

## IGS-501S

5x GbE RJ45 + 1x 100/1000Base SFP



- EN50121-4, EN61000-6-2, EN61000-6-4, CE, FCC certified
- Provides a DIP-Switch to set functions
- Supports power failure alarm message by relay
- 12/24/48VDC (9.6~60VDC) redundant dual input power
- IP30, rugged metal housing, fanless



These models is 5 port 10/100/1000Base-T unmanaged GbE switches. It includes a 1000Base-X SFP port, that provide stable and reliable Ethernet transmission. Housed in rugged DIN rail or wall mountable enclosures, these switches are designed for harsh environments, such as industrial networking, intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications (See Figure). Standard operating temperature range models (-10 to 60°C) and wide operating temperature range models (-40 to 75°C) fulfill the special needs of industrial automation applications.

### Features

- Supports flow control
- Jumbo frame support
- Supports IEEE 802.3az Green Ethernet
- Supports auto-negotiation and auto-MDI/MDI-X
- Supports DIN Rail or wall mounting installation
- Wide operating temperature -40~75°C (-E model)

### Specifications

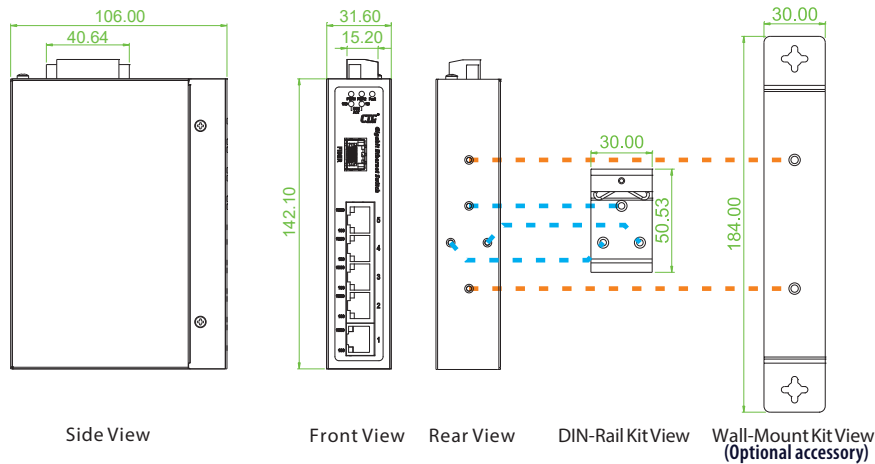
<b>IEEE Standard</b>	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX, 100Base-FX, Fast Ethernet IEEE 802.3ab 1000Base-T Gbit/s Ethernet over twisted pair IEEE 802.3x Flow Control IEEE 802.3z 1000Base-X Gbit/s Ethernet over Fiber-Optic
<b>Switch Architecture</b>	Back-plane (Switching Fabric): 12Gbps Full wire-speed
<b>Data Processing</b>	Store and Forward
<b>Flow Control</b>	IEEE 802.3x flow control for Full duplex , back pressure for half duplex
<b>Provides Broadcast Storm Protection</b>	Supported
<b>Jumbo Frame</b>	9.6KBytes
<b>MAC Address Table</b>	8K
<b>Packet Buffer Size</b>	128K Byte
<b>Network Connector</b>	5 x 10/100/1000Base-T RJ-45 1x 100/1000Base-X SFP connector 10/100/1000Base-TX auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex
<b>Network Cable</b>	UTP/STP Cat. 5 cable or above EIA/TIA-568 100-ohm (100meter) Fiber Cable (Multi-mode): 50/125um, 62.5/125um Fiber Cable (Single-mode): 9/125um
<b>Protocols</b>	CSMA/CD
<b>LED</b>	Per unit: Power 1 (Green), Power 2 (Green), Fault (Amber) Per RJ45: Link/Act 1000 (Yellow), Link/Act 10/100 (Green) Fiber LED: Link/Act (Green)
<b>DIP SW</b>	DIP 1 ON : Disable OFF : Enable power failure alarm DIP 2 ON : Disables broadcast storm protection OFF : Enable broadcast storm protection

