

Continuous Earth Monitoring System

Model No : CEMS - 0313



Certified as per
IS/IEC 60079-11:2006
IS/IEC 60079-0:2007



Certificate No.
No. KLPL/Ex/ESD16/001
Dt. 31.01.2016

A Key function of equipment earthing is to provide a controlled method to prevent the buildup of static Electricity, thus reducing the risk of electrical discharge in potentially hazardous environments. The Electrical resistance from the equipment to earth should be 10 ohms maximum. This electrical resistance values are to be maintained continuously.

The System CEMS – 0313 monitors resistance value to Earth and any fault will be indicated by RED LED and audio signal. The system monitors every equipment one after another with an interval of 5 seconds. The system draws the attention of the personnel to take remedial action should fault arise in equipment earthing.

CEMS – 0313 has provision to monitor 20 nos of equipments, and comes in flameproof enclosure. Equipment to earth loop is measured by intrinsically safe voltage & current and this precision source has micro controller based switching.

SPECIFICATIONS

The System CEMS - 0313 bears I.S/IEC certification for Intrinsically Safe Output Connections.

The CEMS – 0313, system consists of 2 units.

- 1) **SAFE AREA UNIT** : Located in switch gear room/safe area.
- Power Input** : 230 volts A.C at less than 7 watts.
- Power Input Protection** : Fuse and current limiting resistor.
- L.T Transformer** : Constructed and tested as per I.S/IEC standard with compartmental windings for Primary and Secondary

2) **A) Composite unit** : FLP + Junction Box for Hazardous area installation

a) Power Input : 14 Volts A.C at 200 mA

B) Intrinsically Safe Earth loop Check Connections.

a) Voltage: 0.6 volts D.C b) Current: 20 m.A Max D.C

C) Operational Push buttons

1) Reset Switch 2) Hold Switch 3) Release Switch

D) Operational Visual Indications : 1 to 20 Equipment scanning two digits LED display

Green - Loop check OK for the equipment connected.
Red - Earth Loop resistance greater than Ten Ohms also the number is registered in 1 to 20, 5mm LED array. Buzzer bips for 5 seconds along with digital display in Red.

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