

# 5-Port 10/100Mbps Industrial Fast Ethernet Switch for Wide Temperature Operation



### *Slim type with more practicability and convenience*

After PLANET ISW / IFT series Fast Ethernet Switch / Converter products being popular, PLANET now releases the advanced industrial hardened Fast Ethernet Switch series with slim type, IP-30 metal case. The compact, IP-30 standard metal case allows either DIN rail or wall mounting for efficient use of cabinet space. The ISW-501T, one of the new series model, equips with 5 10/100Mbps auto negotiation ports and operates reliably in Heavy Industrial demanding environments.

### *Stable operate performance under difficult environments*

The ISW-501T provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb side traffic control cabinets. Being able to operate under the temperature range from -40 to 75 Degree C coupled with hazardous location certification (Class 1 Division 2), the ISW-501T can be placed in almost any difficult environment. The ISW-501T also possesses an integrated power supply source with wide range of voltages (12 to 48V DC) for worldwide high availability applications requiring dual or backup power inputs.

### *Robust Switch performance*

The ISW-501T offers high performance switch architecture. With the 5 10/100Mbps Fast Ethernet ports providing non-blocking switch fabric and wire-speed throughput as high as 1Gbps and the 2K MAC Address table, the ISW-501T can perform wire-speed packets transfer without risk of packet loss. The flow control function enables the ISW-501T to provide fast and reliable data transfer.

All of the RJ-45 copper interfaces in the ISW-501T support 10/100Mbps Auto-Negotiation for optimal speed detection through RJ-45 Category 3, 4 or 5 cables. The standard Auto-MDI/MDI-X support can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

## KEY FEATURES

### *PHYSICAL PORT*

- 5-Port 10/100Mbps RJ-45 with auto MDI / MDI-X function

### *LAYER 2 FEATURES*

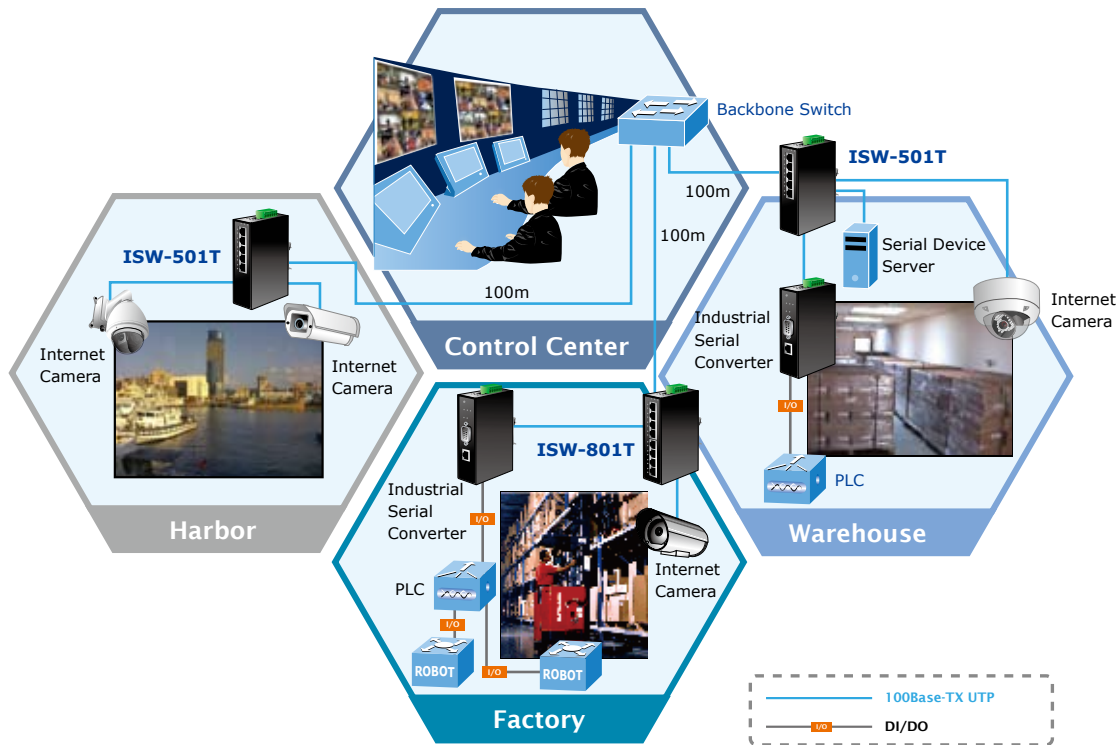
- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX Ethernet standard
- Supports Auto-Negotiation and 10/100Mbps half / full duplex mode
- High performance Store and Forward architecture, broadcast storm control, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- Backplane (Switching Fabric): 1Gbps
- Integrated address look-up engine, supports 2K absolute MAC addresses
- Automatic address learning and address aging
- CSMA / CD Protocol

