

# Positron Tester for Energized Composite Insulators on 25 kV Electric Railways Systems



## Prevent Power Interruptions

Determine in seconds if an insulator has a conductive defective which can cause flashover or power interruptions. Detects defective insulators and pollution contamination sufficient to cause these insulators to flash over and interrupt the electricity supply to the railway cars.

With a single sweep along the insulator the **Composite Insulator Tester** reads the AC electrical field surrounding the energized insulator and, with the readings downloaded to a tablet/laptop a signature of the surrounding E-field can be rendered immediately on a graph. The signature of the E-field of the insulator reveals its condition.

**Note:** Contaminated insulators will flashover only under certain moist conditions such as high humidity (rainy season) or condensing dew (early morning).



Now you can reliably identify suspect insulators under live-line conditions using Positron's Composite Insulator Tester

# Composite Insulator Tester



Model #378209C1/50  
Composite Insulator Tester

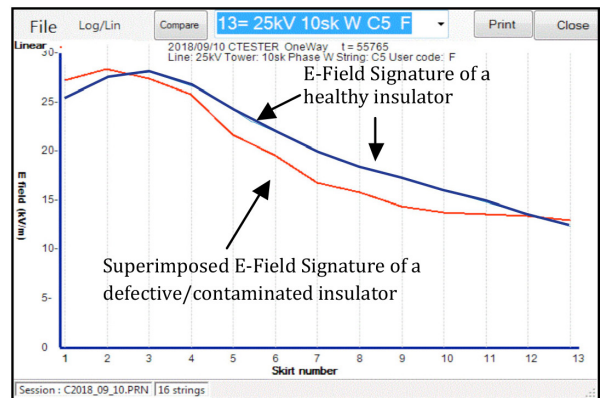
## Conductive Defects Cannot Hide

**Reliable:** Positron's E-field technology will reliably detect conductive defects and cannot create a false reading. Based on basic laws of physics, conductive defects distort the surrounding AC electric field that is read and recorded by the instrument.

## Railway Insulator Graphs and Database

The **Composite Insulator Tester** takes a reading at each insulator skirt or shed and the E-field readings are plotted on a graph using a Windows-based software application loaded on a tablet/laptop or PC.

A reference graph of a known-good insulator is used as a comparator. Graphs of other insulators can be superimposed over the E-field signature graph so the curves can be compared and conductive defects can be discovered. The graphs are stored in the Windows-based Insulator Tester Software.



Graph of an AC E-field surrounding a 25kV railway insulator

## Taking Action

Based on the recorded results of tests, proactive maintenance action can be taken in advance to replace insulators with conductive defects reducing the incidences of stalled railway cars due to loss of electricity supply, and reducing the need for urgent repairs. This results in a more reliable railway system and a better ability to meet schedules.



The durable non-metallic sled of the Composite Insulator Tester is equipped with adjustable skids to accommodate any size of insulator. Adjustments are quickly and easily made on-site.