

# Ethernet Communications Made Simple For Any GE Vernova Multilin IED

## **Key Benefits**

- Converts Modbus RTU over RS485 into Modbus TCP/IP over Ethernet
- Supports both 10BaseT and 10BaseF fiber connections
- Connect up to 32 RS485 serial devices to an Ethernet network
- Modbus TCP/IP provides multiple SCADA masters allowing simultaneous communications to the same IED
- Flexible mounting options allow retrofit to existing devices.
- · Industrial hardened for utility and industrial applications
- Simple "plug & play" device setup with EnerVista™ software

# **Applications**

Provides Modbus TCP/IP communications to the following Multilin devices:

- PQM/PQM II Power Quality Meter
- · SR Family IEDs
- M Family IEDs
- · ALPS Advanced Line Protection System

- DDS Family IEDs
- Other Modbus RTU compatible devices
- Includes EnerVista™ software an industry-leading suite of software tools that simplifies every aspect of working with GE Vernova Multilin devices

#### **Features**

#### **User Interfaces**

- 10BaseT: RJ45 connection
- 10BaseF: 820 nm, multi-mode, fiber optic with ST connector
- RS485 2-wire, half duplex, isolated



#### Overview

### One Simple Communications Solution for all your GE Vernova Multilin Devices

MultiNet™ is a communications module that provides GE Vernova Multilin serial ModBus IEDs with ModBus TCP/IP communications over Ethernet, allowing connection to fiber optic LAN and WAN network systems. MultiNet™ has the capability to connect up to 32 serial ModBus devices eliminating complex wiring and additional communications converters, and providing a streamlined and economical Ethernet hub. Unlike most communications converters that are designed for commercial use, MultiNet™ is environmentally hardened to withstand severe utility and industrial conditions.

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- Flexible mounting options allow retrofit to existing devices
- Simple "plug & play" device setup with EnerVista™ software

# The Easiest Way to Add Ethernet Communications to ModBus Devices

MultiNet™ gives you the ability to connect ModBus serial devices to new or existing Ethernet networks. It has a 10BaseF fiber optic interface that provides high EMI/RFI immunity and inherent electrical isolation over long cable runs. MultiNet™ setup is simple, with a Windows-based software program for installing and configuring the communication drivers.

# MultiNet™ is Compatible with GE Vernova Multilin IEDs:

MultiNet™ provides a simple way to add Ethernet communications to your existing devices, and its convenient size can be accommodated easily in any panel. MultiNet™ can be used with any GE Vernova Multilin ModBus IED including:

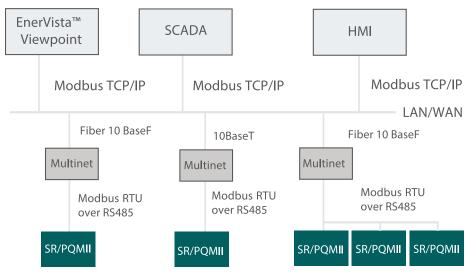
- PQM/PQMII Power Quality Meter
- SR Family IEDs
- M Family IEDs
- ALPS Advanced Line Protection System
- DDS Family IEDs

#### **Industrial and Utility Environments**

MultiNet $^{\mathbb{M}}$  is designed for industrial and utility applications. Unlike traditional communication devices, MultiNet $^{\mathbb{M}}$  is industrial hardened to withstand the harshest environmental conditions.

- Temperature range of -20°C to 70°C
- Internal DC and AC Power supply
- DIN rail Mounting
- Transients Protection (IEC and IEEE)

# **Typical Configurations**



MultiNet™ can connect GE Vernova Multilin RS485 devices to Modbus TCP/IP masters over a LAN/WAN



# Mounting





Example of Multinet rail mounted in Switch Gear

#### Rail Mounted

# **Technical Specifications**

#### **APPLICATIONS**

Converts Modbus® RTU in Modbus® TCP/IP over Ethernet for up to 32 devices on a RS485 network. Provides a 10BaseT or 10BaseF Modbus® TCP/IP connection

#### **USER INTERFACES**

Ethernet: Version 2.0/IEEE 802.3 10BaseT: RJ45 connection

10BaseF: 820 nm, multi-mode, fiber-optic with ST connector Protocol: ModBus® TCP/IP

RS485 ports: RS485 2-wire, half duplex, isolated

Baud Rate: 300 bps to 115.2 Kbps Protocol: ModBus® RTU

Definite Time, Adaptive

Configuration through EnerVista setup software Installation:

## **MECHANICAL**

DIN-rail (35 mm) Flush mount brackets Mounting:

Material: Metal enclosure 6.6" x 3.98" x 1.46" **Dimensions:** Shipping box: 12.9" x 9" x 3.25"

Ship weight: 2 lbs.

## APPROVALS

ISO: Manufactured at an ISO9001 registered program

UL: Listed for US and Canada under E83849 - Vol.1 Sec.10. (AC Power only, Approval with DC

sources is pending)

FCC: PART-15

#### **POWER SUPPLY**

90 to 300 V DC, 5 W Max. DC power:

100 to 240 V AC at 50/60Hz, 20 VA Max. AC power:

#### ENVIRONMENTAL

**Humidity:** 95% non-condensing Operating

Temperature:

-20°C to 70°C

-40 to 85°C (-40 to 185°F) **Storage Temperature:** 

IP 40 IP rating:

#### **TYPE TESTS**

**EMC Test Levels:** EN 50263 **Test Conditions:** IFC60255-6

ESD: IEC60255-22-2 (IEC 61000-4-2)

IEEE/ANSI C37.90.3

Surge Immunity: \*IEC 60255-22-5(IEC 61000-4-5)

IEC 60255-22-4(IEC 61000-4-4) **Fast Transient:** 

IEEE/ANSI C37.90.1

IEEE/ANSI C37.90.1 Oscillatory: \*IEC 60255-22-1

**Dielectric Strength:** IEC 60255-5 Insulation Resistance: EC 60255-5 Impulse Voltage: EC 60255-5 Power Fr. Magnetic IEC 61000-4-8

Field:

Pulse Magnetic Field: IEC 61000-4-9 Voltage Dip/ IEC 61000-4-11

Interruption:

IEC 60255-25

RF cond. & radiated emission:

**RF Conducted** Immunity:

IEC 60255-22-6 (IEC 61000-4-6)

RF Radiated Immunity: \*IEC 60255-22-3 (IEC 61000-4-3)

IEEE/ANSI C37.90.2

Digital Port. Tel. Immunity:

IEC 50204

(Cold) IEC 60068-2-1, Temperature:

(Hot) IEC 60068-2-2

Relative humidity: IEC 60068-2-30 **Ingress Protection:** IEC 60529

**Mechanical Stress:** 2 G

\*RJ-45 not supported

# **Ordering**

MultiNet™	*	Description
MultiNet™	*	Modbus RTU to Modbus TCP/IP converter with RS485 Comm.RS232 comm port
	FE	10BaseT ethernet port and 10BaseF fiber port

# For more information, visit **gevernova.com/grid-solutions**

