

ReadIt™ Fault Distance Monitor

Why pay for more than one
installation per circuit?

Why hunt transformers?

No Batteries – No Reader

The New Fault Distance Monitor Can
Significantly Reduce Customer Minutes of
Service Interruption Caused by
Underground Cable Faults.

Don't get caught in the dark ages or with
your lights out, when the latest technology
is available today that saves time and
money while increasing reliability.

- **Zero-Power LCD Display** – Utilizes advanced new Zero-Power LCD technology. Once updated the reading remains indefinitely, on the high contrast and sunlight viewable display.
- **Stored Energy Power Supply** – When power fails, the unit's power supply utilizes stored energy to power itself long enough to compute distance to fault and update the Zero-Power LCD display. This completely eliminates the need for even backup batteries.
- **Reduces Installation Costs** – One installation required for an entire circuit (loop or radial). **12 times faster** on average than outfitting circuits with FCIs.
- **Reduces Operating Costs** – Retrieve fault location information remotely at single location, rather than hunting down transformers along a circuit path.
- **Improve Power Quality** – Shorter outage time lowers standard outage indices and creates happier customers. A necessity for any rate increase consideration.
- **Locate Faults Faster** – Read distance to fault from normal open-point transformer, plan and perform switching. Realize up to **75% time and labor savings**, compared to other methods.

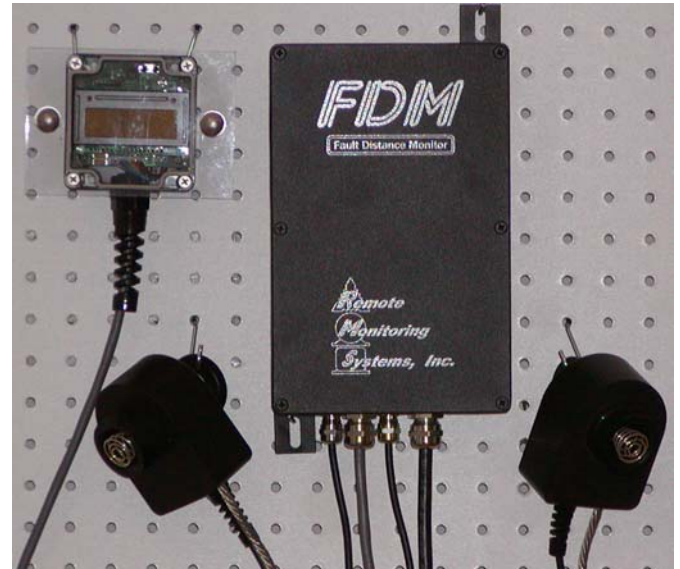


Figure 1. ReadIt™ Fault Distance Monitor

Standard Features

- **Information Concentration** – Go to single transformer to read fault location. No need to hunt down each transformer, or access multiple rear lots, buried transformers, etc.
- **Remote Interrogation** – Reading is performed without opening transformer. Distance to fault is displayed in feet (m), through viewing window.
- **Microprocessor Based System** – Smart standalone system with 32 bit microprocessor, automatically computes and displays distance to fault.
- **Virtually Independent of Fault Current** – One size fits all. Even works with very low fault currents.
- **No False Tripping** – In-rush restrain and capacitive discharge problems inherent to FCIs is eliminated.
- **No Reset Required** – Unit captures fault event, updates zero-power display, and maintains reading until next event.
- **ReadIt™ Fault Isolator** – Optional software automatically identifies switching points.
- **No Maintenance** – No batteries and no moving parts (completely maintenance free).

Overview

Remote Monitoring Systems, Inc. designs, manufactures, and markets a family of Fault Distance Monitors that fit your underground fault locating needs. Fault Distance Monitors combine advanced microprocessor based digital signal processing technology into affordable solutions.

A single Fault Distance Monitor is installed at the normal open-point of an underground residential distribution circuit. The single unit monitors the entire circuit from the normal open-point to the source fuse, eliminating the need to install FCIs in every transformer. Significant time and cost savings are achieved up front by having only a single installation. The savings continue through operations. Fault information is concentrated at a single location, eliminating the need to access every transformer. This significantly reduces the customer minutes of electrical service interruption, resulting in happier customers and improved reliability. The Fault Distance Monitor delivers up to 90% time savings during installation, 75% time savings during operation, and 40% material savings per.

The ReadIt™ Fault Distance Monitor is a standalone system that captures a fault event, and computes and displays its location. The unit has a state-of-the-art stored energy power supply that is powered by 240VAC during operation. Following a fault, the stored energy power supply provides the required energy to compute the distance to the fault and update the integrated Zero-Power LCD display. Once updated, the high contrast sunlight viewable Zero-Power LCD display holds its reading indefinitely. This completely eliminates the need for even backup batteries.

