Product Bulletin

VESDA-E Detectors Ground Faults

February 2020

Overview

Some regulatory authorities require that a “ground fault” be detected and reported if any wiring comes into contact with building ground. The reason for this is to detect if cable insulation has been breached through to a metal cable tray, conduit or other metal structure.

The VESDA-E detectors **only** check for ground faults on the **VESDAnet communications lines**. Other wiring, such as fire panel loops, power and relay wiring are checked by the FACP or external power supply.

When to enable VESDAnet Ground Fault Monitoring

Enable ground fault monitoring for ASD installations where applicable regulations require such supervision, and use VESDAnet for alarm and fault reporting.

How to enable VESDAnet Ground Fault Monitoring

For VESDA-E detectors manufactured before June 2019, VESDAnet ground fault detection will operate if the Ground Reference Terminal is wired to building ground. Leave this terminal disconnected if VESDAnet ground fault monitoring is not required.

For VESDA-E detectors manufactured from June 2019, VESDAnet ground fault detection will operate if the Ground Fault Jumper is in place. Remove this jumper if VESDAnet ground fault monitoring is not required.

HLI Special Case

Using HLI's connected to computers with a grounded chassis arrangement will cause a VESDAnet ground fault to be generated by the two VESDA-E detectors connected to the HLI. Use a non-grounded computer such as a laptop in such circumstances.

FACP with HLI

HLI's built in to FACPs are monitored for ground fault by the FACP. Those use insulated standoffs to eliminate circuit connection to the FACP chassis. Ground fault should be disabled on the VESDA-E detectors directly connected to the FACP HLI.