



GARD

Unparalleled Protection



- Ground faults cause havoc on plant production processes, shutting down power and equipment and critical loads.
- Ground faults disrupt the flow of products through manufacturing processes and cause data loss in computer centers leading to hours or even days of lost productivity.
- Ground faults pose health and safety risks to personnel, creating hazards such as equipment malfunctions, fire and electric shock.

SLEUTH

The Sleuth is a neutral grounding device that limits ground fault currents to non-damaging levels under a single line-to-ground fault condition. Sleuth is the ideal tool for sensing and locating ground faults quickly and easily. When a ground fault occurs, Sleuth controls and limits the fault current, provides an alarm that indicates an active fault, enabling electrical personnel to follow a simple sequence to locate and isolate the fault without interrupting the circuit or opening circuit breakers.



NEMA 2R enclosure containing current limiting resistor and ground fault relay

Available with artificial neutral for use on delta systems

Visual indication of system normal, active ground fault and pulsing active

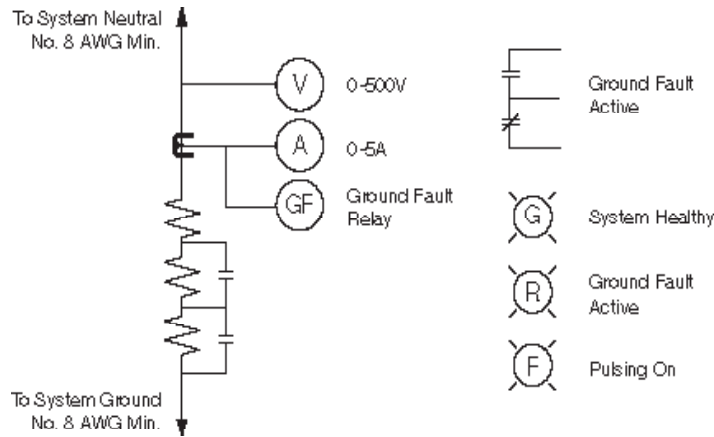
Available for 480V, 600V and 4160V distribution systems

Step 1 in protection is to limit damaging fault currents through the use of a high-resistance grounding system.

Step 2 requires the fault to be located and repaired before a second fault occurs.

The Sleuth pulsing system contains four key integrated elements that limit damaging fault currents and provide process continuity. Also, the integral pulsing system facilitates the locating of the ground fault at a convenient time.

SLEUTH



FEATURES	BENEFITS
High-Resistance Grounding Resistor	This resistor is connected to the wye point of the transformer or generator supplying the facility. Its function is to limit ground fault currents to non-damaging levels under a single line-to-ground fault condition. This provides the user an opportunity to retain process continuity and to detect and clear the fault.
Hand Held Pulse Tracing Sensor	This device, similar to a clamp-on ammeter, allows the user to follow the pulses from their source at the Sleuth unit through to the specific location of the line-to-ground fault.
Automatic Pulsing System	Once the pulsing feature on the Sleuth system is selected and activated, the system will cyclically limit the fault to 100%, 75% and 50% of the available ground fault current. The cyclical pulsing combined with the hand held pulse tracing sensor empowers the user to trace the fault circuit to the point of the fault in even complex distributions systems without de-energizing the load.
Ground Fault Sensing Transformer and Relay	This microprocessor based digital relay measures ground fault current using a 1:1 zero sequence current transformer. It maintains accuracy over a range of 45Hz to 65Hz and filters out harmonics to eliminate nuisance tripping.

High-resistance grounding (HRG) is becoming more prevalent in industrial and commercial electrical power systems because it eliminates un-scheduled downtime due to ground faults, and improves personnel safety by

preventing ground faults from escalating into arc-flash incidents. Resistance grounding is highly recommended for generators, to protect them from damage due to excessive ground fault currents.