IT-IMC-102GT
Industrial gigabit Ethernet
Media converter
User manual

【Introduction】

IT-IMC-102GT is a kind of industrial gigabit media converter, it support 2 port 10Base-T/100Base-TX/1000 Base-TX port and 1 port 1000Base-X SFP , it also support CE,FCC standard, IT-IMC-102GT adopts industry standard design, IP40 protection, rugged high-strength metal case, power supply input(12V ～ 48VDC), -40 to 85°C working temperature.

【Packing list】

Please check the package and all the components inside are in good condition before you use the switch.

- IT-IMC-102GT x1
- User manual x1
- Warranty card x1
- DIN rail x1

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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】

- Support 2 port 10/100/1000 Base-TX and 1 port 1000Base-X SFP
- Support IEEE802.3/802.3u/802.3x/802.3z, store and forward
- Ethernet port support 10/100/1000M self-adaption
- DC12~48V power input
- IP40 protect grade, high strength iron shell, DIN Rail installation.

【Panel Layout】
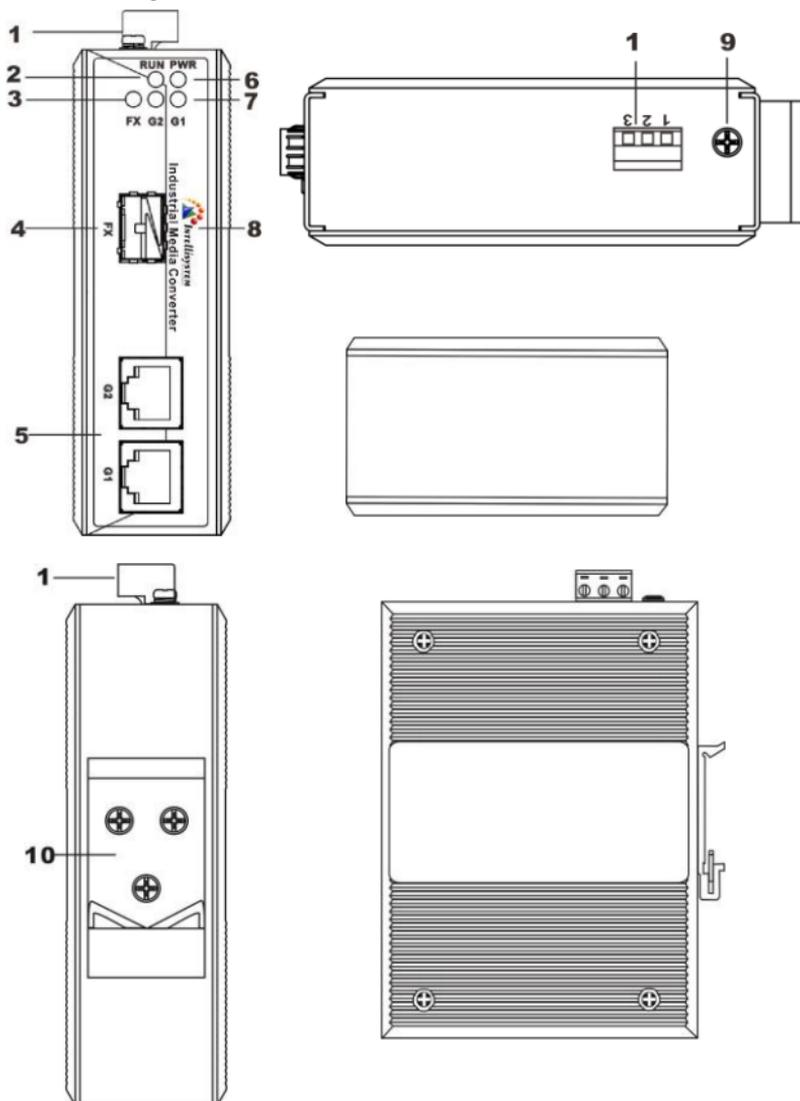
1. PWR power input (3 bots terminal block).

2. Working status indicator.

3. Fiber port connection indicator.

4. Remote fiber port alarm indicator.

5. 1000Base-X SFP port.

6. 10Base-T/100Base-TX/1000 Base-TX port.

7. Ethernet port connection indicator.

8. Company name and Product name label.
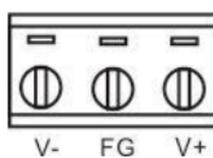
9. Grounding screw.

10. DIN-Rail.

【Dimensions】
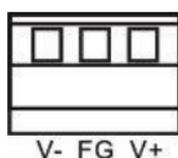
Unit (mm)

