3onedata
Reliable Connections



IMF2100 Series

DIN-Rail Mounting

1/2 Optional Fiber Ports + 1 RS-232/485/422 Serial Port Optical MODEM

- Support 1/2 optical fiber interfaces and 1 RS-232/485/422 with isolated serial port
- Support one relay alarm output for power failure alarm and optical fiber disconnection alarm
- Support ring network topology with one master and multiple slaves; serial-to-fiber conversion delay below 15μs
- Support 300bps~115200bps serial port baud rate
- Support 12~48VDC dual power supply, 110~370VDC or 85~265VAC and other power supply schemes
- Support -40~75℃ wide operating temperature range

Introduction

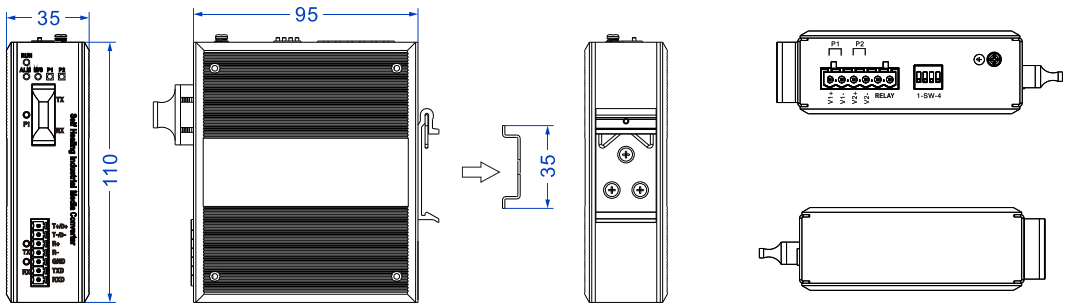
IMF2100 series are 1/2 optional fiber ports + 1 RS-232/485/422 serial port optical MODEMs, which convert RS-232/485/422 serial signal into optical signal, provide RS-232/485/422 serial port to users, and realize end-to-end transparent transmission. This series of products provide one or two optical fiber interfaces and one RS-232/485/422 serial port; The power supply supports 12~48VDC dual power supply, 110~370VDC or 85~265VAC (optional); 2 optical fiber interface products support ring network function. This series of products adopt DIN-Rail installation mode, which can meet the needs of different application sites.

The design of the DIP switch can realize the functions including master/slave ring network selection, RS-485 terminal resistance enable, relay power failure alarm and relay optical fiber disconnection alarm (Note: the power alarm function is only for dual power supply products). When the optical fiber disconnects or the dual power supply has failure, the ALM indicator will be bright and send out alarm, meanwhile, the alarm device connected to the relay will send out alarm for rapid scene troubleshooting. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can fit the industrial scene environment with harsh requirements for EMC. It can be widely used in various industrial control, process control, traffic control, intelligent community, and other occasions, especially suitable for banks, electric power and departments and systems with special requirements for electromagnetic interference environment.

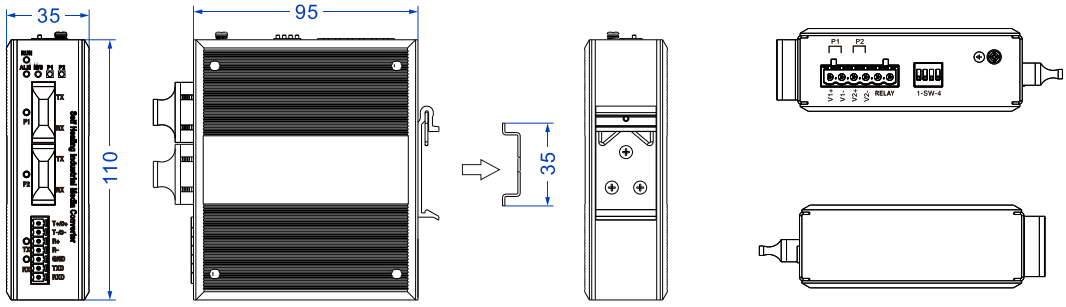
Dimension

Unit: mm

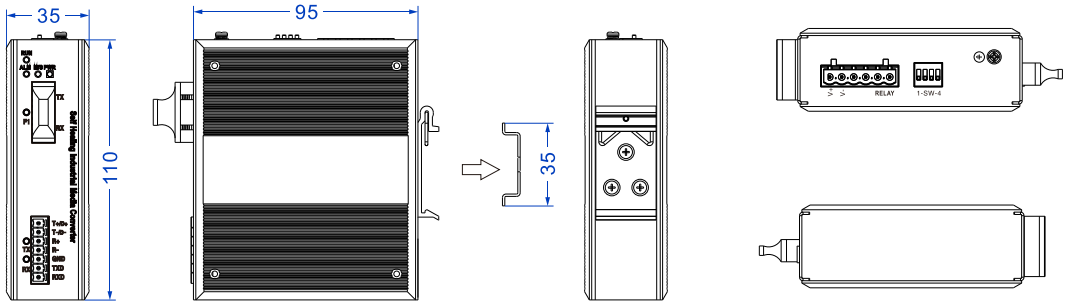
- IMF2100-1F-1DI(3IN1)-TB-2P(12-48VDC)



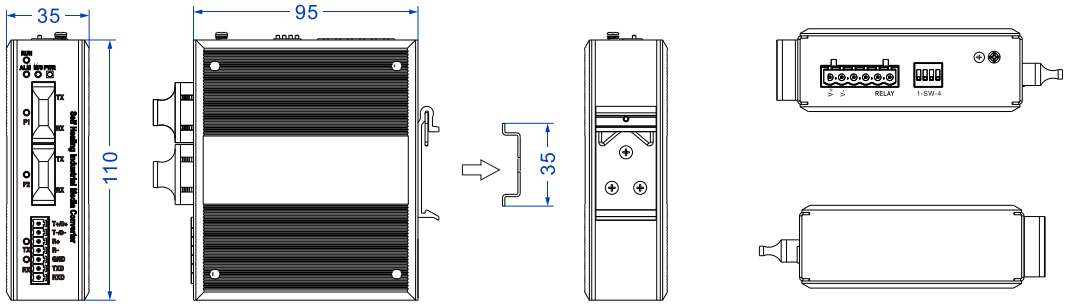
- IMF2100-2F-1DI(3IN1)-TB-2P(12-48VDC)



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



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



Specification

Fiber Interface	Interface quantity: 1/2 (support ring network) Interface form: optional SC/FC/ST interfaces 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 standard Serial port quantity: 1 RS-232/485/422 serial port. Serial ports of

	different modes cannot 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 Parity bit: None, Even, Odd, Space, Mark Interface form: 7-pin 3.81mm pitch terminal blocks Directional control: RS-485 direction adopts Automatic Data Direction Control technology Load capacity: RS-485 supports 32-point polling (customizable 128 points) Pull up/down resistance for RS-485: 4.7kΩ RS-485 terminating resistor: 120Ω, can be enabled or disabled via a dip switch. Transmission distance: RS-232, 15m, RS-485/422 serial port, 1200m
Relay	Relay quantity: 1 relay alarm output Connection method: 6-pin 5.08mm pitch terminal blocks (includes 2-pin relay) Current load: 1A@30VDC, 0.3A@125VAC Default relay state: normally open
Indicator	Operation indicator, power indicator, alarm indicator, master/slave indicator, fiber port connection and data indicator, serial port receiving data indicator, serial port sending data indicator
Power Supply	Supports 3 power supply options: 12~48VDC dual power supply, 110~370VDC, or 85~265VAC Scheme 1 ● Power supply range: 12~48VDC dual power supply ● Connection method: 6-pin 5.08mm pitch terminal blocks (includes 4-pin power supply) ● Power supply protection: non-polarity, built-in 2.0A overcurrent protection ● Power supply redundancy: support Scheme 2 ● Voltage range: 110~370VDC ● Connection method: 6-pin 5.08mm pitch terminal blocks (includes 2-pin power supply) ● Power supply protection: non-polarity, built-in 2.0A overcurrent protection

	Scheme 3 ● The power supply range is 85~265VAC ● Connection method: 6-pin 5.08mm pitch terminal blocks (includes 2-pin power supply) ● Power supply protection: built-in 2.0A overcurrent protection
Power Consumption	No-load at normal temperature: 2.55W@12VDC Full-load at normal temperature: 2.62W@12VDC Full-load at high temperature: 2.83W@12VDC
Working Environment	Operating temperature: -40~75℃ Storage temperature: -40~85℃ Relative humidity: 5%~95% (no condensation)
Mechanical Structure	Housing: IP40 protection, metal Installation: DIN-Rail mounting Weight: 0.327kg 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
Authentication	CE, FCC, RoHS

Ordering Information

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

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Song Bai Road, Nanshan District, Shenzhen, 518108, China
TEL.: +86-755-26702668 ext 835 FAX: +86-755-26703485
E-mail: ics@3onedata.com
Website: www.3onedata.com

◄ Please scan our QR code for more details

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