

**HFD-FO-485-P2S**

**User Manual**

## Table of Contents

<b>1. Overview .....</b>	<b>3</b>
1.1 Introduction .....	3
1.2 Technical Specification.....	3
1.3 Warranty .....	4
<b>2. Installation .....</b>	<b>5</b>
2.1 Package Contents .....	5
2.2 Enclosure .....	5
2.3 Install Method.....	6
2.4 Install Application .....	7
<b>3. Dimensions.....</b>	<b>8</b>

## 1. Overview

### 1.1 Introduction

The HFD RS-485 fiber optic Converter is a multi-master and high performance Field bus Control System (FCS). Our FMC fiber optic converter 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 converter 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 HFB Fiber Optic converter 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>RS-485</b>	
Connectors	Terminal
Standard	RS-485
Data Rate	DC-115.2kBit/s
Extended Distance	0~20Km

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

<b>GENERAL</b>	
Operating Temperature	-30~ 70C / -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 ( <i>New Size</i> )

## 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

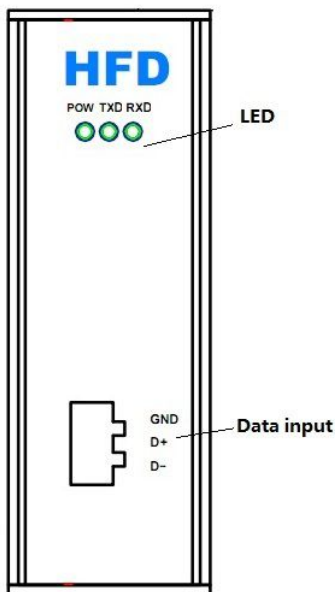
### 2.1 Package Contents

- TWO Fiber Optic converter
- One User Manual

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

### 2.2 Enclosure

Front Panel View



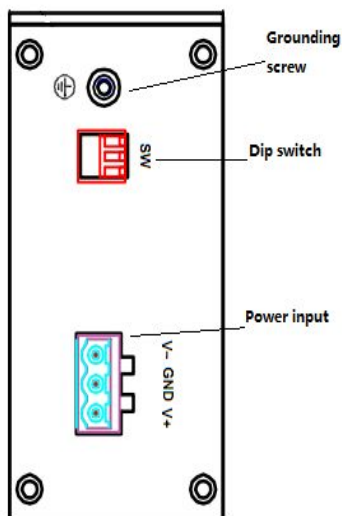
#### LED Indicators:

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

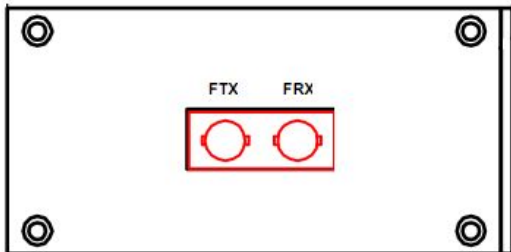
D+:Connect RS-485+ or Line A  
D-: Connect RS-485+ or Line B  
GND:GND of RS-485

Top Panel View



V-:DC24V+  
V+:DC24V-  
GND:GND of DC

## 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 Profibus+ and the "T-" Data to the Profibus-. Then screw down the bolt.
4. On the bottom of the converter, there is a DIP Switch., When the D2 is "ON",it's connected to 120 Ohm terminal resistance.

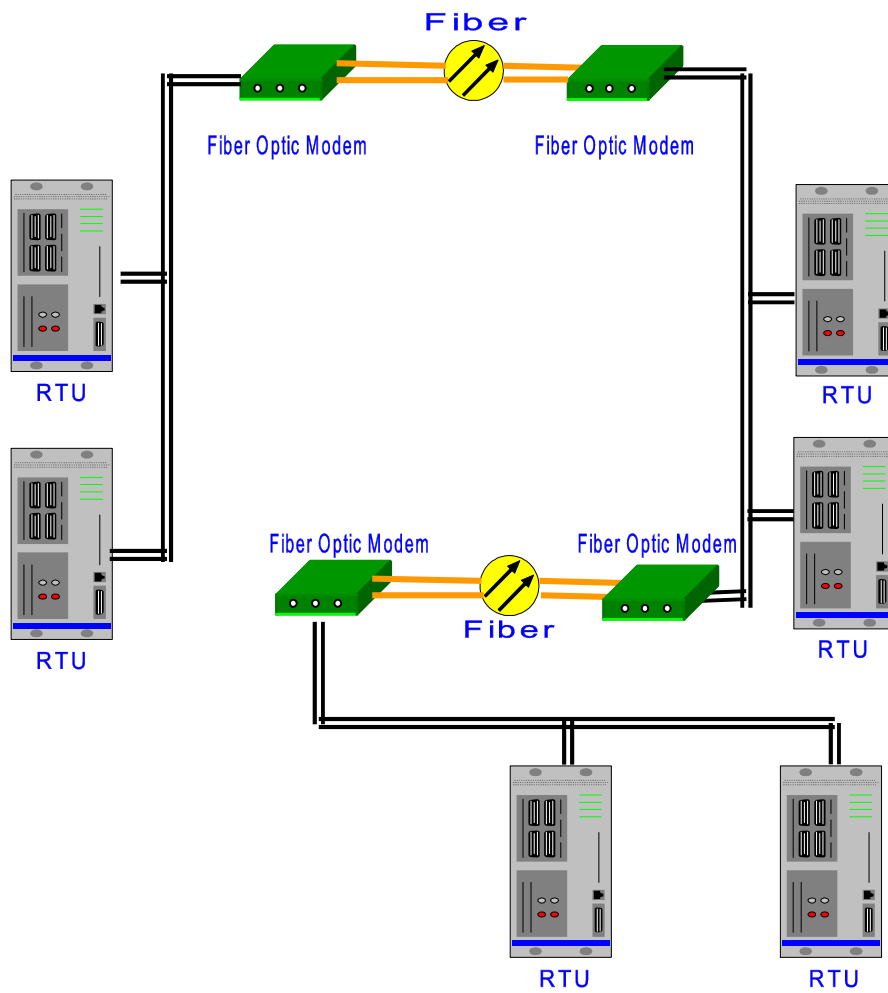
DIP Switch setup table:

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	<b>ON</b>	OFF

## 2.4 Install Application



# USER MANUAL

## 3 Dimensions (mm)

