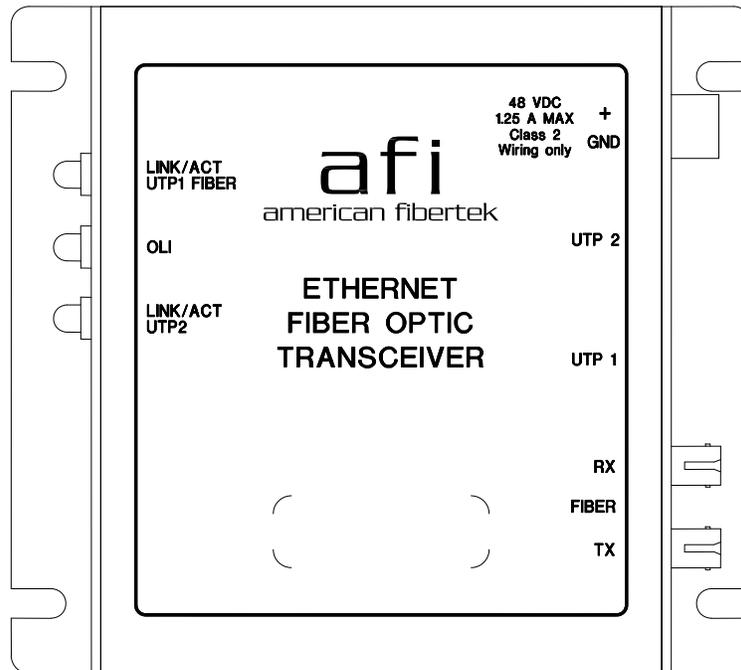


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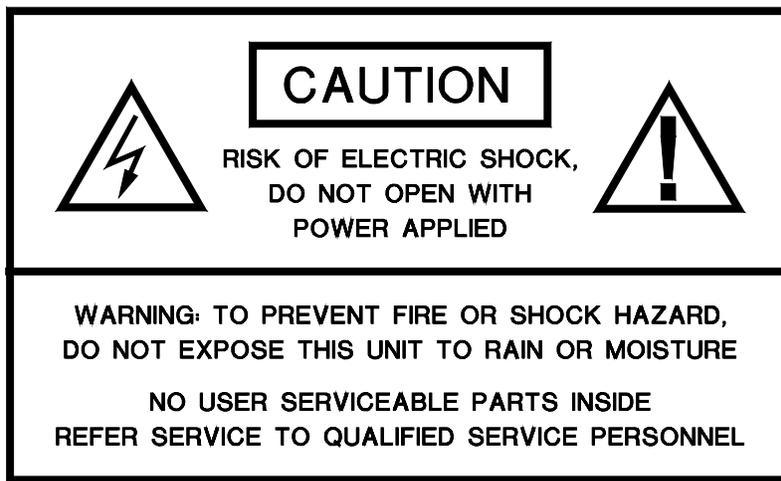
120 Belmont Drive  
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## Instruction Manual

### Series 48 PoE Ethernet Fiber Optic Transceivers



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# INSTALLATION AND OPERATION INSTRUCTIONS

## INTRODUCTION

Thank you for purchasing your American Fibertek Series 48 PoE Ethernet Fiber Optic Transceiver. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

## FUNCTIONAL DESCRIPTION

The Series 48 PoE Transceiver operates as a 3 port Ethernet switch / media converter. It has two copper ports that support triple speed (10/100/1000 BASE-T) Ethernet data and one fiber port that operates at 1000Base-X over Singlemode or Multimode fiber optic cable. Auto MDI/MDIX operation on the copper ports eliminates the potential need for crossover cables. The fiber port is available in the following options (see datasheets for more detail).

- 1 fiber or 2 fiber optical connections
- SX (short range), LX (long range) versions
- SC or ST optical connectors
- Multi-mode or Singlemode
- Modules or Rackcards

The Series 48 PoE also sources power to devices from the RJ45 ports over the copper connection. Both RJ45 ports may be used to deliver dc power (802.3af 15 watts) to IEEE compatible PD (powered devices). An external PS-48V-60W power supply with pre-wired (plug & play) cable assemblies are provided with the Series 48 PoE module.

The PoE module is typically used only at the system edge (to power the camera etc.). The mating unit would then be the non PoE version of the product which is available in module or rack card packages. See Series 48 datasheet.

Cat-5e cable is recommended for the connection between the Series 48 PoE and the PD equipment.

## MODULE INSTALLATION

THE INSTALLATION OF THIS UNIT SHOULD BE MADE BY A QUALIFIED SERVICE PERSON(S) AND MUST CONFORM TO ALL LOCAL CODES.

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

## PoE POWER SUPPLY INSTALLATION

THE INSTALLATION OF THIS UNIT SHOULD BE MADE BY A QUALIFIED SERVICE PERSON(S) AND MUST CONFORM TO ALL LOCAL CODES.

Mount the unit to a secure surface using #8 (3mm) hardware in four places.

