IT-IMC-101B

Industrial Ethernet Media Converter

Hardware Installation Guide

【Introduction】

IT-IMC-101B is an industrial fiber optic transceiver which supports 1 port 10/100Base-TX Ethernet and 1 port 100Base-FX optic fiber. LED light system status display can help the system maintain monitor the connection status of the network. IT-IMC-101B meet the FCC and CE standard. -40~75℃ operating temperature range can adapt to poor working condition. Guide rail installation characteristics, to meet the demand of the industrial field, can provide users to connect the Ethernet device with reliable and fast solution.

【Packing List】

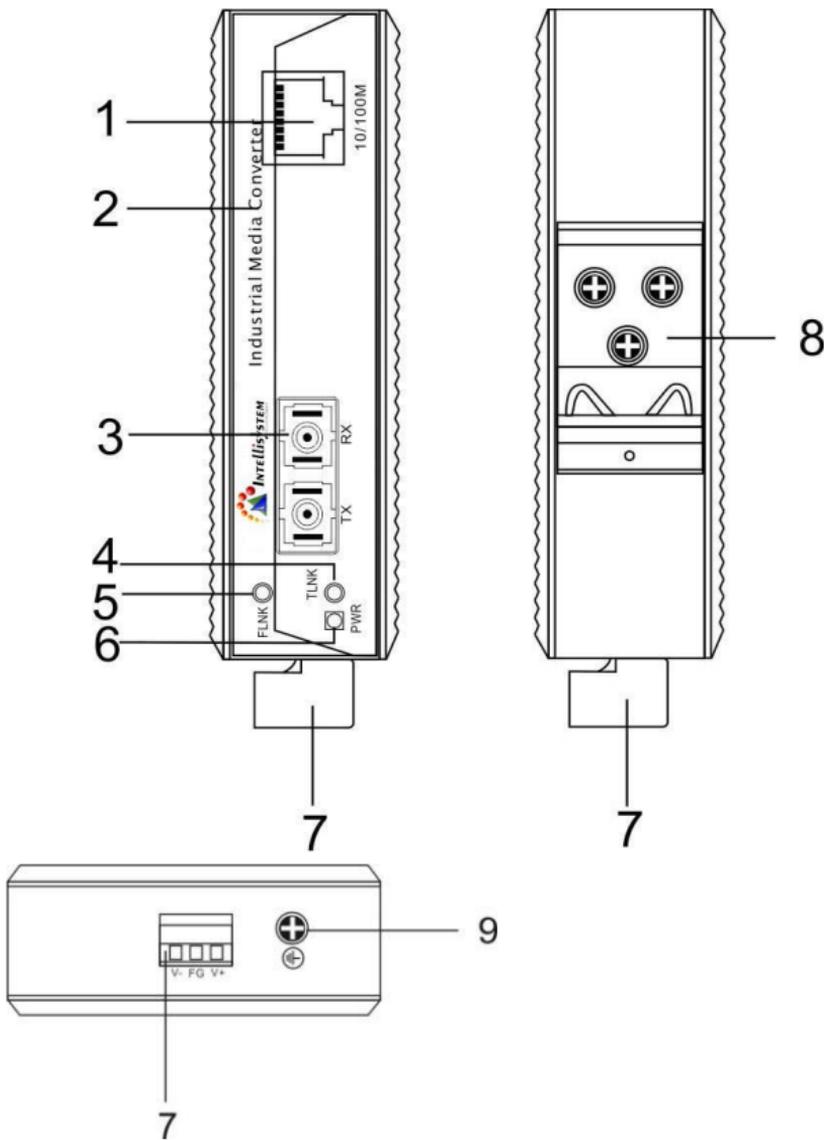The IT-IMC-101B Media Converter is shipped with following items.

- Media Converter IT-IMC-101B (plus terminal block)×1.

- Hardware Installation Guide×1.

- Product Warranty Statement ×1.

1

- DIN-Rail setting fittings(wall mounting for optional)

The equipment built-in precision devices, please note gently, avoiding excessive vibration to avoid affecting device performance. If you find the equipment was damaged in transit or any parts are missing, please inform our company or the dealer, we will give you proper solution as soon as possible.

【Features】

1. Support 1 port 10/100Base-TX Ethernet and
   1 port 100Base-FX optic fiber
2. Support IEEE802.3/802.3u/802.3x, store and forward
3. Support 10/100M,F/H duplex, MDI/MDI-X
   auto negotiation
4. DC12~48V power input, opposite connection protection
5. IP40 protection, corrugated type high strength metal shell,
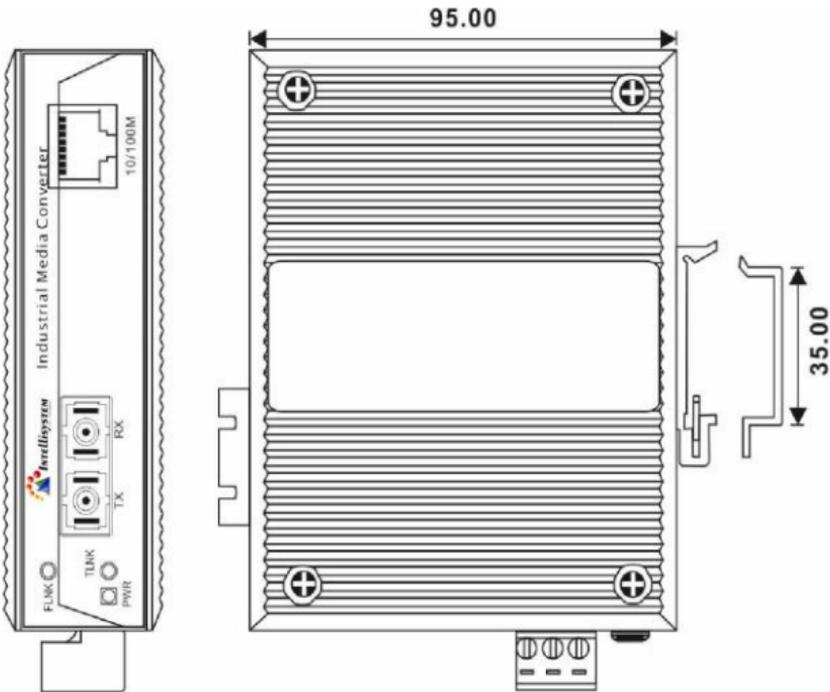   DIN-Rail installation

【Panel Layout】

1. 10Base-T /100Base-TX TP port.
2. Company name, products name.
3. 100Base-FX fiber port.
4. Ethernet port indicator.
5. Fiber port indicator.
6. Power indicator.
7. Power input.
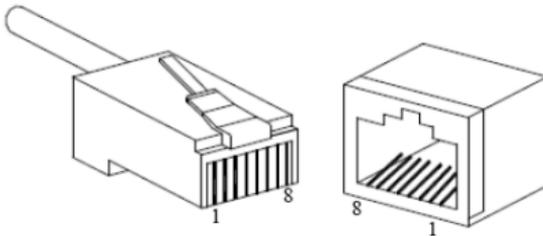8. DIN-Rail.
9. Ground screw.
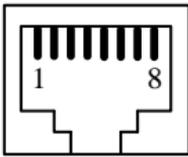
【**Dimensions**】

Units（mm）

3

【**Communication Interface**】

10Base-T/100Base-TX Ethernet Interface

10Base-T/100Base-TX Ethernet interface is located in the front panel of the equipment. Interface type is RJ45, the PIN define of RJ45 port display as flow, connect by UTP or STP. The connect distance is no more than 100m. 100Mbps is used 100Ω of UTP 5, 10Mbps is used 100Ω of　UTP 3,4,5.
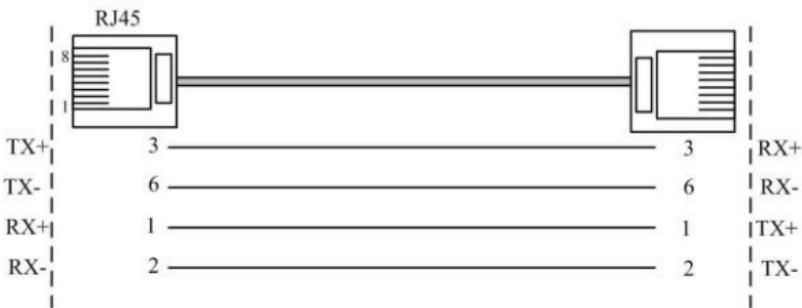

RJ45 port support automatic MDI/MDI-X operation, can connect the PC, Server, Converter and HUB. Pin 1,2,3,6 corresponding connection in MDI.1→3,2→6,3→1,6→2 are used as cross wiring in the MDI-X port of Converter and HUB.10Base-T/100Base-TX are used in MDI/MDI-X, the define of PIN in the table as below.
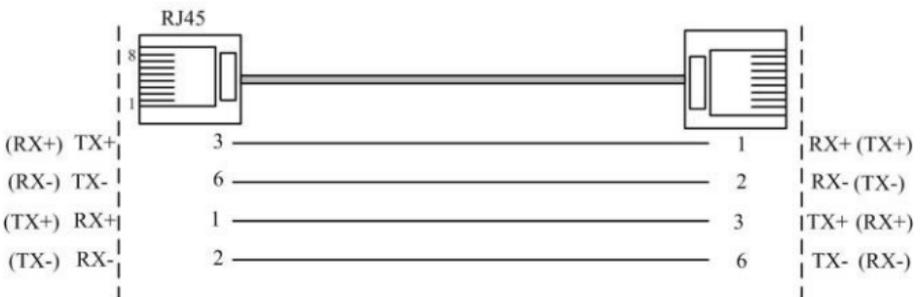
NO	MDI signal	MDI-X signal
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4, 5, 7, 8	—	—

