

# IGS-402CS

4x GbE RJ45 + 2x 100/1000Base-X SFP, Compact size

- ▲ 4KV surge protection for UTP and SFP ports
- ▲ Wide operating temperature -40 ~ 75° C
- ▲ IP30 rugged metal housing and fanless
- ▲ EN62368-1, EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC certified



The industrial compact size Gigabit Ethernet switch IGS-402CS, plug and play easy to use, features 4 ports Gigabit UTP and equipped with 2 100/1000bps SFP slots for fiber optic connections to meet the requirements for extended transmission distance, fanless design, high MTBF, supports wide operating temperature, and redundant 12/24/48VDC power input, it is suitable for heavy-duty applications in harsh environments such as industrial factory automation and data centers, intelligent transportation systems, military and utility market applications where environmental conditions exceed commercial product specifications.

## Features

- 12/24/48VDC (9.6~60VDC) redundant dual input power
- Supports DIP switch to set broadcast storm protection, SFP Auto/Force Mode, SFP 100M/1000M ; RJ45 Auto/force mode, 10M/100M, Full/half.
- Supports flow control
- Provides broadcast storm protection
- DIN Rail mounting or wall mounting

## Specifications

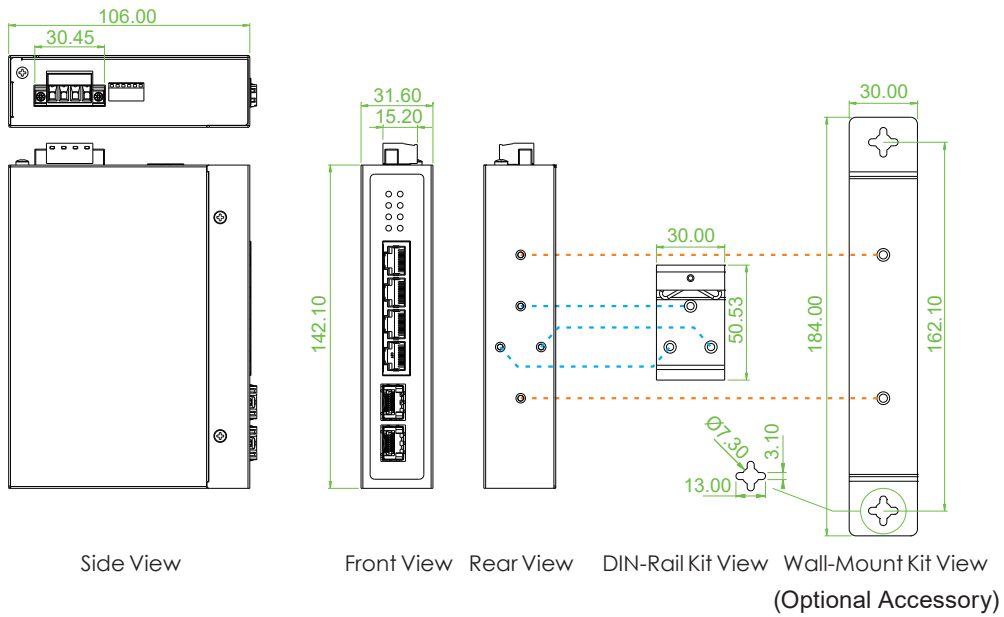
Standard	IEEE 802.3	10Base-T Ethernet
	IEEE 802.3u	100Base-TX and 100Base-FX Fast Ethernet
	IEEE 802.3ab	1000Base-T Gbit/s Ethernet over twisted pair
	IEEE 802.3z	1000Base-X Gigabit Ethernet over fiber-optic
	IEEE 802.3x	Flow Control and Back Pressure
Switch Architecture	Back-plane (Switching Fabric): 12 Gbps	
Data Processing	Store and Forward	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
MAC Address Table	4K	
Packet Buffer Size	1.75Mbit	
Max Frame Size	1522Bytes	
Jumbo Frame	10K Byte	
Network Connector	4x RJ-45 for 10/100/1000Base-T Auto Negotiation Speed or Force Mode, Auto MDI/MDI-X function, Full/Half duplex 2x 100/1000Base-X SFP, Auto or Force Mode	
Network Cable	UTP/STP Cat. 5e cable or above	
	EIA/TIA-568 100-ohm (100meter)	
	Fiber Cable (Multi-mode): 50/125um, 62.5/125um Fiber Cable (Single-mode): 9/125um	
Protocols	CSMA/CD	