35.00

110.00

95.00

35.00

3
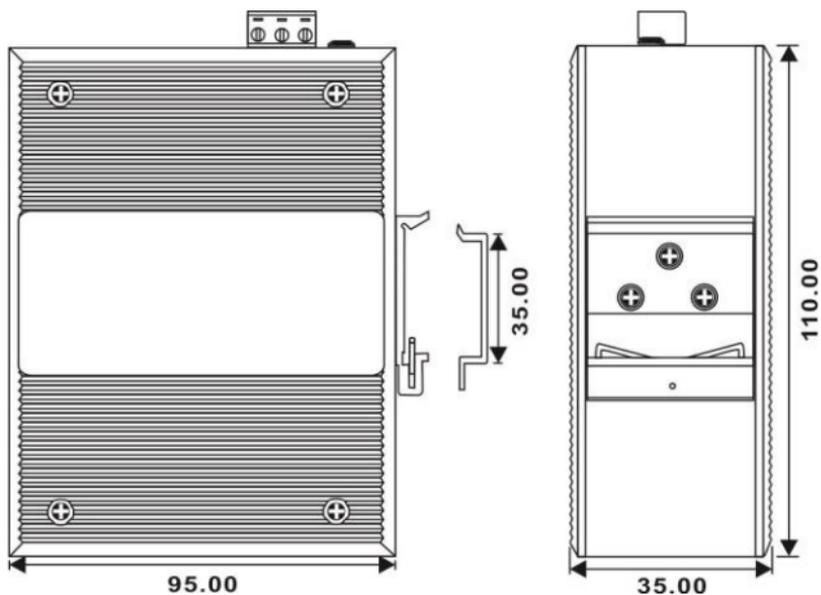
【Power Input】

V- FG V+   V- FG V+

12~48VDC

IT-IMC-102GT provides 3 bits terminal block (V-, FG, V+), V-, V+ is 12VDC～48VDC power input. It can also work if connection opposite.

【Communication Interface】

10Base-T/100Base-TX/1000 Base-TX Ethernet port

10Base-T/100Base-TX/1000 Base-TX Ethernet port use in front panel. It is RJ45 port, the PIN define of RJ45 is as follows: connection adopt UTP or STP, the distance is no more

than 100m, 1000Mbps use cat5e, 100Mbps use cat5, 10Mbos use cat3,4, 5.

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RJ45 port support MDI/MDI-X self-adaption. In (MDI), PIN1, 2, 3, 4, 5, 6, 7, 8 connect corresponding, in (MDI-X) PIN1→3, 2→6, 3→1, 6→2, 4→7, 5→8, 7→4, 8→5. In MDI/MDI-X, 1000 Base-TX PIN define is as follows:
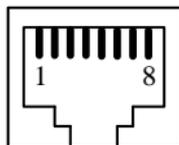
PIN	MDI	MDI-X
1	BI_DA+/TX+	BI_DB+/RX+
2	BI_DA-/TX-	BI_DB-/RX-
3	BI_DB+/RX+	BI_DA+/TX+
4	BI_DC+/—	BI_DD+/—
5	BI_DC-/—	BI_DD-/—
6	BI_DB-/RX-	BI_DA-/TX-
7	BI_DD+/—	BI_DC+/—
8	BI_DD-/—	BI_DC-/—

Note：10Base-T/100Base-TX, "TX±"transmit data±, "RX±"receive data±, "—"not use.

MDI:
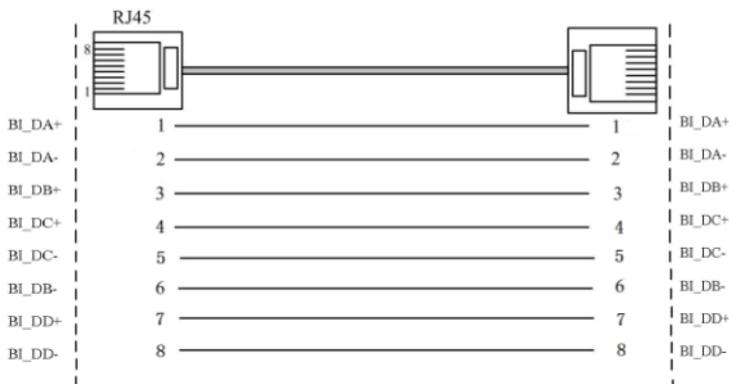
MDI-X:
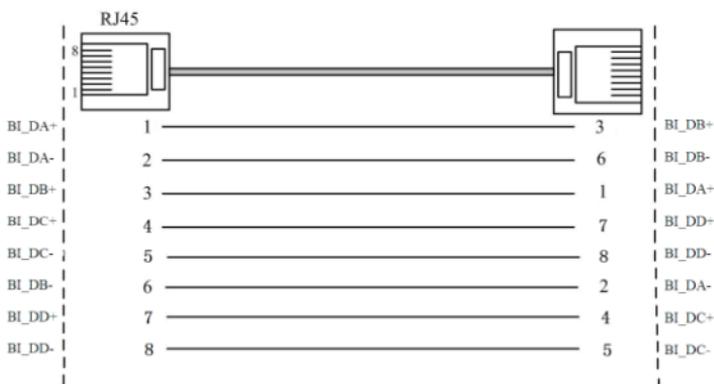
1000Base-X SFP fiber port

1000Base-X fiber port is SFP multi-mode or single mode port, it supports LFP.

Suggestion: please make a mark for your optic fiber (Picture as follows: A-A, B-B or A1-A2, B1-B2) Easy to use

【LED Indicator】

LED indicator in front panel of IT-IMC-102GT monitor working status, the function of each LED is described in the table as below.

