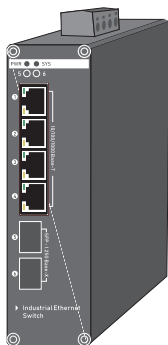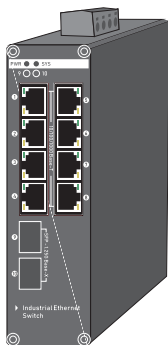# 4/8 Ports Industrial Switch
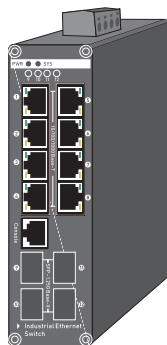
User's Manual V3

①	4 - 10/100/1000M + 2 Gigabit SFP Managed Industrial Switch	4 - 10/100/1000M + 2 Gigabit SFP Managed Industrial PoE Switch
②	8 - 10/100/1000M + 2 Gigabit SFP Managed Industrial Switch	8 - 10/100/1000M + 2 Gigabit SFP Managed Industrial PoE Switch
③	8 - 10/100/1000M + 4 Gigabit SFP Managed Industrial Switch	8 - 10/100/1000M + 4 Gigabit SFP Managed Industrial PoE Switch

Important Safeguards & Warning

Attention:
Please read the following safeguards and warnings carefully
before using the product in order to avoid demages and losses

Note:
Do not expose the device to soot,high humidity or dust.Doing so may
cause fire or electric shock.
Do not install the device in direct sunlight as it may cause overheating
and failure.
Installation of the units should be via the compatible rack mount or
securely on a flat surface.
Do not place the device on carpet to or around the unit, Doing so may
cause overheating.failure or fire.
Do not place stack or place objects on the unit
This unit contains o user serviceable parts,Servicing should only be
performed by approved technicians.

Warning:
Do not use a power supply other than the provided manufacture
power supply.Failure to do so may cause unit failure and or demage.

Special Announcements:
This manual is reference only.
All the designs and software here are subject to change without
prior written notice

Product Overview

Features:

Introduction:

This is the latest industrial Ethernet(PoE) Switch that can operate under WIDE-TEMPERATURE environment ranging from -40 up to 80 degrees C and is equipped with fiber slots which can be extended from 2 kilometers (via multi-mode fiber) up to above 100 kilometers (via single-mode fiber), respectively. In other words, the industrial switch provides more flexibility for Transportation, Manufacturing, Security and Surveillance with distance extension without any limitation and is a suitable model either for long or short distance network deployment.

This Industrial unmanaged Ethenet switch is based on the IEC61643-21:2000 standard, integrated with surge protection for both network signal and power together. It is adapted to the lightning surge protection for surveillance IP camera by reacting overvoltage, operating over-voltage and static electricity discharge etc.
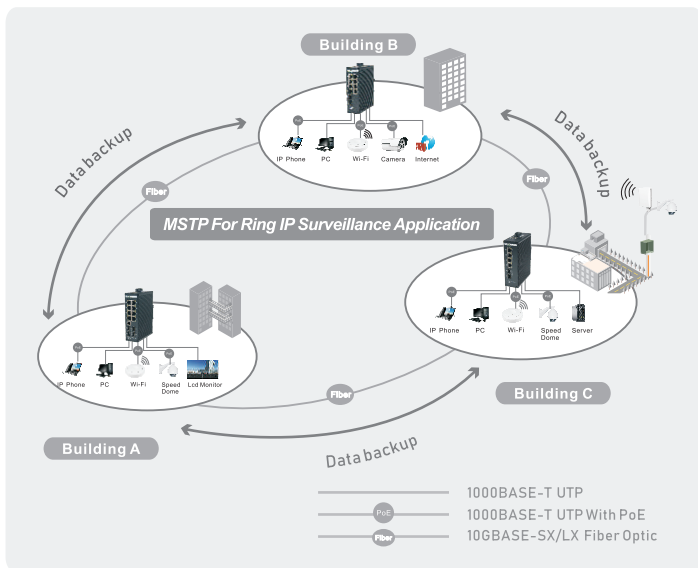
This Industrial switch is designed with a compact case that allows either DIN rail or panel mounting for the efficient usage of cabinet space. It provides an integrated power supply with a wide range of voltages for worldwide operation.
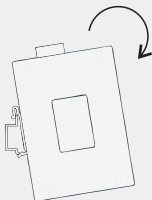
Common features:

※ High performance Store and Forward architecture
※ DIN rail and wall mount design
※ Confirm to IEEE802.3i 、 IEEE802.3u、IEEE802.ab、IEEE802.z and IEEE802.3X standards
※ support IEEE802.3af and IEEE802.3at standards
※ Contact Discharge 8KV DC；Air Discharge15KV DC
※ -40 to 85 degrees C wide operating temperature
※ IP40 industrial metal case protection

Typical Application:

