



Power Meter Monitor

**Business and Mission-
Critical Solutions Provider**

Basic Modbus TCP to 4xRTU Protocol Gateway

Data Sheet



Model: PMM0406

Document: Data Sheet

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DECLARATION OF CONFORMITY

This restriction is subject to protect the operational process of the system in the business environment, which will produce, use, and transmit radiofrequency energy. Harmful interference to radio communication could result if instructions to the correct installation and usage were not applied. The interference prevention cannot be guaranteed even with proper installation according to the manual. If the device causes a bad effect on the radio / TV signal. The user could preclude that by turning the device on/off.

When this device produces some harmful interference, the user can use the following measure to solve the interference problem:

1-Setting the receiving antenna's direction or location to increase the distance between this device and receiver.

2-Plug in the device's power connector into different circuits of the power outlet with the receiver.

3-If any technical support is needed, the dealer or experienced radio/TV technical personnel must be informed.

TECHNICAL SUPPORT AND SERVICE

Visit Pmm-usa.us to browse FAQs and get further details.

User should collect the following information before submitting technical support and service requests:

- Product name, model and serial number.
- Installed software (operating system, OS version, installed applications and so on).
- Full description of the problem
- Detailed information about every error.

SAFETY INSTRUCTIONS

- Only trained and qualified personnel can install, operate, or maintain the device.
- Before starting the installation, all safety precautions must be read and warning labels affixed to the device must be observed. Doing so protects the device from damage and ensures your safety.
- Safety precautions provided in this document may not cover all safety aspects, note to always remain mindful of safety.
- PMM is not liable for any consequence that results from violation of regulations pertaining to safe operations or safety codes pertaining to design, production, and equipment usage.
- DO NOT use liquids or decontamination spray to clean the device surface and assure that it is totally disconnected while cleaning.
- Take all measures to prevent device drop before or during installation.
- Prior to connecting the device to power source, ensure the source and device voltage and power are 100% matched.
- Keep the cables in a suitable covered place.
- If the device is not used for a long time, shut off the power to avoid the damages by transient overvoltage.
- DO NOT allow any liquid flow into the device; to avoid fire or short circuit.
- The recommended storage temperature range should NOT be less than 30°C OR higher than 85°C.



Warning:

- Read the power source and device inlet carefully.
- Handle device with both hands.
- Clean and maintain the device using recommended, safe and suitable methods.



Caution:

If any unauthorized changes of settings or repairs are done without PMM approval; then user's rights of controlling this device will be canceled.



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KEY FEATURES

- Converts smoothly from Modbus TCP to RTU
- 4 simultaneous TCP masters with up to 32 simultaneous requests per master
- Effortless configuration via web-based wizard
- Built-in Ethernet cascading for easy wiring
- 32-bit ARM core microcontroller, with an 84 MHz clock
- Embedded traffic monitoring as well as diagnostic information for easy trouble shooting
- 10x LED indicators
- 1x RS485 Fixed console serial communication port
- 4x RS485 - RS232 Serial communication ports
- Baud rate: 110-115200 bps
- Supports 2-32 GB SD card for configuration backup and duplication for event logs
- Status monitoring with fault protection for easy maintenance
- Different Power supply options with over voltage and reverse polarity protection
- 9x 120Ω terminal resistors controlled by dip switch
- Operating temperature: -40 to 75°C (-40 to 167°F)
- Storage temperature: -40 to 85°C (-40 to 185°F)
- Ambient relative humidity: 5 to 95% (non-condensing)
- EMI, EMS, EMC and shock protected
- Overvoltage and reverse polarity protected
- Serial port with power surge $\pm 2.5\text{kV}$ isolation protection

DESCRIPTION

PMM0406 is a highly configurable industrial Ethernet gateway device capable of quick protocol conversion on Modbus TCP/RTU Networks.

Modbus slave devices are effortlessly incorporated into an existing Modbus TCP network, where slave devices are easily reached by their respective masters. PMM0406 provides the flexibility needed to fulfill the various conditions that arise with field devices that use different communication protocols to connect any type of industrial solution network such as the SCADA system.

PMM0406 gateways support a system log function that records events; users can easily review log data remotely through the web interface. The gateways also support status monitoring and fault protection functions. The status monitoring function notifies a Power SCADA system. When a device gets disconnected or does not respond, in such case the SCADA system gets the status of each end device and then issues alarms to notify operators.

