IGS-401F-4PH24
IGS-402F-4PH24

4x 10/100/1000Base-T + 1 or 2x 1000Base-X Fiber with 4xPoE+ Ethernet Switch
(120 Watts, 24V Booster)

IGS-401F/402F-4PH24 models are non-managed industrial grade Gigabit PoE (Power over Ethernet) switches with 4x 10/100/1000Base-T PoE ports and 2 fixed Gigabit Ethernet fiber ports 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. 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 IEEE802.3at/af PoE output (30W/Per Port)
- Maximum PoE output power budget 120W
- 24/48VDC redundant dual input power design
- 4-Port 1000Base-T RJ-45 with 1 or 2 Fiber Gigabit Ethernet
- Regulated PoE output voltage at 55VDC

- Wide operating temperature -40 ~ 75°C (IGS-401F-4PHE24, IGS-402F-4PHE24)
- UL60950-1, CE, FCC, EN50121-4 certification
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- IP30 rugged metal housing

Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u 100Base-TX Fast Ethernet
	IEEE 802.3ab 1000Base-T Gigabit Ethernet
	IEEE 802.3z 1000Base-X Gigabit Ethernet
	IEEE 802.3x Flow Control and Back Pressure
	IEEE 802.3at, IEEE802.3af
Switch Architecture	Back-plane (Switching Fabric): 10Gbps (IGS-401F-4PH24, IGS-401F-4PHE24)
	Back-plane (Switching Fabric): 12Gbps (IGS-402F-4PH24, IGS-402F-4PHE24)
Data Processing	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Provides Broadcast Storm Protection	Present, Enable / Disable set by DIP SW
Jumbo Frame	10K Bytes
MAC Address Table	8K
Packet Buffer Size	1Mbits
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)
Network Connector	4 x RJ-45
	10/100/1000Base-T auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex
	1 or 2x1000Base-X Fiber connector: SC Muti Mode or Single Mode
Network Cable	UTP/STP above Cat. 5e cable
	EIA/TIA-568 100-ohm (100m)
	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), Fault (Amber)
	Per RJ-45 port : Link/Active (Green), Speed 10 (OFF), 100 (Green), 1000 (Yellow)
	Fiber Per port: Link/Active (Green)
	PoE Port LED : • Active : ON • Inactive : OFF • Fault : Flash (Over Load, Short Circuit, Port failed at Startup)
Safety	UL60950-1
Rail Traffic	EN 50121-4

DIP SW	DIP 1	ON : Disable power failure alarm
		OFF : Enable power failure alarm
	DIP 2	ON : Disables broadcast storm protection
		OFF : Enable broadcast storm protection
Reserve Polarity Protection		Present
Overload Current Protection		Present
Power Supply		Redundant Dual DC 24/48V (20~57VDC) Input power (Removable Terminal Block)
Power Consumption		Max 143W @24VDC input (support up to 120W for PoE Output) (IGS-401F-4PH24)
		Max 143.4W @24VDC input (support up to 120W for PoE Output) (IGS-402F-4PH24)
PoE Power Output		Maximum PoE Output power budget 120W (30W/Per Port)
Alarm Relay Contact		Relay outputs with current carrying capacity of 1A @24VDC
Removable Terminal Block		Provide 2 Redundant power, Alarm relay contact, 6 Pin
Operating Temperature		-10 ~ 60°C (IGS-401F-4PH24, IGS-402F-4PH24)
		-40 ~ 75°C (IGS-401F-4PHE24, IGS-402F-4PHE24)
Operating Humidity		5% to 95% (Non-condensing)
Storage Temperature		-40 ~ 85°C
Housing		Rugged Metal, IP30 Protection
Dimensions		106 x 62.5 x 134.8mm (D X W X H)
Weight		0.67kg (IGS-401F-4PH24), 0.68kg (IGS-402F-4PH24)
Installation Mounting		DIN Rail mounting or wall mounting
EMC/EMS		CE, FCC
EMI		FCC Part 15 Subpart B Class A, CE EN 55022 Class A
		EN61000-6-4 – Emission for industrial environment
EMS		EN61000-6-2 – Immunity for Industrial environment
		EN61000-4-2 (ESD) Level 3, Criteria B
		EN61000-4-3 (RS) Level 3, Criteria A
		EN61000-4-4 (EFT) Level 3, Criteria A
		EN61000-4-5 (Surge) Level 3, Criteria B
		EN61000-4-6 (CS) Level 3, Criteria A
		EN61000-4-8 (Magnetic Field) Level 3, Criteria A
Shock		IEC 60068-2-27
Freefall		IEC 60068-2-32
Vibration		IEC 60068-2-6
MTBF		316,408 Hours (IGS-401F-4PH24)
		306,704 Hours (IGS-402F-4PH24)
Warranty		5 years

Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.
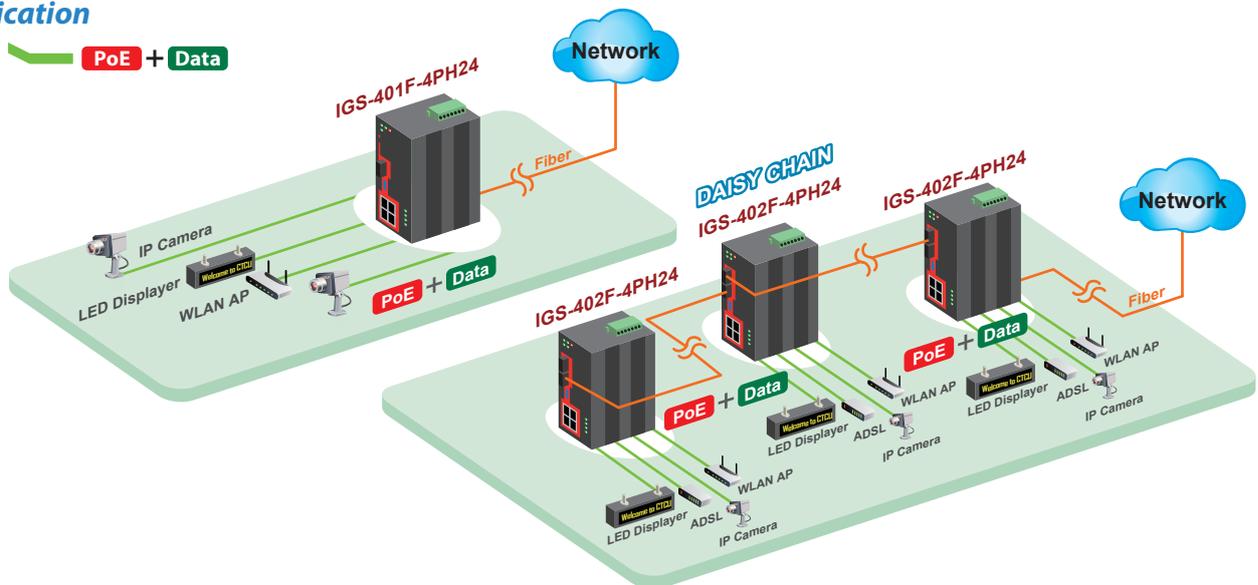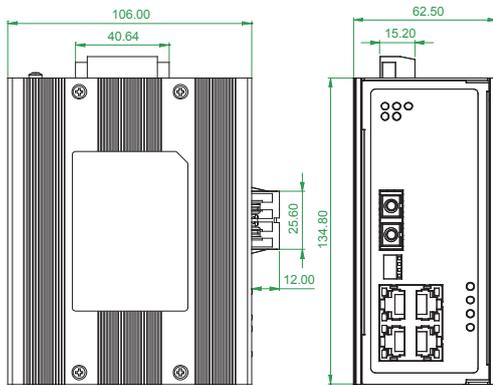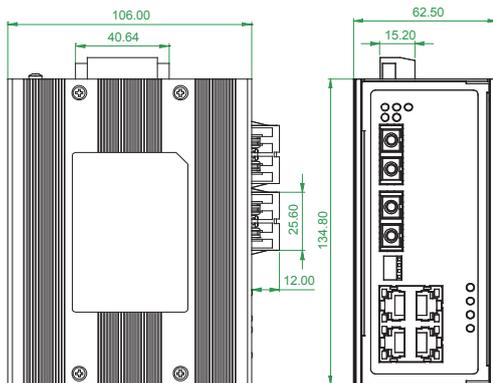
Application

**Figure : IGS-401F-4PH24 & IGS-402F-4PH24
PoE Gigabit Ethernet Switch Transmission**

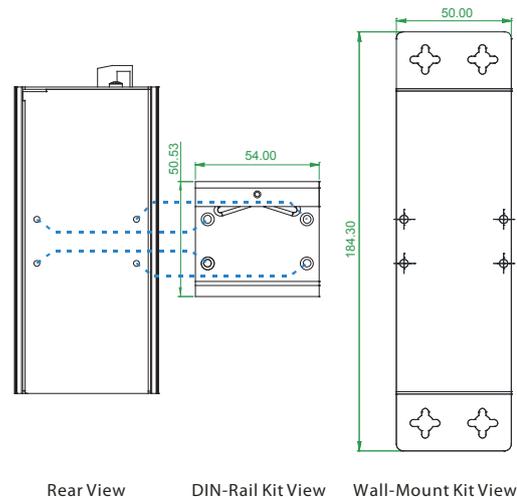## Dimensions

IGS-401F-4PH24

IGS-402F-4PH24

Side View   Front View

Rear View   DIN-Rail Kit View   Wall-Mount Kit View

Ordering Information

Model Name	Description
IGS-401F-4PH24	4-Port 10/100/1000Base-T + 1-Port 1000Base Fiber with 4-PoE Switch (30W/Per Port, Total 120W, 24V Booster) (-10 ~ 60°C)
IGS-401F-4PHE24	4-Port 10/100/1000Base-T + 1-Port 1000Base Fiber with 4-PoE Switch (30W/Per Port, Total 120W, 24V Booster) (-40 ~ 75°C)
IGS-402F-4PH24	4-Port 10/100/1000Base-T + 2-Port 1000Base Fiber with 4-PoE Switch (30W/Per Port, Total 120W, 24V Booster) (-10 ~ 60°C)
IGS-402F-4PHE24	4-Port 10/100/1000Base-T + 2-Port 1000Base Fiber with 4-PoE Switch (30W/Per Port, Total 120W, 24V Booster) (-40 ~ 75°C)

Fiber Connector Type	Connectivity Distance
SC	SC001: 500m (SC, M/M) SC002: 2km (SC, M/M) SC020: 20km (SC, S/M) SC040: 40km (SC, S/M) SC020A: WDM 20km A type (TX: 1310nm) SC020B: WDM 20km B type (TX: 1550nm)

Port Number   Temperature   Connector Type   Connectivity Distance

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Example: IGS – 401F – 4PHE24 – SC002

Accessories

DR-120-24	Industrial Power, Input 88 ~ 132VAC / 176 ~ 264VAC, Output 24VDC, 120W, -10 ~ +60°C
DRP-240-48	Industrial Power, Input 85 ~ 264VAC, Output 48VDC, 240W, -10 ~ +70°C

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