IMF2100 Series

DIN-Rail Mounting
1/2 Fiber Ports +1 RS-232/485/422 Serial to Fiber MODEM

- Support 1/2 fiber ports and 1 RS-232/485/422 serial port with isolation

- Support 1 relay alarm output for power failure and disconnection of fiber optics

- Support multiple optional power solutions including 85~265VAC, 110~370VDC or 12-48VDC (single/dual power supply)

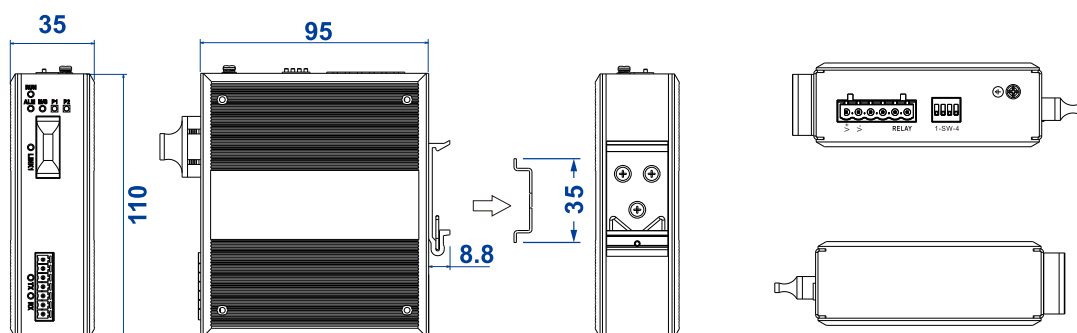- Support -40～75℃ wide operating temperature range

Introduction

IMF2100 series are 1/2 fiber ports + 1 RS-232/485/422 serial to fiber MODEM. They convert RS-232/485/422 serial port signal to optical signal and provide users with RS-232/485/422 serial port to implement transparent end-to-end transmission. This series provide 1 or 2 fiber ports with ring network function, 1 RS-232/485/422 serial port and multiple optional power solutions like 85~265VAC, 110~370VDC or 12-48VDC (single/dual power supply). They adopt DIN-Rail mounting, which can meet the requirements of different scenes.

The DIP switch could implement functions like Master/Slave option, RS-485 terminal resistance enablement, relay alarm of power failure and fiber optics disconnection (notes: power supply alarm is only for dual power supply product), etc. when fiber optics disconnects or dual power supply fails, ALM indicator would be bright and send alert, at the same time the alarm device connecting to the relay would sent alert for quick trouble shooting on the scene. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in various situations like industrial control, process control, traffic control and intelligent residential district, and particularly applicable to bank, electricity, departments and systems that have special requirements relating to electromagnetic interference environment.
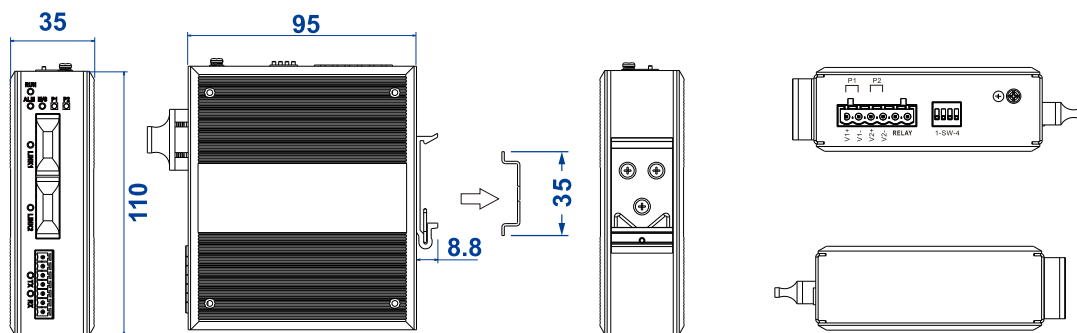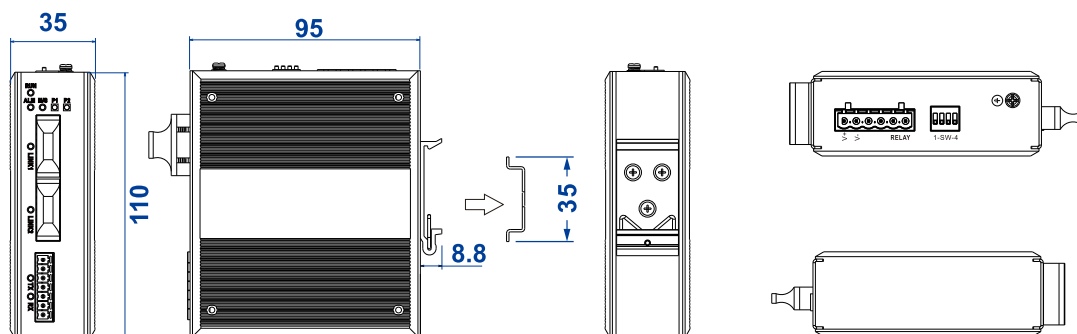
Dimension

Unit:mm

- IMF2100-1F-1DI(3IN1)-TB-P(12-48VDC), IMF2100-1F-1DI(3IN1)-TB-P(85-265VAC)

- IMF2100-2F-1DI(3IN1)-TB-2P(12-48VDC)

● IMF2100-2F-1DI(3IN1)-TB-P(110-370VDC), IMF2100-2F-1DI(3IN1)-TB-P(85-265VAC)

Specification

Fiber Port	Interface quantity: 1/2 (support ring network) Fiber port: optional SC/FC/ST interface Transmission distance: ● Multimode: 2km ● Single mode: 20/40/60km Transmission wavelength: ● Multimode: 1310nm ● Single mode: 1310nm or 1550nm
Serial Port	Standard: EIA RS-232C, RS-485, RS-422 Serial port: 1 RS-232/485/422 serial port, can't be used simultaneously RS-232 signal: RXD, TXD, GND RS-485 signal: D+, D-, GND RS-422 signal: T+, T-, GND, R+, R- Baud rate: 300~115200bps Data bit: 5bit, 6bit, 7bit, 8bit Stop bit: 1bit, 1.5bit, 2bit Check bit: None, Even, Odd, Space, Mark Interface type: 7-pin 3.81mm pitch terminal block

Direction control: RS-485 adopts automatic data flow control technology

Load capacity: RS-485 supports 32-point polling environment (128-point could be customized)

RS-485 pull up/down resistor: 4.7kΩ

RS-485 terminal resistance: built-in 120Ω, could be controlled by DIP switch

Transmission distance: RS-232 serial port, 15m；

RS-485/422 serial port, 1200m

Relay	Relay quantity: 1 relay alarm output Connection method: 6-pin 5.08mm pitch terminal block(relay occupies 2 pins) Current load: 1A@30VDC, 0.3A@125VAC Default relay status: normally open
LED Indicator	Power Supply Indicator, Fiber Port Connection Indicator, Master/Slave Indicator, Alarm Indicator, Serial Port Data Receiving Indicator, Serial Port Data Sending Indicator
Power Requirement	Support four optional power solutions, 12~48VDC (single power supply), 12~48VDC (dual power supply), 110~370VDC or 85~265VAC Solution 1 ● Power supply range: 12~48VDC ● Connection method: 6-pin 5.08mm pitch terminal blocks (power supply occupies 4 pins) ● Power supply protection: built-in 2.0A over-current protection and non-polarity ● Power supply redundancy: support Solution 2 ● Power supply range: 12~48VDC ● Connection method: 6-pin 5.08mm pitch terminal blocks (power supply occupies 2 pins) ● Power supply protection: built-in 2.0A over-current protection and non-polarity Solution 3 ● Power supply range: 110~370VDC ● Connection method: 6-pin 5.08mm pitch terminal blocks (power supply occupies 2 pins) ● Power supply protection: built-in 2.0A over-current protection and non-polarity

	Solution 4 ● Power supply range: 85~265VAC ● Connection method: 6-pin 5.08mm pitch terminal blocks (power supply occupies 2 pins) ● Power supply protection: built-in 2.0A over-current protection
Power Consumption	No-load: ≤3.0W@24VDC Full-load: ≤3.4W@24VDC
Environmental Limit	Operating temperature: -40~75℃ Storage temperature: -40~85℃ Relative humidity: 5% ~ 95%(no condensation)
Physical Characteristic	Housing: IP40 protection, metal Installation: DIN-Rail mounting Weight: ≤360g Dimension (W x H x D): 35mm×110mm×95mm
Industrial Standard	IEC 60950-1 / EN 60950-1: Safety EN 55032: Conducted & Radiated Disturbances IEC 61000-3-2 Harmonic Current Emission IEC 61000-3-3 Voltage Fluctuation & Flicker EN 55024 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-8 IEC 61000-4-11
Certification	CE, FCC, RoHS

Ordering Information

Available Models	Fiber Port	RS-232/485/422	Power Supply
IMF2100-1F-1DI(3IN1)-TB-P(12-48VDC)	1	1	12~48VDC (single power supply)
IMF2100-2F-1DI(3IN1)-TB-2P(12-48VDC)	2	1	12~48VDC (dual power supply)
IMF2100-2F-1DI(3IN1)-TB-P(110-370VDC)	2	1	110~370VDC
IMF2100-1F-1DI(3IN1)-TB-P(85-265VAC)	1	1	85~265VAC
IMF2100-2F-1DI(3IN1)-TB-P(85-265VAC)	2	1	

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