<b>DIP SW</b>	Green Ethernet DIP 3 ON : Disable Green Ethernet OFF : Enable 802.3az Green Ethernet DIP 4 SFP speed ON : 100M OFF : 1000M								
<b>Reverse Polarity Protection</b>	Supported for Power Input								
<b>Overload Current Protection</b>	Supported								
<b>Power Supply</b>	Redundant Dual DC 12/24/48V (9.6~60VDC), or AC 24V (18~36VAC) Input power (Removable Terminal Block)								
<b>Power Consumption</b>	<table border="1"> <thead> <tr> <th>Input</th> <th>IGS-501S</th> </tr> </thead> <tbody> <tr> <td>12VDC</td> <td>3.9W</td> </tr> <tr> <td>24VDC</td> <td>3.9W</td> </tr> <tr> <td>48VDC</td> <td>5.3W</td> </tr> </tbody> </table>	Input	IGS-501S	12VDC	3.9W	24VDC	3.9W	48VDC	5.3W
Input	IGS-501S								
12VDC	3.9W								
24VDC	3.9W								
48VDC	5.3W								
<b>Alarm Relay Contact</b>	Relay outputs with current carrying capacity of 1 A @24VDC, NC								
<b>Removable Terminal Block</b>	Provides 2 redundant power, alarm relay contact, 6 Pin								
<b>Operating Temperature</b>	-10°C~60°C (IGS-501S) -40°C~75°C (IGS-501S-E)								
<b>Operating Humidity</b>	5% to 95% (Non-condensing)								
<b>Storage Temperature</b>	-40 ~ 85°C								
<b>Housing</b>	Rugged Metal, IP30 Protection and fanless								
<b>Dimensions</b>	106 x 31.6 x 142 mm (D x W x H)								
<b>Weight</b>	0.415kg								
<b>Installation Mounting</b>	DIN Rail mounting, or wall mounting (Optional)								
<b>MTBF</b>	1,101,374 hrs (MIL-HDBK-217)								
<b>Warranty</b>	5 years								

Certification	
EMC/EMS	CE
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE
Railway Traffic	EN50121-4
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4

EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria B
	EN61000-4-3 (RS) Level 3, Criteria A
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-4 (Burst) Level 3, Criteria A
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-5 (Surge) Level 3, Criteria B
	EN61000-4-6 (CS) Level 3, Criteria A
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

## Dimensions



## Ordering Information

Model Name	Total Port	RJ45 UTP Port		Fiber Port		Power Input		Certification			Operating Temperature	
		10/100/1000 Base-T		100/1000Base-X		Redundant		Railway EN50121-4	EN61000-6-2 EN61000-6-4	CE		FCC
IGS-501S	6	5		1x SFP		12/24/48VDC		V	V	V	V	-10~60°C
IGS-501S-E	6	5		1x SFP		12/24/48VDC		V	V	V	V	-40~75°C

### Package List

- One device of the series
- Protective caps for SFP ports
- Din Rail with screws
- Terminal block

## Optional Accessories

### Wall Mount Kit

IND-WMK01	Wall Mount kit for Industrial product (184 x 30mm)
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### Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with the IGS-501S product for guaranteed compatibility and performance. The best performance can be guaranteed even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheet for more details and more items.)

ISFP-M7000-85-(E)	Industrial SFP GbE 1000Base-SX, M/M, 500 meter, wave length 850nm, 7.5dB, LC, -10~70°C (-40~85°C)
ISFP-S7020-31-(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, -10~70°C (-40~85°C)
ISFP-T7T00-00-(E)	Industrial SFP 10/100/1000Base-T UTP 100meter, -10~70°C (-40~85°C)
ISFP-M5002-31-(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, -10~70°C (-40~85°C)
ISFP-S5030-31-(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, -10~70°C (-40~85°C)

### Industrial Power Supply

MDR-20-24	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ +70°C
MDR-40-48	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ +70°C