Ground-Fault Protection—Grounded Systems

SE-704 SERIES (PGR-4704)

Earth-Leakage Monitor

Description

The SE-704 is a microprocessor-based ground-fault relay for resistance- and solidly-grounded systems. It offers very sensitive ground-fault detection as low as 10 mA and can be used on systems with significant harmonic content. The SE-704 provides feeder-level protection or individual-load protection. The output contacts can be connected for use in protective tripping circuits or in alarm indication circuits. The analog output can be used with a PLC or a meter.

Features & Benefits

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<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
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<tr>
<td>Adjustable pickup (10 mA - 5 A)</td>
<td>Adjustable trip setting provides a wide range of low-level protection and system coordination</td>
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<tr>
<td>Adjustable time delay (30 ms – 2.0 s)</td>
<td>Adjustable trip delay allows quick protection and system coordination</td>
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<tr>
<td>Output contacts</td>
<td>Form A and Form B ground-fault output contacts for operation of separate annunciation and trip circuits</td>
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<td>Analog output (0-5 V &amp; 0-1 mA)</td>
<td>Allows for connecting an optional meter (PGA-0500) or control system</td>
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<td>CT-Loop monitoring</td>
<td>Alarms when CT is not connected</td>
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<td>Selectable contact operating mode</td>
<td>Selectable fail-safe or non-fail-safe operating modes allows connection to shunt or undervoltage breaker coil</td>
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<td>Harmonic filtering</td>
<td>Eliminates nuisance tripping</td>
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<td>Non-volatile trip memory</td>
<td>Retains trip state when de-energized to simplify troubleshooting</td>
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<td>Microprocessor based</td>
<td>No calibration required saves maintenance cost</td>
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<tr>
<td>Universal power supply</td>
<td>Allows operation in application where one side of PT is faulted, provides flexibility for numerous applications</td>
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Accessories

**SE-CS30 Series Ground-Fault Transformer**  
Required zero-sequence current transformer specifically designed for low level detection. Flux conditioner is included to prevent saturation.

**PGA-0500 Analog % Current Meter**  
Optional panel-mounted analog meter displays ground-fault current as a percentage of the set-point or 5 A.

Specifications

- **IEEE Device Numbers**  
  Ground fault (50G/N, 51G/N)

- **Input Voltage**  
  See ordering information

- **Dimensions**  
  H 75 mm (3.0”), W 55 mm (2.2”), D 115 mm (4.5”)

- **Trip Level Settings**  
  10 mA -5.0 A

- **Trip Time Settings**  
  30-2000 ms

- **Contact Operating Mode**  
  Selectable fail-safe or non-fail-safe

- **Harmonic Filtering**  
  Standard feature

- **Test Button**  
  Standard feature

- **Reset Button**  
  Standard feature

- **CT-Loop Monitoring**  
  Standard feature

- **Output Contacts**  
  Isolated Form A and Form B

- **Approvals**  
  UL Listed (E340889), CSA, CE (European Union)  
  C-Tick (Australian)

- **Analog Output**  
  0-5 V & 0-1 mA

- **Conformally coated**  
  Optional

- **Warranty**  
  5 years

- **Mounting**  
  DIN, Surface (standard)  
  Panel (with PMA-55 or PMA-60 adapter)

Note: For optional conformal coating please consult factory.