## CONNECTIONS

### POWER SOURCE

This Series 48 PoE unit requires a +48VDC 60W power source for proper operation. The external PS-48V-60W power supply +48V output connects to the module. Power is supplied to the unit via a two pin terminal connector. Follow label (+ and GND) on the unit for proper orientation of +48 volt dc and ground.

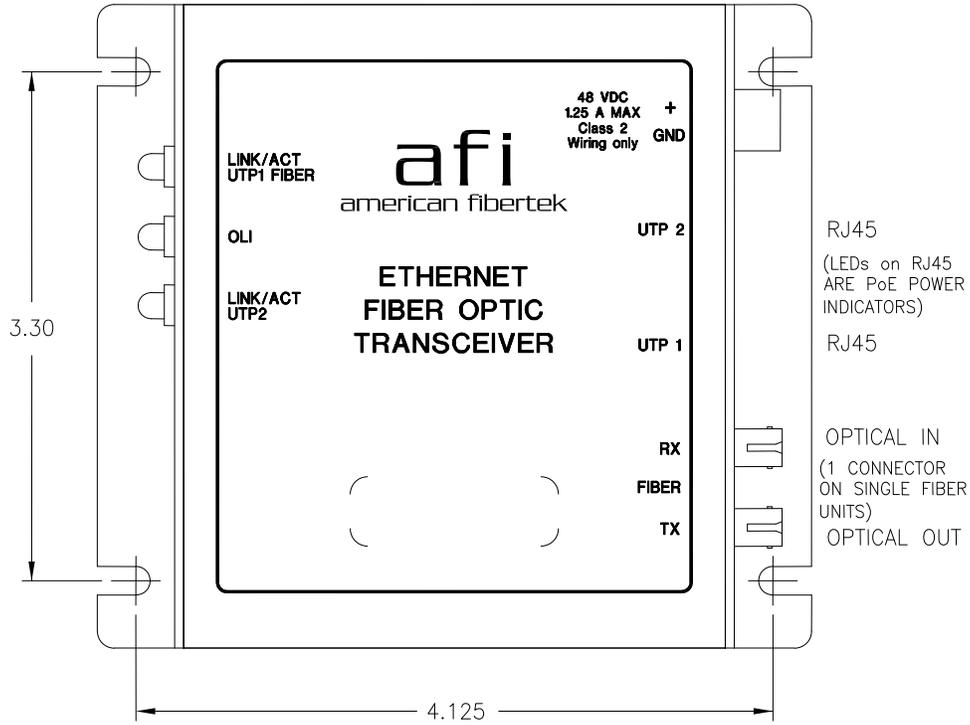
### FIBER PORT CONNECTION

The fiber optic connection is made via an SC or ST optical connector.

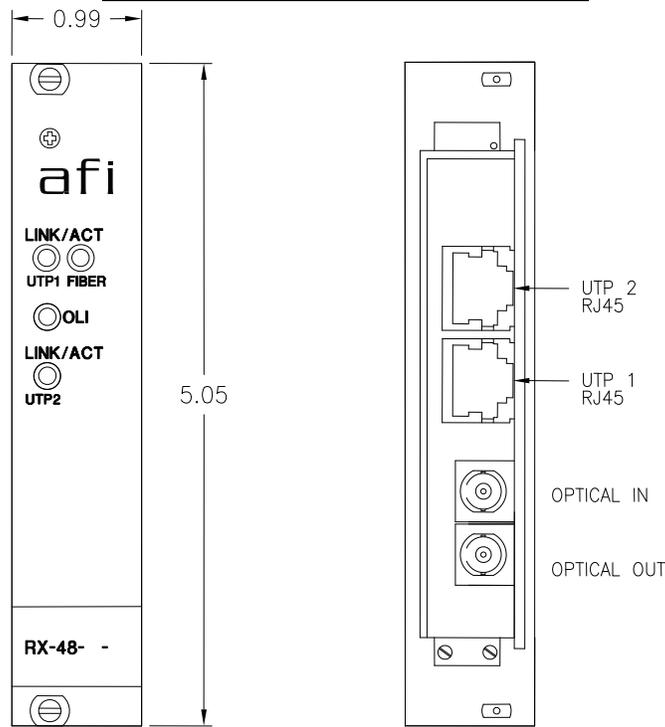
**ETHERNET COPPER INPUT / OUTPUT CONNECTIONS**

Two RJ-45 Ethernet ports are provided on this unit. The UTP Ethernet input/output connections are made via RJ45 plugs. For optimum performance the shortest length of UTP wire practical should be used.

**48 PoE SERIES MODULE**



**48 PoE SERIES RACKCARD**



## **LED INDICATORS**

<b>UTP LINK/ACT</b>	<b>Ethernet Data Rate</b>	<b>Ethernet Data Status</b>
Green	1000 BASE-T	Blink – UTP Link established and Data Activity Solid – UTP Link established and No Data Activity OFF – UTP Link is not established
Red	100 BASE- TX	Blink – UTP Link established and Data Activity Solid – UTP Link established and No Data Activity OFF – UTP Link is not established
Amber	10 BASE- T	Blink – UTP Link established and Data Activity Solid – UTP Link established and No Data Activity OFF – UTP Link is not established

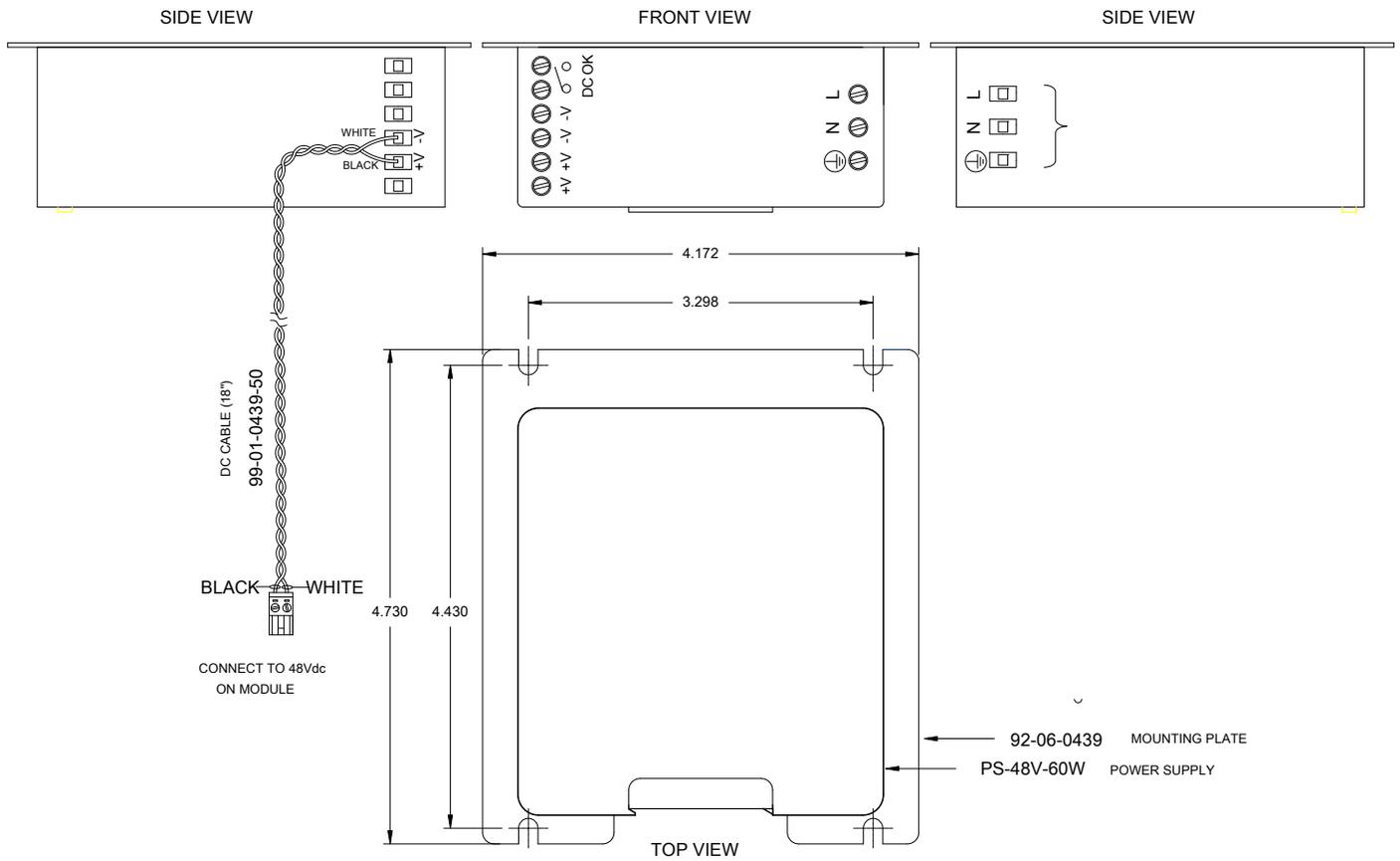
<b>FIBER LINK/ACT</b>	<b>Fiber Data Rate</b>	<b>Fiber Data Status</b>
Green	1000 BASE-X	Blink – FIBER Link established and Data Activity Solid – FIBER Link established, No Data Activity OFF – FIBER Link is not established

<b>OLI</b>	<b>OLI Status</b>
Green	DC Power is on and optical power is at proper level
RED	DC Power is on but optical power is missing or at incorrect level

## **LED INDICATORS ON THE RJ-45 CONNECTORS**

<b>PoE</b>	<b>PoE Indication</b>
RED	PoE power is being supplied to the PD equipment
OFF	No PoE power is being supplied to the PD equipment

# PoE POWER SUPPLY ASSEMBLY



## AC Wiring Options

AFI provides linecords with plugs compatible with the NA, UK, and Euro standards

**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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