

This guide outlines the installation process for the SE-703 Earth-Leakage Monitor. For further technical information, refer to the product manual found at [Littelfuse.com/se-703](http://Littelfuse.com/se-703).

Ensure that the work area is de-energized prior to product and accessory installation. Follow your company's safety policy and lockout procedures.

## INSTALLATION

**1. Install SE-703:** The SE-703 can be surface, DIN-rail, or panel mounted. See Fig. 1. Panel mounting requires a PMA-55 or PMA-60 Panel Mount Adapter. Separate installation instructions are included.

### 2. Connect supply (see Fig. 2):

- AC Supply Systems: Use terminal 11 (L1) as the line terminal.  
Use terminal 10 (L2/N) as the neutral terminal.  
Connect terminal 9 (⊕) to earth.
- DC Supply Systems: Use terminal 11 (L1) as the positive terminal.  
Use terminal 10 (L2/N) as the negative terminal.  
Connect terminal 9 (⊕) to earth.

**3. Install EFCT-series current transformer:** Follow installation instructions supplied with the CT.

### 4. Connect CT and conductors (see Fig. 2):

- 3-Phase, 3-Wire Connection:  
Pass phase conductors through CT window.
- 3-Phase, 4-Wire and Single-Phase Connections:  
Pass phase and neutral conductors through CT window.

**DO NOT PASS EARTH CONDUCTORS THROUGH CT WINDOW.**

If application requires shields or drain wires to pass through CT window, return them through CT window before connecting them to earth.  
Connect CT to terminals 4 and 5 (shield to terminal 5, earth terminal 5). CT connections are not polarity sensitive.

**5. Connect the SE-703** remote reset (terminals 6 and 7), analog output (terminals 7 and 8), and relay (terminals 13 to 16 and terminals 1 to 3 on some models) as required for indication and control.

**6.** Remove the connection to terminal 9 for dielectric-strength testing - all inputs and outputs have ANSI/IEEE C37.90 surge-protection circuits that conduct above 300 Vac.

## CONFIGURATION

**7. Configuration switches**, located beneath a cover on the top panel, are shown in their default positions in Fig. 1. Use the LEVEL (mA) selector switch to set the earth-leakage trip level. Use the TIME (ms) selector switch to set the earth-leakage trip time for coordination with upstream and downstream earth-fault devices. Some models allow selection of fail-safe or non-fail-safe operation. Set all switches to the appropriate settings for the application.

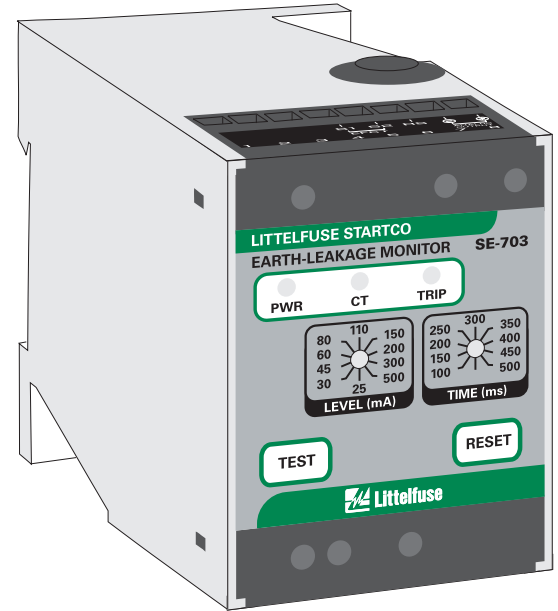
## PERFORMANCE TEST

**8. An earth-fault performance test** should be performed. See Section 7 in the SE-703 manual for details.

## REFERENCE

### Terminal Specifications:

- Wire Clamping, 22 to 12 AWG (0.3 to 3.3 mm<sup>2</sup>) conductors
- Tightening Torque 0.40 N·m (3.54 lbf·in)



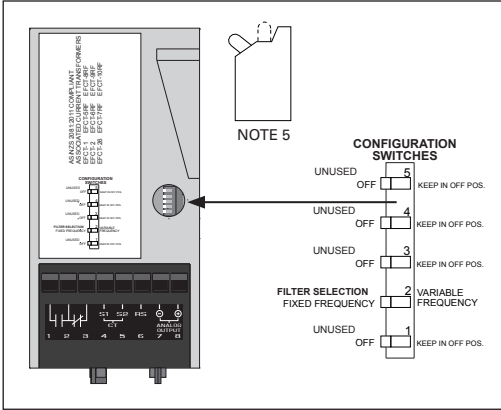


Figure 1A. SE-703-0X and SE-703-0X-00 Models.

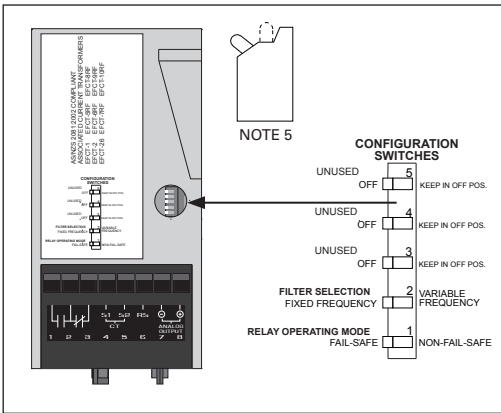


Figure 1B. SE-703-0X-02 Models.

