5% for JCI 114
NOISE	Within 0.1 kV/m on 20kV/m range (within 10mV pk-pk on analogue output)
ZERO STABILITY	Within ±0.05kV/m on 20kV/m range
ACCURACY	Within ±2% FSD +2 counts
DISPLAY	3½ digit liquid crystal display of electric field in kV/m at sensing aperture with polarity and 'LO BATT' indication
POWER SUPPLY	PP3 replaceable battery / JCI 142 External Mains Adapter
DIMENSIONS	34x66x150mm overall
WEIGHT	320g

Benefits

- LCD displays the electrostatic field at the sensing aperture
- Resolution to 10V/m (20kV/m range)
- Ranges to 200kV/m
- Analogue output for data capture
- Suitable for measuring 50-60Hz AC fields & DC fields

Optional extras

- JCI 143 Analogue Output Cable
- JCI 142 External Mains Adapter
- JCI 169 Permanent Mounting Feet
- Digital USB Oscilloscope & Data Logger
- Basic & enhanced calibrations available in general accordance with BS7506: Part 2:1996
- JCI 125 Zero Check Chamber

DEKRA Organisational & Process Safety

Contact

DEKRA Organisational and Process Safety are a behavioural change and process safety consultancy company. Working in collaboration with our clients, our approach is to assess the process safety and influence the safety culture with the aim of making a difference.

In terms of behavioural change, we deliver the skills, methods, and motivation to change leadership attitudes, behaviours, and decision-making among employees. Supporting our clients in creating a culture of care and measurable sustainable improvement of safety outcomes is our goal. The breadth and depth of expertise in process safety makes us globally recognised specialists and trusted advisors. We help our clients understand and evaluate their risks, and we work together to develop pragmatic solutions. Our value-adding and practical approach integrate specialist process safety management, engineering, and testing. We seek to educate and grow client competence in order to provide sustainable performance improvement. Partnering with our clients, we combine technical expertise with a passion for life preservation, harm reduction and asset protection.

We are a service unit of DEKRA SE, a global leader in safety since 1925 with over 48,000 employees in 60 countries and five continents. As a part of the world's leading expert organisation DEKRA, we are the global partner for a safe world.

We have offices throughout North America, Europe, and Asia.

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Would you like more information?

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