

# Quick Installation Guide

## ISC-1310FB Series





## Industrial Serial Media Converter

### Introduction

The ISC-1310FB is a cost-effective solution for conversion between RS-232/422/485 and 100Base-FX interfaces, allowing you to extend serial communication distances using optical fiber. The device provides a wide operating temperature ranging from -40 ~ 70°C and a wide voltage range from 12~48 VDC power inputs, making it an ideal serial media converter suitable for harsh environments.

### Package Contents





The device is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

Contents	Pictures	Number
ISC-1310FB-MM or ISC-1310FB-SS		X 1
DIN-rail Kit		X 1
Wall-mount Kit		X 2
QIG		X 1

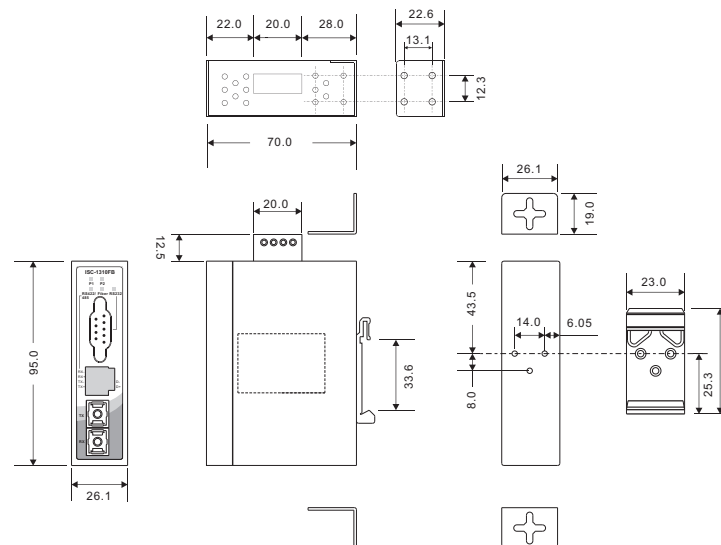
### Preparation

Before installation, make sure you have all of the package contents available.

#### Safety & Warnings

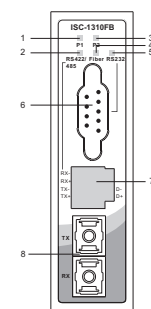
-  **Elevated Operating Ambient:** If installed in a closed cabinet, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.
-  **Reduced Air Flow:** Installation of the equipment should be such that the amount of air flow required for safe operation of the equipment is not compromised.
-  **Mechanical Loading:** Mounting of the equipment in the din-rail should be such that a hazardous condition is not achieved due to uneven mechanical loading.
-  **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

#### Dimension (Unit: mm)

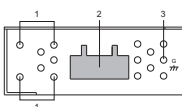


#### Panel Layouts

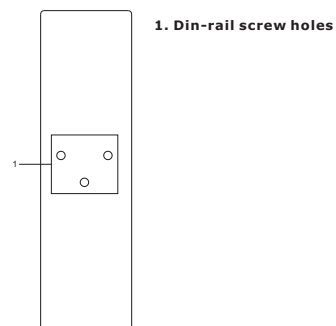
##### Front Panel



##### Top Panel



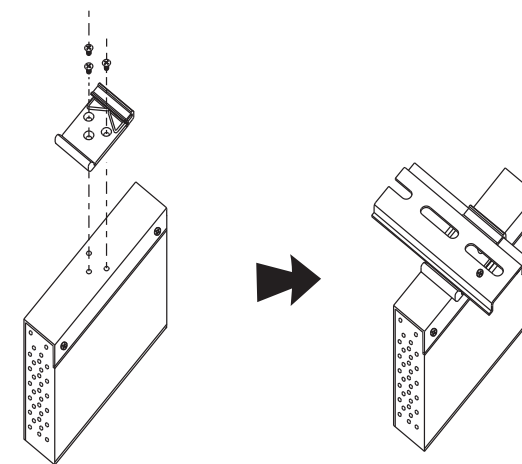
##### Rear Panel



### Installation

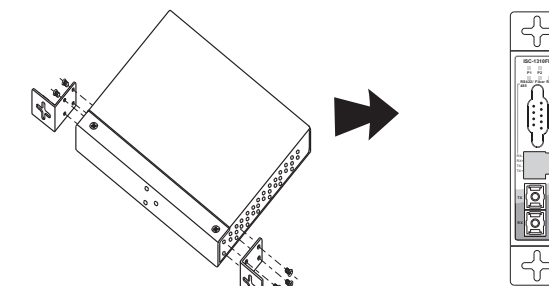
#### DIN-rail Installation

- Step 1:** Slant the switch and screw the Din-rail kit onto the back of the switch, right in the middle of the back panel.
- Step 2:** Slide the switch onto a DIN-rail from the Din-rail kit and make sure the switch clicks into the rail firmly.



