

# Power Meter Modbus RTU RS485, 230VAC, 2 DO, 1DI

## CATALOG NUMBER

### PMRS485



The nVent ERIFLEX Network Analyzer is a compact and innovative instrument designed for precise measurement and recording of electrical parameters. It is particularly well-suited for energy consumption analysis and control.

Its quick and easy connection system makes it ideal for retrofitting existing switchboards or conducting energy audits. The analyzer is the perfect tool for establishing measurement points across a facility.

Communication is supported via an RS485 serial port using MODBUS RTU protocol (PM RS485 version) and an Ethernet port using MODBUS TCP protocol (PM Ethernet version).

Remote management is available through the free EriflexNET software. For Ethernet models, an integrated web interface allows full access and control from any PC connected to the network, offering a convenient and intuitive way to manage the device remotely. You can download the EriflexNET software from the Resources tab below.

## CERTIFICATIONS



## FEATURES

Ultra-compact DIN 96x96 format, with only 39 mm depth for space-constrained installations

Backlit LCD display for clear visibility of readings

Four-quadrant bi-directional measurement of all energy and power types

Comprehensive electrical parameter monitoring for cost-effective consumption analysis: Voltage, Current, Power: Active, Reactive, Apparent, Power Factor, Harmonics (Voltage and Current) – up to the 15th order, Frequency, Phase Order

Three selectable current scales for flexible configuration

Up to 8 MB of onboard memory for data logging, including energy counters

Selectable recording of up to 24 real-time parameters for MIN/AVG/MAX tracking

Communication options: MODBUS RTU via RS485 port, MODBUS TCP via Ethernet port

Remote management via free EriflexNET software or integrated web interface

Two digital outputs for alarm signaling or pulse emissions

One digital input for synchronizing Demand (DMD) calculations

Accuracy class 0.5 in compliance with IEC/EN 61557-12 for active power and energy

Flexible wiring: compatible with both single-phase and three-phase systems

Built-in integrator: no external integrator required, pre-calibrated for use with nVent ERIFLEX Rogowski coils

## PRODUCT ATTRIBUTES

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Article Number: 509010

Input Voltage: 600 VAC

Frequency: 45 - 65 Hz

Current Measurement Range: 500 A; 4000 A; 20000 A

Voltage Accuracy:  $\pm 0.2\%$  of Reading within 10% FS to FS Range

Current Measurement Accuracy:  $\pm 0.4\%$  of Reading within 5% FS to FS Range

Frequency Accuracy:  $\pm 0.1\%$  of Reading  $\pm 1$  Digit within 45–65 Hz Range

Operating Temperature: -25 to 55 °C

Storage Temperature: -25 to 75 °C

Humidity: 80 % Max

IP Rating: IP54;IP20

Installation: Indoor

Complies With: 2014/30/EU;2014/35/EU;EN 61010-1;EN 61010-2-030

Mounting Cutout: 91x91mm

Width (W): 96mm

Height (H): 96mm

Depth (D): 39mm

Auxiliary Power Supply Voltage: 230 VAC  $\pm 15\%$

Auxiliary Power Supply Frequency: 50 - 60 Hz

Configuration: RS485 for MODBUS RTU Communication

Data Transfer: 300 - 57600 bps

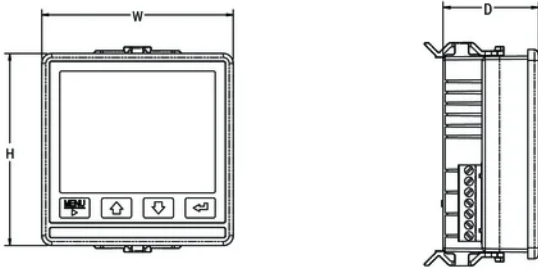
Remote Operation: Yes

Operation: EriflexNET

Unit Weight: 0.33 kg

	PMETHERNET	PMRS485
Minimum voltage for FFT calculation	20/35 VAC (direct connection; multiplied by PT ratio when using PT)	
Starting current (Ist)	3A for FSA 500A 25A for FSA 4000A 120A for FSA 20000A	
Current Inputs	Rogowski coil inputs (3 coils, ordered separately)	
Wiring Modes	Compatible with both single-phase and three-phase systems	
Active power/energy accuracy	Class 0.5 per IEC/EN 61557-12	
Reactive power/energy accuracy	Class 2 per IEC/EN 61557-12	
Digital Outputs	Type: 2 x NPN, Passive Optoisolated Max Values: 27 VDC - 27 mA	
Digital Inputs	Type: Optoisolated Voltage Range: 80 - 265 VAC-DC	
Terminal wire diameters	Measuring Terminals: 2.5 mm <sup>2</sup> / 14 AWG I/O, AUX, RS485 terminals: 1.5 mm <sup>2</sup> / 16 AWG	

## DIAGRAMS



## WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at [www.nvent.com](http://www.nvent.com) and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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