

ES208G

Gigabit unmanaged Industrial Ethernet switch

User manual

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【Introduction】

ES208G is a kind of gigabit unmanaged Industrial Ethernet switch, it support 8 port 10/100/100M RJ45 port, DC power supply (12-36V). It adopted no fan, low power consumption design, IP30, corrugate high strength iron shell, the performance is more steadily. ES208G accorded with CE, FCC standard and Industrial 4 grades, DIN rail installation and wide operating temperature (-25~75C), it can satisfied some kinds of industrial environment, it can provide reliable and quickly solution for your Ethernet device.

【Packing list】

The first time use this product, please check the packaging is intact or not and the attachment is complete or not at first.

- ES208G X1
- User manual x1
- DIN-rail fittings

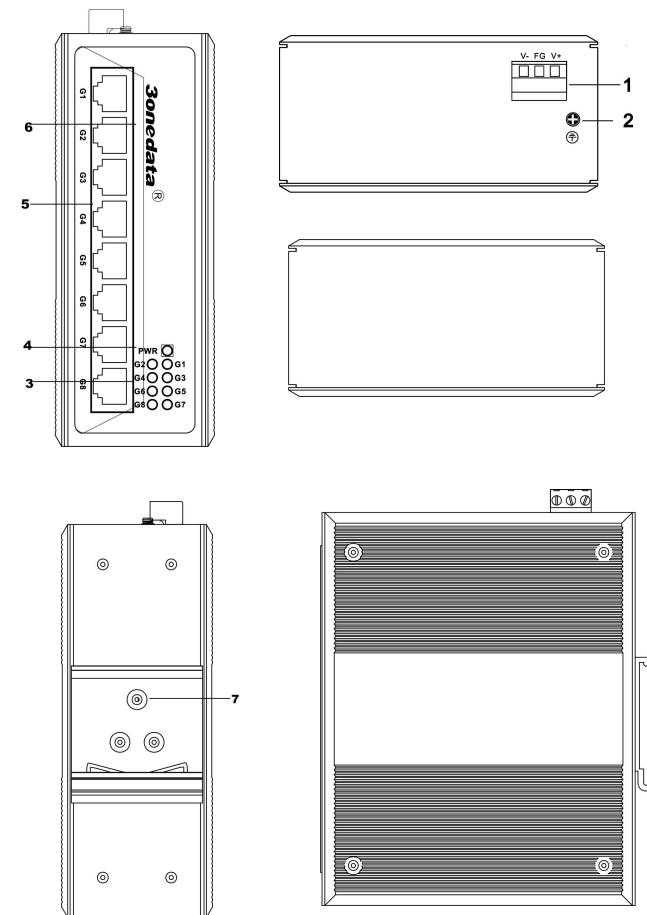
If you find that the device is damaged or any parts of it is missing during transportation, please notify the Company or the Company's distributor, we will give you proper solution as soon as possible.

【Feature】

- Support 8 ports 10Base-T/100Base-TX/1000 Base-TX
- Support 10/100/1000M self-adaption
- Support IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE802.3z
- Support Store and forward
- Support broadcast storm relieving
- 12 ~ 48VDC power input, power supply support non-polarity.
- -25~70℃ working temperature
- IP40 protect grade, high strength iron shell, DIN Rail installation

【Panel layout】

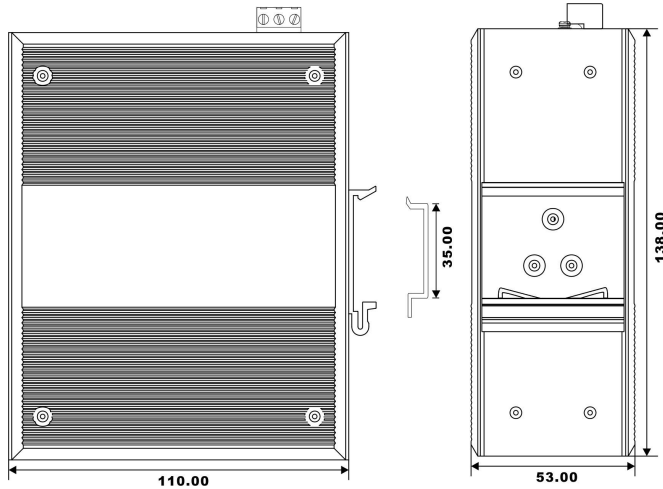
ES208G:



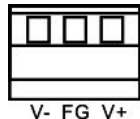
1. 3 bits terminal block
2. Grounding screw
3. Ethernet port Running indicator
4. PWR indicator
5. 10/100/1000Base-TX port
6. Company name and Product name label
7. DIN-Rail

【Dimension】

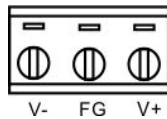
Unit (mm)



【Power Input】



12~48VDC

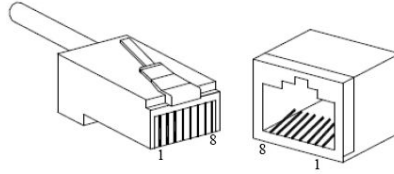


IMC101GT provides 3 bits terminal block (V-, FG, V+), V-, V+ is 12VDC~48VDC power input. It can also work if connection opposite.

