

HFD-FO-LON

User Manual

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1. Overview

1.1 Introduction

The LonWorks Fiber Optic Modem is a Field bus Control System (FCS). Our Fiber Optic Modem uses the fiber cable as its transmission medium and utilizes Optical Fiber modulation/demodulation technology to change the electric medium into a light medium transmission.

The LonWorks Fiber Optic Modem product eliminates many of the disadvantages of copper cable. Examples of these disadvantages are EMI/RFI, ground loops (electrical isolation with fiber), high attenuation (high signal loss), short transmission distance between nodes of a system, and potential lightning damage.

The LonWorks Fiber Optic Modem can be widely used, such as Industrial Controls, Intelligent Transportation Systems (ITS), Industrial Networking, Supervisory Control and Data (SCADA) and so on

1.2 Technical Specification

LonWorks	
Connectors	Terminal
Standard	LonWorks(LonTalk)
Data Rate	78.6Kbps
Extended Distance	2.7Km

OPTICAL	
Number of Fibers	2
Wavelength	MM:850/1310nm SM:1310/1550nm
Fiber Type	62.5/125μm(MM), 9/125μm(SM)
Distance	0 ~ 3Km or 0-20 Km
Connector Type	ST/PC

GENERAL	
Operating Temperature	-30~ 70°C / -30 ~ +158°F
Operating Humidity	0 ~ 95% non-condensing
Mean Time Between Failure (MTBF)	> 70,000hrs
Power Supply Adaptor	DC24V
Dimensions (W×H×D)	124.5×43×88.5mm

1.3 Warranty

- Repair
 - Please contact your local distributors when product is defective. Please apply RA in advance and prepay shipping cost when returning the defective product to us. We will pay the cost for sending it back to you.
 - Please attach a statement clearly describing the problem.
- We will repair defective product under warranty free of charge to our customer.
- 5 years warranty for product only.
- Any unauthorized modification of hardware and software voids the warranty.
- Warranty does not cover mishandling and/or abuse of the product.

2 Installation

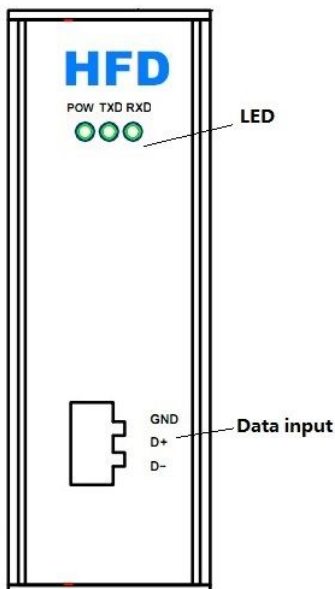
2.1 Package Contents

- TWO Fiber Optic Modem
- One User Manual

Please contact dealer or distributor if part is missing or damaged.

2.2 Enclosure

Front Panel View



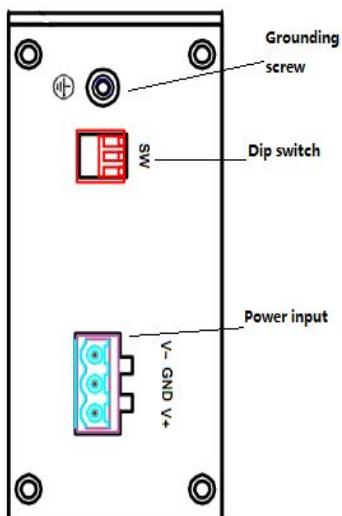
LED Indicators:

POW:	Power Supply	On if power input is OK.
TXD:	The Transmit Fiber Link	Flashing if there is activity.
RXD:	The Receive Fiber Link	Flashing if there is activity..

