3onedata
Make network communication more reliable

IMF204-2F Series
Ring Network Serial to Fiber MODEM
Quick Installation Guide

3onedata Co., Ltd.

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Song Bai Road, Nanshan District, Shenzhen, 518108, China

Website: www.3onedata.com

Tel: +86 0755-26702688

Fax: +86 0755-26703485

【Package Checklist】

Please check whether the package and accessories are intact while using the device for the first time.

1. Serial to fiber MODEM
2. Power line (AC standard feature)
3. Lug x2
4. Certification
5. Warranty card

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

【Product Overview】

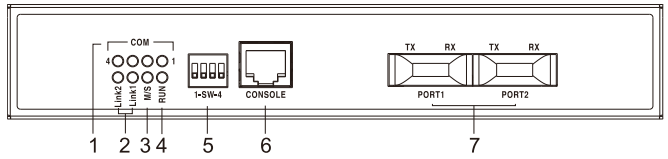
The products of this series are industrial unmanaged ring network serial to fiber MODEM, Models are as follow:

Model I. IMF204-2F-4DI(RS-485)-P(12~48VDC)（2 fiber interfaces + 4 RS-485 serial ports, 12~48VDC）

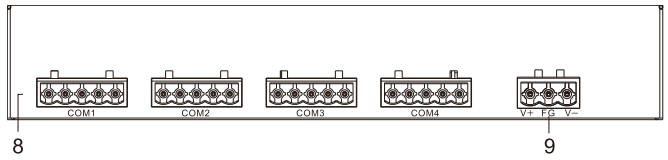
Model II. IMF204-2F-4DI(RS-485)-P(100~240VAC)（2 fiber interfaces + 4 RS-485 serial ports, 100~240VAC）

【Panel Design】

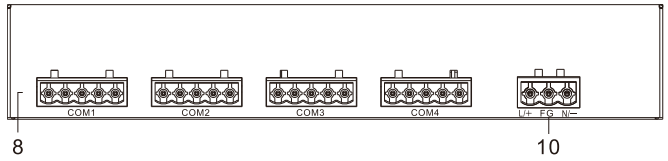
➢ **Front View**



➢ **Rear view**



Model I

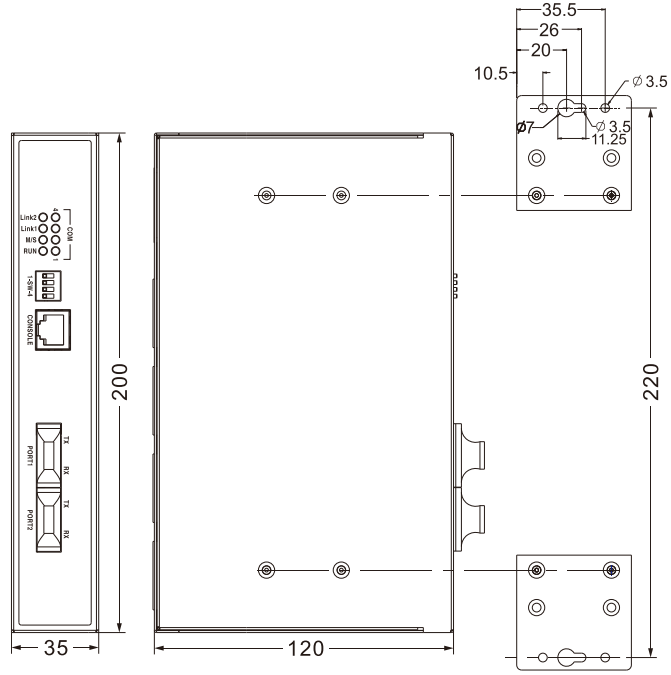


Model II

1. Serial port transmitting and receiving data indicators
2. Fiber port connection status indicator
3. Master/Slave device status indicator
4. Running status indicator
5. DIP switch
6. CONSOLE port
7. Fiber interface
8. RS-485 serial port
9. Terminal block of 12~48VDC power supply input
10. Terminal block for 100~240VAC power supply input

