Model3012

10/100/1000M Media Converter
(SM & MM)

Introduction:

Model3012, 10/100/1000Mbps adaptive Gigabit Ethernet fiber converter uses the switching technology to conduct media conversion, which meets the standards of IEEE802.3, IEEE802.3u, IEEE802.3z and IEEE802.3ab. This kind of media converter supports two types of media network connections: 10BaseT/100Base-TX/1000Base-T and 1000Base-SX/LX.Model3012 can conduct mutual conversion between 10Base-T/100BaseTX/1000Base-T twisted pair electrical signals and 1000BaseSX/LX optical signals. This media converter extends the transmission distance of a network from 100m over copper wires to 20 Km. This media converter supports transmission in dual-fiber multi-mode, dual-fiber single-mode, SC/ST/FC style fiber-optic connections.

Packing List:

Model3012 is shipped with following items.

1. Model3012×1
2. 5VDC power adapter ×1(Media converter/5VDC)
3. User manual ×1

Features:

1. Accord to IEEE802.1 10Base-T, IEEE802.3u 100Base-TX, IEEE 802.3ab 1000Base-TX,IEEE802.3z 1000Base-SX/LX
2. MDI/MDI-X auto negotiation, 10M/100M/1000M auto negotiation
3. Supports full /half duplex, Point-to-point transparent transfer
4. Power External input
5. Plug-and-play, easy to installation
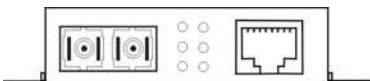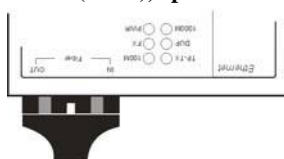6. Can insert to 2U 19", 14 slots Rackmount(power external)

Pinout Configuration:

Power

Model3012 adopt the power supply input is 5VDC external.

Ethernet(RJ45),Optical fiber interface

Optical fiber interface:

Optic fiber interface need use in pairs, OUT port is fiber send side, connect another long-range light of interface fiber receive end IN; IN port is fiber receive side, connect long-range same fiber send side:

Optic fibers spent both ends mark the label (the following picture show: A-A, B-B, can also mark another: A1-A2, B1-B2), in order to use.
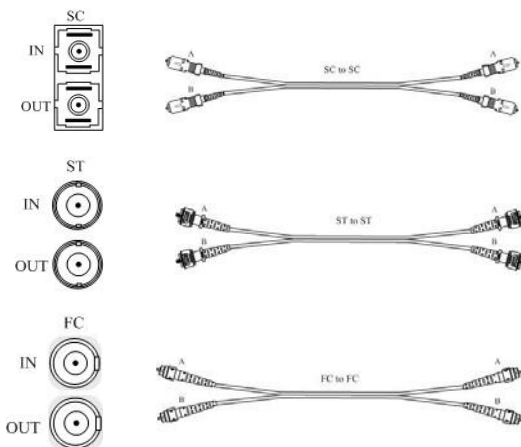
NOTE: SC, ST or FC, for optic fiber interface, SM is look the same to MM for form. For example,Model3012SM/SC,the optic fiber interface(SC) is look the same to Mode3012MM/SC.
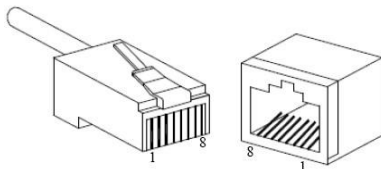
Ethernet interface:

Ethernet(RJ45) interface supports MDI/MDI-X auto negotiation, can use straight-through cable connect PC or server, use acrossover connect cable Switch or HUB.

MDI: PIN 1, 2, 3, 6 connects opposite.

MID-X: 1→3, 2→6, 3→1, 6→2

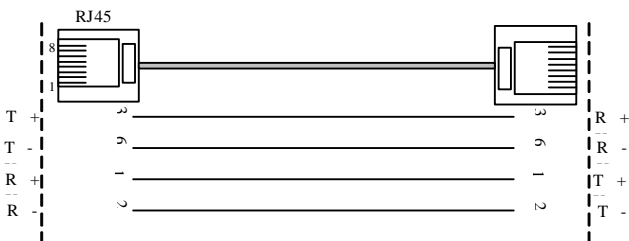MDI/MDI-X 10Base-T/100Base-TX PIN define as follow:
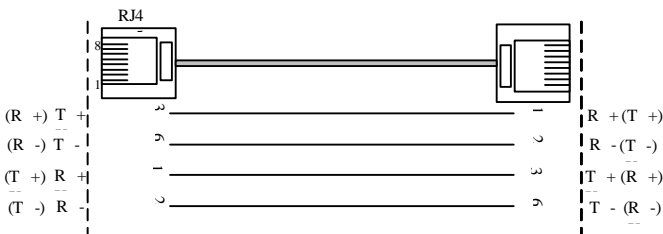

PIN	MDI	MDI-X
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4、5、7、8	—	—

Note: "TX±" Transfer data±, "RX±" Receive data±, "—" None

。 **MDI:**

MDI-X:

LED indications:

LED	STATE	INDICATION
PWR (Power)	OFF	Power Off
	BRIGHT	Power On
FX (Fiber Link Port)	OFF	Ethernet is not Connected
	BRIGHT	Ethernet is Connected
100M (10/100M)	OFF	10M Ethernet
	BRIGHT	100M Ethernet
1000M	OFF	Not 1000M Ethernet
	BRIGHT	1000M Ethernet
DUP (Duplex Mode)	OFF	Half Duplex
	FLASHING	Full Duplex
TP-TX (Ethernet Port)	OFF	Ethernet is not Connected
	FLASHING	Transmitting or Receiving Data
	BRIGHT	Ethernet is Connected

