

# IFS-402CGS-4PH

## Industrial GbE PoE Switch

### 6x GbE RJ45 with 4x PoE 120W, 48VDC

- » 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, unmanaged plug-and-play easy for use, has 4 10/100Mbps 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

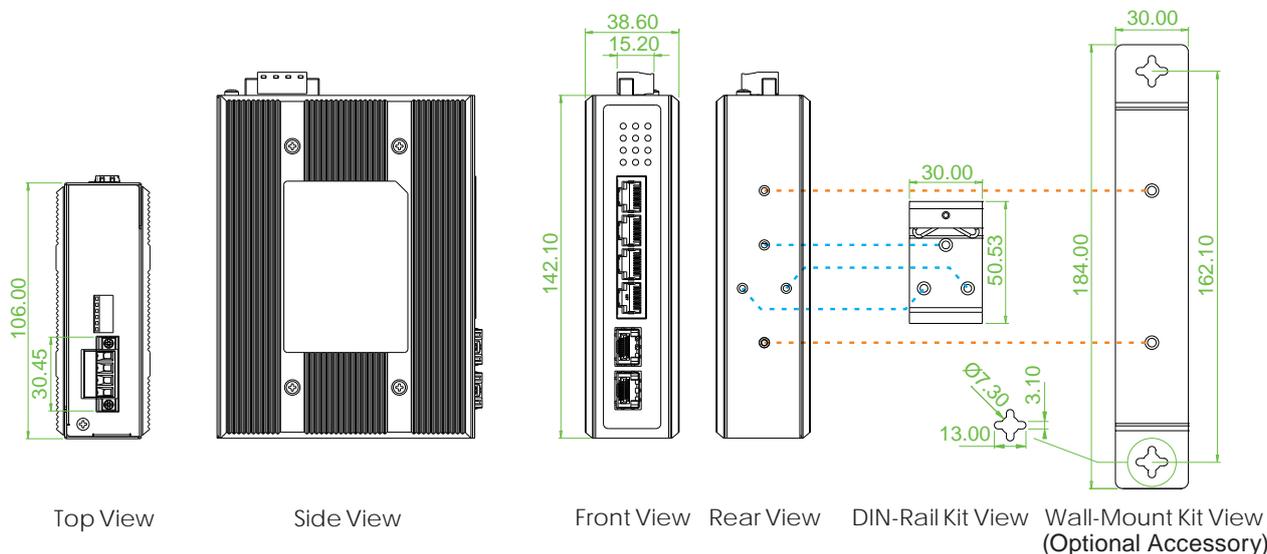
## Specifications

<b>Standard</b>	IEEE 802.3	10Base-T Ethernet
	IEEE 802.3u	100Base-TX and 100Base-FX Fast Ethernet
	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)
	IEEE 802.3af	PoE (Power over Ethernet)
<b>Switch Architecture</b>	Back-Plane (Switching Fabric): 4.8Gbps (Full Wire-Speed)	
<b>Data Processing</b>	Store and Forward	
<b>Flow Control</b>	IEEE 802.3x flow control, back pressure flow control	
<b>MAC Address Table</b>	4K	
<b>Packet Buffer Size</b>	1.75Mbit	
<b>Max Frame Size</b>	1522Bytes	
<b>Jumbo Frame</b>	10K Byte	
<b>PoE Standard</b>	IEEE 802.3at/af	
<b>PoE RJ-45 Pin Assignment</b>	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)	
<b>Network Connector</b>	4x RJ-45 for 10/100Base-TX, Auto negotiation Speed or Force Mode, Auto MDI/MDI-X function, Full/Half duplex 2x 100/1000Base-X SFP, Auto or Force Mode	

<b>Network Cable</b>	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			
<b>Protocols</b>	CSMA/CD			
<b>LED</b>	System: Power 1 (Green), Power 2 (Green) UTP: 100 Link/Act (Green), 10 Link/Act (Amber) SFP Slot: 100 Link/Active (Green), 1000 Link/Active (Amber) PoE: ON (Green)			
<b>DIP SW</b>	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		
<b>Reverse Polarity Protection</b>	Supported for Power Input			
<b>Overload Current Protection</b>	Supported			
<b>Power Supply</b>	Redundant dual 48VDC (44~57VDC) input power (Removable terminal block) (50~57V input is recommended for IEEE802.3at in 30W applications)			
<b>Power Consumption</b>	<b>Input Voltage</b>	<b>Total Power Consumption</b>	<b>Device Power Consumption</b>	<b>PoE Budget</b>
	50 VDC	127.5W	5.3W	120W
<b>PoE Power Budget</b>	Maximum PoE Output power budget 120W (30W/port)			
<b>Removable Terminal Block</b>	Provides 2 Redundant power, 4 Pin			
<b>Operating Temperature</b>	-10 ~ 60°C (IFS-402CGS-4PH) -40 ~ 75°C (IFS-402CGS-4PHE)			
<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 38.6 x 142mm (D x W x H)			
<b>Weight</b>	705g			
<b>Installation Mounting</b>	DIN Rail mounting or wall mounting (Optional)			
<b>MTBF</b>	823,732Hours (MIL-HDBK-217)			
<b>Certification</b>				
<b>EMC</b>	CE (EN55032, EN55035)			
<b>EMI (Electromagnetic Interference)</b>	FCC Part 15 Subpart B Class A, CE			
<b>Railway Traffic</b>	EN50121-4			
<b>Immunity for Heavy Industrial Environment</b>	EN61000-6-2			
<b>Emission for Heavy Industrial Environment</b>	EN61000-6-4			
<b>EMS (Electromagnetic Susceptibility) Protection Level</b>	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			

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

## Dimensions



## Ordering Information

Model Name	Total Port	RJ45		SFP		PoE		Input Power	Certification			Operating Temperature	
		10/100 Base-TX	100/1000 Base-X	100/1000 Base-X	100/1000 Base-X	IEEE802.3 at/af	Power Budget		Redundant	EN62368-1	EN50121-4		CE, FCC EN61000-6-2 EN61000-6-4
IFS-402CGS-4PH	6	4	2	2	2	4	120W	48VDC	Redundant	V	V	V	-10~60°C
IFS-402CGS-4PHE	6	4	2	2	2	4	120W	48VDC	Redundant	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, DDML, -10~70°C (-40~85°C)
ISFP-S7020-31-D(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, DDML, -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, DDML, -10~70°C (-40~85°C)
ISFP-S5030-31-D(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDML, -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 IFS-402CGS-4PH)
NDR-240-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 240W, -20 ~ 70°C (For more ref.)