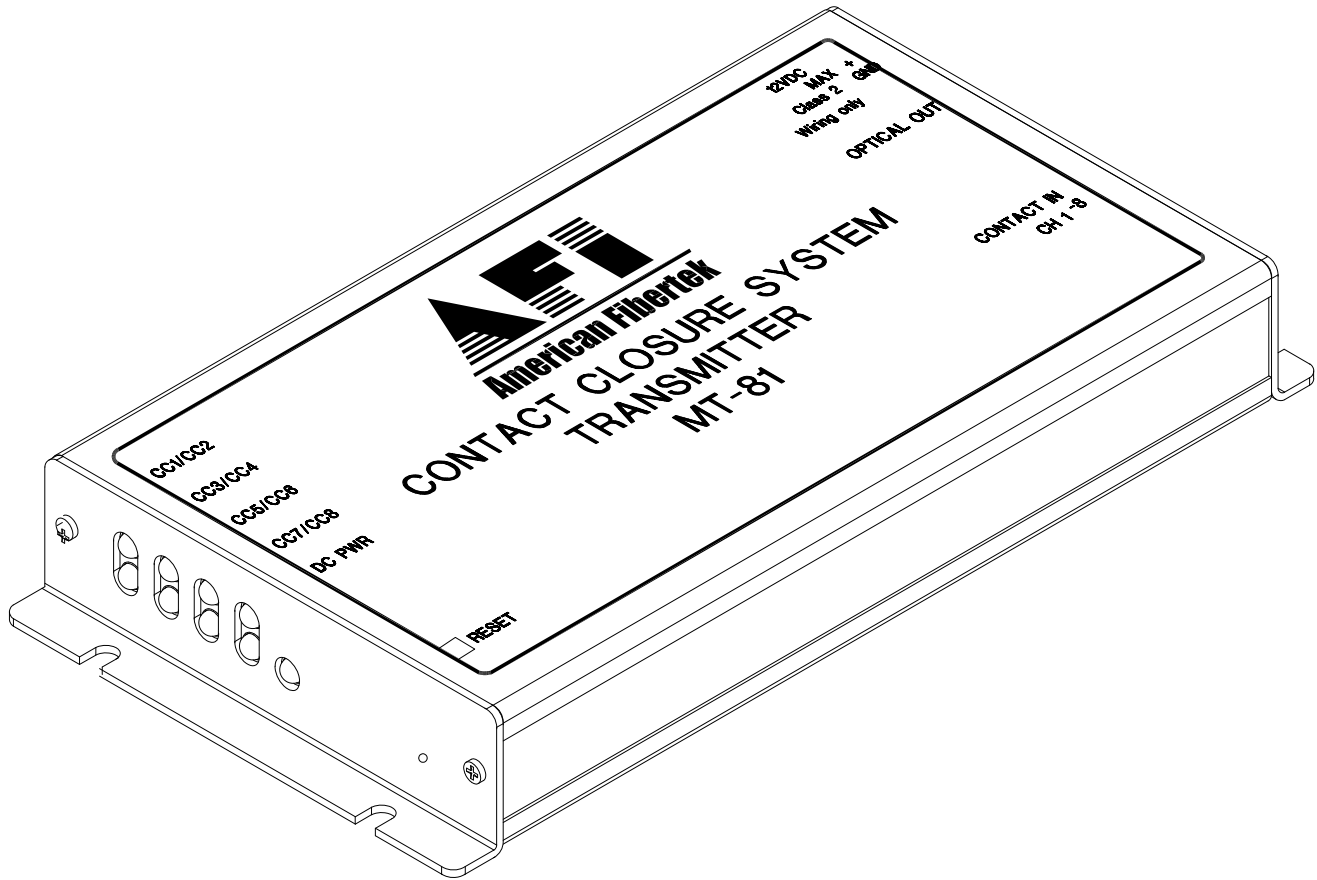


# afi

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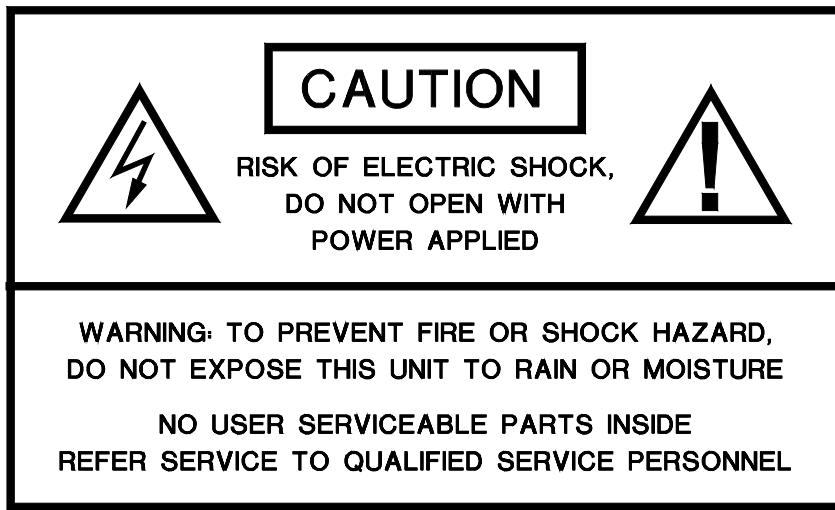


## Instruction Manual

### MT-81

### Eight Channel

### Contact Closure Transmitter



## INSTALLATION AND OPERATION INSTRUCTIONS

### INTRODUCTION

Thank you for purchasing your American Fibertek MT-81 singlemode contact closure transmitter. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

### FUNCTIONAL DESCRIPTION

The MT-81 operates as half of a transmitter/receiver pair for the transmission of eight dry latching contact closure signals. It is designed to operate with the MR-81 or RR-81 contact closure receiver over one multimode fiber optic cable. The 81 series receiver has a user selectable switch that allows the contact status sent by the MT-81 to be maintained unchanged through loss of optical or electrical power at the receiver. Both the transmitter and receiver include a recessed button to clear all contacts to a default state.

