

# Automatic Fault Location

**Bender** engineers have developed a solution capable of identifying which particular circuit(s) is contributing to a ground fault on an ungrounded system. Our fully automated ground fault location systems (EDS Series) are designed to reduce maintenance cost and increase equipment utilization.

## How does a ground fault location system (EDS) work?

When an Insulation Monitoring Device (IMD) (**iso685-D-P** for industrial applications and **LIM2010** for medical applications) detects the occurrence of a ground fault, it enables the fault location system. The basic idea of fault location is to generate a defined locating current (pulse) that flows to the ground fault. The locating current is driven by the system voltage and can be located in the faulted circuit using a measuring current transformer (sensor). The location current flows from the IMD via the system conductor connections to the ground fault position taking the shortest path. From there, it flows back to the IMD through the ground path. This locating current pulse is detected by a fixed or portable current transformer on the ground fault path and then signaled back to the ground fault location monitor (EDS Series).

## Benefits



### **Detects and locates faults without interrupting operation**

Electrical issues can be detected and located while keeping the installation fully energized.



### **Reduces maintenance costs**

Measurable decrease in maintenance costs due to the accuracy of detection and decreased need for human interaction with the system.



### **Automatically locates faults**

Automatic fault location eliminates the need for opening branch circuit breakers or disconnecting equipment.



### **Clear indicator display**

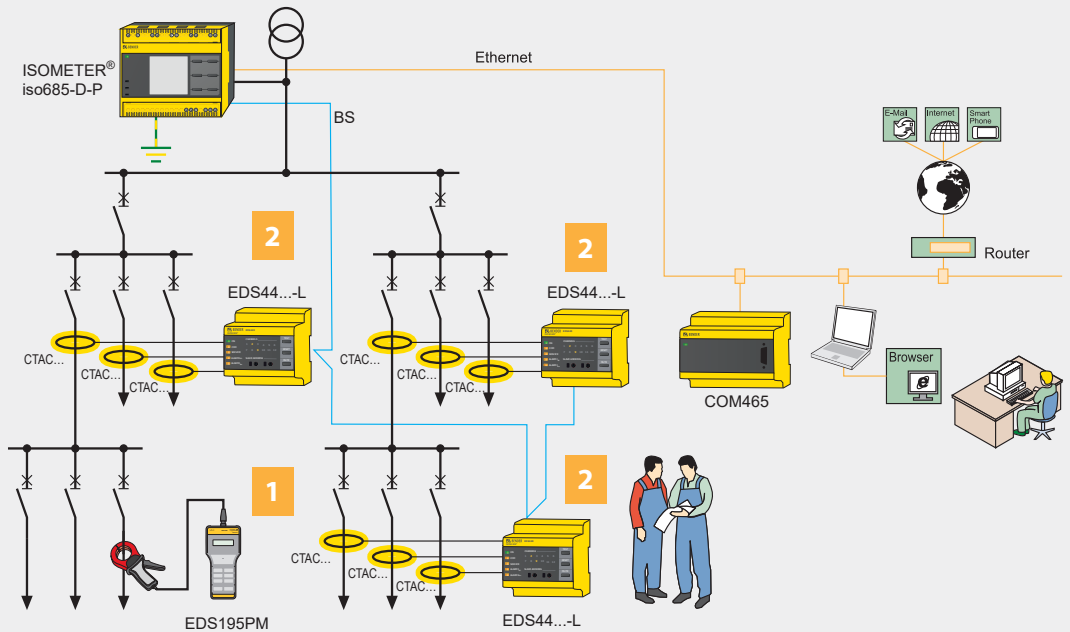
Easy-to-read indication of fault circuit displayed on LCD display at both the location device and remote indicators.

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## ISOSCAN® EDS3090 Series

- Automatically identifies fault location of branch and load circuits when paired with iso685-D-P
- Portable ground-fault location offering all essential components in an easily-carried case



2



## ISOSCAN® EDS460-D

- Automatically locates faults
- Minimizes unplanned outages
- Eliminates the need to interrupt power to identify faulted circuits

2



## ISOSCAN® EDS440 Series

- Automatically locates faults
- Minimizes unplanned outages
- Eliminates the need to interrupt power to identify faulted circuits
- Enables multiple EDS modules to be interconnected to expand the quantity of branches scanned

# Healthcare EDS Systems

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## Ground Fault Location Expansion Kit for Isolated Power Systems (IPS)

- Automatically locates faults down to the branch/receptacle level
- Improves patient & staff safety by empowering staff to easily diagnose issues and avoid a potentially hazardous condition
- Provides additional circuit detection, saving cost by reducing downtime of critical care rooms & reducing maintenance hours spent troubleshooting