Specifications:

Standards: comply with IEEE802.1 10Base-T, IEEE802.3u 100Base-TX, IEEE 802.3ab 1000Base-TX,IEEE802.3z 1000Base-SX/LX standards

RJ45 port rate: 10/100/1000Mbps auto negotiation

Optic port rate: 1000Mbps

Transfer distance: RJ45port: 100m

Fiber optic:20,40,60,80,120km(SM),

220m,550m(MM) optional

RJ45 port cable: UTP 5E

Fiber connector: 2×SC, 2×ST, 2×FC optional

Fiber optic cables: Single Mode:8.3/125,8.7/125,9/125 or 10/125 um

Muti-Mode: 62.5/125, 50/125 um

Wavelength:850nm,1310nm,1550nm

Power supply: External 5VDC input

Dimensions: 94.0mm×71.0mm×26.0mm

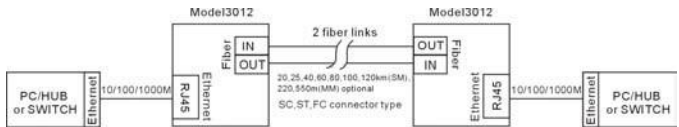Installation: support DIN-Rail installation

Operating temp:-10°C to 65°C

Storage temperature: -20 to 70°C

Operating humidity: 5% to 95%(no condensation)

Warranty: 5 years

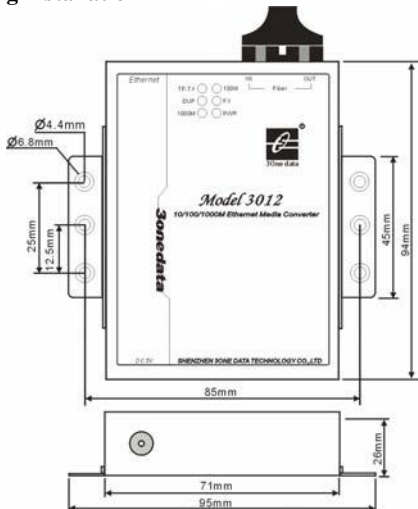Approvals: FCC,CE, RoHS approvals **Applications:**

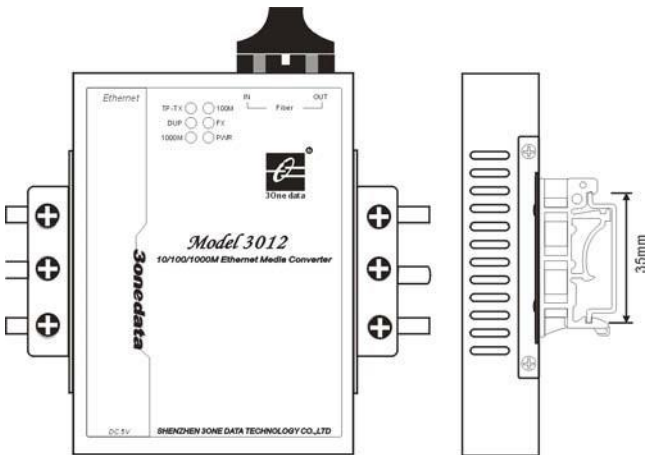**Extending 10/100/100M Ethernet data distance**

Installation:

Model3012 provides DIN-rail and wall mounting two types of installation.

Wall mounting installation

DIN-Rail Installation

Troubleshooting instructions:

1. Make sure the power is connected and turned on.

2. Make sure the converter Ethernet and fiber optic cables are connected properly.

3. Check the connections according to the connection diagram.

4. Check the LED Indication status and identify possible problems from the Indication LED table above.

Note:

1. Media Converter is a sensitive electronic item, please do handle with extra care on delivery, shifting and humidity.

2. This unit will be warranty for 5 years.

3. Whenever there is a problem regarding the quality issue within the warranty period, we will take the responsibility to repair with free.

4. After the warranty period, we will charge accordingly depending on the fault or damage.

5. Whenever there is a fault, you can contact our technical support after you identify the problem and the alarm.

Common Problems:

1. PWR power supply indicator lamp not lighting

   Cause:

1. Power supply not properly connected
2. Protector tube damaged
3. Power input tie-line in reverse connection
4. Internal power supply circuit with failure **Solution:**

1. Check power switch and jack
2. Replace protector tube
3. Correct power supply line connection
4. Returned to the manufacturer for repair.

2. FX(Fiber Link Port) indicator lamp not lighting

Cause:

Optic fiber port link is fault.

Solution:

1. Check fiber optic is link or not.
2. Check fiber optic loss is high.
3. Clean the connector of optic interface.
4. Insert the well connector in place.
5. Returned to the manufacturer for repair.

3. TP-TX(Ethernet Port) indicator lamp not lighting

Cause:

Ethernet port link is fault.

Solution:

1. Check Ethernet(RJ45) line is link or not.
2. Check Ethernet(RJ45) port is loose.
3. Check the rate of selected media converter
4. Check the rate of Network.
5. Returned to the manufacturer for repair.

4. Network packet loss

Solution:

1. Check Ethernet rate or full/half duplex is matched or not.
2. Ethernet(RJ45) port is loose contact, or optic port is loose contact and soiled.
3. Ethernet cable not comply with Ethernet standard.

Certifications: