GROUND FAULT RELAY CHECKLIST

Vital in manufacturing and processing environments, sensitive ground-fault relays create safer working environments without affecting the uptime of critical operations. Advanced filtering will detect breakdown in insulation resistance, caused by moisture, vibration, chemicals and dust, without nuisance trips.

CHOOSE YOUR SYSTEM

Grounded System

AC SUPPLY VOLTAGE		
☐	SE-701 	■ Microprocessor-based ground-fault relay for resistance and solidly-grounded systems ■ Uniquely suited for use on systems with significant harmonic content ■ Can provide main-plant protection, feeder-level protection, or individual-load protection
☐	SE-703 	■ Microprocessor-based ground-fault relay for resistance and solidly-grounded systems ■ Offers sensitive ground-fault detection as low as 25 mA and can be used on systems with significant harmonic content ■ Provides feeder-level protection or individual-load protection
☐	SE-704 	■ Microprocessor-based ground-fault relay for resistance- and solidly-grounded systems ■ Offers very sensitive ground-fault detection as low as 10 mA and can be used on systems with significant harmonic content ■ Provides feeder-level protection or individual-load protection
DC SUPPLY VOLTAGE AND VFDs		
☐	EL-731 	■ Operates on ac and dc grounded systems ■ Offers complete coverage for all frequencies from 0-6,000 Hz, metering capabilities, password-protected alarm and trip settings and optional network communications ■ Used to add low-level ground-fault protection to variable-speed drives, and to dc currents

Current Transformers

Use these current transformers with your ground fault relays.

☐	ELCT 	The ELCT series is a sensitive current transformer with integrated flux conditioner used with Littelfuse relays to detect low levels of earth-leakage current.
☐	SE-CS30 	The SE-CS30 is a current sensor used to detect ground-fault current

Ungrounded System

AC SUPPLY VOLTAGE		
☐	EL3100 	■ Self-powered ground-fault and phase-voltage indicator with output relays that allow remote indication ■ Phase LEDs indicate phase-to-ground voltage and ground-fault LED indicates ground fault ■ Meets the National Electrical Code (NEC, Article 250.21(B)) and the Canadian Electrical Code (CEC) requirements for ground detectors for ungrounded alternating-current systems.
☐	PGR-3100 	■ Phase LEDs indicate presence of ground fault ■ Meets the National Electrical Code (NEC, Article 250.21(B)) and the Canadian Electrical Code (CEC) requirements for ground detectors for ungrounded alternating-current systems.
DC SUPPLY VOLTAGE		
☐	SE-601 	■ Dc ground-fault monitor ranging from industrial 24 V dc control circuits to 1000 V dc solar and transportation systems ■ Provides sensitive ground-fault protection without the problems associated with nuisance tripping
TRAILING CABLE PROTECTION		
☐	SE-105 SE-107 	■ A combination ground-wire monitor and ground-fault relay for resistance-grounded systems ■ Continuously monitors the integrity of the ground conductor to protect portable equipment from hazardous voltages caused by ground faults ■ For trailing cables 5 kV and under in underground mining applications
☐	SE-134C SE-135 	■ Microprocessor-based, combination ground-wire monitor and ground-fault relay for resistance-grounded or solidly-grounded systems ■ Continuously monitors the integrity of the ground conductor to protect portable equipment from hazardous voltages caused by ground faults ■ Field proven in monitoring trailing cables on large mobile equipment such as drag-lines, mining shovels, shore-to-ship power cables, dock-side cranes, stacker-reclaimers, submersible pumps, and portable conveyors

PRODUCT COMPARISON

FEATURE	SE-701 SE-703 SE-704	EL-731	EL-3100	PGR-3100	SE-601	SE-105 SE-107	SE-134C SE-135
Adjustable GF Pickup	x	x			x	x	x
Adjustable Time Delay	x	x			x	x	x
Analog Output	x	x			x		
Communications		x					x
Conformal Coating	optional	x	x	x	optional	x	x
CT-loop Monitoring	x	x					x
Detects Dc GF		x			x		
Detects GF Via Current	x	x			x	x	x
Detects GF Via Voltage			x	x			
Fail-safe Option	x	x			x	x	x
Ground-check Monitoring						x	x
Harmonic Filtering	x	x				x	x
Ptc/Rtd Overtemperature		x					
Relay Output	x	x	x		x	x	x
Remote Reset	x	x			x	x	x

DON'T FORGET PERSONAL PROTECTION

Safeguard your people in any wet environment with the Littelfuse Shock-Block®

The first UL 943C listed Industrial Ground-fault Circuit Interrupter (GFCI) protects workers against electrical shock in industrial facilities.