



### STOPLIGHT

STOPLIGHT is a complete, inexpensive high resistance grounding system that provides system wide protection against damaging ground faults. Using a simple but effective three light system, Stoplight provides visual indication and available remote annunciation to inform operations and maintenance personnel of ground faults.

A red light indicates an active ground fault, an amber light indicates a ground fault has occurred but is intermittent and a green light signifies that there are no active ground faults on the system.

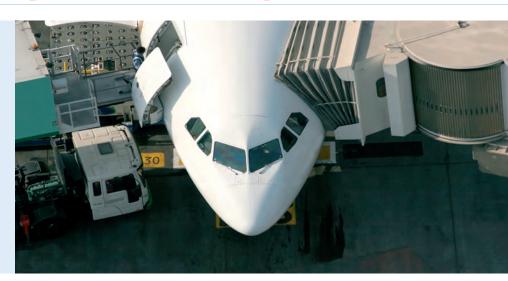
# the power to protect

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 potential health and safety risks to personnel, creating hazards such as equipment malfunctions, fire and electric shock.

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 arcflash incidents. Resistance Grounding is highly recommended for generators, to protect them from damage due to excessive ground fault currents.



Inexpensive ground fault protection with visual indication in NEMA 3R enclosure

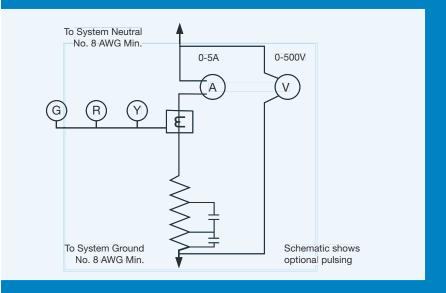
Optional pulsing system for easier fault location

Unique 3 light system for easy visual indication of system condition

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



The four key integrated elements contained in the **Stoplight** system work to protect against damaging ground fault currents.







#### 1. 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.

## 2. 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.

### 3. Automatic Pulsing System (optional)

Once the pulsing feature on the STOPLIGHT 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 even in complex distribution systems without de-energizing the load.

#### 4. Hand Held Pulse Tracing Sensor (for use with optional pulsing system)

This device, similar to a clamp-on ammeter, allows the user to follow the pulses from their source at the STOPLIGHT unit through to the specific location of the line to ground fault. Once the fault is located, it can be isolated and repaired.







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