BUENO ELECTRIC

HFB-FO-LON Series

Lonworks Multi-drop BUS Fiber Optic Modem
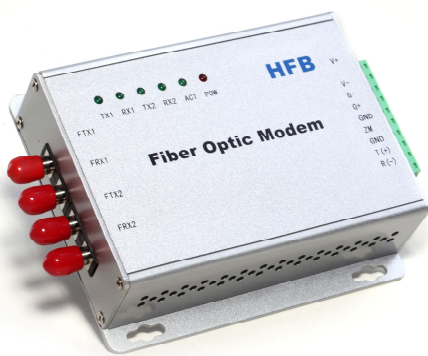
Datasheet & User Manual

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1. Overview

1.1 Introduction

The LONWORKS Fiber Optic Modem is a multi-master and high performance 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 changes 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

CAN BUS	
Connectors	Terminal
Standard	LONWORKS(LonTalk)
Data Rate	78.6Kbps
Extended Distance	0~20Km

OPTICAL	
Number of Fibers	4 or 2
Wavelength	850/1310nm
Fiber Type	62.5/125μm(MM), 9/125μm(SM)
Distance	0 ~ 2Km OR 0-20 Km
Connector Type	SC/ST/FC

GENERAL	
Operating Temperature	-30~ 70˚C / -30 ~ +158ºF
Operating Humidity	0 ~ 95% non-condensing
Mean Time Between Failure (MTB)	> 70,000hrs
Power Supply Adaptor	DC24V
Dimensions (H ×L×W)	125(L)×110(W)×36(H)

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.
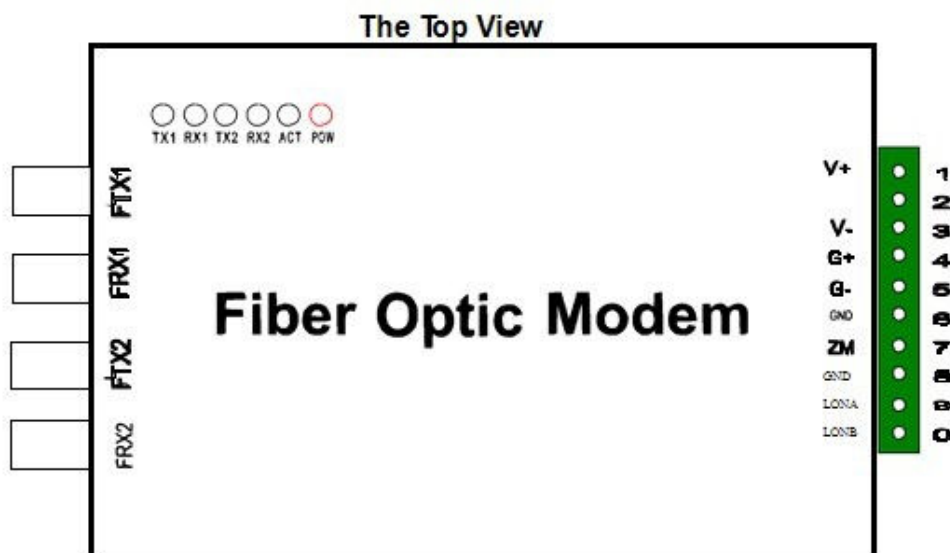- Warranty does not cover mishandling and/or abuse of the product.

2 Installation

2.1 Package Contents

- OneLonworksFiber Optic Modem
- One power supply adaptor
- One User Manual

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

2.2   Wall Mount Enclosure

The Top View

Fiber Optic Modem

TX1 RX1 TX2 RX2 ACT POW

FTX1
FRX1
FTX2
FRX2

V+
V-
G+
G-
GND
ZM
GND
LONA
LONB

1
2
3
4
5
6
7
8
9
0

LED Indicators:

POW	Power Supply	On if power input is OK.
ACT :	Profibus Data transmit/receive.	Flashing if there is activity.
FTX1	The secondary ring Transmit Fiber Link	Flashing if there is
FRX1	The secondary ring Receive Fiber Link	Flashing if there is
FTX2	The primary ring Transmit Fiber Link	Flashing if there is
FRX2	The primary ring Receive Fiber Link	Flashing if there is

Connectors:

Terminal (10 pins) assignment:

Pin	Signal	Description
1	V+	24VDC+
	NC	Power Ground
2	V-	24VDC-
3	G+	None
4	G-	None
5	GND	None
6	ZM	None
7	GND	GND of LON
8	LONA	
	LONB	

FTX1: Fiber Optical ST of the secondary channel (transmit)

FRX1: Fiber Optical ST of the secondary channel (receive)

FTX2: Fiber Optical ST of the primary channel (transmit)

FRX2: Fiber Optical ST of the primary channel (receive)

2.3 Caution

- Switch off all power supply before installation
- Ensure fiber is properly aligned to the receiving connector
- Do NOT stare at the fiber core
- On the bottom of the product, there is a DIP Switch, the users should setup the DIP Switch according to the selecting mode.

DIP   Switch   setup
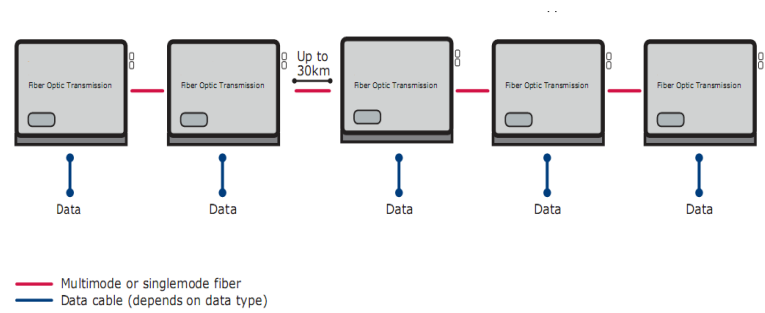
table: The   Primary

mode:

DIP	D	D	D	D	D
STATE	OFF	Terminal Resistance	OFF	OFF	OFF

The Secondary mode:

DIP	D	D	D	D	D
STATE	OFF	Terminal Resistance	OFF	ON	OFF

2.4 Install Application

Multimode or singlemode fiber
Data cable (depends on data type)

3   Dimensions (mm)

Wall Mount: