

# 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

<b>IEEE Standard</b>	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
<b>Switch Architecture</b>	Back-plane (Switching Fabric): 10Gbps (IGS-401F-4PH24, IGS-401F-4PHE24) Back-plane (Switching Fabric): 12Gbps (IGS-402F-4PH24, IGS-402F-4PHE24)
<b>Data Processing</b>	Store and Forward
<b>Flow Control</b>	IEEE 802.3x flow control, back pressure flow control
<b>Provides Broadcast Storm Protection</b>	Present, Enable / Disable set by DIP SW
<b>Jumbo Frame</b>	10K Bytes
<b>MAC Address Table</b>	8K
<b>Packet Buffer Size</b>	1Mbits
<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, 4, 5, 7, 8)
<b>Network Connector</b>	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 Multi Mode or Single Mode
<b>Network Cable</b>	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
<b>Protocols</b>	CSMA/CD
<b>LED</b>	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)
<b>Safety</b>	UL60950-1
<b>Rail Traffic</b>	EN 50121-4

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

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

## Application

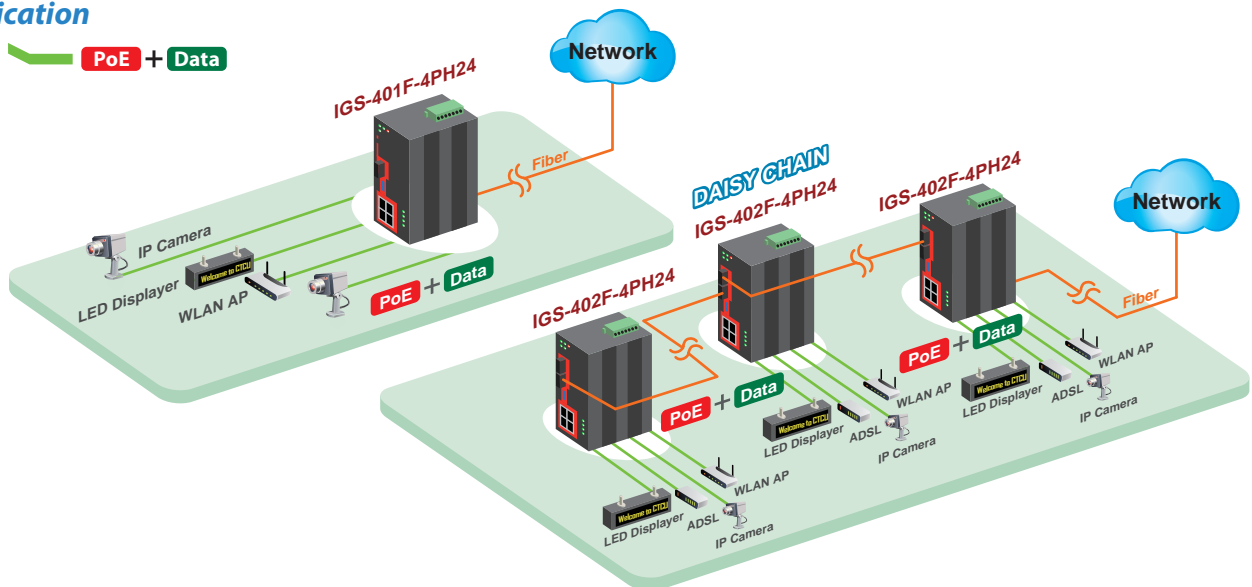
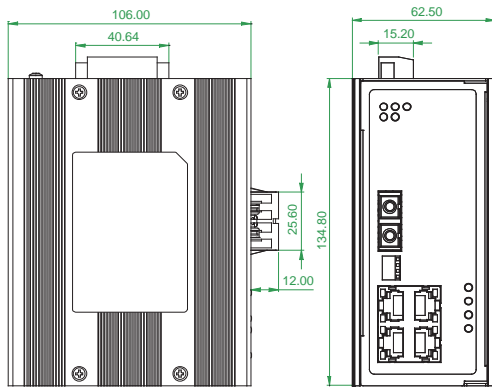


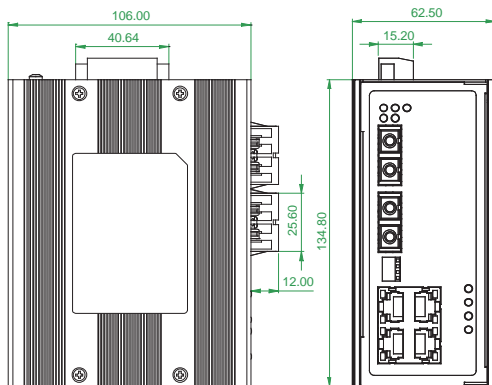
Figure : IGS-401F-4PH24 & IGS-402F-4PH24 PoE Gigabit Ethernet Switch Transmission

## Dimensions

### IGS-401F-4PH24

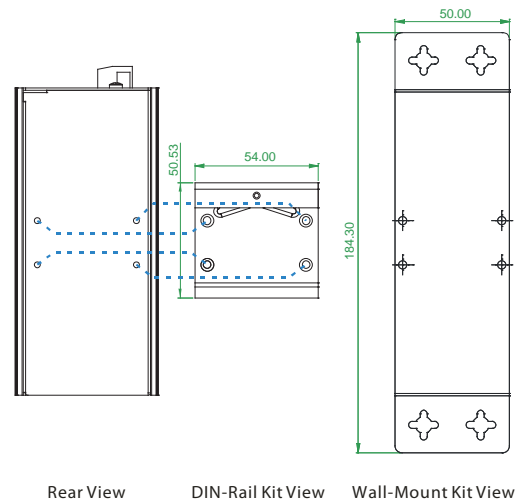


### IGS-402F-4PH24



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

IGS - 40  F - 4PH  24 -

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