Industrial Ethernet Switch

User Manual

V3.1

Please read before using the device

1. Introduction

The Industrial Switch is in an IP40 rugged strong case, Industrial Level-4 EMC design, which can work steady in harsh environments . It is an ideal solution to provide network by supporting Auto-Negotiation and LED indicators.The device supports redundant power system:(Non-PoE Models: 12~56VDC, PoE Models: 48~56VDC) to guarantee thenetwork stability. It is flexible and convenient for twoInstallation methods: DIN-Rail mounted and Wall-mounted. For POE version, supporting up to 30W power per port for any remote IEEE802.3af/at powered device (PD) such as PoE IP cameras and PoE wireless LAN access point.

2. Package content

Please check the following items in the package before installing the device

Industrial media converter/Switch	1piece
User manual	1copy
DIN-rail or wall mounting kit	1piece

3. The LED indicators

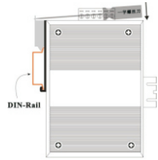
LED indicators	Function
PWR1	“On”：Power 1 is on and normal
PWR2	“On”：Power 2 is on and normal
FL/A ,FL/A1,FL/A2	“On”：Fiber link is in correct connection.
	“Blink”：Signal packet goes through Fx end
L/A	“On”：Electric link is in correct connection.
	“Blink”：Signal packet goes through Tx end
P/N	“On”：Power over POE port is on and normal
P/D	“On”：Power over POE or 1000M and 10/100M
POE	“On”：Power over POE port is on and normal
100M	“On”：100Mbps
1000M	“On”：1000Mbps

4. Installation

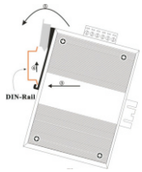
4.1 DIN-rail installation

The DIN installation is based on the Pic 1 and Pic2. Unload is based on the Pic 3, then Pic2 and Pic 1.

Pic 1



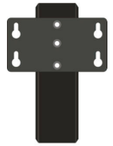
Pic2



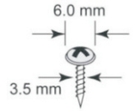
Pic 3

4.2 Wall-mounted installation

Fix hanging ears in the switch, as shown in figure 4;
Select 4 suitable screws (diameter of screw head sh ould be less than 6 mm , diameter of screw should be less than 3.5 mm diamet er, as shown in Pic 5) and fix the device on the wall as Pic 6, don’ t completely tighten the screws, keep some space about 2mm.
Install hanging ear of switch alignment inside the four screws, then press the switch down, ensure the hanging ear has been fix properly, and turn the screw.



Pic 4

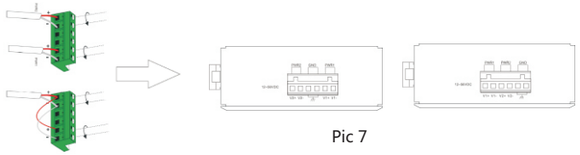


Pic 5

Pic 6

4.3 Power installation

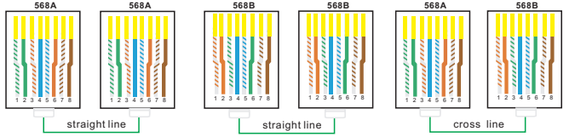
Input terminal of the switch for 6PIN plug type terminals, V1+ and V1- is for power supply 1 (PWR1), V2 + and V2- is for power supply 2 (PWR2) and GND for earthing terminal, as shown in Pic 7.
Power 1 and power 2 input voltage range is 12VDC ~ 56VDC , V1+,and V2+ are positive, V1- and V2- are negative, and the equipment supports anti reverse function; Two sets of power can be simultan eously accessed. So if One of the power failure, the switch is still able to work;



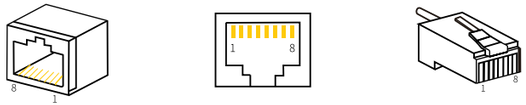
Pic 7

4.4 Copper cable connection

Installation description:
Ethernet port:Use: 〉= Cat5 or Cat6
Cable sequence: 568A,568B are feasible; Cross line, straight line are feasible
T568A standard: (3,6,1,4,5,2,7,8)
white/green,green,white/orange,blue,white/blue,orange,white/brown,brown
T568B standard: (1,2,3,4,5,6,7,8)
white/orange, orange, white/green, blue, white/blue , green, white/brown,brown
RJ45 port support MD/MDI-X, adaption, in MDI,Pin 1,2,3,4,5,6,7,8 connected correspondingly; In MDI-X,Pin 1→3, 2→6, 3→1, 6→2, 4→7, 5→8, 7→4, 8→5,
Cross line: one end is 568A, another end is568B; St raight line:Two ends both are 568A or both 568B,usually both are 568B