The MT-81 converts eight contact closure inputs into an optical output using a 1310 nm wavelength source. The 81 Series product is designed to operate over an optical loss budget range of 0 to 12 dB. The MT-81 operates on 62.5 um multimode fiber. Refer to the data sheets for detailed performance specifications.

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

The MT-81 is designed for mounting as a modular stand alone unit. For a rack mounted version please see the RT-81.

### 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 required minimum bend radius of the fiber cable used.

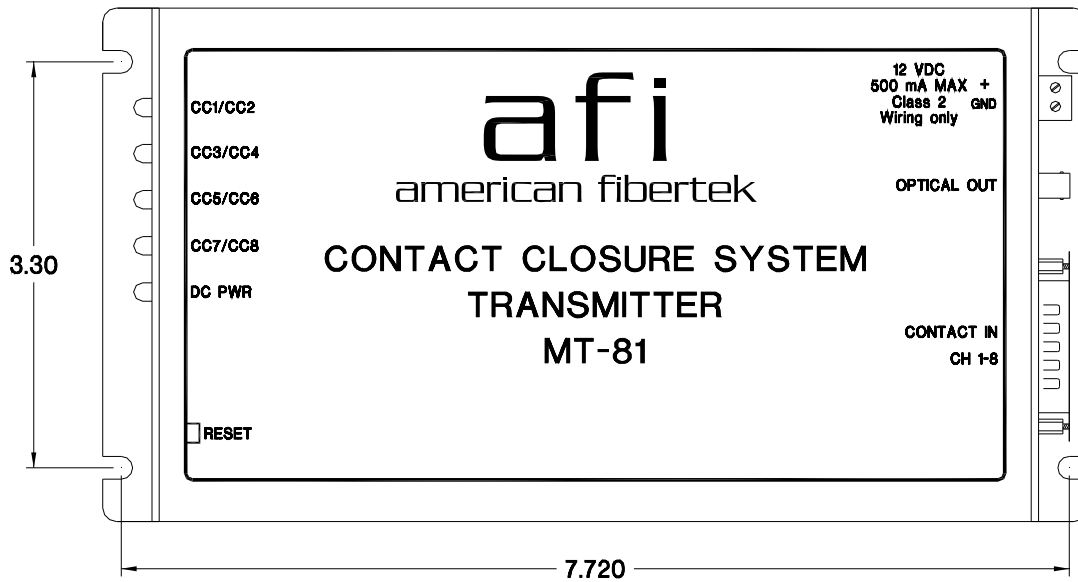
### POWER SOURCE

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

This unit requires a 12 volt DC power source for proper operation. In the USA and in Canada an American Fibertek PS-12D is supplied with this unit. ANSI/NFPA 70 Class 2 wiring is recommended.

