LINDY®

CONNECTION PERFECTION

Industrial Media Converter

User Manual *English*

LINDY No. 25073

www.LINDY.com

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Getting to Know Your Switch

1.1 About the Industrial Media Converter

The Media Converter is a reliable industrial network device which converts signals between optical fiber and copper Ethernet.   It works under a wide range of temperature and humidity conditions, as well as dusty environment.

1.2 Hardware Features

- 100Base-FX Fiber port
- 10/100Base-T(X) Ethernet port
- Operating Temperature: -10 to 60°C
- Storage Temperature: -40 to 85°C
- Operating Humidity: 5% to 95%, non-condensing
- Casing: IP-30
- Dimensions(W x D x H) : 88 mm(W)x 102 mm(D)x 24 mm(H)

Hardware Installation

2.1 Installation of the media converter on DIN-Rail

Each media converter has a DIN-Rail kit on its rear panel. The DIN-Rail kit serves to hold the media converter on the DIN-Rail. It is easy to install the media converter onto the rail:

2.1.1 Mount the media converter

Step 1: Slant the media converter and mount the metal spring to the DIN-Rail.

Metal Spring

Step 2: Push the media converter toward the DIN-Rail until you hear a "click" sound.

2.2 Wall Mounting Installation

Ther is another installation method for users to fix the media converter.   The following steps show how to mount the media converter on the wall:

2.2.1 Mount the media converter on wall

Step 1: Remove the DIN-Rail kit.
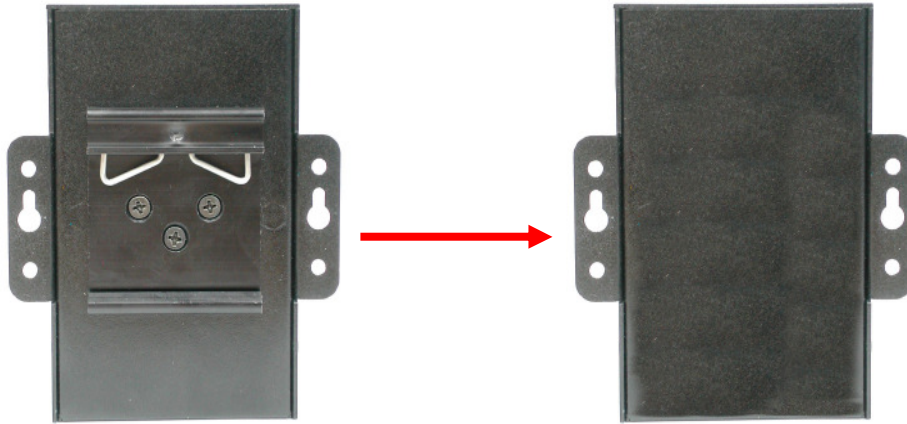
Step 2: Use 4 screws to mount the media converter on the wall.

Wall mount

Hardware Overview

3.1 Front Panel

The following table describes the labels that stick on the media converter.

Port	Description
10/100 RJ-45 fast Ethernet ports	10/100Base-T(X) RJ-45 fast Ethernet ports support auto-negotiation. Default Setting : Speed: auto
Fiber port	100BaseFX

Industrial Media Converter

1. LED for PWR.   When the Power on, the green led will be light on.
2. LED for Ethernet ports link status.
3. LED for Ethernet ports link duplex.
4. DC 9~30V power input.
5. 10/100Base-T(X) Ethernet ports..
6. 100BaseFX Fiber port.

3.2   Front Panel LEDs

LED	Color	Status	Description
PWR	Green	On	DC power module activated
10/100Base-T(X) Fast Ethernet ports			
LNK / ACT	Green	On	Port link up.
		Blinking	Data transmitted.
Duplex	Amber	On	Port acts under full duplex.
Fiber ports			
LNK / ACT	Green	On	Port link up.
		Blinking	Data transmitted.
Duplex	Amber	On	Port acts under full duplex.

<u>Cables</u>

4.1 Ethernet Cables

The media converter has standard Ethernet ports.   According to the link type, the switches use CAT 3, 4, 5,5e UTP cables to connect to any other network device (PCs, servers, switches, routers, or hubs).   Please refer to the following table for cable specifications.

Cable Types and Specifications

Cable	Type	Max. Length	Connect or
10BASE-T	Cat.3, 4, 5 100-ohm	UTP or STP 100 m (328 ft)	RJ-45
100BASE-TX	Cat.5 100-ohm UTP or STP	UTP or STP 100 m (328 ft)	RJ-45

4.1.1 100BASE-TX/10BASE-T Pin Assignments

With 100BASE-TX/10BASE-T cable, pins 1 and 2 are used for transmitting data, and pins 3 and 6 are used for receiving data.