【Mounting Dimension】

Unit: mm

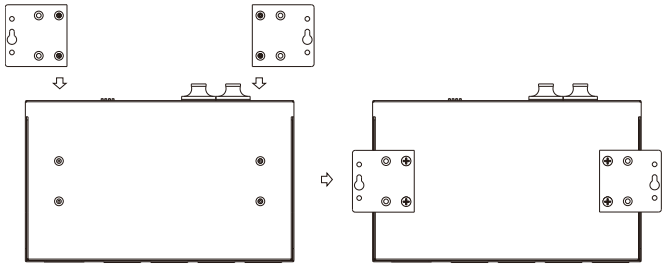


Notice Before Mounting:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

【Wall-mounted Device Mounting】

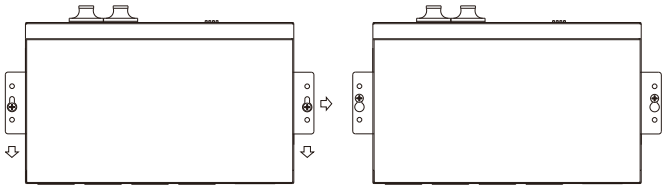
Step 1 Adopt M3 screw to install the left/right mounting board on the device backboard.



Step 2 On the wall of device mounting, place the device on the wall for reference or refer to the mounting dimension to mark two screw positions.

Step 3 Nail M4 screws on the wall and keep 2mm interspace reserved.

Step 4 Hang the device on two screws and slide downward, then tighten the screw to enhance stability, mounting ends.



【Device Disassembling】

Step 1 Power off the device.

Step 2 Unscrew the screw on the wall about 2mm.

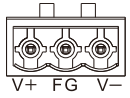
Step 3 Lift the device upward slightly; take out the device, disassembling ends.

Notice before power on:

- Power ON operation: First insert the power supply terminal block into the device power supply interface, then plug the power supply plug contact and power on.
- Power OFF operation: First, remove the power plug, and then remove the wiring section of terminal block. Please pay attention to the above operation sequence.

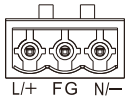
【Power Supply Connection】

➢ **12~48VDC power supply**



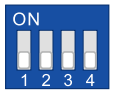
Model I provides 3-pin 5.08mm pitch industrial terminal blocks, in which V+ and V- are DC input. FG is the shell or grounding. The power supply supports non-polarity connection, and the equipment can still work normally after reverse connection. Voltage range: 12~48VDC.

➢ **100~240VAC Power Supply**



Model II provides 3-Pin 5.08mm pitch industrial terminal blocks, in which L/+ and N/- are AC input. FG is the shell or grounding. Supports 220 VAC power supply input. Power supply range: 100～240VAC.

【DIP Switch Settings】

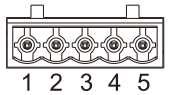


The device provides 4 pins DIP switch for function setting, in which “ON” is the enabled end. DIP switch definition and operation method as follows:

No.	Definition	Operation
1	Master/slave device	Set the DIP Switch to “ON” and the device works as the master device of the ring network; Cancel setting of DIP Switch to “ON” , device works as ring network slave device.
2	Reserved	—
3	Reserved	—
4	Reserved	—

【Serial Port Connection】

➢ **RS-485 serial port**



The RS-485 serial ports provided by the product of this series are 5-pin 3.81mm pitch industrial terminal blocks. The pin definitions as shown in the following table:

PIN	1	2	3	4	5
RS-485	D+(A)	D-(B)	GND	—	—

【Checking LED Indicator】

The device provides LED indicators to monitor its operating status, which has simplified the overall troubleshooting process. The function of each LED is described in the table below:

LED	Indicate	Description
RUN	Blinking	The system is running normally
	OFF	The system is not running or running abnormally
M/S	ON	The device works as the master device of the ring network
	OFF	The device works as the slave device of the ring network
LINK(1-2)	ON	Fiber port has established valid network connection
	OFF	Fiber port hasn’t established valid network connection
COM(1-4）	Blinking	Serial port is transmitting and receiving data normally.
	OFF	Serial port is transmitting data or receiving data abnormally

【Specification】

Panel	
Fiber port	SC/ST/FC optional, support ring network redundancy
Serial Port	RS-485 serial port, 5-pin 5.08mm pitch terminal blocks
CONSOLE port	Reserved
Indicator	Running status indicator, master/slave device status indicator, fiber port indicator, serial port indicator
Power Supply	
Model I	Input power: 12~48VDC

	Access terminal: 3-pin 5.08mm pitch terminal blocks Power supply protection: supports non-polarity
Model II	Input power: 100~240VAC Access terminal: 3-pin 5.08mm pitch terminal blocks
Power Consumption	
Model I	No-load: 2.76W@24VDC Full-load: 2.93W@24VDC
Model II	No-load: 3.5W@220VAC Full-load: 3.7W@220VAC
Working Environment	
Working temperature	Storage temperature:-10~70℃
Storage temperature	Storage temperature:-10~70℃
Working humidity	5%～95% (no condensation)
Protection grade	IP30(metal shell)