CONNECTION PERFECTION

Industrial Ethernet Switch

User Manual *English*

LINDY No. 25072

For commercial use only
Tested to comply with
FCC Standards

www.LINDY.com

LINDY ELECTRONICS LIMITED & LINDY ELEKTRONIK GMBH - FIRST EDITION (MAR 2009)

Table of Content

Getting Familiar with Your Switch

1.1 About the Industrial Ethernet Switch

This device is a reliable unmanaged industrial switch that works under a wide range of temperature, dust and humidity conditions.

1.2 Hardware Features

- 5 10/100Base-T(X) Ethernet port
- Case Protection Class: IP-30
- Dimensions(W x D x H) : 88 mm(W)x 102 mm(D)x 24 mm(H)
- Operating Temperature: -10 to 60°C (Wide temperature model: -40 to 70 °C)
- Wide operation input voltage from DC 9~30V with polarity protection
- Storage Temperature: -40 to 85 °C
- Operating Humidity: 5% to 95%, non-condensing

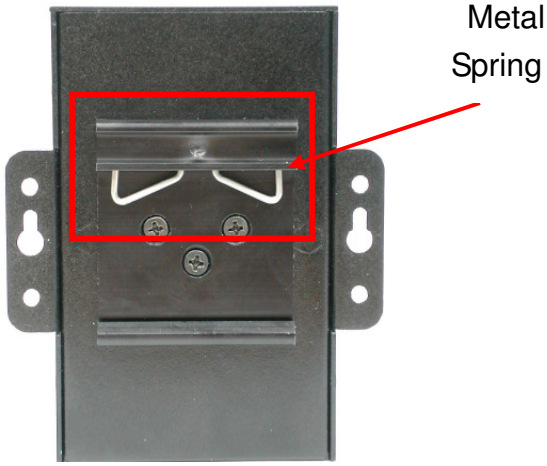
Hardware Installation

2.1 Installation of switch on DIN-Rail

Each switch has a DIN-Rail kit on rear panel. The DIN-Rail kit helps switch to fix on the DIN-Rail. It is easy to install the switch on the DIN-Rail:

2.1.1 Mounting the switch on a DIN-Rail

Step 1: Slant the switch and place the metal spring to DIN-Rail.



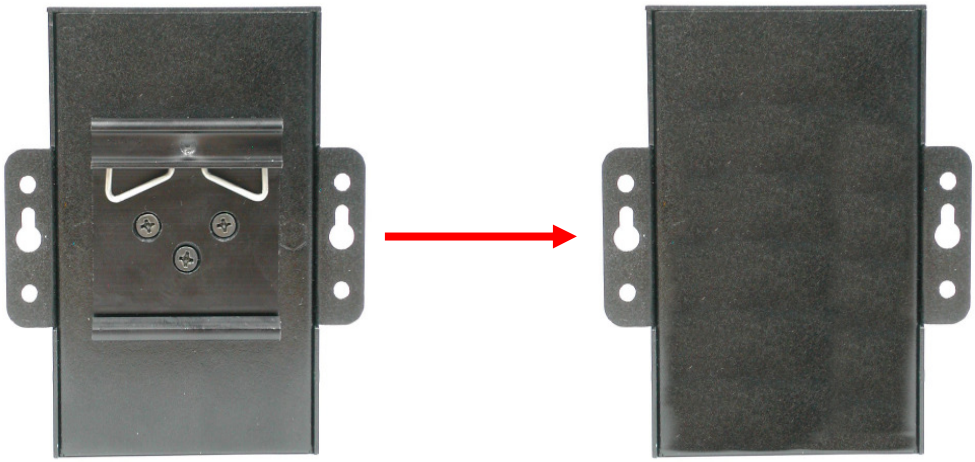
Step 2: Push the switch toward the DIN-Rail until you hear a “click” sound.

2.2 Wall Mounting Installation

Each switch has another installation method for users to fix the switch. The following steps show how to mount the switch on the wall:

2.2.1 Mount the switch on the wall

Step 1: Remove DIN-Rail kit.



Step 2: Use 4 screws to mount the switch on the wall.

Hardware Overview

3.1 Front Panel

The following table describes the label on the Industrial Ethernet Switch

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

1. LED for PWR. When the Power is on, the green led will be lighting.
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.

3.2 Front Panel LEDs

LED	Color	Status	Description
PWR	Green	On	DC power connected
10/100Base-T(X) Fast Ethernet ports			
LNK / **ACT**	Green	On	Port link up.
		Flashing	Data transmitted.

3.3 Bottom Panel

The bottom panel components of the switch are as shown below:

1. RJ45 Ethernet port
2. Terminal block includes: 9 ~ 30V DC

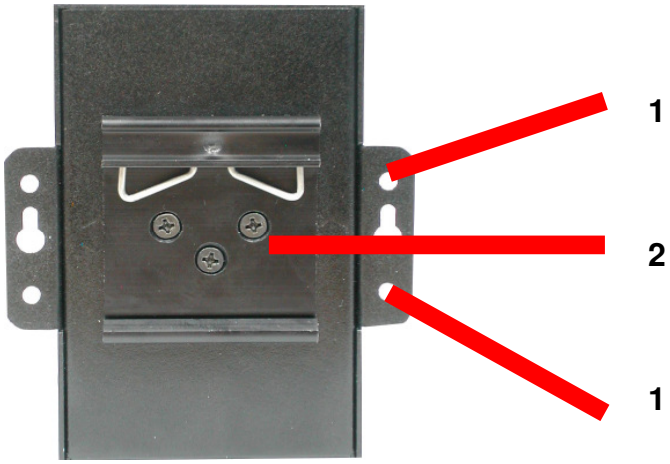
1. RJ45 Jack

1. RJ45 Jack 2. DC 9~30V power input

3.4 Rear Panel

The rear panel components of the switch are as shown below:

1. Screw holes for wall mount kit.
2. DIN-Rail kit



Cables

4.1 Ethernet Cables

The Industrial Ethernet Switches have standard Ethernet ports. According to the link type, the switches use CAT 3, 4, 5,5e UTP or STP 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	Connector
10BASE-T	Cat. 3, 4, 5 100-ohm	STP or UTP 100 m (328 ft)	RJ-45
100BASE-TX	Cat. 5 100-ohm STP or UTP	STP or UTP 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 Industrial Ethernet Switch supports auto MDI/MDI-X operation. You can use a straight-through cable to connect PC and 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.

Technical Specifications

Technology	
Ethernet Standards	802.3-10BaseT, 802.3u-100BaseTX, 802.3ad-, 802.1d-MAC Bridges
MAC addresses	1024
Flow Control	IEEE 802.3x Flow Control and Back-pressure
Processing	Store-and-Forward
Interface	
RJ45 Ports	10/100Base-T(X), Auto MDI/MDI-X
LED Indicators	Per Unit : Power(Green) R.M. indicator: Device act as ring master(Amber) for RJ45 Ports: Link/Activity(Green/Flashing 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	3 Watts Max
Environmental	
Operating Temperature	-10 to 60 °C (Wide temperature model -40 to 70°C)
Storage Temperature	-40 to 85 °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

Radio Frequency Energy, Certifications

FCC Warning

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.

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