## POWER CONNECTION

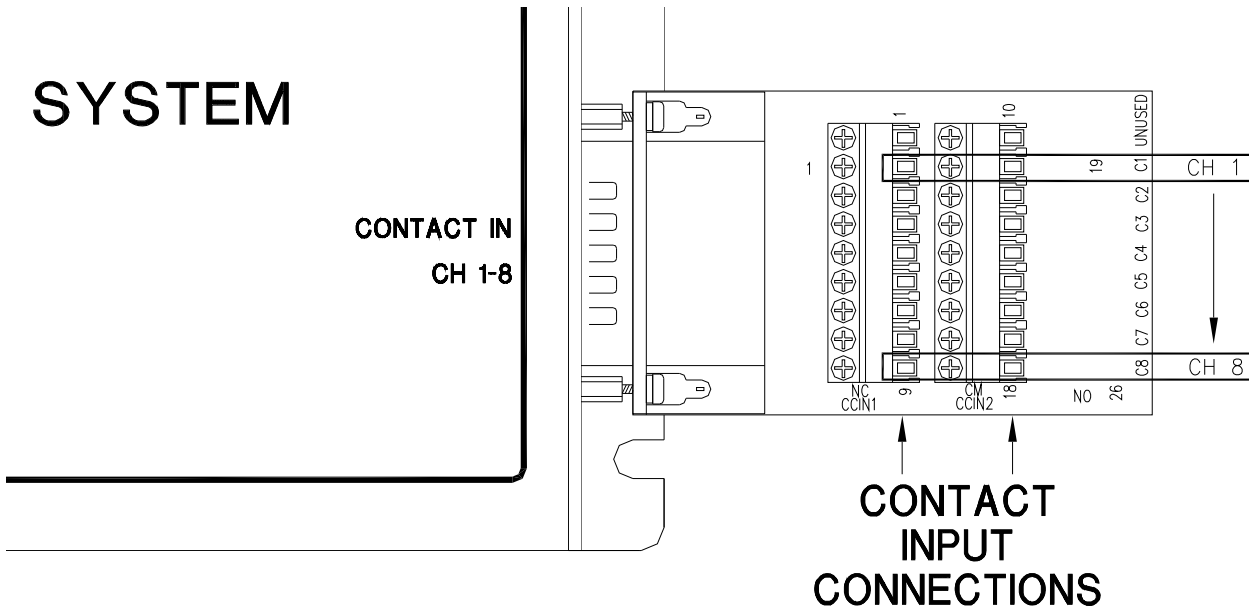
Power is supplied to the unit via a two pin terminal connector on the right side of the unit. See label on unit for proper location of input power.



## FIBER OUTPUT CONNECTION

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

## CONTACT CLOSURE INPUT CONNECTIONS



Contact closure input connections are made via terminal blocks attached to the right side of the unit. Please note that the two Channel 1 inputs begin at the second terminal screw closest to the fiber connection on each of the two nine pin terminal strips. Channels 2 through 8 connections continue down the terminal strip. For optimum performance the copper cables carrying the contact closure signal should be the shortest length of wire practical.

## RESET PUSH BUTTON

A recessed momentary contact push button is located on the left side of the chassis near the LED indicators. Pushing this button causes the MT-81 to send a signal to the MR-81 or RR-81 to reset all its outputs to their default states.

## MT-81 STATUS INDICATORS

The MT-81 provides the following LED status indicators to aid in installation and troubleshooting:

### CC1 THROUGH CC8

A green LED indicator is provided for each of the contact closure inputs to the MT-81. Contact closure status associated with these LED's is summarized below.

Contact Closure LED	Contact Closure Input Status
Green	Contact Input Terminals Closed (Shorted)
Off	Contact Input Terminals Open

### DC PWR

A green LED indicator monitors the internal voltages created within the MT-81. Power status associated with this LED is summarized below.

DC Power Indicator	Power Status
Green	Voltage Present
Off	Voltage Not Present

## 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:

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120 Belmont Drive  
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Phone: (877) 234-7200  
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