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LINAM® UGFI

Underground Fault Indicator

Streamline underground fault locating to reduce outage durations

- Eliminate fault indicator battery maintenance using the battery-free LINAM Underground Fault Indicator (UGFI).
- Mitigate the influence of nearby cables with industry-leading, patent-pending adjacent phase immunity technology.
- Simplify inventory using a single model that includes a self-adjusting trip algorithm and a universal clamp.
- Easily install on most underground cables with a single hot stick.

Key Features

Adjacent Phase Immunity

The LINAM UGFI uses proprietary adjacent phase immunity technology to actively reject magnetic fields from nearby cables and ensure that it correctly indicates whether a fault is on its phase.

Secure Dynamic Tripping

Maximize reliability in underground distribution circuits. The UGFI fault detection algorithm automatically adapts settings to mitigate response to system inrush and backfeed conditions, helping prevent false tripping.

Flexible Fault Detection Threshold Settings

The self-adjusting AutoRANGER® 2.0 algorithm coordinates the trip threshold with a seven-day load current profile to adjust for load changes on holidays and weekends. Select from a wide range of fixed-trip-level ordering options to coordinate with specific applications.

Rugged and Submersible Design

The LINAM UGFI meets and exceeds IEEE 495 testing standards for faulted circuit indicators. It is waterproof at depths up to 15 feet. Stainless steel clamps and a rugged polycarbonate housing protect against corrosion.

Line-Powered Functionality

The fault indicator harvests fault and load current to power its microprocessor and display. This eliminates the need for battery maintenance for the entire life of the product and reduces maintenance time and ownership costs.

Customization Options

Current Reset and Timed-Reset Options

Configure automatic reset options when ordering. The UGFI can automatically reset upon circuit restoration of load current or after a fixed time interval (2-, 4-, 8-, or 12-hour options). Optionally, use both methods to reset the UGFI upon the first of these conditions to be met.

Simple SCADA Interface

Use the auxiliary output contact to send the fault status through a remote terminal unit to SCADA.

High-Visibility Displays

Choose a highly reflective mechanical target display or an LED with a fiber-optic port. Remote display options include a fiber-optic cable, a mechanical target display, and a tamper-proof bolt display.

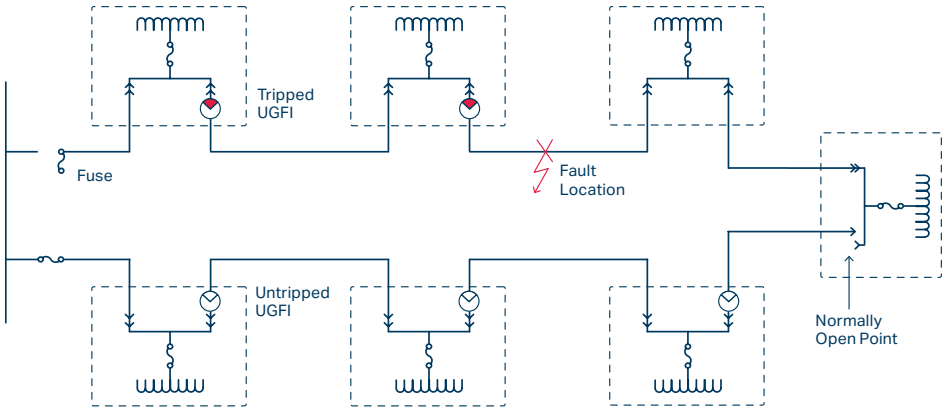
RadioRANGER® Remote Fault Indication

A magnetic interface probe communicates the fault indicator status to a RadioRANGER Underground Wireless Fault Indication System, which allows personnel to read the status without opening the vault or enclosure.

Applications

Pad Mount

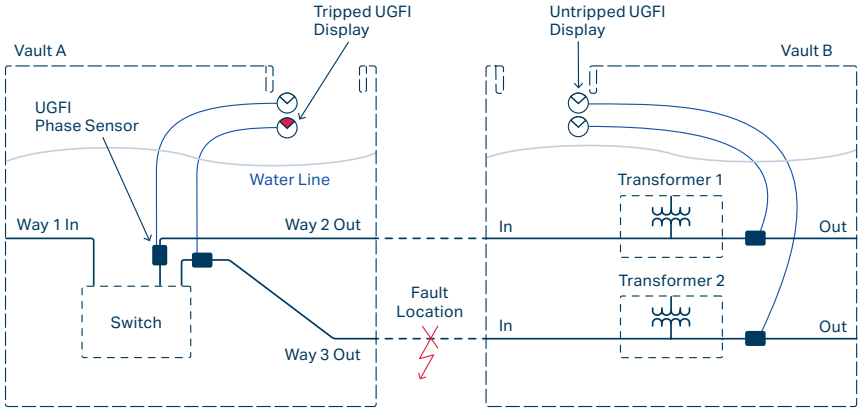
Install the UGFI in pad-mounted enclosures to identify faults in the underground cable between enclosures. The device's ability to detect switch-onto-fault (SOTF) events makes it ideal for pad-mounted transformers and three-phase switchgear.



The UGFIs identify the faulted cable section within a loop of pad-mounted transformers that contain a normally open point.

Subsurface

Apply the UGFI to underground cables within subsurface vaults and maintenance holes to identify faulted cable sections. The built-in and remote display options are fully submersible and designed to withstand floods. The RadioRANGER option communicates the fault indicator status to a handheld remote fault reader via a magnetic probe, eliminating the need to open the vault and allowing personnel to safely and quickly read the status of a subsurface device at street level.



Apply UGFIs to outgoing ways of switches and transformers to determine if the fault is beyond the installed (or monitored) location.

LINAM UGFI Specifications

General	
Trip Thresholds	25 to 1,600 A
Immunity From Adjacent Phase Fault Current	25 kA at 10.2 cm (4 in) on center between phases
Maximum Fault Current Withstand	40 kA for 10 cycles
Clamping Range	12.7 to 55.9 mm (0.5 to 2.2 in)
Current Reset Option	1 A (±0.25 A) for ≥2 minutes, ≤10 minutes
Timed-Reset Option	2, 4, 8, or 12 hours (15 A continuous charging current required)
Timed Reset With Current Reset Override	2, 4, 8, or 12 hours (15 A continuous charging current required) or 1 A (±0.25 A) for ≥2 minutes, ≤10 minutes
Fault Detection Time	2 cycles typical
Approximate Weight	TBD
Temperature Range	−40° to +85°C (−40° to +185°F)
Product Certification	IEEE 495—Guide for Testing Faulted Circuit Indicators

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