

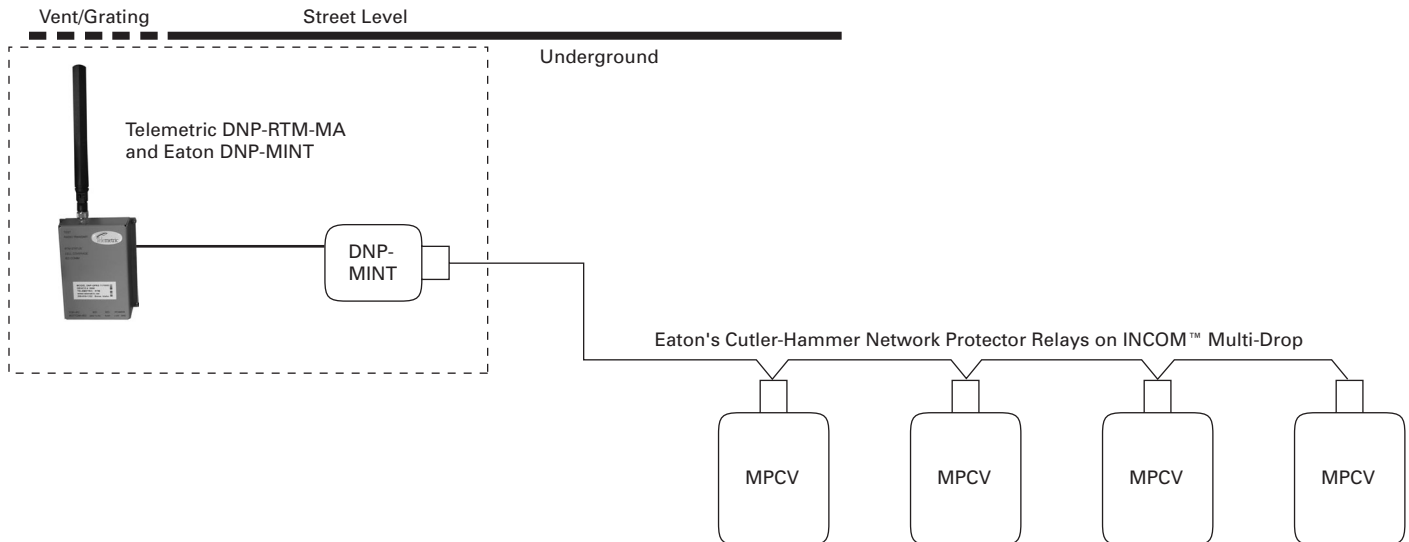


Cutler-Hammer

Network Protector MPCV Relay DNP Cellular Solution

Sales Note SN04300005E

New Information



Eaton's Cutler-Hammer® Network Protectors Communication Using Telemetric Remote Telemetry Module (RTM)

Solution Overview

The Telemetric Multiple Address/Remote Telemetry Module (RTM-MA) has been proven to communicate reliably in underground applications such as secondary network systems commonly used in high-density metropolitan and suburban business districts. These systems can be either distributed grids or spot networks.

The Telemetric DNP-RTM combined with Eaton's Cutler-Hammer DNP-MINT provides a powerful solution for two-way, wireless communication and control of up to five Cutler-Hammer MPCV network protector relays in a vault environment. The Telemetric DNP-RTM communicates using digital "General Packet Radio Services" (GPRS) on the commercial cellular networks. The DNP-RTM uses industrial power GSM/GPRS modules that work on the Cingular/ATT Wireless GSM/GPRS network, and all roaming partners.

Communications to underground vault installations were previously thought to be too difficult or costly to implement using private spread spectrum radios. Several utilities have had good success with using industrial grade cellular radios in vault applications, with site survey's supporting reliable signal strength. Several projects currently in production support reliable, secure and cost-effective two-way communication in underground vault applications.



Telemetric RTM and DNP-MINT Enclosure

Wireless Telemetry Solutions

Hardware Elements

- Telemetric DNP-RTM-MA — an intelligent DNP-master station that can communicate with up to five Cutler-Hammer MPCV relays. Optionally, one DNP address could be reserved for the DNP-MINT, with up to four additional DNP addresses reserved for the MPCV network protector relays, (see diagram and DNP-RTM-MA datasheet).
- Eaton's Cutler-Hammer DNP-MINT — communicates to each MPCV relay via INCOM multi-drop, (see attached DNP-MINT datasheet).
- 120 volt power supply for DNP-RTM and DNP-MINT.
- RS-485 to RS-232 converter (not shown).
- Enclosure suitable to customer requirements, (NEMA® 4 or Submersible).

Software Elements

- Telemetric SCADA-Xchange software solution provides a two-way DNP3.0 interface for the customers' SCADA system over a secure IP interface. SCADA-Xchange provides all the software needed for rapid integration of the network protector relay controls into SCADA.
- Telemetric secure Web-based management tools. Telemetric's suite of Web-based management tools gives network relay engineers and field technicians a suite of tools and applications for managing the network protector relays — from viewing current settings to event history, to management of set points.

Supports Other Eaton's Cutler-Hammer Devices

Eaton's Cutler-Hammer DNP-MINT supports all of the following Eaton INCOM-based products, and can be mapped to DNP points on the Telemetric DNP-RTM.

- DT RMS 810 and 910
- DT Optium
- DT 520MC
- DT 1150
- DT3000
- DT MV
- DT 3200
- DP4000
- DIM (Digital Input Module) — For additional digital points/alarms (transformer, vault, etc.)
- Addressable Relay Outputs for Control

Solution Benefits

- Rapid deployment with no infrastructure investment required.
- Intelligence in DNP-RTM makes for reliable, cost-effective communications.
- Unsolicited report by exception from intelligent DNP rules processing on RTM (any digital or analog points on the MPCV can be monitored).
- Time scheduled reports of any MPCV points at any user-selected intervals.
- Poll on demand (DNP Class 0, 1, 2, 3) or any data subset.
- Full suite of Web-based software gives customers tools to manage large groups of devices and create custom alarm and reporting applications.
- SCADA-Xchange middleware integrates service into SCADA via DNP3.0.
- Several levels of user and network security to meet stringent NERC cyber security requirements.
- Safety is a major concern when working in underground vaults. With a laptop, the underground network crew can access the Telemetric Website from the field. They can obtain a host of operating information, including relay settings, network protector switch positions, transformer loading and alarms while at the job site. They can even initiate control commands and set point changes from their laptops while in the truck.

Cutler-Hammer is a federally registered trademark of Eaton Corporation. NEMA is the registered trademark and service mark of the National Electrical Manufacturers Association.

Eaton Electrical Inc.
1000 Cherrington Parkway
Moon Township, PA 15108-4312
United States
tel: 1-800-525-2000
www.EatonElectrical.com



Wireless Telemetry Solutions

tel: 208.658.1292
www.telemetric.net
info@telemetric.net



© 2007 Eaton Corporation
All Rights Reserved
Printed in USA
Publication No. SN04300005E / Z5309
January 2007