

Features

- Option of Three Different Frequencies
- Eliminate Monitor Crosstalk
- Remove Multiple Ground Problems
- Extended Cable Lengths Are Possible
- Monitor and Control Over Power Cables



The GAI-TRONICS Ground Sentinel along with the associated filters is designed to monitor the integrity of the ground circuit of power distribution circuits in coal mines. Either the three-phase wires or a pilot wire can be used as a return signal path for the Ground Sentinel. If the ground check circuit has 15 ohms or less loop resistance, the internal relay will be energized, and the circuit breaker that feeds power to the cable can be energized. A disruption of the ground check circuit that lasts longer than one-fourth of a second will de-energize the relay and trip the circuit breaker. The time delay prevents false trips. Three LED's indicate the condition of the ground check circuit. The three-frequency system is intended for the applications on circuits where the ground circuit can't be isolated by ARC TRAPS or elimination of two ARC TRAPS is desired.

Specifications

Mechanical:

Size (LWH) 7.46" x 2.32" x 5.62" (189.5 x 58.9 x 142.7mm)
(Fits on one-half GM1000 Foot Print)

Construction..... Stainless Steel
Serviceability..... One plug-in board contains all electronics, including relay

Power:

Supply Voltage..... 117V ± 15% 60 Hz (105-135)
Supply Voltage Dip For One Minute
No Trip w/Good Loop..... Down to 84V

Transmitter:

Frequency..... 4000, 3125 or 2250 Hz (NOM)
(Request Frequency When Ordering)

Receiver:

Loop Resistance for Trip
(over voltage and temperature range)..... 13 ohms ± 2 ohms

Receiver: Continued...

Trip Time Delay (after loop opened)..... 250 msec (max)
Instantaneous Trip..... Opens relay coil circuit
Loop Resistance for Pickup 15 ohms ± 2 ohms
Output Short Circuit Trip..... 0-1 ohm
Loop Current Indication..... YEL LED brightness proportional to loop resistance

Ordering Information

Ground Sentinel..... GM8900/2250 Hz
GM8900/3125 Hz
Filter, 3 Phase, 1000V, 2250 Hz..... FI2567
Filter, 3 Phase, 1000V, 3125 Hz..... FI2569
Ground Wire Trap..... GM1004

