

PROTIME



Earth Monitoring Relays

EMR1-1

Special Features

- Smart design to fit on any standard mounting channel.
- Choice of screw less terminals
- Total wireless interiors
- $\pm 2\%$ Accuracy
- Test & Auto/Manual Reset facility
- Designed for high reliability, as relay energizes only under fault conditions

Technical Data

- 1) Supply voltage (control supply) - 110V / 220V / 380V / 440V AC, 50Hz or 12V DC / 24V DC.
- 2) Permissible Supply Variation - $\pm 25\%$
- 3) Output Contacts - Two changeover contacts / One change over with Buzzer.
- 4) Switching duty - 6A resistive at 24V DC or 240V AC
- 5) Relay Status - De-energised in normal conditions.
- 6) Set Point(Range) - = 1-10V AC
- 7) Time delay (optional) - 0 - 10 sec. Settable
- 8) Mode of operation - Over voltage
- 9) Reset - Automatic / Manual
- 10) Setting Accuracy - $\pm 5\%$ of full scale.
- 11) Mounting - Any standard mounting channel
- 12) Dimension - 77mm(W) X 90mm(H) X 110mm(D).

INTRODUCTION:

A common feature of all computers & other electronic equipment is the sensitivity to supply Voltage fluctuations like Spikes etc. These may damage the hardware or corrupt the data on software. To ensure clean supply, computers are frequently installed on dedicated clean circuits. They also have inbuilt suppression & filtering circuitry. These Filters leak the unwanted components of electric supply to earth.

In a facility/installation, Where computers & similar Equipments are an appreciable part of electrical load, the earthing is required to carry a significant amount of continuous leakage current. Any break in earth connection will mean that the isolated section will rise to potentially lethal voltage. This will also render the filter circuits ineffective making the computers prone to failures due to voltage spikes.

INTRODUCTION: (cont.)

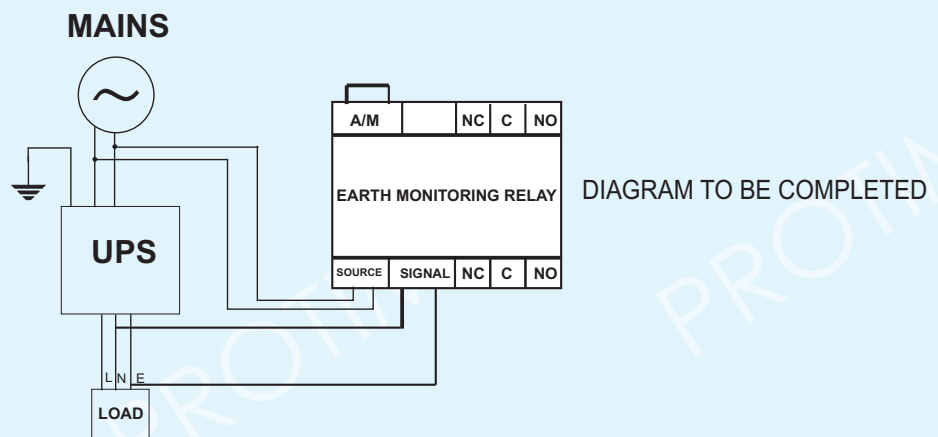
Therefore as recommended in IS 3043(Section 39.2.4.2), It is necessary to provide a protective device to monitor the continuity of the protective earth connection & provide means of automatic disconnection in case of failure or at least give an audio alarm to user.

The PROTOME's Earth Monitoring Relay senses the rise in voltage between earth & Neutral Conductor to detect the integrity of the earthing connection. It is advisable to install such relays at the UPS supply points & couple of user points.

OPERATION

The Relay senses continuously voltage between earth & neutral terminal on load side, Since if earth gets disconnected this voltage will increase . The relay will give output for tripping or audio alarm when such voltage rises above the limit set on the dial. The time delay for relay output is optional feature.

Connection details:



HOW TO ORDER?

Ordering Pattern (example)-
EMR1-1 - C - STD - 5

Series
 EMR1-1
 Earth Mounting Relays for channel Mounting

Terminals
 S - Screw type terminals
 C - Cage type terminals (Screwless)

Time Range
 STD- . 0- 10 Sec.

Supply
 1-110V AC
 2-230V AC
 3-380V AC
 4-415V AC
 5-12 V DC
 6-24 V DC

Note:- Design & specification may change to our continuous developmental efforts