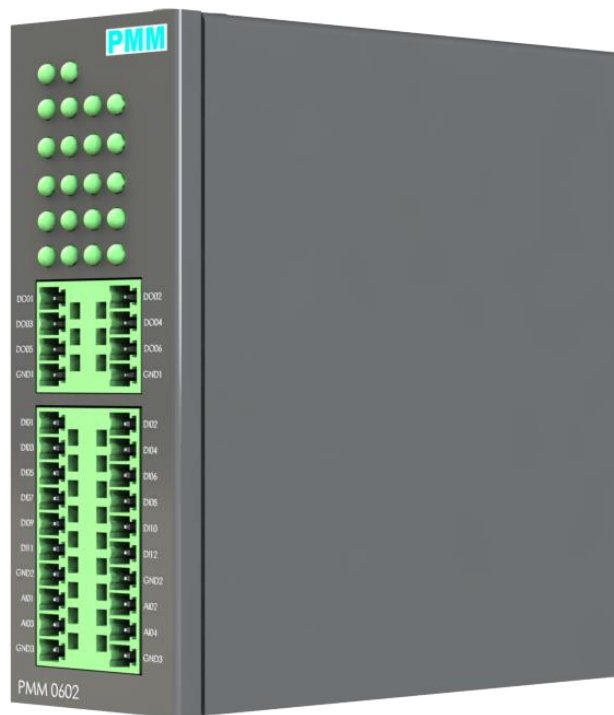# Business and Mission-

Critical Solutions Provider

Simple Multi IO-RTU Module

Data Sheet

PMM 0602

Model: PMM0602
Document: Data Sheet
Document version: 1.2
Date: February 2021

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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.

CONTENTS   PAGE

KEY FEATURES

- License-free with strong capabilities powered by 32-bit ARM Cortex-M3 RISC processor
- Covers wide range of operational modes such as: Standalone or Central PLC CPU, Remote IO RTU and TCP, Process controller, Communication processor, Media converter and more.
- 12x 24VDC Digital inputs.
- 6x Digital outputs that comes with two optional types of switching: Transistor or Relay.
- 4x (4-20 mA) Analog inputs.
- 22x LED indicators.
- 1x Ethernet 10/100 ports.
- 1x RS485 communication ports with 115,200 bps
- Baud Rate.
- Wi-Fi 2.4GHz Port with external antenna.
- GSM Ready Communication Slot.
- 2-32 GB SD card slot.
- RTC with internal battery.
- Many Programming options include Ladder diagram, Function block, Visual Studio, Arduino IDE compatible and many more.
- Different Power supply options with over voltage and reverse polarity protection.
- Redundant in/out 5VDC direct Power option to
- be connected to PMM compatible UPSs.
- ±2.5 kV ESD protection.
- Meets all power substation requirements.
- Different mounting system style options.
- -40 to 85°C system operating temperature.
- Compact, fan-less design.
- Degree of protection: IP54

DESCRIPTION

PMM0602 is a tough, capable, reliable, proven, secure, and license-free IO module powered by a 32-bit ARM Cortex-M3 RISC processor.

This device has a large variety of applications within the industrial domain, covers wide range of input and output standards.

PMM0602 is designed and enclosed within a strong metal chassis that has been tested and proven on field during operations to fit the harsh and unexpected nature of the industrial environment and its possible critical conditions such as shock, vibration and extended temperature that may happen at any point.

With this industrial controller all field standards of power and **power substation** requirements are met. It is easily configurable, flexible, and reliable.

License-free Programming

PMM0603 is an open platform that comes with many predefined operations, the PLC can also be programed with many other software solutions like:

PlatformIO	Atmel Studio
MATLAB	Visuino
logi.CAD	LabVIEW
GNU Octave	Flowcode
Arduino IDE	Visual Studio Code
Visual Micro	and more.

Easy-GO.. No Complex Datasheet Required

With thousands of articles and application notes available on the web about Arduino projects ,you can start your application in minutes .
Generally said: If the software is compatible with traditional Arduino boards, you can use it for PMM0104 too.

PMM
Power Meter Monitor

TECHNICAL SPECIFICATIONS

Controller

CPU	32-bit ARM Cortex-M3 RISC processor
Flash /SRAM	512 KB /100 KB
RTC CHIP	DS3231

Controller Interface

|	
Ethernet	1x ports 10/100
Serial Communication Port	1x RS485
SD Card Slots	MicroSD
USB Ports	1x USB2.0 type A
Interfaces	12x 24VDC Digital inputs 6x Digital outputs 20x LED indicators 4x 12 bit (4-20 mA) Analog Inputs

Power Parameters

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

Physical Characteristics

|	
Housing	Metal
Dimensions	4 x 4 x 1.46 inch (101 x 101 x 37 mm)
Mounting Options	Standard 35mm DIN Rail Direct Panel Mounting Front Panel Mounting 19" rack 1U

ENCLOSURE ASSEMBLY INFORMATION
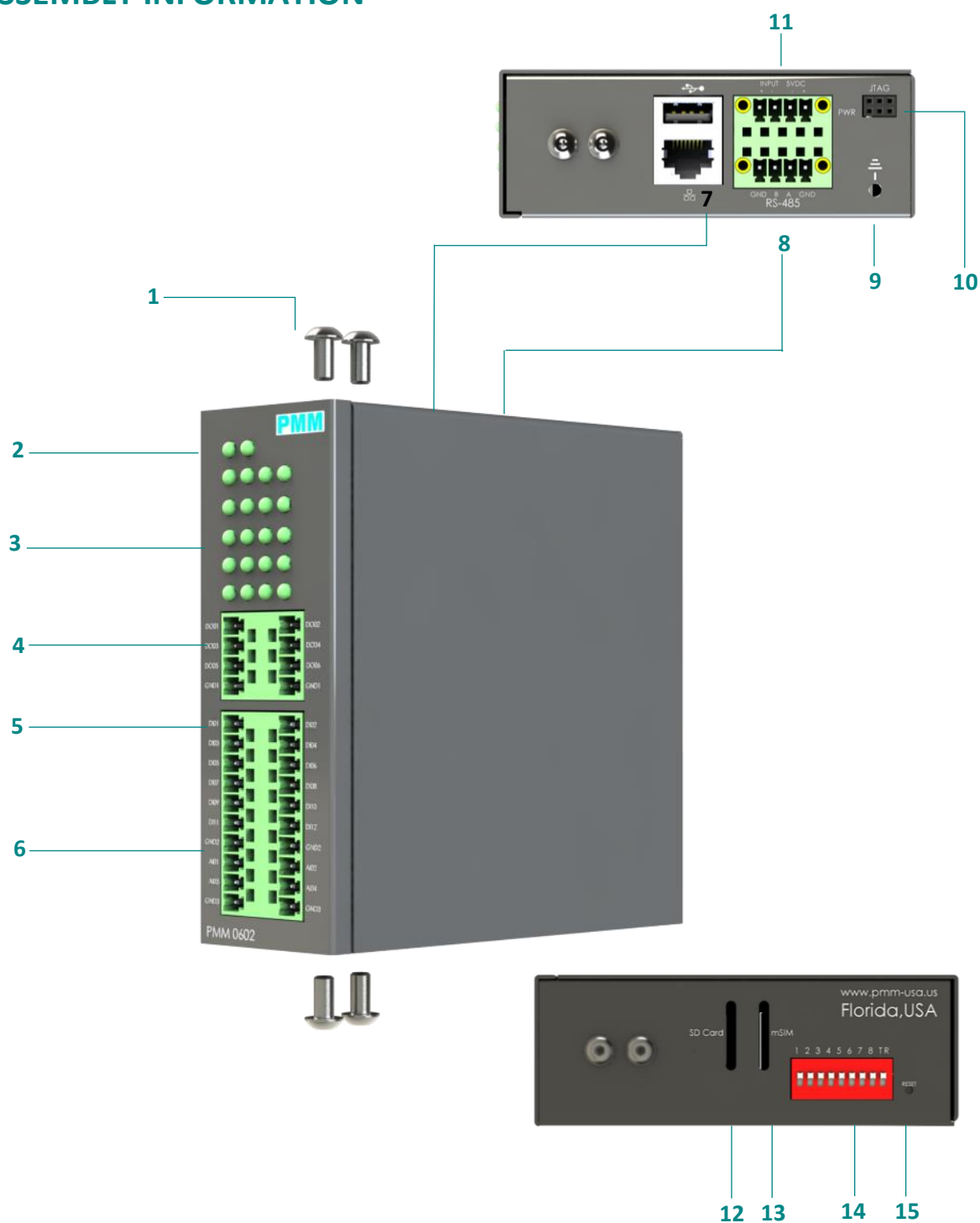
ITEM	DESCRIPTION
1	Screws
2	Rs485 LED indicators
3	I/O Idicators
4	Digital Outputs
5	Digital Inputs
6	Analog Inputs
7	Ethernet and USB Connectors
8	RS485 Connector

