



# **RS-485 Fiber Optic Modem**

## **HFB-FO-485-P1S**

### **User Manual**

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## 1. Overview

### 1.1 Introduction

The RS-485 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 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 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

<b>CAN BUS</b>	
Connectors	Terminal
Standard	RS-485
Data Rate	0 -1Mbps
Extended Distance	0-1200Km

<b>OPTICAL</b>	
Number of Fibers	1
Wavelength	850/1310nm(MM) <b>1310/1550nm(SM)</b>
Fiber Type	62.5/125μm(MM), <b>9/125(SM)</b>
Distance	0~2Km(MM), <b>0 ~ 20Km(SM)</b>
Connector Type	ST/PC

<b>GENERAL</b>	
Operating Temperature	-25 ~ 60°C / -25 ~ +138°F
Operating Humidity	0 ~ 95% non-condensing
Mean Time Between Failure (MTBF)	> 70,000hrs
Power Supply	Input: 24 VDC Output: +5VDC, 1.5A
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

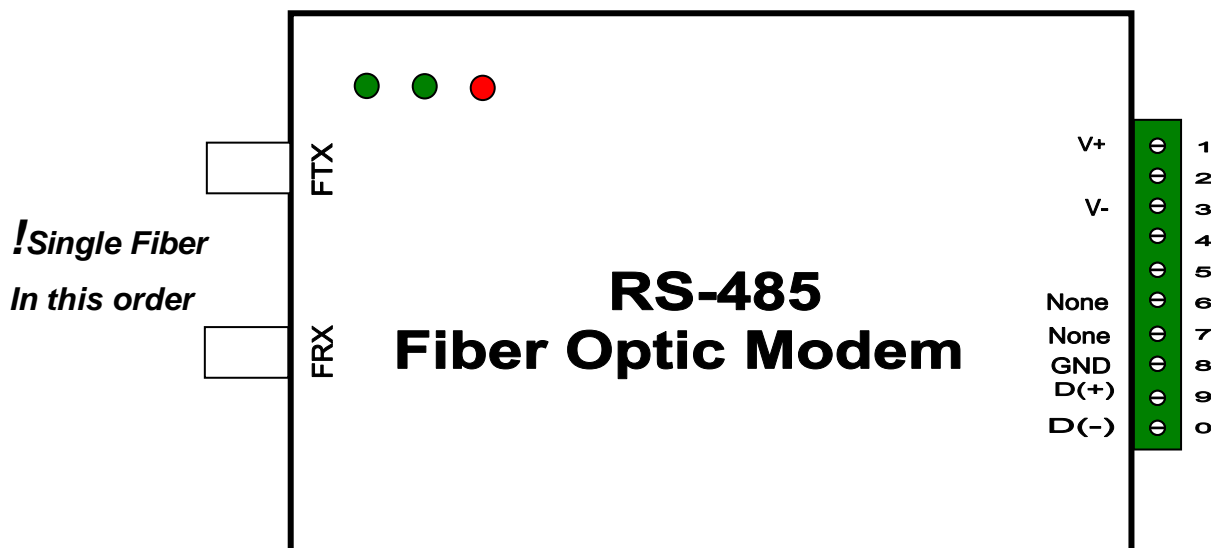
### 2.1 Package Contents

- One Fiber Optic Modem
- One User Manual(CD)

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

### 2.2 Enclosure

Fiber Optic Modem Top View



#### LED Indicators:

POW:	Power Supply,	On if power input is OK.
TX:	Fiber Link,	Flashing if data transmitting is in OK.
RX:	Fiber Link,	Flashing if data receiving is in OK.

#### Fiber Optic Connectors:

TX:	Transmitter (Fiber Optic ST)
RX:	Receiver (Fiber Optic ST)

**Note:** On this converter, the TX and RX are both connected to one single fiber.

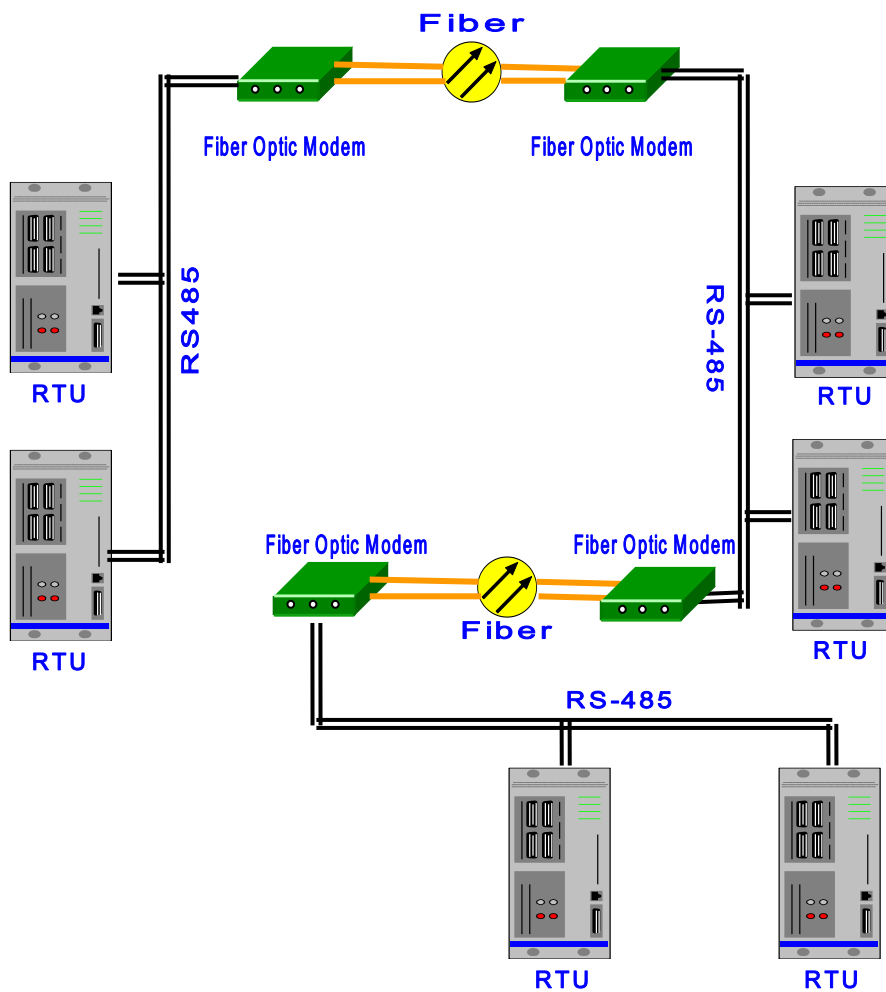


## Terminal Definition

Terminal pins assignment:

1	_____	V+	24V DC V+ Power input
2			
3	_____	V-	24V DC V- Power input
4			
5			
6			
7			
8	_____	GND	
9	_____	D+	RS-485+ data wire
0	_____	D-	RS-485- data wire

## 2.3 Install Application



## Install Application

### 3 Dimensions (mm)

### 3 Dimensions (mm)

Wall Mount:

