



Power Meter Monitor

Business and Mission-

Critical Solutions Provider

DLMS - Modbus Protocol Gateway

Data Sheet



Model: PMM0402

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

- Supports Modbus RTU/TCP
- Supports meters such as: Iskraemeco, Landis+Gyr, EMH meter, Actaris SL7000, Elster A1700, Elster A1500, KAMSTRUP, DPEE
- Effortless configuration via web-based wizard
- Built-in ethernet cascading for easy wiring
- Embedded traffic monitoring as well as diagnostic information for easy trouble shooting
- MicroSD card for configuration backup and duplication for event logs
- Status monitoring and fault protection for easy maintenance
- Redundant dual DC power inputs and relay output
- Operating temperature: -40 to 75°C
- Storage temperature: -40 to 85°C
- EMI, EMS, EMC and shock protected
- Serial port with power surge 2kV isolation protection
- Security features based on IEC 62443

DESCRIPTION

PMM0402 is a highly configurable industrial ethernet gateway device which is capable of reading data from any device containing DLMS protocol like energy meters, and converting it to RTU/TCP Modbus protocol. PMM0402 provides the flexibility needed to fulfill the various conditions that arise with field devices that use different communication protocols to connect to the SCADA system.

PMM0402 gateways support a system log function that record events; users can easily review log data remotely through a web interface. The gateways also support status monitoring and fault protection functions. The status monitoring function notifies the 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.

PMM0402 can be contained within multiple hardware chassis which are designed with a wide range of highly configurable communication ports needed in the field. All hardware chassis are sturdy, powerful, reliable, fanless, and support a wide selection of power supply options that deliver excellent performance while consuming minimal power. The technology is specifically built to fulfill the needs of all power substations. Furthermore, it covers all field standards of power, reliability, easy configuration and long-lasting life.

SOFTWARE SPECIFICATIONS

Ethernet Software Features

Protocols	Modbus TCP
Configuration Options	Web Console (HTTP/HTTPS), Device Search Utility (DSU), Telnet Console

Serial Software Features

Protocols	Modbus RTU
Configuration Options	Serial Console

HARDWARE CPU CHASSIS SPECIFICATIONS (3 Options)

CPU



Option1: PMM0103



Option2: PMM0105



Option3: PMM0107

CPU	All winner H3 processor, Quad-core 64-bit high-performance Cortex A53	All winner H3 processor, Quad-core 64-bit high-performance Cortex A53	Intel® Atom™ x5-Z8350 CPU
DRAM	512 MB	512 MB	4GB DD3RAM
Storage	8GB eMMC	8GB eMMC	16GB eMMC
RTC CHIP (OPTIONAL)	DS3231	DS3231	CR2032
Pre-installed OS	Linux	Linux	Windows 10 lite

Computer Interface

Ethernet	2x 10/100 Base ports	2x 10/100 Base ports	1x 10/100/1000Base-T RJ45
Fiber	N/A	2x 1000Base-X SC fiber optic port	1x 1000Base-X SFP
USB	1x USB3.0 Type A 1x Micro USB	1x USB2.0 type A	1x USB3.0 Type A
Wi-Fi	2.4/5 GHz	2.4/5 GHz	MediaTek RT5572 2.5/5GHz/2x2 with external antennas
Serial	1x RS485	1x RS485	1x RS485
Optional Interface	3x customizable communication slots:PMM RS485 Module PMM RS232 Module PMM RS422 Module	2x customizable communication slots:PMM RS485 Module PMM RS232 Module PMM RS422 Module	8 pins connector on edge with following options (max 2 options can be chosen upon order to be factory pre-fitted) RS232 RS485 RS422 CAN bus Analog Input Analog Output Digital Input Digital Output
SD Slot	1x MicroSD	1x MicroSD	1x MicroSD card socket for user supplied card up to 256GB

Power Parameters

Power Supply Options	10-56 VDC 8-40 VAC 36-72 VDC 25-50 VAC 85-285 VAC / 100-300 VDC	10-56 VDC 8-40 VAC 36-72 VDC 25-50 VAC 85-285 VAC / 100-300 VDC	10-56 VDC 8-40 VAC 36-72 VDC 25-50 VAC 85-285 VAC / 100-300 VDC
Power Connector	Phoenix Contact 4 pins 3.5mm	Phoenix Contact 6 pins 3.5mm	

Physical Characteristics

Housing	Metal	Metal	Metal
Dimensions	3.93*3.93*1.45 inch (100*100*37 mm)	5.27*5.27*1.45 inch (134*134*37 mm)	5.27*5.27*1.45 inch (134*134*37 mm)
Mounting Options	Standard 35mm DIN RailDirect Panel Mounting Front Panel Mounting 19" rack 1U	Standard 35mm DIN Rail Direct Panel Mounting Front Panel Mounting 19" rack 1U	Standard 35mm DIN RailDirect Panel Mounting Front Panel Mounting 19" rack 1U

ORDERING INFORMATION

Order Configuration Table					
	PMM010x	-x	-09xx	-09xx	-09xx
CPU Chassis					
PMM0103 Arm based industrial computer	-3				
PMM0105 Arm based industrial computer	-5				
Power Supply					
10-56 VDC		-1			
8-40 VAC		-2			
36-72 VDC		-3			
25-50 VAC		-4			
85-285 VAC / 100-300 VDC		-5			
COM Port 1					
RS485			-0912		
RS422			-0913		
RS422			-0914		
RS232			-0915		
COM port 2 (Same as COM port 1 options)					
				-09xx	
COM port 3 (Same as COM port 1&2 options)					
					-09xx
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 info@pmm-usa.us