Data input

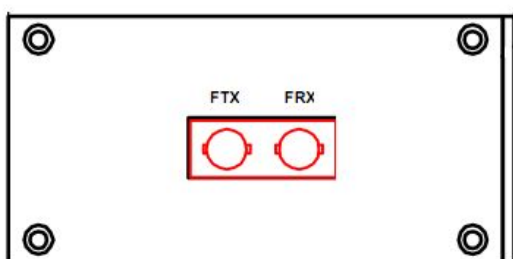
D+:	Connect	LON A
D-:	Connect	LON B
GND:	NONE	

Top Panel View



V-: Connect DC24V power supply"-
V+: Connect DC24V power supply"+
GND:Power Ground

Bottom Panel View



Fiber Optic Connectors:

FTX: Transmitter (Fiber Optic ST)
FRX: Receiver (Fiber Optic ST)

2.3 Install Methods

1. Switch off all power supply before installation.
2. Connect the local “FTX” Fiber Optic to the remote “FRX” Fiber Optic, the local “FRX” to the remote “FTX”. And ensure that fiber is properly aligned to the receiving connector.
3. Connect the “**D+**” Data of the “Lon A” and the “D-” Data to the “Lon B”. Then screw down the bolt.
4. On the bottom of the Modem, there is a DIP Switch., When the D2 is “ON”,it's connected to 120 Ohm terminal resistance.

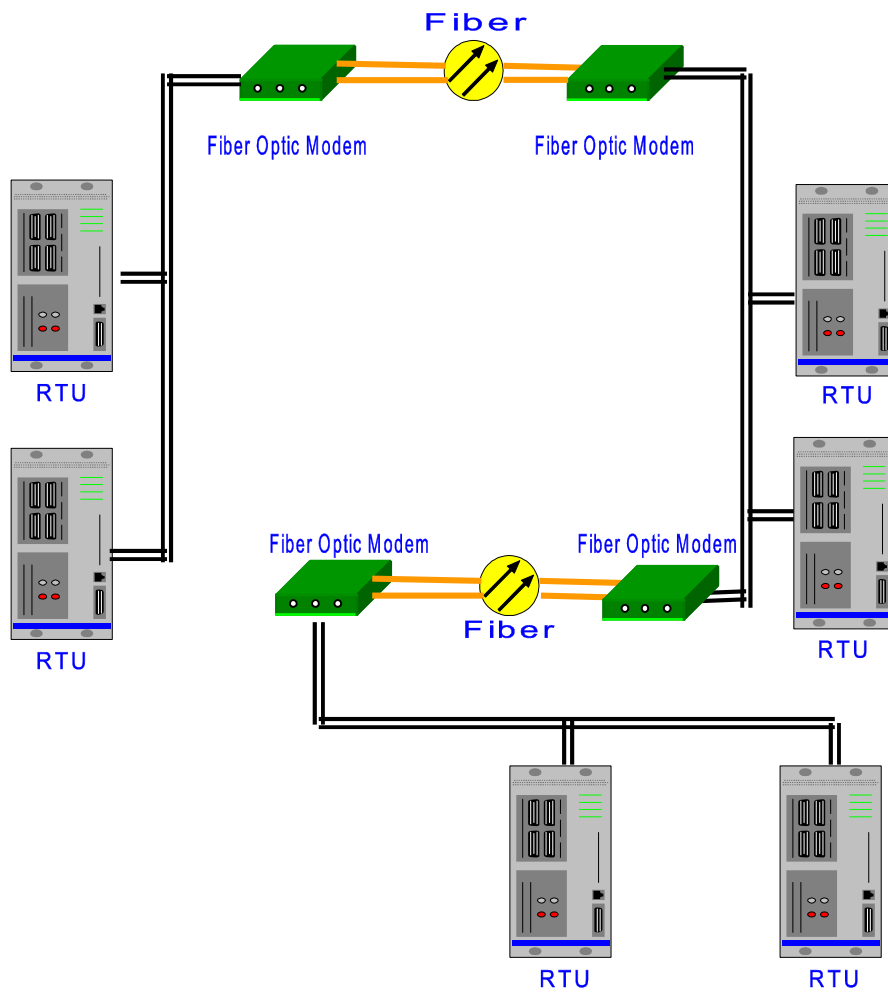
DIP Switch setup table:

DIP Switch pin name	D1	D2	D3
Setup State	OFF	OFF	OFF

120 ohm Terminal Resistance

DIP Switch pin name	D1	D2	D3
Setup State	OFF	ON	OFF

2.4 Install Application



USER MANUAL

3 Dimensions (mm)

