



VERITEK

EARTH LEAKAGE RELAY



VIPS 98PF

TE T E T TE

Type : **EARTH LEAKAGE RELAY (VIPS 98PF)**

Nominal Current In : 0.03A to 30A

Accuracy : Class 1

Aux. Supply
90 / 270V AC/DC, 50/60Hz

Range : 0.03A to 30A

Accuracy Test :

± 1 % of set value ± 2 count

Found OK

Note :

A) For Digital Readouts the error is Computed in Counts.

- Class 1.0 = ± 1% of Full Scale ± 1 Count

- Class 0.5 = ± 0.5% of Full Scale ± 1 Count

Tested By : Mr. Devendra Chaurasiya

Date :

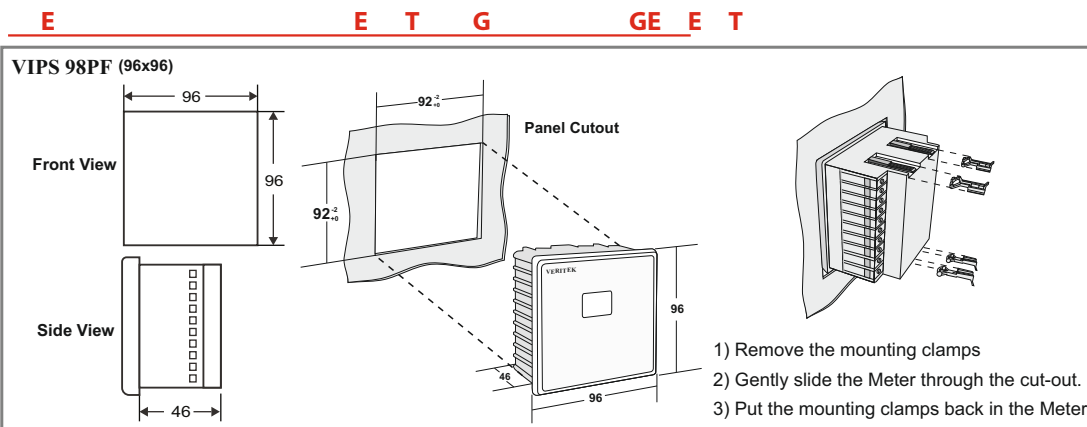
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E T E

State of Art Microcontroller Based Design

Leakage Current display in %

User Selectable wide sensing range

{0.03, 0.10, 0.30, 0.50, 1.0, 3.0, 5.0, 10.0, 20.0 & 30.0 Amps.}

User Selectable wide Time Delay range

{0(<40msec.*), 0.06, 0.15, 0.25, 0.5, 0.8, 1, 2.5, 5, 10 Sec.}

* for IΔn x5 times of set value

Alarm Relay Output { at 50% of Set Range}

Compact Size

PP T

Generator Control Panel

Distribution Control Panel

Protection Control Panel

E T E GE E Y

Earth Leakage relay is used for the continuous surveillance of the earth leakage current which causes generation of heat & progressive failure of insulation, when the current value moves outside from the desired zone the relay energises to give an alarm or trip a circuit.

P P E PE T

The unit employs a CBCT (Core Balance Current Transformer) to sense the Leakage Current. In a healthy system the Vector sum of the currents flowing in the 3 Phases is Zero. But in case of an Earth Fault / Leakage the vector sum is not Zero & a resultant current begins to flow. This is sensed and converted into an analog Voltage signal which is compared with a preset reference value. In case of 3 Phase 4 Wire system Neutral also has to be passed through the CBCT.

PE T

Voltage - Rating : 90-270VAC/DC, 50/60Hz

Burden : 3VA Max

Current : CBCT Secondary

Overload : x2 continuously, x10 for 1 secs
sarr so/ec

Operating temp. : -10°C to +70°C

Operating time(Delay) : 0(<40msec.), 0.06, 0.15, 0.25, 0.5, 0.8, 1, 2.5, 5, 10 Sec.
(User adjustable)

Setting of trip point : 0.030, 0.10, 0.30, 0.50, 1.0, 3.0, 5.0, 10.0, 20.0 & 30.0 A
(User Selectable)

: 35mm, 70mm, 120mm & 210 mm

CBCT Sizes (I.D)

Repeatability of set point : Better than 0.5%

Alarm Relay Output : 50% of Range { IΔn(A)}
Single NO / NC (Contact Rating : 5A)

Trip Relay Output : 80% - 90% of Range { IΔn(A)}
Single NO / NC (Contact Rating : 5A)

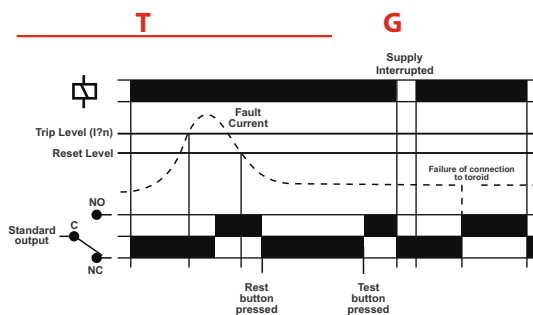
Status : Normally De-energised

Reset : Manual

Dimensions : 96 x 96 x 46 mm (W x H x D)

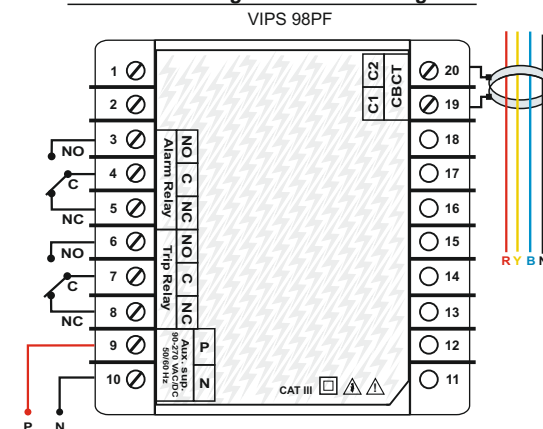
Panel Cutout : (90⁺¹₋₀) mm X (90⁺¹₋₀) mm

Mounting : Flush Mounting with side clamps.

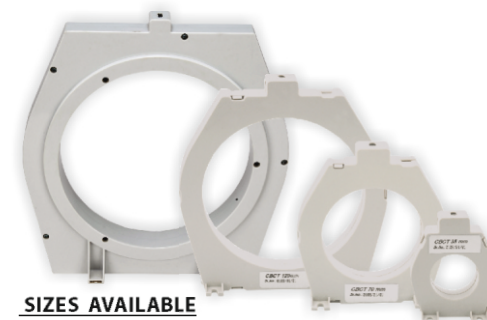


E T ET

Electrical Wiring / Connection Diagram



E E E TT T



SIZES AVAILABLE

CBCT 35, 70, 120, 210, 310 mm ID

E E E TT T



Note :

- 1) For CBCT Diameter greater than 70 mm, sensitivity setting of 300 mA or below is not recommended.
- 2) For distance greater than 1 m, use twisted pair cable between the unit and CBCT.



ETYP E T

All safety related conditions, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.

If there is physical damage to the unit then do not use it.

Read complete instruction prior to installation and operation of the unit.

GG E E

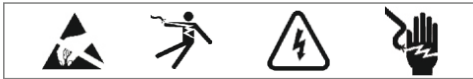


1) To Prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.

2) Wiring shall be done strictly according to the terminal layout with shortest connection. Confirm that all connection are correct.



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1) To ensure the safe operation of unit, check the wiring and connections.