RJ-45 Pin Assignments

Pin Number	Assignment
1	TD+
2	TD-
3	RD+
4	Not used
5	Not used
6	RD-
7	Not used
8	Not used

The media converter supports auto MDI/MDI-X operation. You can use a straight-through cable to connect PC to switch. The following table below shows the 10BASE-T/ 100BASE-TX MDI and MDI-X port pin outs.
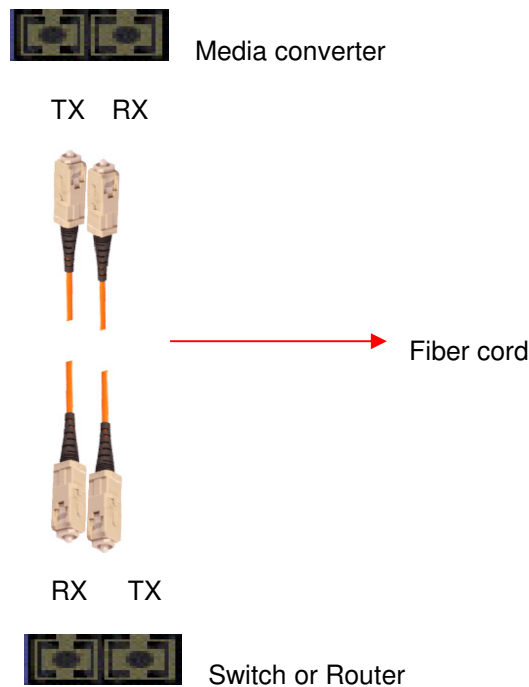
MDI/MDI-X pins assignment

Pin Number	MDI port	MDI-X port
1	TD+(transmit)	RD+(receive)
2	TD-(transmit)	RD-(receive)
3	RD+(receive)	TD+(transmit)
4	Not used	Not used
5	Not used	Not used
6	RD-(receive)	TD-(transmit)
7	Not used	Not used
8	Not used	Not used

Note: "+" and "-" signs represent the polarity of the wires that make up each wire pair.

4.2 Fibers

The fiber optical port is for in multi-mode fibers(0 to 2 km, 1310 nm, 50/125 μm, 62.5/125 μm) Please remember that the TX port of Media converter should be connected to the RX port of Switch or Router

Media converter

TX   RX

Fiber cord

RX   TX

Switch or Router

Technical Specifications

Technology	
Ethernet Standards	802.3 - 10BaseT,
	802.3u - 100BaseTX, 100BaseFX,
Interface	
RJ45 Ports	10/100Base-T(X), Auto MDI/MDI-X
Fiber Ports	100 Base-FX (SC Connector)
	Multi-Mode:
	0 to 2 km, 1310 nm (50/125 µm to 62.5/125 µm)
	Single-Mode:
	0 to 30km, 1310 nm (9/125 µm)
LED Indicators	Per Unit : Power x 3(Green)
	RJ45 Ports:
	Per Port : Link/Activity(Green/Blinking Green), Full duplex(Amber)
	Fiber Ports:
	Per Port : Link/Activity(Green/Blinking Green), Full duplex(Amber)

Power Requirements	
Power Input Voltage	9 ~ 30VDC in 3-pin Terminal Block
Reverse Polarity Protection	Present at terminal block
Power Consumption	4.5 Watts Max
Environmental	
Operating Temperature	-10 to 60 ^{o}C (Wide temperature model -40 to 70°C)
Storage Temperature	-40 to 85 ^{o}C
Operating Humidity	5% to 95%, non-condensing
Mechanical	
Dimensions(W x D x H)	88 mm(W)x 102 mm(D)x 24 mm(H)
Casing	IP-30 protection
Regulatory Approvals	
Regulatory Approvals	FCC Part 15, CISPER (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS)
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Warranty	2 years

Shielded cables must be used with this equipment to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B Digital device, pursuant to part 15 of the FCC Rules.   These limits are designed to provide reasonable protection against harmful interference in a residential installation.   This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.   However, there is no guarantee that interference will not occur in a particular installation.   If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced technician for help

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

CE Statement, EMC Compatibilty

This device complies with EN Standards EN55022 and EN55024 according to the relevant EC EMC Directive. It must be used with shielded cables only to maintain EMC compatibility.
Dieses Produkt entspricht den einschlägigen EMV Richtlinien der EU, und darf nur zusammen mit abgeschirmten Kabeln verwendet werden.

LINDY Herstellergarantie

LINDY gewährt für dieses Produkt über die gesetzliche Regelung hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. The wheelie bin symbol shown indicates that this product must not be disposed of with household waste. Instead the product must be recycled in a manner that is environmentally friendly. For more information on how to dispose of this product, please contact your local recycling centre or your household waste disposal service. Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products.
More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland

Die Europäische Union hat mit der WEEE Direktive umfassende Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden von der Bundesregierung im Elektro- und Elektronikgerätegesetz - ElektroG in deutsches Recht umgesetzt. Dieses Gesetz verbietet vom 24.März 2006 an das Entsorgen von Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen   bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

CE

FC For Commercial Use only
Tested to Comply with
FCC Standards

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