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# IGFR-4

Ground Fault Relay with Adjustable Time Delay

Part Number: 1100-0104



## IGFR-4 Ground Fault Relay with Time Delay

The IGFR-4 is a potential Ground Fault Relay (GFR) that detects ground fault currents by monitoring the voltage across a Neutral Grounding Resistor (NGR). The relay trips when a phase-neutral fault occurs, causing fault currents to flow through the NGR.

IGFR-4 is designed for 480V to 600V (L-L) systems which are NGR-limited to 25 amps or less, but it can also be used at 1000V with the addition of two external resistors. For higher voltages, IGFR-5 should be used (along with a step-down transformer) instead of IGFR-4.

A time delay may be set to 0-5 seconds, using a multi-turn potentiometer.

NO and NC trip outputs are included for use with under-voltage or shunt trip breakers. Once tripped, the IGFR-4 remains latched until the circuit breaker on the front panel is manually reset. The relay cannot be reset unless the fault has been cleared.

### Features:

#### Front Panel

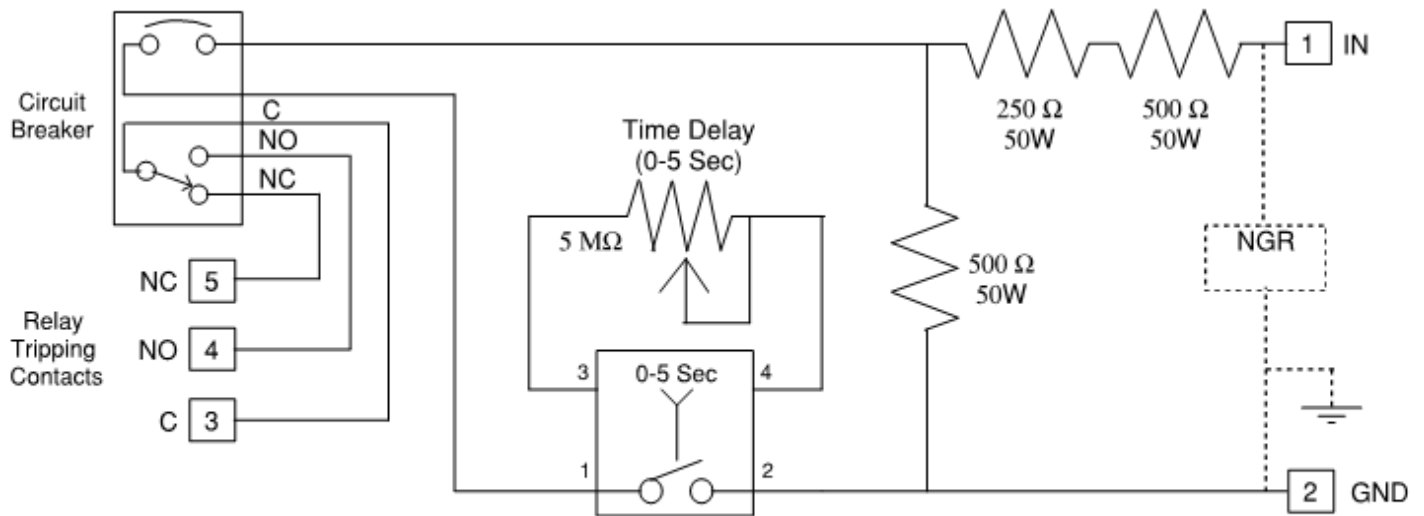


- 0-5 second adjustable delay time. Multi-turn potentiometer for accurate delay settings
- Manual reset
- NO/NC outputs for under-voltage/shunt breakers
- Trip indicator
- Compact design
- Designed for 480V-600V (L-L) systems (1000V with added resistors). IGFR-5 is recommended for systems at 1000V or higher.

### Specifications:

- Trip contacts (NC or NO): 10A / 250 VAC
- Trip Time Delay: 0-5 Seconds (Factory set to 0.25 Sec.)
- For use in 480V-600V (L-L) systems with ground currents limited to 25A maximum.
- May be used in 1 kV systems with external resistors.
- Trip Voltage: Approx. 115 VAC at input.

