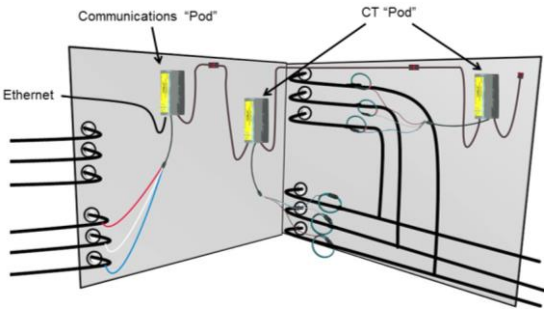
Next Generation

DNP 3.0 Over Ethernet
Modular Sensing



Electric & Electronic Systems
For Remote Data Delivery and Control

Network and Cable Monitor

DNP 3.0 • Ethernet • Affordable

Next Generation Cable Monitoring

The widespread availability of high-speed communications has enabled the next generation of cable monitoring apparatus. Using the industry-standard DNP 3.0 communication protocol allows unparalleled access to individual cable currents.

Cable currents are an important part of a comprehensive infrastructure monitoring system. Access to real-time cable currents can enable higher usage of existing cables; more efficient scheduling of maintenance and personnel; improved load forecasting; and many other system improvements.

DNMesh System

The DNMesh Cable Monitoring System economically expands the reach of existing SCADA systems to every cable. Areas that were previously inaccessible or not cost effective can now be monitored. DNMesh incorporates the modular, scalable approach to cable monitoring developed for the PSI CEMesh(R) Network Monitoring System.

A DNMesh Pod provides the interface between DNP over Ethernet and cable currents are measured by CT Expansion Pods. The DNMesh Pod supplies power and communication while acting as the gateway between the sensing equipment and the SCADA system.

To provide sensor data up to 28 sets of 3-phase of CT's are supported – 84 total CT's. The CT's are arranged in CT Pods of 1, 2, or 4, three-phase sets and the CT Pods are daisy-chained together via an expansion cable. The CT Pods may be located up to 750 feet from the main DNMesh Pod.

In addition one 3-phase voltage input is provided. Additional inputs or other input types – such as dry contact or 4-20 mA inputs – are supported as Expansion Pods.

Sensing and Communication

- Communication: DNP 3.0 over Ethernet, configuration via on-board USB. Ports isolated from line.
- Scan Rate: The entire set of input points is updated simultaneously every 6 seconds.
- Current Measurement: Current input range is from 0 to 30,000 Amps and is selectable for either Average Current or Single Cycle Maximum Current during the scan period. Four Quadrant Phase Angle is provided from 0-359 degrees.
- Current Transformers: Air core, flexible, 2 inch diameter, color-coded. Larger diameters are optionally available.
- Voltage Measurement: From 0 to 140 VAC, directly connected to 3 phases and Neutral.

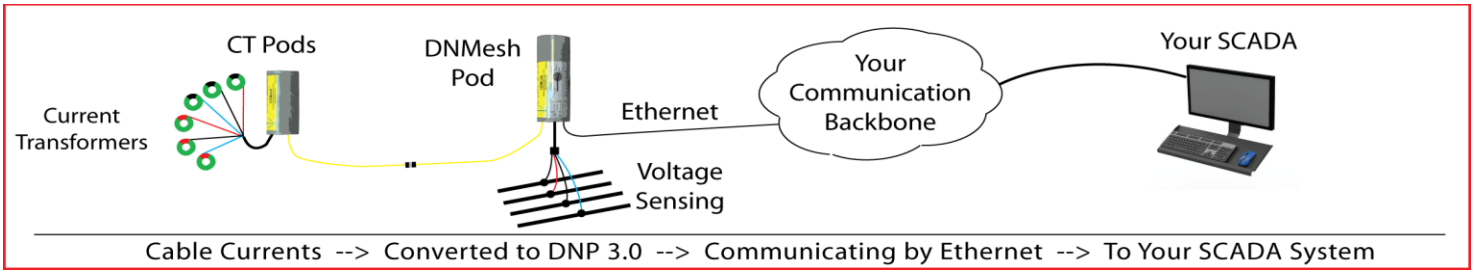
Power

DNMesh requires 120V power which is typically supplied from one Phase and Neutral via direct connection. Two other Phase Inputs are provided for voltage sensing only.

Optional power inputs include Power Over Ethernet or DC inputs.

Environmental

- CPVC Plastic Enclosure
- Exceeds IP68 Protection
- Operating temperature up to 165°F
- Mounting bracket supplied
- Aluminum or Stainless Steel enclosures optional



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