LED	System: Power 1 (Green), Power 2 (Green) UTP: 10/100 Link/Active (Green), 1000 Link/Active (Amber) SFP Slot: 100 Link/Active (Green), 1000 Link/Active (Amber)												
DIP SW	<table border="1"> <tr> <td>DIP 1</td> <td>Broadcast Protection OFF : Enable ON : Disable</td> </tr> <tr> <td>DIP 2</td> <td>Off: Fiber Auto On: Fiber Force Mode</td> </tr> <tr> <td>DIP 3</td> <td>SFP Fiber Speed OFF: Giga ON: 100M</td> </tr> <tr> <td>DIP 4</td> <td>RJ45 Mode OFF: Auto ON: Force</td> </tr> <tr> <td>DIP 5</td> <td>RJ45 Speed OFF: 100M ON: 10M</td> </tr> <tr> <td>DIP 6</td> <td>RJ45 Duplex OFF: Full ON: Half</td> </tr> </table>	DIP 1	Broadcast Protection OFF : Enable ON : Disable	DIP 2	Off: Fiber Auto On: Fiber Force Mode	DIP 3	SFP Fiber Speed OFF: Giga ON: 100M	DIP 4	RJ45 Mode OFF: Auto ON: Force	DIP 5	RJ45 Speed OFF: 100M ON: 10M	DIP 6	RJ45 Duplex OFF: Full ON: Half
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Reverse Polarity Protection	Supported for Power Input												
Overload Current Protection	Supported												
Power Supply	Redundant dual 12/24/48VDC (9.6~60VDC) input power (Removable terminal block)												
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Removable Terminal Block	Provides 2 Redundant power, 4 Pin												
Operating Temperature	-10 ~ 60°C (IGS-402CS) -40 ~ 75°C (IGS-402CS-E)												
Operating Humidity	5% to 95% (Non-condensing)												
Storage Temperature	-40 ~ 85°C												
Housing	Rugged metal, IP30 Protection and fanless												
Dimensions	106x 31.6x 142mm (D X W X H)												
Weight	420g												
Installation Mounting	DIN Rail mounting, or wall mounting (Optional)												
MTBF	862,267Hours (MIL-HDBK-217)												
Warranty	5 years												

## Certification

EMC	CE (EN55032, EN55035)
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 EN61000-4-4 (Burst) Level 3, Criteria A EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
Safety	EN62368-1
4KV Surge Protection	Supported for UTP and SFP port
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-31
Vibration	IEC 60068-2-6

## Dimensions



## Ordering Information

Model Name	Total Port	RJ45 UTP Port	Fiber Port	Input Power	Certification				Operating Temperature
		10/100/1000 Base-T	100/1000 Base-X	Redundant	EN62368-1	EN50121-4	EN61000-6-2 EN61000-6-4	CE, FCC	
IGS-402CS	6	4	2 SFP	12/24/48VDC	V	V	V	V	-10~60°C
IGS-402CS-E	6	4	2 SFP	12/24/48VDC	V	V	V	V	-40~75°C

## Optional Accessories

### ■ Wall Mount Kit

IND-WMK01 Wall Mount kit for Industrial product (184x30mm) (Narrow)

### ■ Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with all CTC Union industrial grade Ethernet switches for guaranteed compatibility and performance. Best performance can be guaranteed, even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheets for more items and detailed information.)

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