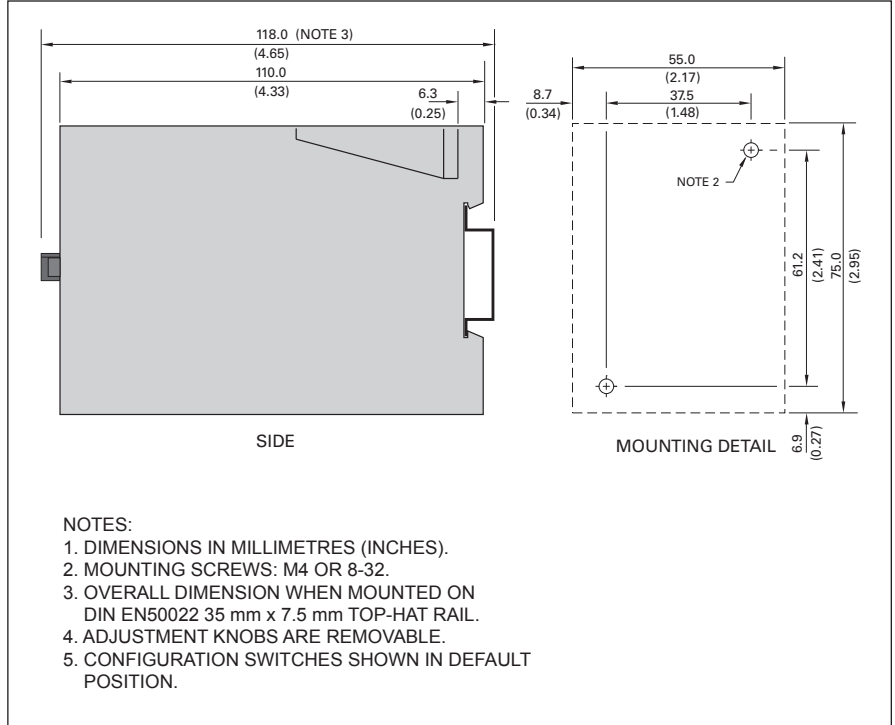


Figure 2. SE-703-XX-XX Mounting Details.

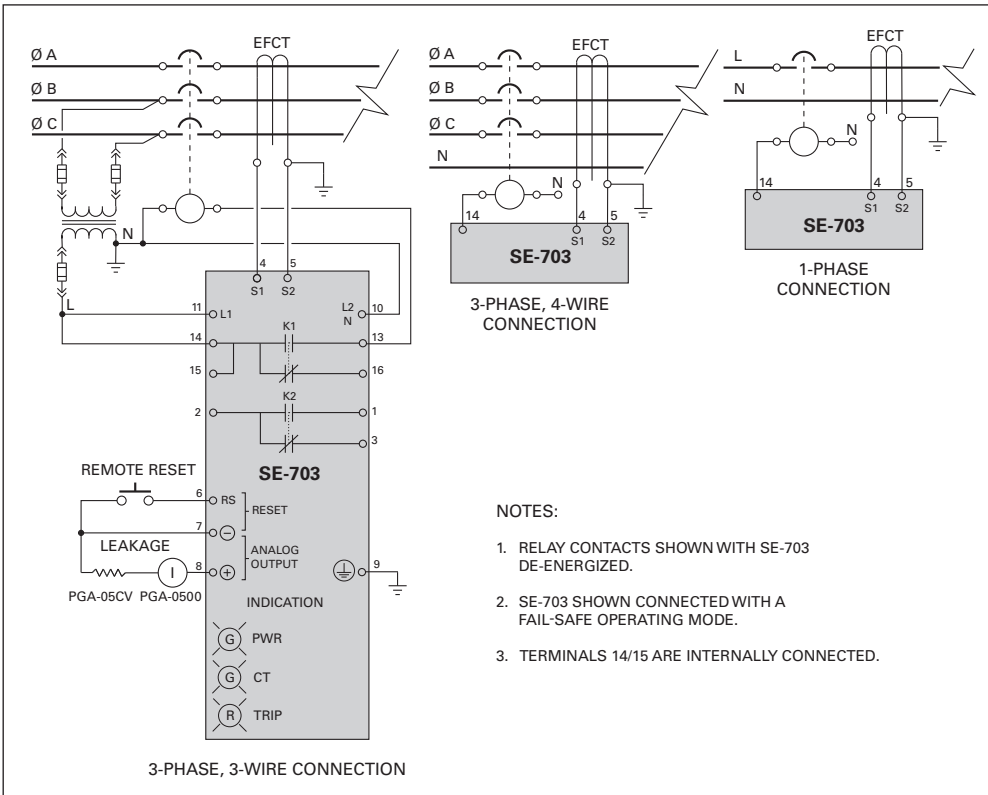


Figure 3. Typical Connection Diagrams.