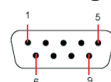
#### Wall-mounting

- Step 1:** Screw the two pieces of wall-mount kits onto both sides of the switch. A total of eight screws are required, as shown below.
- Step 2:** Use the switch, with wall mount plates attached, as a guide to mark the correct locations of the four screws.
- Step 3:** Insert four screw heads through the large parts of the keyhole-shaped apertures, and then slide the switch downwards. Tighten the four screws for added stability.



## Specifications

### PIN Assignment



#### RS-232

The device provides a RS-232 port in DB9 connector. Please refer to the following table for pin assignments.

Pin No.	Assignment	Description
# 1	DCD	Data Carrier Detect
# 2	RXD	Receive Data
# 3	TXD	Transmit Data
# 4	DTR	Data Terminal Relay
# 5	SG	Signal Ground
# 6	DSR	Data Set Relay
# 7	RTS	Request Set Relay
# 8	CTS	Clean to Sand
# 9	RI	Ring Indicator

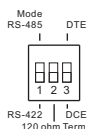


#### RS-422/485

The device provides a 4-pin terminal block for RS-232/422/485 signal transmission. Please refer to the following table for pin assignments.

Pin No.	Assignment	Description
# 1	Tx+/D+	RS-422/485 Transmission Line, Positive
# 2	Tx-/D-	RS-422/485 Transmission Line, Negative
# 3	Rx+	RS-422/485 Receiver Line, Positive
# 4	Rx-	RS-422/485 Receiver Line, Negative

### Dip Switch



SW No.	Description
# 1	RS-422 / RS-485 mode selection
# 2	Enable / Disable 120 ohm terminal resistor
# 3	RS-232 DTE / DCE switch

### Wiring

#### Power inputs

The device provides a 12~48VDC power input on a 4-pin terminal block. Please follow steps below to connect power cables.

**STEP 1:** Insert the negative/positive wires into the V-/V+ terminals, respectively.

**STEP 2:** To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.



## Configurations

After installing the device and connecting cables, the green power LED should turn on. Please refer to the following table for LED indication.

### LED indication table

LED	Color	Status	Description
P1	Green	On	DC power module 1 activated
P2	Green	On	DC power module 1 activated
RS-422/485	Green	On	Port is linked and data transmitting between RS-422/RS-485 and optical fiber
Fiber	Green	On	Port is linked and exchanging data
RS-232	Green	On	Port is linked and data transmitting from between RS-232 and optical fiber

ORing Media Converter Model	ISC-1310FB-MM	ISC-1310FB-SS
<b>Fiber Port</b>		
Fiber Port Number	1	
Fiber Port Speed	100Base-FX	
Fiber Optical Connector	SC	
Fiber Mode	Multi-mode	Single-mode
Typical Distance (km)	2 Km	30 Km
Wavelength (nm)	1310 nm	1310 nm
TX Output	> -23.5 dbm	> -15 dbm
RX sensitivity	-31 dbm	-34 dbm
Point-to-point transmission	Full-Duplex	
<b>Serial Port</b>		
Connector	DB9(male) x1, terminal block x 1	
Operation Mode	RS-232 / RS-422 / 4(2)-Wire RS-485.	
Serial Baud Rate	50 bps to 921.6 Kbps	
Data bit	5, 6, 7, 8	
Parity	None, Even, Odd, Space, Mark	
Stop bit	1, 1.5, 2	
RS-232	TxD, RxD, GND	
RS-422	TX+, TX-, RX+, RX-, GND	
RS-485	TX+, TX-, RX+, RX-, GND	
<b>Power</b>		
Input power	Dual DC inputs. 12~48VDC on 4-pin terminal block	
Power consumption(Typ.)	1.8 watts	
Overload current protection	Present	
<b>Physical Characteristic</b>		
Enclosure	IP-30	
Dimension (W x D x H)	26.1(W) x 70(D) x 95(H)mm (1.03x 2.76 x 3.74inch.)	
Weight (g)	192 g	
<b>Environmental</b>		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-40 to 70°C (-40 to 158°F)	
Operating Humidity	5% to 95% Non-condensing	
<b>Warranty</b>	5 years	

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