SOFTWARE SPECIFICATIONS

Ethernet Software Features

Protocols	Modbus TCP
Configuration Options	Web Console (HTTP/HTTPS), Telnet Console
Time Management	NTP Client

Serial Software Features

Protocols	Modbus RTU/ASCII
Configuration Options	Serial Console

HARDWARE CHASSIS SPECIFICATIONS

Computer

CPU	32-bit ARM core microcontroller
Flash/SRAM	512 KB/ 100 KB
RTC CHIP	DS3231

Computer Interface

Ethernet	1x 10/100
USB Port	1x USB2.0 type A
Wi-Fi	2.4/5GHz
Serial Communication port	1x RS485 (Fixed port) 4x RS495-RS232
Optional Modules	GSM Module
SD Card Slot	1x MicroSD

Power Parameters

Power Supply Options	9-120 VDC 85-285 VAC / 100-300 VDC
Power Connector	Phoenix Contact 4 pins 3.5mm

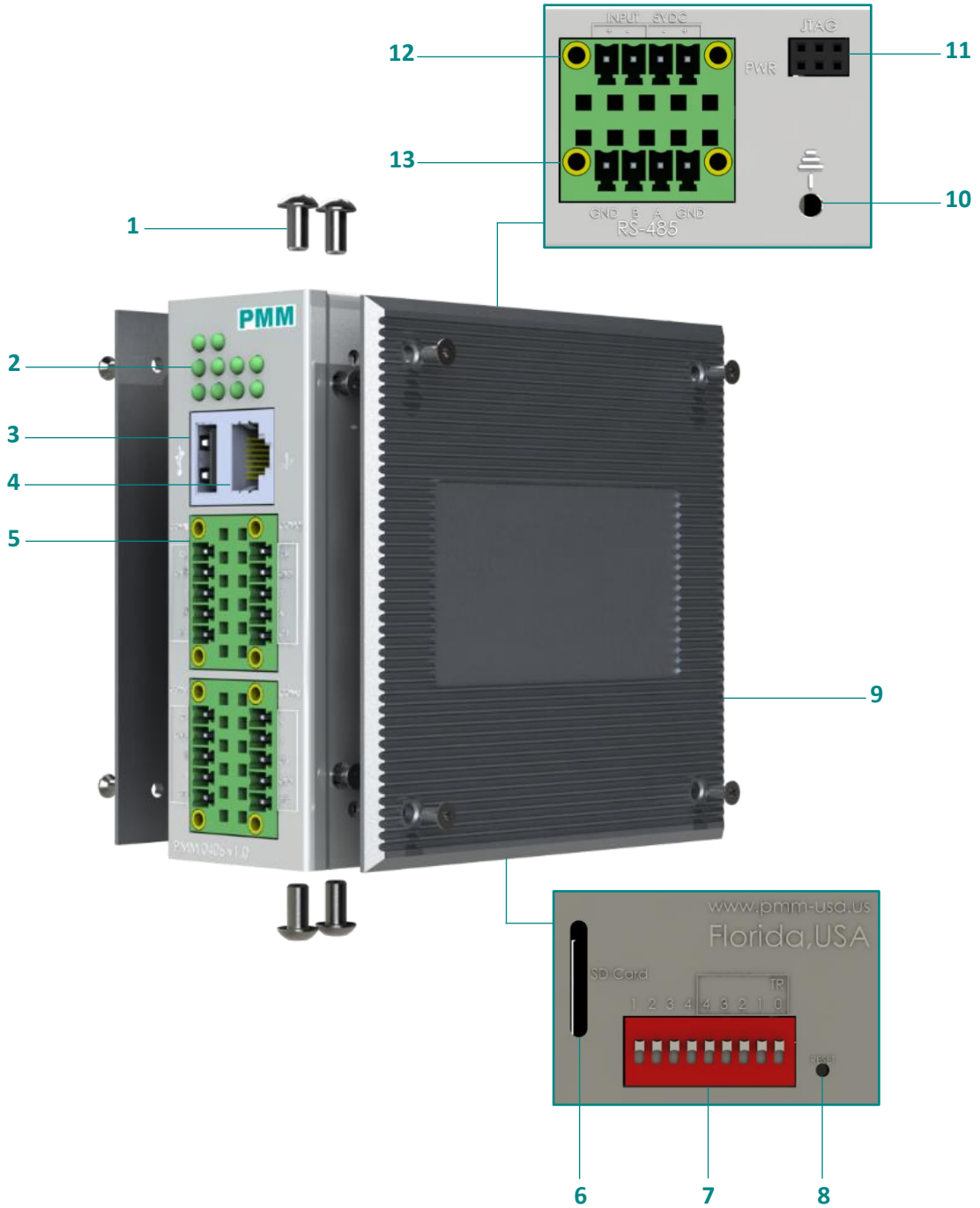
Environmental Limits

Operating Temperature	-40 to 75°C (-40 to 167°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Humidity	5 to 95% (non-condensing)

Physical Characteristics

Housing	Metal
Dimensions	4 x 4 x 1.75 inch (103 x 103 x 44 mm)
Mounting Options	Standard 35mm DIN Rail Direct Panel Mounting Front Panel Mounting 19" rack 1U
Certifications	RoHS, CE and FCC

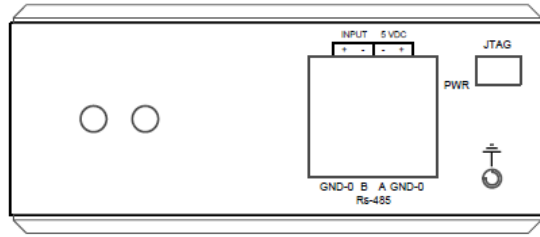
ENCLOSURE ASSEMBLY INFORMATION



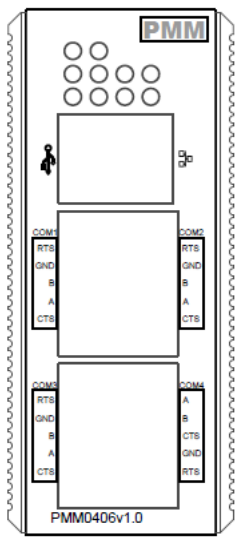
ITEM	DESCRIPTION
1	Screws
2	10x LED Indicators
3	1x USB 2.0 Port
4	1x Ethernet Port
5	4x Serial Communication Ports
6	SD Card Slot

7	Configuration Switch
8	Reset
9	Heat Sink
10	Earth
11	JTAG interface port
12	Power Adapter
13	1x RS485 Port

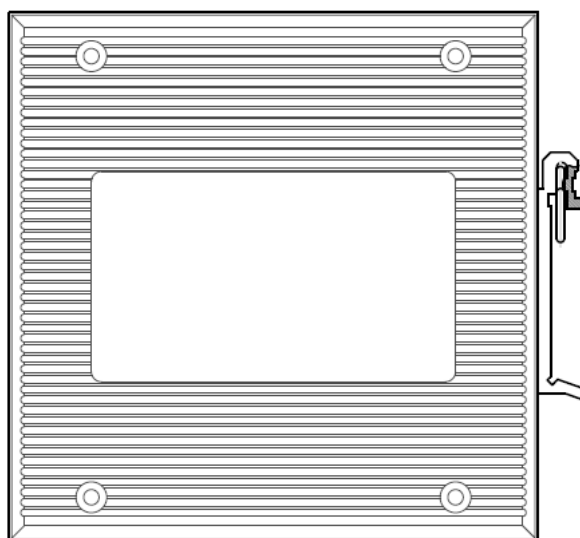
ENCLOSURE DIMENSIONS



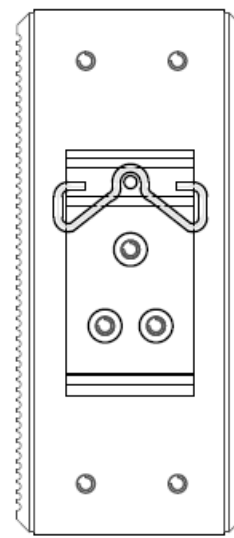
Top View



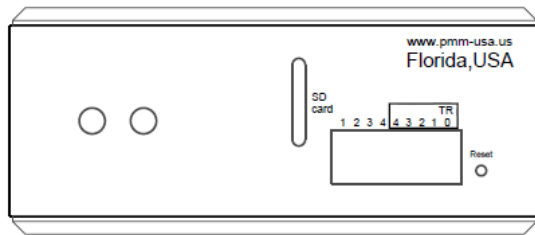
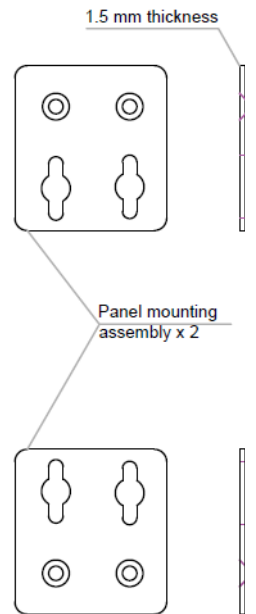
Front View



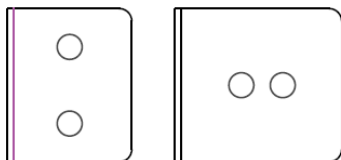
Side View



Back View



Bottom View



(X 2 per enclosure)



ORDERING INFORMATION

Order Configuration Table		
	PMM0406	-X
Power Supply		
9-120 VDC		-1
85-285 VAC / 100-300 VDC		-2

Accessories

DIN Mounting Kit (Included 1 Kit)	DIN Rail Mounting Bracket
Wall Mounting Kit (Included 1 Kit)	2x Wall Mounting Bracket
Panel Mounting Kit (Optional)	2x Panel Mounting Bracket
Rack Mounting Kit (Optional)	Rack Mounting Bracket

CONTACT INFORMATION:

For direct inquiries or any customized orders, contact us on sales@Pmm-usa.us