The typical application of the device is show as below

Building B

IP Phone   PC   Wi-Fi   Camera   Internet

Data backup

Data backup

Fiber

Fiber

MSTP For Ring IP Surveillance Application

IP Phone   PC   Wi-Fi   Speed Dome   Server

IP Phone   PC   Wi-Fi   Speed Dome   Lcd Monitor

Fiber

Building A

Building C

Data backup

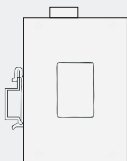|	
	1000BASE-T UTP
PoE	1000BASE-T UTP With PoE
Fiber	10GBASE-SX/LX Fiber Optic

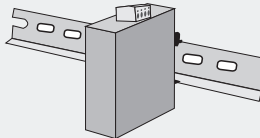## Switch installation :

1)
Insert Din rail into the slots, Steel Spring, Din Rail

2)
Following the left side picture to install the Din rail kits

3)
Finished installtion as above

Appendix 1
Technical specification

Model	4-10/100/1000M+2 Gigabit SFP Managed Industrial Switch	4-10/100/1000M+2 Gigabit SFP Managed Industrial PoE Switch
Hardware Specifications		
Connector	4 10/100/1000Base-T RJ45 2 1000 Base-X SFP 1 x RS232-to-RJ45 serial port	4 10/100/1000Base-T RJ45 2 1000 Base-X SFP 1 x RS232-to-RJ45 serial port
PoE Port	- - -	4 10/100/1000Mbps PSE port
LED indicators	Power Indicator: PWR(green).Network Indicator: Link(green) SFP Indicator: Link(green)	
Switch Architecture	Store and Forward	
Backplane bandwidth	32Gbps	
Packet forwarding rate	12.93Mpps	
MAC address	8k	
Power requirement	DC 12-56V	
ESD Protection	6KV ESD	
Dimension(W×D×H)	48mm x 110mm x 150mm(1.89in*4.33in*5.91in)	
Weight	1.2Kg	
Power over Ethernet (PoE) Specifications		
Network standard	IEEE802.3i 10 BASE-T ; IEEE802.3u 100 BASE-TX IEEE802.3ab/z 1000 BASE-TX ; IEEE802.3x Flow Control	
PoE Standard	- - -	IEEE 802.3af /PSE IEEE 802.3at /PSE
PoE Supply Type	- - -	1/2(+), 3/6(-) End-span
PoE Power Output	- - -	Max. 15.4 watts (IEEE 802.3af) Max. 30 watts (IEEE 802.3at)
PoE Power budget	- - -	Max. 120W
Environment		
Environment specification	Operating temperature: -40℃~85℃ , operating humidity: 5%~95% Storage temperature: -40℃~85℃ , storge humidity:5%~95%	
Safety	FCC Part15 Class A,CE.RoHs	

Appendix 1
Technical specification

Model	8-10/100/1000M+2 Gigabit SFP Managed Industrial Switch	8-10/100/1000M+2 Gigabit SFP Managed Industrial PoE Switch
Hardware Specifications		
Connector	8 10/100/1000Base-T RJ45 2 1000 Base-X SFP 1 x RS232-to-RJ45 serial port	8 10/100/1000Base-T RJ45 2 1000 Base-X SFP 1 x RS232-to-RJ45 serial port
PoE Port	- - -	8 10/100/1000Mbps PSE port
LED indicators	Power Indicator: PWR(green).Network Indicator: Link(green) SFP Indicator: Link(green)	
Switch Architecture	Store and Forward	
Backplane bandwidth	32Gbps	
Packet forwarding rate	16.82Mpps	
MAC address	8k	
Power requirement	DC 12-56V	
ESD Protection	6KV ESD	
Dimension(W×D×H)	48mm x 110mm x 150mm(1.89in*4.33in*5.91in)	
Weight	1.25Kg	
Power over Ethernet (PoE) Specifications		
Network standard	IEEE802.3i 10 BASE-T ； IEEE802.3u 100 BASE-TX IEEE802.3ab/z 1000 BASE-TX ； IEEE802.3x Flow Control	
PoE Standard	- - -	IEEE 802.3af /PSE IEEE 802.3at /PSE
PoE Supply Type	- - -	1/2(+), 3/6(-) End-span
PoE Power Output	- - -	Max. 15.4 watts (IEEE 802.3af) Max. 30 watts (IEEE 802.3at)
PoE Power budget	- - -	Max. 240W
Environment		
Environment specification	Operating temperature: -40℃~85℃ , operating humidity: 5%~95% Storage temperature: -40℃~85℃ , storge humidity:5%~95%	
Safety	FCC Part15 Class A,CE.RoHs	