9	Earth
10	JTAG Port
11	Power Connector
12	SD card slot
13	mSIM slot
14	Configuration Switch
15	Reset Button

PIN DESCRIPTION
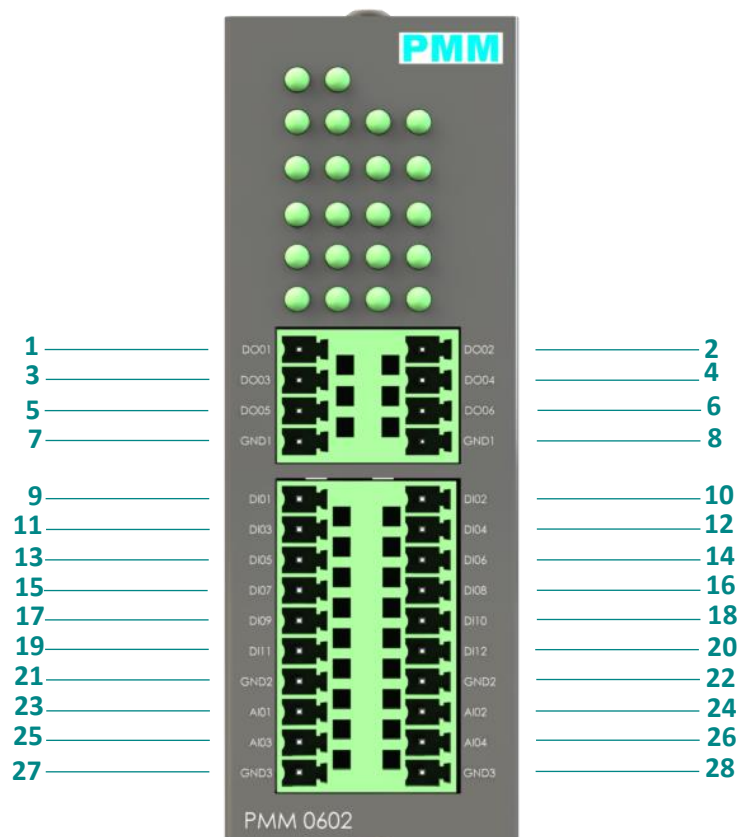
DESCRIPTION	PIN	PIN	DESCRIPTION
DO-01	1	2	DO-02
DO-03	3	4	DO-04
DO-05	5	6	DO-06
Ground1	7	8	Ground1
DI-01	9	10	DI-02
DI-03	11	12	DI-04
DI-05	13	14	DI-06
DI-07	15	16	DI-08
DI-09	17	18	DI-10
DI-11	19	20	DI-12
Ground2	21	22	Ground2
AI-01	23	24	AI-02
AI-03	25	26	AI-04
Ground3	27	28	Ground3

ENCLOSURE DIMENSIONS
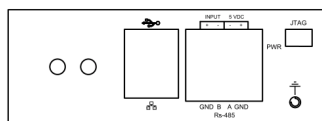
Top View
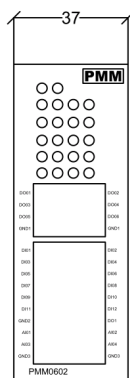
Front View

Side View

Back View

1.5 mm thickness

Panel mounting
assembly x 2
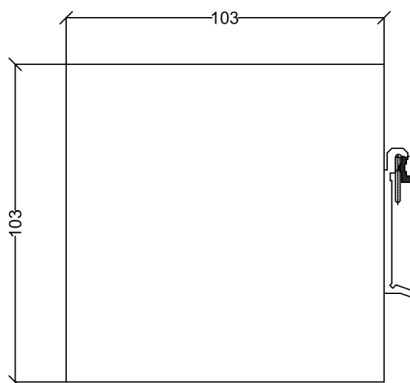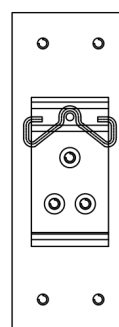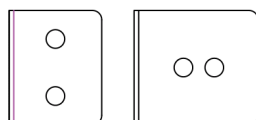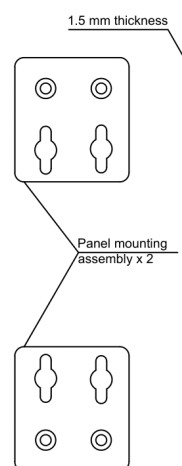
PMM0602

(X 2 per enclosure)
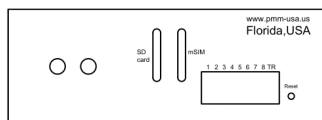
Bottom View

ORDERING INFORMATION

Order Configuration table		
PMM0602	-x	-y
Power supply		
9-120 VDC	-1	
85-285 VAC / 100-300 VDC	-2	

*Optional Items:		
Modules		
Wi-Fi 2.4Ghz Module		-A
GSM Module		-B

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**