

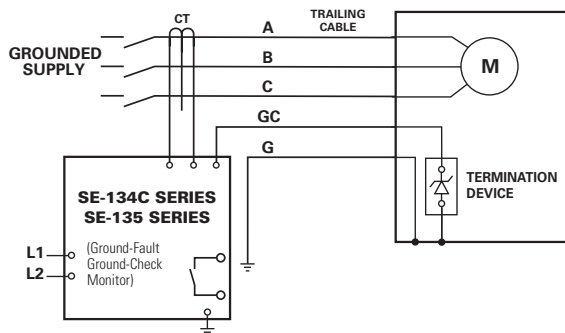
Protection Relays and Controls

TRAILING CABLE PROTECTION—GROUND-FAULT GROUND-CHECK MONITORING

Ground-Fault Ground-Check Monitor



Simplified Circuit Diagram



Ordering Information

ORDERING NUMBER	OPTION	POWER SUPPLY	COMM
SE-134C	Blank or XGC	0=120/240 V ac/V dc 1=24/48 V dc ⁽¹⁾	0=None
SE-135	Blank or XGC	0=120/240 V ac/V dc 1=24/48 V dc ⁽¹⁾⁽²⁾	0=None 3=Ethernet ⁽¹⁾

ACCESSORIES	REQUIREMENT
SE-CS10 Series	Required
SE-CS40 Series (for SE-135)	Optional
SE-TA6A Series (for SE-134C)	Required
SE-TA12A/SE-TA12B Combination (for SE-134C)	Optional
SE-TA12A Series (for SE-135)	Required
SE-IP65CVR-G	Optional
RK-132	Optional
PPI-600V	Optional

(1) CE/RCM not available.
(2) Not available with Ethernet option 3.
(3) See ordering information.
See Current Transformer Selection Guide and Accessory Information.

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Description

The SE-134C/SE-135 is a microprocessor-based, combination ground-wire monitor and ground-fault relay for resistance-grounded or solidly grounded systems. It continuously monitors the integrity of the ground conductor to protect portable equipment from hazardous voltages caused by ground faults. The SE-134C/SE-135 is 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.

Features & Benefits

FEATURES	BENEFITS
Adjustable pickup (0.5-12.5 A for SE-CS10) (2 - 50 A for SE-CS40)	Unit can be used on a wide variety of trailing cable applications
Adjustable time delay (0.1-2.5 s)	Adjustable trip delay for quick protection and system coordination
Output contacts	Separate annunciation of ground-fault and ground-check faults
Ground-check LED indication	Indication of open or short ground-check wire makes it easier to find faults
CT-loop monitoring	Alarms when CT is not connected
High-induced-ac rejection	Makes unit suitable for applications with high voltages and long cables
DFT (Harmonic) filter	Prevents false operation
Zener-characteristic termination assembly	Provides reliable ground-check loop verification
Fail-safe circuits	Ensures ground-check and ground-fault circuits remain safe even in the event of equipment failure
Conformal coating	Additional coating protects circuit boards against harsh environment
XGC option	Increases maximum cable length for ground-check monitoring (10 km typical)

Accessories

A



SE-CS10 or SE-CS40 Series Ground-Fault Current Transformer

Required zero-sequence current transformer detects ground-fault current.

B



SE-TA6A Series, SE-TA12A Series Termination Assembly

Required termination assembly; temperature compensated.

Specifications

IEEE Device Numbers

Input Voltage Dimensions

Trip Level Settings Trip Time Settings Contact Operating Mode Harmonic Filtering Test Button Reset Button Output Contacts Approvals

Conformally Coated Warranty Mounting GC Trip Resistance

Checking or Interlocking Relay (3GC),
Ground fault (50G/N, 51G/N)
65-265 V ac; 85-275 V dc; 18-72 V dc
H 213 mm (8.4"); **W** 99 mm (3.9");
D 132 mm (5.2");
0.5-12.5 A for SE-CS10, 2 - 50 A for SE-CS40
0.1-2.5 s
Selectable fail-safe or non-fail-safe
Standard feature
Standard feature
Standard feature
Isolated Form A and Form B, Two Form C
CSA certified, UL Listed (E340889),
RCM (Australia)(3), CE(3)
Standard feature
5 years
Panel, Surface
28 Ω (Standard), 45 Ω (XGC Option)