IFS-402CGS-4PH

4x 10/100Base-TX RJ45 + 2x 100/1000Base-X SFP with 4x PoE 120W, Compact size

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

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CE FC EN50121-4 EN61000-6-2 EN61000-6-4

The IFS-402CGS-4PH is a 6 Ports unmanaged industrial grade Ethernet PoE switches with 4x 10/100Base-TX PoE+/PoE 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, security automation applications, IP Surveillance, intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications. 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

- Provides 4-port IEEE 802.3at/af PoE output (30W/Per Port)
- Maximum PoE output power budget 120W
- 48VDC (44~57VDC) 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

IEEE Standard	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)
Switch Architecture	Back-plane (Switching Fabric): 4.8 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	
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)	
Network Connector	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	
Network Cable	UTP/STP Cat. 5e cable or above	
	EIA/TIA-568 100-ohm (100meter)	
Network Cable	Fiber Cable (Multi-mode): 50/125um, 62.5/125um Fiber Cable (Single-mode): 9/125um	
Protocols	CSMA/CD	
LED	Per unit: Power 1 (Green), Power 2 (Green)	
	Per RJ-45 port : 100M Link/Act (Green) / 10M Link/Act (Amber)	
	Fiber Per port: 100 Link/Active (Green) / 1000 Link/Active (Amber)	
	Per PoE Port LED (Green) • Active : ON • Inactive : OFF	

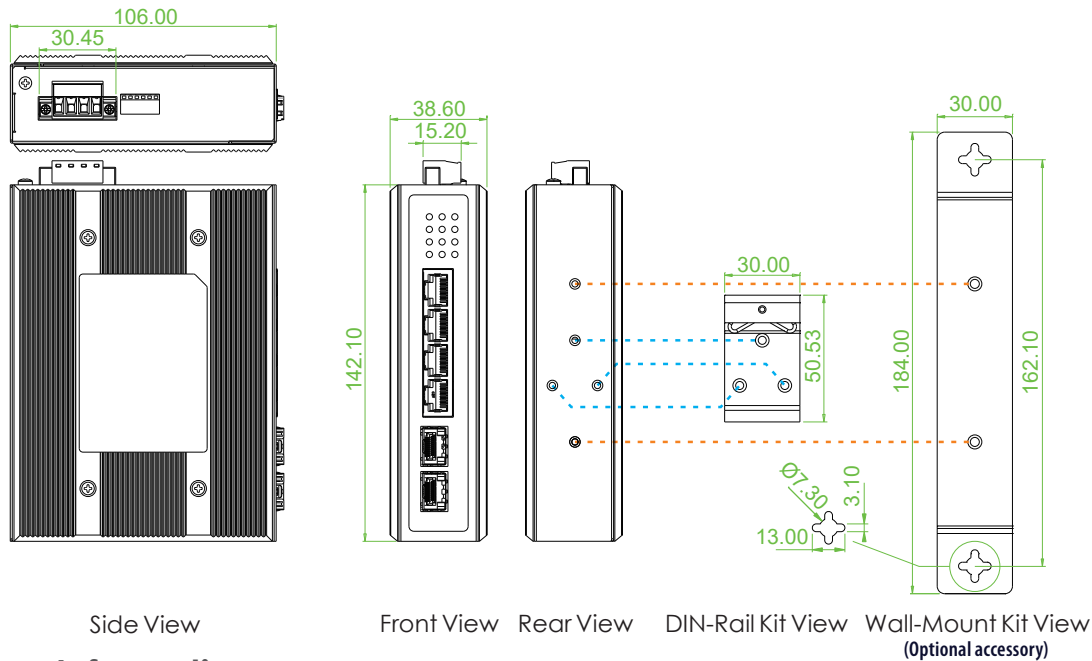| DIP SW	DIP 1	Broadcast Protection
		OFF : Enable ON : Disable
	DIP 2	Off: Fiber Auto
		On: Fiber Force Mode
	DIP 3	SFP Fiber Speed
		OFF: Giga ON: 100M
	DIP 4	RJ45 Mode
		OFF: Auto ON: Force
	DIP 5	RJ45 Speed
		OFF: 100M ON: 10M
	DIP 6	RJ45 Duplex
		OFF: Full ON: Half
Reverse Polarity Protection	Supported 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	Power Budget
	50 VDC	127.5W	5.3W	120W

PoE Power Budget	Maximum PoE Output power budget 120W (30W/Per Port)
Removable Terminal Block	Provides 2 Redundant power, 4 Pin
Operating Temperature	-10 ~ 60°C (IFS-402CGS-4PH)
	-40 ~ 75°C (IFS-402CGS-4PHE)
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40 ~ 85°C
Housing	Rugged metal, IP30 Protection and fanless
Dimensions	106x 38.6x 142mm (D X W X H)
Weight	705g
Installation Mounting	DIN Rail mounting, or wall mounting (Optional)
MTBF	823,732Hours (MIL-HDBK-217)
Warranty	5 years

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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 (Pending)
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

Side View   Front View   Rear View   DIN-Rail Kit View   Wall-Mount Kit View
(Optional accessory)

Ordering Information

Model Name	Total Port	RJ45 UTP Port	Fiber Port	PoE Port		Input Power	Certification			Operating Temperature
		10/100 Base-T(X)	100/1000Base-X	IEEE802.3at	Power Budget	Redundant	Railway EN50121-4	EN61000-6-2 EN61000-6-4	CE, FCC	
IFS-402CGS-4PH	6	4	2 SFP	4	120W	48VDC	V	V	V	-10~60℃
IFS-402CGS-4PHE	6	4	2 SFP	4	120W	48VDC	V	V	V	-40~75℃

■ Package List

- IFS-402CGS-4PH device
- Din Rail with screws
- Terminal block
- Protective caps for SFP ports

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 the series 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℃ (-40~85℃)
ISFP-S7020-31-(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, -10~70℃ (-40~85℃)
ISFP-T7T00-00-(E)	Industrial SFP 10/100/1000Base-T UTP 100meter, -10~70℃ (-40~85℃)
ISFP-M5002-31-D(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, DDMI, -10~70℃ (-40~85℃)
ISFP-S5030-31-D(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDMI, -10~70℃ (-40~85℃)

■ Industrial Power Supply

NDR-120-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 120W, -20 ~ +70℃ (For IFS-402CGS-4PH)
NDR-240-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 240W, -20 ~ +70℃ (For more ref.)

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