In application of MDI/MDI-X, Pin of 1000Base-T is d efined as followed



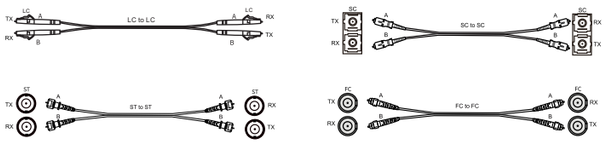
Pin No	MDI singal	MDI-X
1	TX-D1+/TX+	RX-D1+/RX+
2	TX_D1-/TX-	RX_D1-/RX-
3	RX_D2+/RX+	TX_D2+/TX+
4	BI_D3+	BI_D3+
5	BI_D3-	BI_D3-
6	RX_D2-/RX-	TX_D2/TX-
7	BI_D4+	BI_D4+
8	BI_D4-	BI_D4-

Note:
"TX±" means transmit data±
"RX±" means receiving data±
"-" means unused

PoE Installation:

PoE is a technology that uses the Ethernet power, E quipment support 802.3af and 802.3at standard, the switch is required to connect the power between 48~56V, the PoE connection is consistent with the network connection,1,2,3,6 cables are used for both data transmission and PoE power.

4.5 Fiber cable connection



"Tx" is fiber module's transmitting port, while"RX" is fiber module's receiving port. "A" fiber media converter's transmitting port(TX)should be connected with"B"fiber media converter's receiving port (RX), at the same time,"A" fiber media converter's receiving port(RX)should be connected with"B" fiber media converter's transmitting port(TX).

5. Technical parameters

Power supply

Input voltage:	Non-PoE Models: 12~56VDC, PoE Models: 48~56VDC
PSE Power:	0~30W
POE Pin:	1/2+, 3/6-

Copper Port

Connector:	RJ-45 connector
Data Rate:	10/100MbpsAuto, 10/100/1000Mbps Auto
Twisted Pair cable:	Cat5 UTP cable
Transmission distance:	100 meter

Fiber Port

Connector:	SC (default), SFP Socket/FC/ST (optional)
Data Rate:	155Mbps, 1.25Gbps
Fiber Type:	SM 9/125μm, MM 50/125μm 62.5/125μm
Transmission distance:	20km~120km

Environment

Storage temperature:	-40~95℃
Operating temperature:	-40~85℃
Relative humidity:	5%~90%

Mechanism

Enclosure:	IP40, Black, Metal shell
Mounting:	DIN-rail, Wall-mounted

Standards

IEEE 802.3,IEEE 802.3u,IEEE 802.3ab,IEEE 802.3z,IEEE 802.3x IEEE802.3af,IEEE802.3at

6. Warning

1) This product is suitable for indoor application.
2) Place the dust cover on the fiber interface when not in use.
3) It is dangerous to stare at the fiber transmitter with the naked eye.
4) Optical fiber transceivers must be used in pair.
5) Single optical fiber transceiver must be used inpair(A,B)
   A: TX1310/RX1550nm B: TX1550/RX1310nm.

7. Trouble shooting

1) Device is not connecting. Please check that the corresponding network device is using the same transfer rate as the media converter (10Mbps, 100Mbps or 1000Mbps).
2) If power loss is excessive in the fiber, please check and clean the fiber patch cord connectors.

8. Responsibility Note

1) If the end user damages the product which needs to repair or maintain, he/she needs to carry the transportation fee by himself/herself and ship back to our warehouse.
2) Please contact your authorized reseller immediately, if there is any damage to the equipment during transport.
3) If you want to prepare power supply by yourself, please make sure the power supply you select meet the requirement given by this manual. We will not cover the damage caused by your using unqualified power supply.
4) Do please follow this manual when using the power supply.
5) All rights reserved. No part of this manual canbe reproduced, or transmitted in any form or by any means, without au thorization from us.
6) We will not cover the damage to the equipment or any person caused by your changing the equipment or this manual in any form without authorization from us.
7) We will change the equipment for new ones if it can not work normally because of the quality itself within the warranty time. We will keep the old ones.
8) The packages of the equipment meet the requests of environmental protection, should be recycled.
9) Attention: If there is any mistake of description on this manual, we keep the rights and authorities to explain the facts. And the pictures of equipment appearance in this manual are just for user's infor mation, the final equipment appearance depends on reality products, if there are any improvements on technology, we will be sorry for won't inform you again.
10) This is a Class A product. In home environment, this product may cause radio interference. In this case, the user may ber equired to take appropriate measures.

Product Warranty Card

Product Name:_____
Product Model:_____
Serial Number:_____
Purchase Date:_____
User Name:_____
Retailer:_____
Maintain Records:_____