



Power Meter Monitor

**Business and Mission-**

**Critical Solutions Provider**

## RS485/RS422/RS232 - Fiber converter

# Data Sheet



**Model:** PMM0503

**Document:** Data Sheet

**Document version:** 1.3

**Date:** September 2023



## COPYRIGHT NOTICE

The information in this document is subject to change without prior notice to improve reliability, design, and function and does not represent a commitment on the part of the manufacturer.

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damage arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without prior written permission of the manufacturer.

## TRADEMARKS

All registered trademarks and product names mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective owners.

AMI is a trademark of American Megatrends Inc.

Intel & Atom are trademarks of Intel Corporation

IBM, PC/AT, PS/2&VGA are trademarks of International Business Machines Corporation Microsoft Windows is a trademark of Microsoft Corp. RTL is the trademark of Realtek Semiconductor Co., Ltd.

## 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](http://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.....	4
TARGET APPLICATION.....	4
DESCRIPTION .....	4
TECHNICAL SPECIFICATIONS.....	5
ENCLOSURE ASSEMBLY INFORMATION.....	6
ENCLOSURE DIMENSIONS.....	7
ORDERING INFORMATION.....	8

## KEY FEATURES

- Dual or single converter in one package to save space and wiring
- 1x Fiber optic port
- Transmission Speed of up to 256 kbps
- ESD Protection for the RS-232/422/485 Data Line
- Isolated power supply option
- Wide range of power supply options
- Meets all power substation requirements
- Din Rail, wall mount, panel mount and rack mount options
- Compact size with fanless design

## TARGET APPLICATION

PMM0503 can perform efficiently and effectively in the PV, substation and industrial applications as:

- RS485 - Fiber Converter
- RS422 - Fiber Converter
- RS232 - Fiber Converter

## DESCRIPTION

PMM0503 is a RS-232/422/485 to fiber media converter. It is used for RS-232/422 point-to-point connections and RS-485 multi-drop applications for transmitting a signal up to 1 km (3280.84 ft) and is the perfect solution for applications where transmission must be protected from electrical exposure, surges, lightning or chemical corrosion.

PMM0503 industrial grade media converter can function under harsh environmental conditions of any site. It is especially designed to meet all power substations and PV plants requirements. Furthermore, it covers all field standards of power, reliability, easy configuration and long-lasting life.

This device can be ordered with multiple power supply ratings to select from. Check the ordering tab for available options that meets your requirement.

## TECHNICAL SPECIFICATIONS

### Interfaces

Fiber	1x customized fiber optics ports on ordering: SC or SFP port
Serial Port	1x RS485 1x RS422 1x RS232. (Note: The RS-232, RS-422 and RS-485 cannot be used simultaneously)