【Communication Interface】

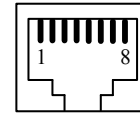
10Base-T/100Base-TX/1000 Base-TX Ethernet port

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, 10Mbps use cat3,4, 5.



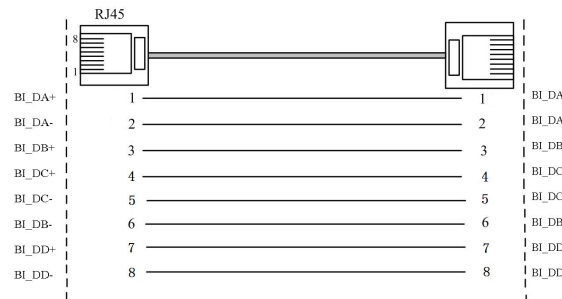
RJ45 port support MDI/MDI-X self-adaption. In (MDI), PIN1, 2, 3, 4, 5, 6, 7, 8 connect corresponding, in (MDI-X) PIN1→3, 2→6, 3→1, 6→2, 4→7, 5→8, 7→4, 8→5. In MDI/MDI-X, 1000 Base-TX PIN define is as follows:

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-/-

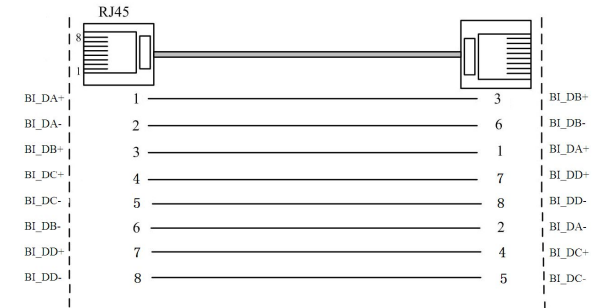


Note: 10Base-T/100Base-TX, “TX±”transmit data±, “RX±”receive data±, “—”not use.

MDI :



MDI-X :



【LED Indicator】

LED indicator in front panel of ES208G monitor working status, the function of each LED is described in the table as below.

System indication LED		
LED	Statuses	Description
PWR	ON	Power supply connection
	OFF	Power supply have no connection or unwonted
G1-G8 (Link/ACT)	ON	Ethernet have made connection
	Blinking	Ethernet is running
	OFF	Ethernet have not made 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

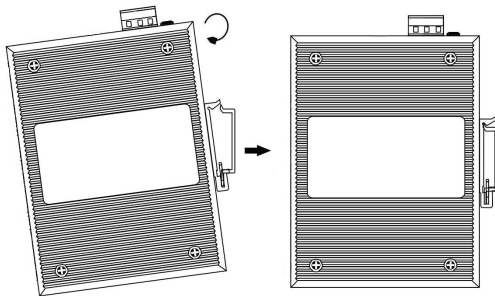
1. Avoid in the sunshine, keep away from the heat fountainhead or the area where in intense EMI.

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, IMC101G 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.

【Specification】

Technology

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

Flow control:

IEEE802.3x, back pressure control

Interface:

Gigabit Ethernet port:

10Base-T/100Base-TX/1000Base-TXself-adaption

Exchange of attribute:

Transmission: store and forward

Bandwidth: 16G

Memory: 1Mbits

MAC address: 8K

Indicator

Electric port: G1-G8 (Link/ACT)

Power supply: PWR

Power supply

Power input: 24VDC (12~48VDC)

Terminal block: 3 bits 7.62mm terminal block

No-load power consumption:0.816W@24VDC

Full-load power consumption: 3.648W@24VDC

Support non-polarity

Support overcurrent protection 4.0A

Mechanical:

Shell: IP40, high strength iron shell.

Installation: DIN Rail

Wight: 616g

Dimension (W×H×D) :138mm×53mm×110mm

Environmental:

Working temperature: -25~70°C

Storage temperature: -40~85°C

Ambient Relative Humidity: 5%~95%

(non-condensing)

Standard

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

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

EN61000-4-3 (RS), Level 2

EN61000-4-4 (EFT), Level 2

EN61000-4-5 (Surge), Level 2

EN61000-4-6 (CS), Level 2

EN61000-4-8, Level 2

Shock: IEC 60068-2-27

Free fall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Warranty

Warranty time: 5 years

Certification

CE, FCC, RoHs, UL508(Pending)