### *INDUSTRIAL CASE / INSTALLATION*

- IP-30 Metal case
- DIN Rail and Wall Mount Design
- 12 to 48V DC, redundant power with polarity reverse protect function and connective removable terminal block for master and slave power
- Supports EFT protection 6000 VDC for power line
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 Degree C operation temperature
- Free fall, shock, vibration industrial stability

**APPLICATIONS**
*Industrial area Switch for data collection and forwarding*

The ISW-501T equips with 5 10/100Mbps ports that offer auto MDI / MDIX feature, 1Gbps non-blocking switch fabric and 2K MAC Address table, therefore, it can perform wire-speed packets transfer without risk of packet loss. The ISW-501T, with the slim type IP 30 metal case protection, is ideal for most Heavy Industrial demanding environments.


**SPECIFICATION**

Product	<b>5-Port 10/100Mbps Industrial Fast Ethernet Switch for Wide Temperature Operation</b>
Model	ISW-501T
<b>Hardware Specification</b>	
10/100Base-TX Ports	5
Dimension (W x D x H)	135 x 87 x 32 mm
Weight	438g
Power Requirement	12~48 VDC, Redundant power with polarity reverse protection function
Power Consumption / Dissipation	3.9 Watts / 13BTU
Installation	DIN rail kit and wall mount ear
Alarm	Provides one relay output for power fail Alarm Relay current carry ability: 3A @ DC 30V
<b>Switch Specification</b>	
Switch Processing Scheme	Store-and-Forward
Address Table	2K entries
Flow Control	Back pressure for half duplex, IEEE 802.3x Pause Frame for full duplex
Switch fabric	1Gbps
Throughput (packet per second)	0.74Mpps
Network cables	10/100Base-TX: Cat. 3, 4, 5, 5e, 6 UTP cable (100meters, max.) EIA/TIA-568 100-ohm STP (100meters, max.)

**Standards Conformance**

Standards Compliance	IEEE 802.3 Ethernet
	IEEE 802.3u Fast Ethernet
	IEEE 802.3x Full-duplex flow control
Regulation Compliance	FCC Part 15 Class A, CE
Stability testing	IEC60068-2-32(Free fall),IEC60068-2-27(Shock),IEC60068-2-6(Vibration)

**Environmental Specification**

Temperature	Operating: -40~75 Degree C
	Storage: -40~75 Degree C
Humidity	Operating: 5~90%
	Storage: 5~90% (Non-condensing)

**ORDERING INFORMATION**

<b>ISW-501T</b>	5-Port 10/100Mbps Industrial Fast Ethernet Switch (-40~75 Degree C operating temperature)
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**RELATED PRODUCTS**

<b>ISW-801T</b>	8-Port 10/100Mbps Industrial Fast Ethernet Switch (-40~75 Degree C operate temperature)
<b>ISW-511T</b>	4+1 100FX Port Multi-mode Industrial Ethernet Switch - 2km (-40~75 Degree C operate temperature)
<b>ISW-511TS15</b>	4+1 100FX Port Multi-mode Industrial Ethernet Switch - 15km (-40~75 Degree C operate temperature)
<b>ISW-621T</b>	4+2 100FX Port Multi-mode Industrial Ethernet Switch - 2km (-40~75 Degree C operate temperature)
<b>ISW-621TS15</b>	4+2 100FX Port Multi-mode Industrial Ethernet Switch - 15km (-40~75 Degree C operate temperature)