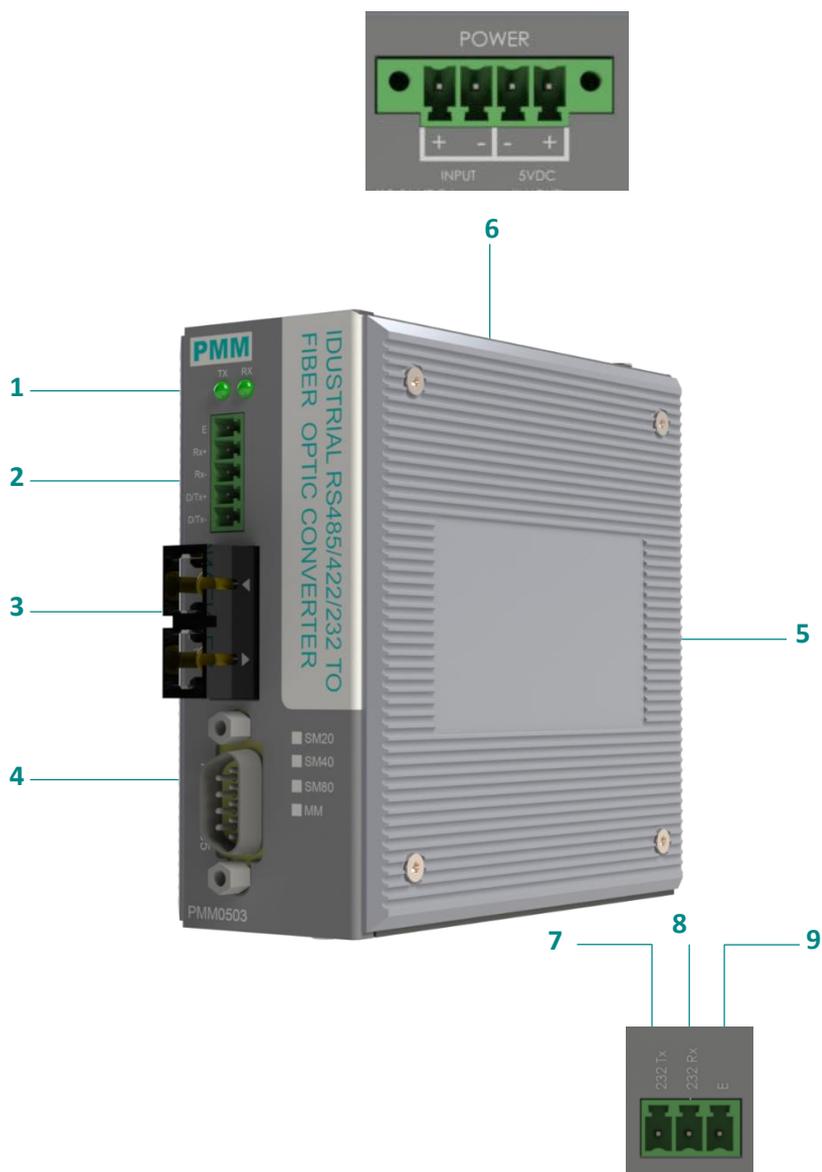
### Power Parameters

Input Power Supply Options	85-265 VAC / 100-300 VDC 10-48 VAC / 10-60 VDC Direct inputs 5 VDC / 3 A
Power Connector	Phoenix Contact 4 pins 3.5mm

### Physical Characteristics

Housing	Metal
Dimensions	4.05 x 4.05 x 1.45 inch (103 x 103 x 1.45 mm)
Mounting Options	DIN Rail Panel Mounting Wall Mounting 19" Rack 1U

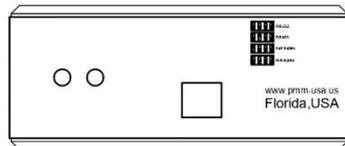
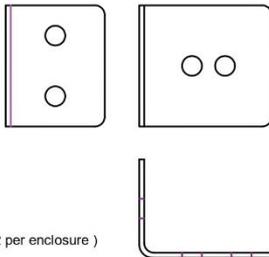
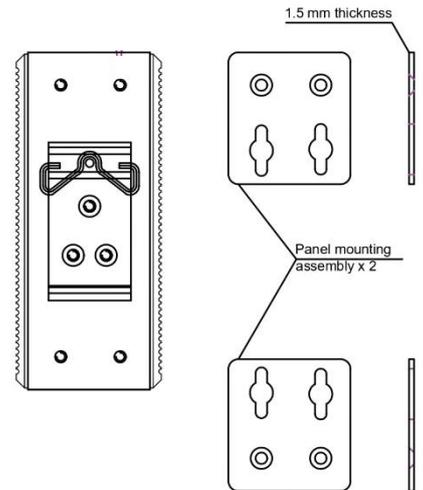
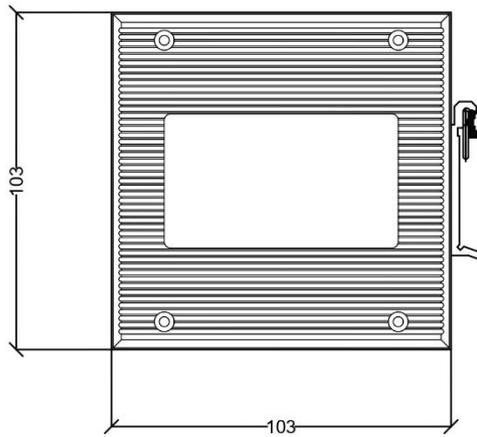
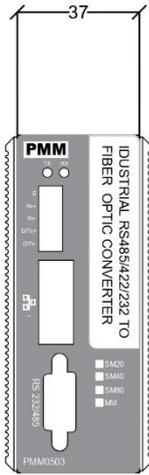
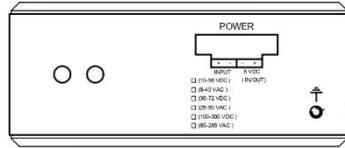
## ENCLOSURE ASSEMBLY INFORMATION



ITEM	DESCRIPTION
1	4x LED Indicators
2	RS485/422 Pinout
3	1x Fiber Optic Ports
4	1x Serial Communication Ports

5	Heat Sink
6	Power connector
7	Transmitter pin for RS232
8	Receiver pin for RS232
9	Ground pin for RS232

# ENCLOSURE DIMENSIONS



## ORDERING INFORMATION

Order Configuration table					
PMM0503	- x	- 09xx	- 09xx	- xxxx	- xxxx
<b>Power supply</b>					
85-265 VAC / 100-300 VDC	-1				
10-48 VAC / 10-60 VDC	-2				
Direct input 5V, 3A	-3				
<b>COM Port 1</b>					
RS232/RS42/RS485		-0912i			
<b>Fiber Optic port 1</b>					
SFP Connector				-SFPO	
Single Mode 20 Km /SC type connector				-SC20	
Single Mode 40 Km /SC type connector				-SC40	
Single Mode 80 Km /SC type connector				-SC80	

### Accessories

DIN Mount (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](mailto:info@pmm-usa.us)