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IGS-402CS-4PH

4x GbE RJ45 + 2x 100/1000Base-X SFP with 4x PoE 120W, Compact size

- *4KV Surge Protection for PoE, 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 PoE Ethernet switch, IGS-402CS-4PH has 4 Gigabit UTP ports and each port supports 30W PoE+. Equipped with two 100/1000Mbps SFP slots for fiber optic connections to meet the requirements for extended transmission distance, fanless design, high MTBF, supports wide operating temperature, redundant 48VDC power input, suitable for heavy-duty applications in harsh environments, such as industrial factory automations, data centers, intelligent transportation systems, military and utility market applications where environmental conditions exceed commercial product specifications.

Features

- Provides 4-port IEEE 802.3at/af PoE output (30W/Port)
- Maximum PoE output power budget 120W
- 48VDC (44~57VDC) redundant dual power input
- 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
	IEEE 802.3at	PoE+ (Power over Ethernet enhancements)
	IEEE 802.3af	PoE (Power over Ethernet)
Switch Architecture	Back-Plane (Switching Fabric): 12Gbps (Full Wire-Speed)	
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	
PoE standard	IEEE 802.3at/af	
PoE RJ-45 pin Assignment	RJ-45 port #1~#4 support IEEE 802.3at/af, End-Span, Alternative A mode	
	Positive (V+): RJ-45 pin 1, 2.	
	Negative (V-): RJ-45 pin 3, 6.	
	Data (1, 2, 3, 6, 4, 5, 7, 8)	

Industrial GbE PoE Switch

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/Act (Amber)	
	SFP Slot: 10/100 Link/Active (Green), 1000 Link/Active (Amber)	
	PoE: ON (Green)	
DIP SW	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
Reverse Polarity Protection	Supported for Power Input	
Overload Current Protection	Supported	
Power Supply	Redundant dual 48VDC (44~57VDC) input power (Removable terminal block) (50~57V input is recommended for IEEE802.3at in 30W applications)	

Power Consumption

Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget
50 VDC	130W	8.2W	120W

PoE Power Budget	Maximum PoE Output power budget 120W (30W/port)
Removable Terminal Block	Provides 2 Redundant power, 4 Pin
Operating Temperature	-10 ~ 60°C (IGS-402CS-4PH)
	-40 ~ 75°C (IGS-402CS-4PHE)
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40 ~ 85°C
Housing	Rugged metal, IP30 Protection and fanless
Dimensions	106 x 38.6 x 142mm (D x W x H)
Weight	705g
Installation Mounting	DIN Rail mounting or wall mounting (Optional)
MTBF	745,955Hours (MIL-HDBK-217)
Warranty	5 years

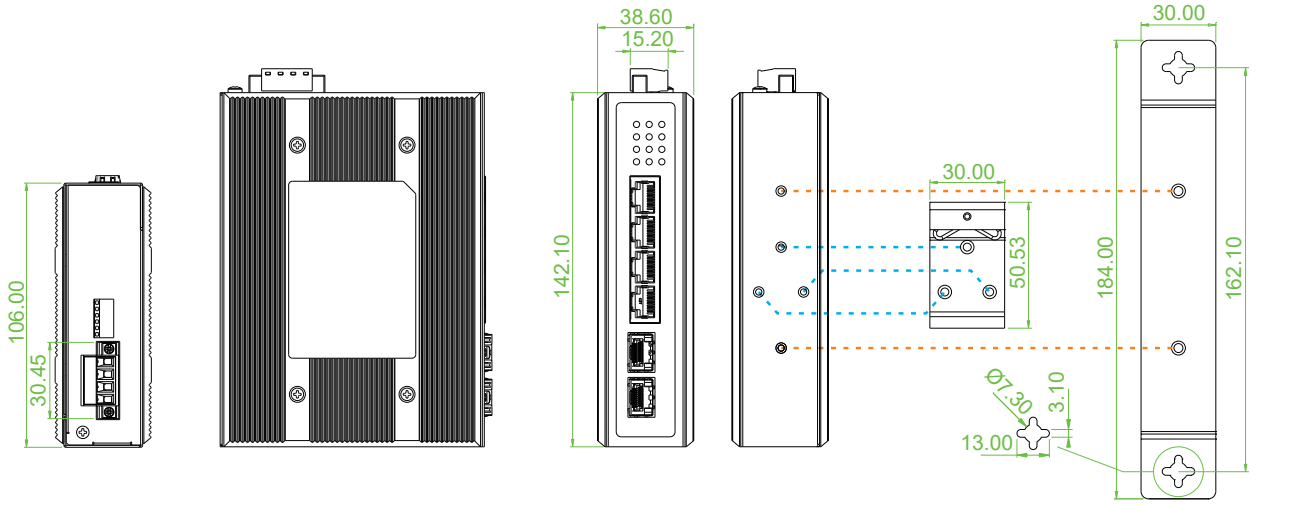
Certification

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

Industrial GbE PoE Switch

Safety	EN62368-1
4KV Surge Protection	Supported for PoE, UTP and SFP port
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-31
Vibration	IEC 60068-2-6

Dimensions



Top View | Side View | Front View | Rear View | DIN-Rail Kit View | Wall-Mount Kit View (Optional Accessory)

Ordering Information

Model Name	Total Port	RJ45	SFP	PoE		Input Power	Certification			Operating Temperature
		10/100/1000 Base-T(X)	100/1000 Base-X	IEEE802.3 at/af	Power Budget	Redundant	EN62368-1	EN50121-4	CE, FCC EN61000-6-2 EN61000-6-4	
IGS-402CS-4PH	6	4	2	4	120W	48VDC	V	V	V	-10~60°C
IGS-402CS-4PHE	6	4	2	4	120W	48VDC	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

NDR-120-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 120W, -20 ~ 70°C (For IGS-402CS-4PH)
NDR-240-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 240W, -20 ~ 70°C (For more ref.)