## Circuit / Connection Diagram:

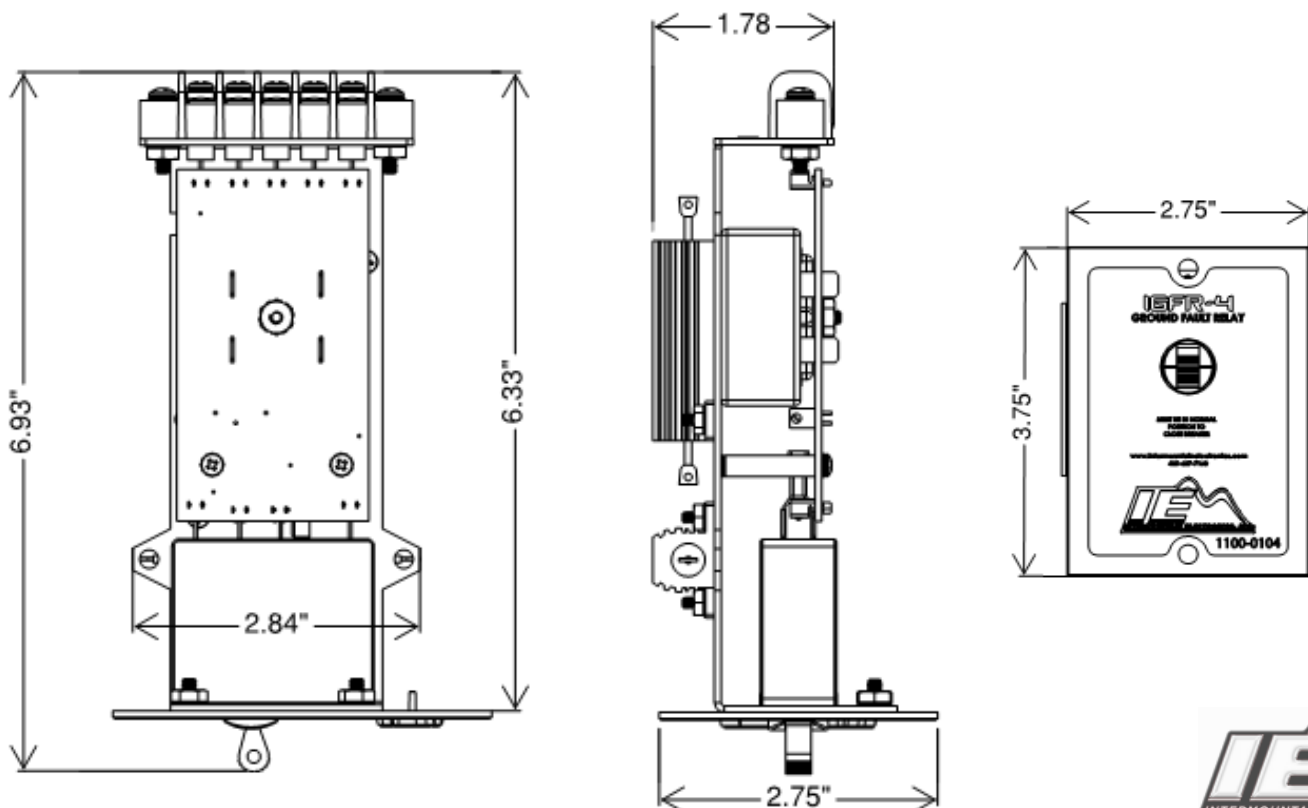


### Notes:

1. Designed for use on 480V or 600V circuits.
2. For use in 1000V circuits, add two 500 Ω, 50W resistors in series at terminal 1.

**Time Delay:** The potentiometer on the circuit board is used to adjust the delay time from instantaneous to 5 seconds. This is a multi-turn potentiometer, so the delay can be precisely set. The factory setting is 0.25 seconds (instantaneous).

## Mechanical Characteristics



## Recommended Panel Cutout