Appendix 1
Technical specification

Model	8-10/100/1000M+4 Gigabit SFP Managed Industrial Switch	8-10/100/1000M+4 Gigabit SFP Managed Industrial PoE Switch
Hardware Specifications		
Connector	8 10/100/1000Base-T RJ45 4 1000 Base-X SFP 1 x RS232-to-RJ45 serial port	8 10/100/1000Base-T RJ45 4 1000 Base-X SFP 1 x RS232-to-RJ45 serial port
PoE Port	- - -	8 10/100/1000Mbps PSE port
LED indicators	Power Indicator: PWR(green).Network Indicator: Link(green) SFP Indicator: Link(green)	
Switch Architecture	Store and Forward	
Backplane bandwidth	32Gbps	
Packet forwarding rate	19.86Mpps	
MAC address	8k	
Power requirement	DC 12-56V	
ESD Protection	6KV ESD	
Dimension(W×D×H)	48mm x 110mm x 150mm(1.89in*4.33in*5.91in)	
Weight	1.25Kg	
Power over Ethernet (PoE) Specifications		
Network standard	IEEE802.3i 10 BASE-T；IEEE802.3u 100 BASE-TX IEEE802.3ab/z 1000 BASE-TX；IEEE802.3x Flow Control	
PoE Standard	- - -	IEEE 802.3af /PSE IEEE 802.3at /PSE
PoE Supply Type	- - -	1/2(+), 3/6(-) End-span
PoE Power Output	- - -	Max. 15.4 watts (IEEE 802.3af) Max. 30 watts (IEEE 802.3at)
PoE Power budget	- - -	Max. 240W
Environment		
Environment specification	Operating temperature: -40℃~85℃，operating humidity: 5%~95% Storage temperature: -40℃~85℃，storge humidity:5%~95%	
Safety	FCC Part15 Class A,CE.RoHs	

Industrial Switch
Management specification 1

4/8 Ports Managed Industrial Switch	
Layer 2 Functions	
PoE Management	PSE system Configuration PSE Port configuration PSE Timer configuration
VLAN	802.1Q tagged-based VLAN；802.1ad Q-in-Q tunneling Up to 256 VLAN groups；out of 4094 VLAN IDs Voice VLAN；Protocol VLAN；Private VLAN (Protected port)
Link Aggregation	IEEE 802.3ad LACP and static trunk Supports 8 groups of 8-port trunk
Spanning Tree Protocol	STP, IEEE 802.1D Spanning Tree Protocol RSTP, IEEE 802.1w Rapid Spanning Tree Protocol MSTP, IEEE 802.1s Multiple Spanning Tree Protocol
IGMP Snooping	IGMP (v2/v3) snooping IGMP querier Up to 256 multicast groups
MLD Snooping	MLD (v1/v2) snooping, up to 256 multicast groups
Qos	8 mapping ID to 8 level priority queues - Port number - 802.1p priority - 802.1Q VLAN tag - DSCP field in IP packet Traffic classification based, strict priority and WRR
Port Mirroring	TX / RX / both, Many-to-1 monitor
Access Control List	IPv4/IPv6 IP-based ACL / MAC-based ACL
Security	IEEE 802.1X port-based authentication Built-in RADIUS client to co-operate with RADIUS server RADIUS / TACACS+ user access authentication IP-MAC port binding；MAC filtering；Static MAC address DHCP Snooping and DHCP Option82 STP BPDU guard, BPDU filtering and BPDU forwarding DoS attack prevention；ARP inspection；IP source guard

Industrial Switch
Management specification 2

4/8 Managed Ports Industrial Switch

Management Functions	
Basic Management Interfaces	Web browser / Telnet / SNMP v1, v2c, V3 Firmware upgrade by HTTP / TFTP protocol through Ethernet Remote / Local Syslog；System log；LLDP protocol；SNTP
Secure Management Interfaces	SSH；SSL；SNMP
SNMP MIBs	RFC 1213 MIB-I；IRFC 1215 Generic Traps；RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions；RFC 2737 Entity MIB (Version 2) RFC 2819 RMON (1, 2, 3, 9)；RFC 2863 Interface Group MIB RFC 3635 Ethernet-like MIB
Standards Conformance	
Regulation Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000T IEEE 802.3x flow control and back pressure IEEE 802.3ad port trunk with LACP IEEE 802.1D Spanning Tree protocol IEEE 802.1w Rapid Spanning Tree protocol IEEE 802.1s Multiple Spanning Tree protocol IEEE 802.1p Class of Service IEEE 802.1Q VLAN tagging IEEE 802.1x Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus RFC 768 UDP；RFC 793 TFTP；RFC 791 IP；RFC 792 ICMP RFC 2068 HTTP； RFC 1112 IGMP version 1；RFC 2236 IGMP version 2； RFC 3376 IGMP version 3 RFC 2710 MLD version 1；RFC 3810 MLD version 2

Industrial Switch
WEB Login

Login The Industrial Switch Steps:

Step1: In the normal operation of the device.connect the PC to the switch RJ45 Port by Network cables.

Step2. Manually change the computer IP address to 192.169.1.X (X is 2~254.except 100).Subnet mask is 255.255.255.0

Step3: Open the computer's IE.type 192.168.1.100 in the address box,hit the enter key

Step4: Enter the default users name and password admin and admin then click login

Step5: Entered the switch web management interface successfully then start to configure the switch.

WARRANTY CARD

INFORMATION(FILLED BY THE CUSTOMER)

PRODUCT NAME		SERIES MUMBER	
PRODUCT MODE		LINKMAN	
CUSTOMER		ZIP CODE	
ADDRESS		FAX	
TEL		SHIPPING DATE	
E-MAIL			

Quality Certificate

Checked By: _____
Date: _____

This warranty card is only valid as it is filled in and got the product repaired