System indication LED		
LED	State	Description
RUN	ON/OFF	Switch is unwonted
	Blinking	Switch is active
G1	ON	Local Ethernet port G1 connection regular.
	Blinking	Local Ethernet port G1 connection active
	OFF	Local Ethernet port G1 had no connection.
G2	ON	Local Ethernet port G2 connection regular.
	Blinking	Local Ethernet port G2 connection active
	OFF	Local Ethernet port G2 had no connection.
PWR	ON	Power connection active
	OFF	Power no-connection or unwonted
FX	ON	Fiber port connection regular.
	Blinking	Fiber port connection active
	OFF	Fiber port had no connection.

Installation：

Before installation, confirm that the work environment meet the installation require, including the power needs and abundant space. Whether it is close to the connection equipment and other equipments are prepared or not.

Installation require as below

1. Avoid in the sunshine, keep away from the heat fountainhead or the area where in intense EMI.

2. Examine the cables and plugs that installation requirements.

3. Examine whether the cables be seemly or not (less than 100m) according to reasonable scheme.

4. Screw, nut, tools provide by yourselves.

5. Power need: power inputs (12~48DC）

6. Environment: -40°C to 85°C

   Storage Temperature: -40°C to 85°C

   Relative humidity 10% to 95%

DIN-Rail Installation

In order to use in industrial environments expediently,

IT-IMC-102GT adopt 35mm DIN-Rail installation, the

installation steps as fellows:

　1. Examine the DIN-Rail attachment

　2. Examine DIN Rail whether be firm and the position be suitability or not.

　3. Insert the top of the DIN-Rail into the slot just below the stiff metal spring.

　4. The DIN-Rail attachment unit will snap into place as shown below.
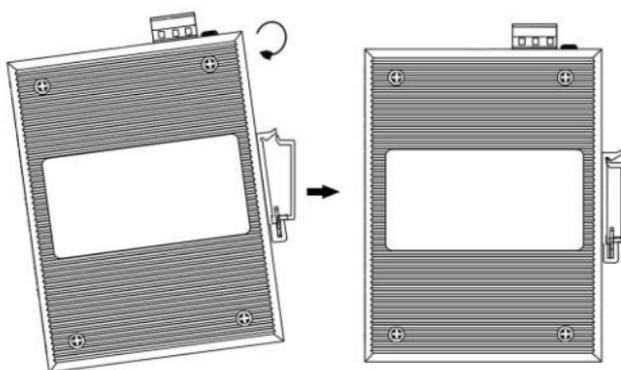
Wiring Requirements

Wiring need to meet the following requirements:

- It is needed to check whether the type, quantity and specification of cable match the requirement before cable laying;

- It is needed to check the cable is damaged or not, factory records and quality assurance booklet before cable laying;

- The required cable specification, quantity, direction and laying position need to match construction requirements, and cable length depends on actual position;

- All the cable cannot have break-down and terminal in the middle;

- Cables should be straight in the hallways and turning;

- Cable should be straight in the groove, and cannot beyond the groove in case of holding back the inlet and outlet holes. Cables should be banded and fixed when they are out of the groove;

- User cable should be separated from the power lines. Cables, power lines and grounding lines cannot be

overlapped and mixed when they are in the same groove road. When cable is too long, it cannot hold down other cable, but structure in the middle of alignment rack;

● Pigtail cannot be tied and swerved as less as possible. Swerving radius cannot be too small (small swerving causes terrible loss of link). Its banding should be moderate, not too tight, and should be separated from other cables;

■ It should have corresponding simple signal at both sides of the cable for maintaining.

【Specifications】

Technology:

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

Flow control: IEEE802.3x, back pressure control

Interface:

Gigabit Ethernet port: 10/100/1000Base-TX Self-adaption

Gigabit fiber port: 1000Base-X SFP

Transmission:

Twisted pair: 100M (Standard CAT5/CAT5e cable)

Multi-mode fiber: 500m

Single mode fiber: 20-120Km

Exchange of attributes:

100M forward speed: 148810pps

1000M forward speed: 1488100pps

Transmission: Store and forward

Memory: 1Mbits

MAC address: 1K

Indicators:

System: RUN

Ethernet port: G1 G2

Fiber port: FX

Power supply:

Power input: 24VDC (12~48VDC)

Terminal block: 3 bits 7.62mm terminal block

No-load power consumption:1.056W@24VDC

Full-load power consumption: 3.792W@24VDC

Support reverse connection protection

Mechanical:

Shell: IP40, high strength iron shell.

Installation: DIN Rail

Weight: 356g

Dimension (W×H×D): 110mm×35mm×95mm

Environmental

Operating Temperature: -40 to 85°C

Storage Temperature: -45°C to 85°C

Ambient Relative Humidity:

10 to 95% (non-condensing)

Standard:

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

EMS: EN61000-4-2 (ESD), Level 1

EN61000-4-4 (EFT), Level 4

EN61000-4-5 (Surge), Level 3

Shell: IEC 60068-2-27

Warranty:

Warranty time: 5 years

Certification:

CE, FCC, RoHS, PAL, UL508 (pending)