The ReadIt™ Fault Distance Monitor has an Interface Module that houses the Zero-Power LCD display. This module attaches to a Lexan mounting plate, and is installed in standard transformer knockouts as shown in Figure 3. When the crew arrives at the fault location, information is waiting for them on the Zero-Power LCD display as shown in Figure 4. The fault information is read through a viewing window, eliminating the need to open transformers.

Configurations

ReadIt™ Fault Distance Monitor can be ordered with either one or two Voltage Probes. A unit with one Voltage Probe is used to monitor a complete radial-type circuit. A unit with two Voltage Probes is ideally suited for installation at a normal open-point, where the single unit

monitors both halves of a loop-type circuit. ReadIt™ Fault Distance Monitors replace 12 or more FCIs, on average.

Installation

ReadIt™ Fault Distance Monitors consist of three component parts; a Control Module, Voltage Probe(s), and a Display Interface Module. The Control Module can be mounted in any orientation, and is provided with convenient mounting ears. The Voltage Probe attaches to a test point elbow as shown in Figure 2. The Display Interface Module is attached to a Lexan plate that mounts in standard transformer knockouts. Figure 3 illustrates a standard Display Interface Module mounting.

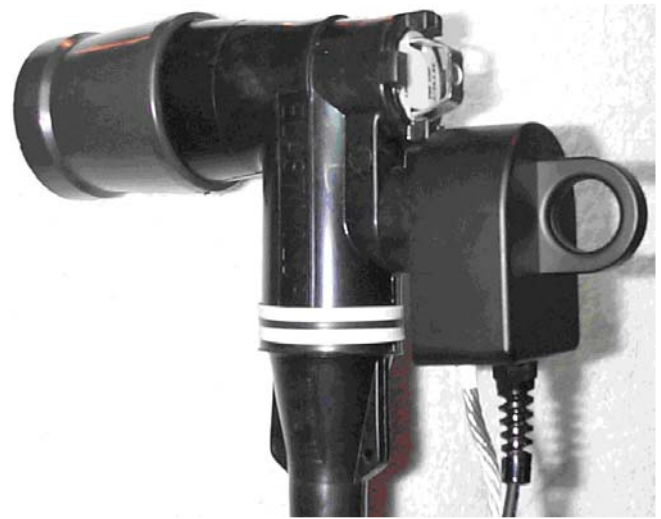


Figure 2. Voltage Probe Attached to Test-Point Elbow



Figure 3. Display Interface Module Installed and Viewed from Inside of Field Equipment

Specifications

Operating Temperature	-40°C to +85°C
Power Requirements	240VAC, 60Hz
Monitor Cable Lengths (each channel)	Up to 10,000 Ft (3048 m)
Accuracy	+/- 2% Full Range
Maintenance Items	NONE
Water Proofness	Fully Submersible
Elbow Ratings	200 Amp & 600 Amp and 15, 25 & 35 KV Class
Zero-Power Display	Advanced new cholesteric liquid crystal display technology. Retains display output indefinitely without consuming energy.

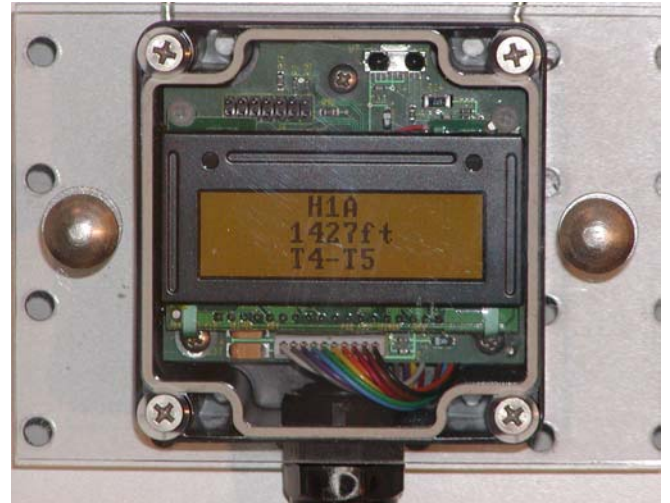
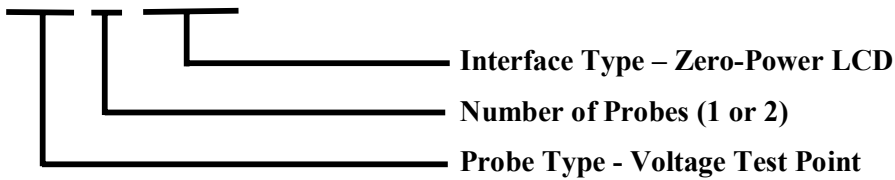


Figure 4. ReadIt™ Fault Distance Monitor Display

Ordering Information

FDM-VTP2-ZLCD



Available Part Numbers

FDM-VTP1-ZLCD – ReadIt™ FDM with one Voltage Probe and Zero-Power LCD Interface Module

FDM-VTP2-ZLCD – ReadIt™ FDM with two Voltage Probes and Zero-Power LCD Interface Module

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