4

Note："TX±"transmit data±，"RX±"receive data±，"—"not use。

MDI (straight-through cable):
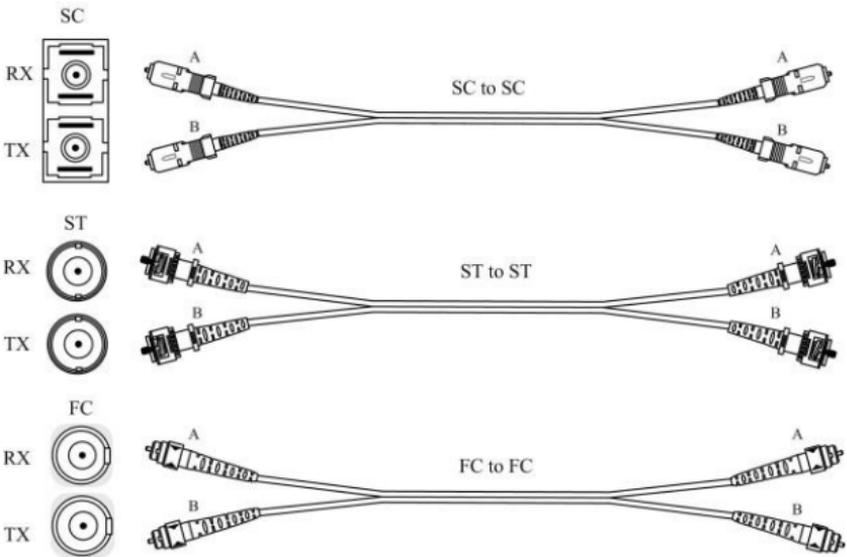

MDI-X (cross over cable）

MDI/MDI-X auto negotiation user-friendly IT-IMC-101B's 10/100Base-TX Ethernet interface regardless of the type of Ethernet cable can be directly via crossover cable or straight lines to achieve IT-IMC-101B fiber optic transceivers and connection between devices.

100Base-FX Fiber port

100Base-FX full-duplex SM or MM port. SC/ST type. The optical fiber connection supports the line to instruct enhance the reliability of network effectively.

Suppose: If you make your own cable, we suggest labeling the two sides of the same line with the same letter (A-to-A and B-to-B, shown as below, or A1-to-A2 and B1-to-B2).

5

【LED Indicator】

LED indicator light on the front panel of IT-IMC-101B. The function of each LED is described in the table as below:

System status LED		
LED	Indicate	Description
PWR （Green）	ON	Connect power supply
	OFF	Disconnect power supply or unwonted
TLINK （Green）	ON	Establish effective network connection
	Glitter	In activity status
	OFF	No-establish effective network connect
FLINK （Green）	ON	Optic port connect
	Glitter	In activity status
	OFF	No-connection

【Specifications】

Technology:

Standard: IEEE802.3, IEEE802.3u, IEEE802.3x

Flow control: IEEE802.3x control, back pressure control

Ports:

Ethernet ports:

10Base-T/100Base-TX, RJ45, automatic flow control,

F/H duplex and MDI/MDI-X auto connection

Fiber ports: 100Base-FX ports (SC/ST optional)

Exchange Properties:

100M forwarding rate: 148810pps

Transmit type: store and forward

System switching bandwidth: 400M

Cache size: 64Kbits

MAC address: 2K

LED Indicators:

Interface light: TLINK, FLINK

Power light: PWR

Transmission distance:

Twisted-pair: 100M (normal CAT5/CAT5e cable)

Multi-mode fiber: 2Km

Single-mode fiber: 20-120Km

Power:

Input Voltage: 24VDC (12~48VDC)

Access terminal: 3 cores 7.62mm distance between terminals

No-load power: 1.2W@24VDC

Full-load power: 1.368W@24VDC

Support opposite connection protection

Working Environment:

Working Temperature: -40~75℃

Storage Temperature: -40~85℃

Ambient Relative Humidity: 5~95 %(non-condensing)

Mechanical Properties:

Shell: IP30 protection, corrugated, high strength metal case

Installation: DIN-Rail

Weight: 340g

Dimensions (D×W×H): 95 mm×35mm×110mm

8

Industrial Standard:

EMI: FCC Part 15, CISPR (EN55022) class A

EMS: EN61000-4-2 (ESD), Level 4

EN61000-4-3(RS), Level 3

EN61000-4-4 (EFT), Level 4

EN61000-4-5 (Surge), Level 4

EN61000-4-6(CS), Level 3

EN61000-4-8(PFM), Level 5

Shock: IEC 60068-2-27

Free Fall: IEC60068-2-23

Vibration: IES 60068-2-6

Warranty:

Warranty time: 5 years

Approvals:

CE, FCC, RoHS, UL508 (Pending)