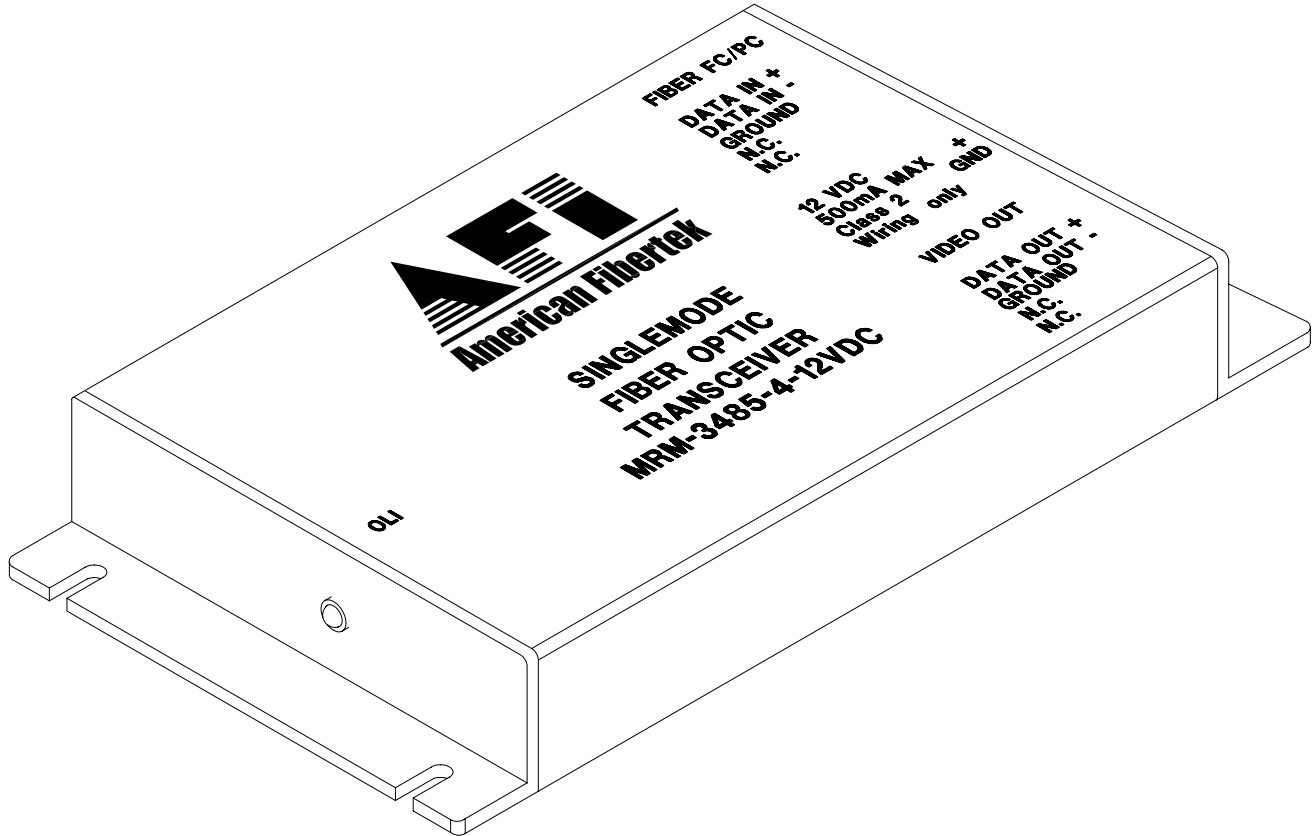




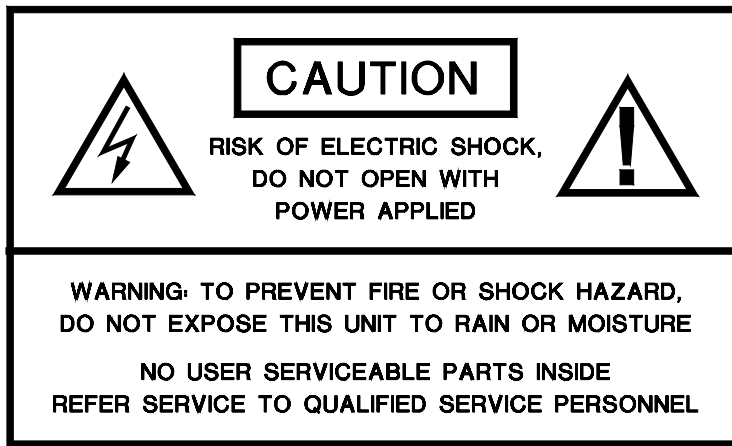
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Instruction Manual
MRM-3485-4-12VDC
Video Receiver With
Bi-directional 4-Wire RS485



INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek MRM-3485-4-12VDC singlemode video receiver with bi-directional 4-Wire RS4485 data. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

FUNCTIONAL DESCRIPTION

The MRM-3485-4-12VDC operates as half of a transmitter / receiver pair for the transmission of a baseband NTSC, PAL, RS170, or RS343 video signal with bi-directional 4-wire RS485 data. It is designed to operate with the MTM-3485-4-12VDC or RTM-3485-4 video transmitter over one singlemode fiber optic cable.

The MRM-3485-4-12VDC converts a 4-wire RS485 data input into an optical output using a 1550 nm wavelength source. The MRM-3485-4-12VDC also converts an optical input signal returning on the same fiber into a single video output and a 4-wire RS485 data output using a 1310 nm wavelength detector. The M3485-4 Series product is designed to operate over an optical loss budget range of 0 to 10 dB. The MRM-3485-4-12VDC operates on 9 um singlemode fiber. Refer to the data sheets for detailed specifications.

This unit is contained in a compact and rugged aluminum housing with internal dc voltage regulation. The detachable terminal blocks and LED indicator provide for easy installation and monitoring of video, data, and dc power.

The MRM-3485-4-12VDC is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RRM-3485-4.

INSTALLATION

THIS INSTALLATION SHOULD BE MADE BY A QUALIFIED SERVICE PERSON AND SHOULD CONFORM TO THE NATIONAL ELECTRICAL CODE, ANSI/NFPA 70 AND LOCAL CODES.

Mount the unit to a secure surface using #8 (3mm) hardware in four places. See the drawing on the next page for mounting dimensions. Be sure to allow sufficient room for the minimum bend radius of the fiber cable used.

POWER SOURCE

THIS PRODUCT SHALL BE POWERED BY A LISTED CLASS 2 POWER SUPPLY ONLY.

This unit requires an isolated 12 volt DC power source for proper operation. ANSI/NFPA 70 Class 2 wiring is recommended.

POWER CONNECTION

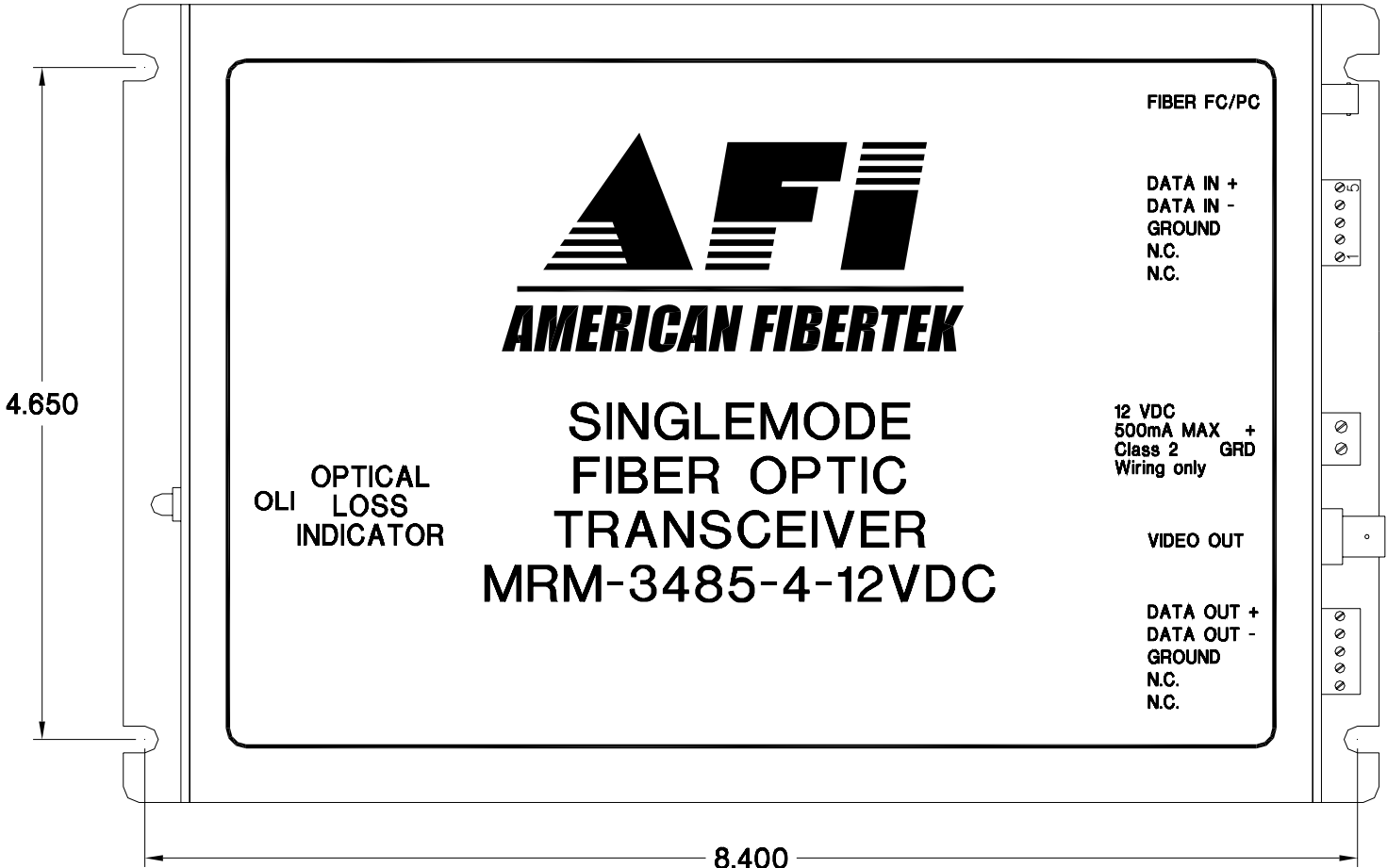
Power is supplied to the unit via a two pin terminal connector on the side of the unit. See label on unit for proper orientation of input power.

FIBER CONNECTION

The fiber optic connection is made via a FC/PC connector located on the right side of the unit.

VIDEO OUTPUT CONNECTION

The video output connection is made via a BNC connector on the right side of the unit. The 75Ω video output can be looped through typical baseband video inputs of switchers, recorders and other equipment as required. For proper operation, the output must be terminated with 75Ω. For optimum performance the video cables should be the shortest length of coax practical.



DATA INPUT / OUTPUT CONNECTIONS

Data input and output connections are made via a terminal block on the right side of the unit. See the label on the unit for proper orientation of input and output connections.

TYPICAL 4-WIRE RS485 DATA CONNECTIONS

4-Wire RS485 data connections are based on industry standard EIA terminology for the transmission of electronic data signals. Using this terminology, the driver of an electronic signal is labeled TX or data out. Correspondingly, the receiver of an electronic signal is labeled RX or data in. The plus terminal of the copper device is connected to the plus terminal of the fiber modem and the minus is connected to the minus. Not all manufactures follow standard EIA terminology. Consult the installation instructions for your copper device if you are unsure which two wires are the drive (data out) wires and which two wires are the receive (data in) wires.

Please note that Data In on the MRM-3485-4-12VDC becomes Data Out on the MTM-3485-4-12VDC or the RTM-3485-4 after going across the fiber. The reverse flow follows the same orientation.

MRM-3485-4-12VDC STATUS INDICATOR

The MRM-3485-4-12VDC provides the following LED status indicator to aid in installation and troubleshooting:

OLI

A bi-color LED indicator monitors the optical input power of the video/data signal that is being received at the MRM-3485-4-12VDC from the MTM-3485-4-12VDC or the RTM-3485-4. Internal DC power and optical input status associated with this LED are summarized below.

| Optical Level Indicator | DC Power Status | Optical Status |
|-------------------------|-----------------|------------------------------------|
| Green | On | Proper Optical Input Power Present |
| Red | On | Optical Input Not Detected |
| Off | Off | Check Power Supply |

**This unit complies with 21 CFR
1040.10 and 1040.11**

LIFETIME WARRANTY INFORMATION

American Fibertek, Inc warrants that at the time of delivery the products delivered will be free of defects in materials and workmanship. Defective products will be repaired or replaced at the exclusive option of American Fibertek. A Return Material Authorization (RMA) number is required to send the products back in case of return. All returns must be shipped prepaid. This warranty is void if the products have been tampered with. This warranty shall be construed in accordance with New Jersey law and the courts of New Jersey shall have exclusive jurisdiction over this contract. **EXCEPT FOR THE FOREGOING WARRANTY, THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, EXPRESSED OR IMPLIED, WHICH EXTENDS BEYOND THE WARRANTY SET FORTH IN THIS AGREEMENT.** In any event, American Fibertek will not be responsible or liable for contingent, consequential, or incidental damages. No agreement or understanding, expressed or implied, except as set forth in this warranty, will be binding upon American Fibertek unless in writing, signed by a duly authorized officer of American Fibertek.

SERVICE INFORMATION

There are no user serviceable parts inside the unit.

In the event that service is required to this unit, please direct all inquiries to:

American Fibertek, Inc.
120 Belmont Drive
Somerset, NJ 08873

Phone: (877) 234-7200

Phone: (732) 302-0660

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