



120 Watts,  
24V Booster



## IGS-402S-4PH24

4x 10/100/1000Base-T and 2x 100/1000Base-X SFP with 4x PoE+

## IGS-401F-4PH24

4x 10/100/1000Base-T and 1x 1000Base-X Fiber with 4x PoE+

## IGS-402F-4PH24

4x 10/100/1000Base-T and 2x 1000Base-X Fiber with 4x PoE+

## IGS-600-4PH24

6x 10/100/1000Base-T with 4x PoE+

The series models are 5~6 Ports unmanaged industrial grade Gigabit PoE switches with 4x 10/100/1000Base-T 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 IEEE802.3at/af PoE output (30W/Per Port)
- Maximum PoE output power budget 120W
- 24/48VDC (20~57VDC) redundant dual input power, and built-in 94~97% Very High Efficiency power booster
- Regulated PoE output voltage at 55VDC
- Wide operating temperature -40 ~ 75°C ("E" model)
- UL60950-1, CE, FCC, EN50121-4 certification
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- IP30 rugged metal housing and fanless

### Specifications

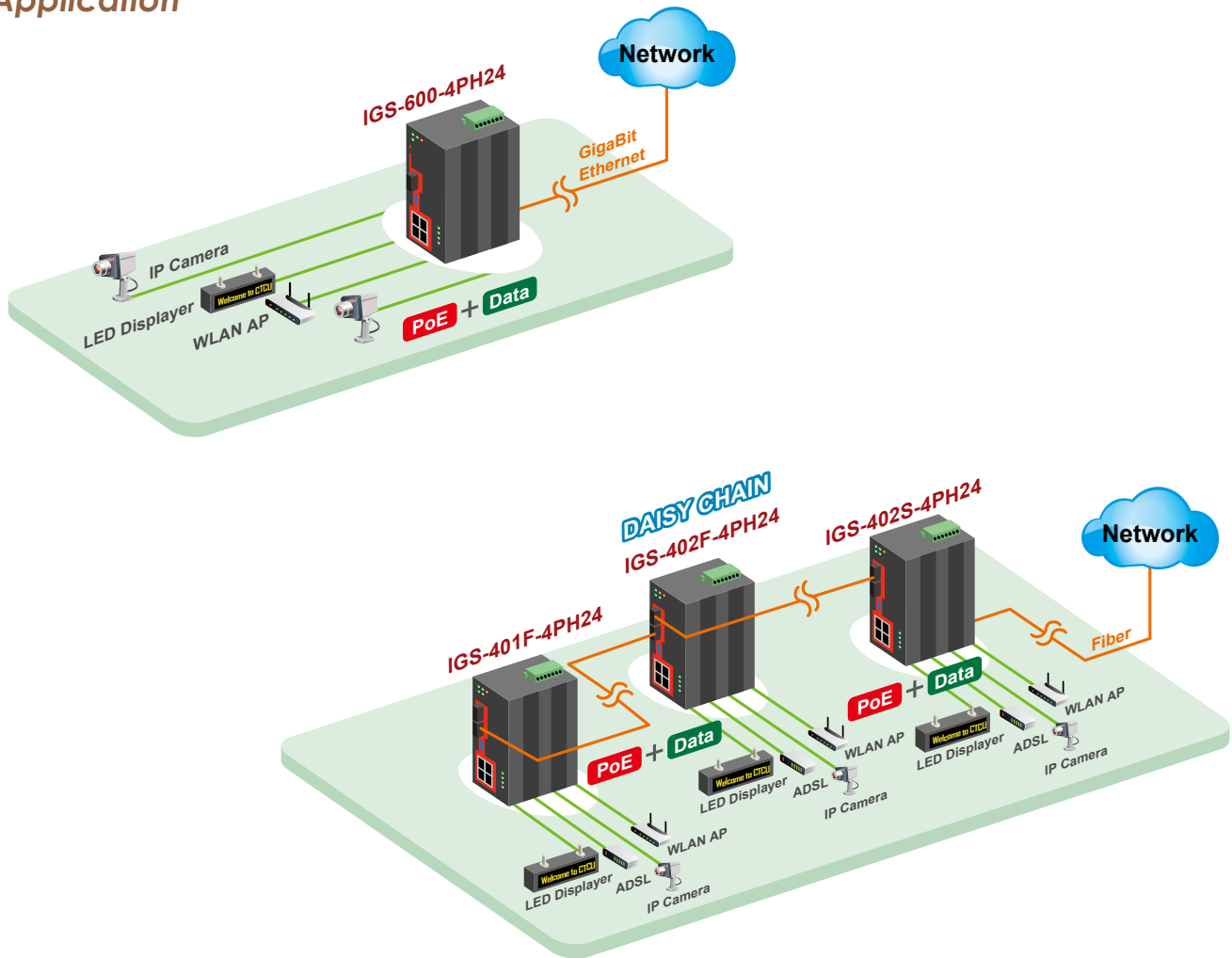
<b>IEEE Standard</b>	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet IEEE 802.3x Flow Control and Back Pressure IEEE 802.3at, IEEE802.3af
<b>Switch Architecture</b>	Back-plane (Switching Fabric): 10Gbps (IGS-401F- 4PH24) 12Gbps (IGS-402S- 4PH24, IGS-402F- 4PH24, IGS-600-4PH24)  Back-plane (Switching Fabric): 10Gbps (IGS-401F- 4PH24) 12Gbps (IGS-402S- 4PH24, IGS-402F- 4PH24, IGS-600-4PH24)
<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 (IGS-402S-4PH24, IGS-401F-4PH24, IGS-402F-4PH24) 6 x RJ-45 (IGS-600-4PH24) 10/100/1000Base-T auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex 2x 100/1000Base-X SFP (IGS-402S-4PH24) 1 or 2x1000Base-X Fiber connector: SC Multi Mode or Single Mode (IGS-401F-4PH24, IGS-402F-4PH24)
<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>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 DIP 3 ON : Fiber 2 for 100Base-FX SFP OFF : Fiber 2 for Gigabit SFP (Only for IGS-402S-4PH24) ON : Fiber 1 for 100Base-FX SFP DIP 4 OFF : Fiber 1 for Gigabit SFP (Only for IGS-402S-4PH24)															
<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>	<table border="1"> <thead> <tr> <th>Input Voltage</th> <th>IGS-402S-4PH24</th> <th>IGS-401F-4PH24</th> <th>IGS-402F-4PH24</th> <th>IGS-600-4PH24</th> </tr> </thead> <tbody> <tr> <td>24VDC</td> <td>143.3W</td> <td>142.1W</td> <td>143.2W</td> <td>142.9W</td> </tr> <tr> <td>48VDC</td> <td>138.2W</td> <td>137.4W</td> <td>138.2W</td> <td>139.6W</td> </tr> </tbody> </table>	Input Voltage	IGS-402S-4PH24	IGS-401F-4PH24	IGS-402F-4PH24	IGS-600-4PH24	24VDC	143.3W	142.1W	143.2W	142.9W	48VDC	138.2W	137.4W	138.2W	139.6W
Input Voltage	IGS-402S-4PH24	IGS-401F-4PH24	IGS-402F-4PH24	IGS-600-4PH24												
24VDC	143.3W	142.1W	143.2W	142.9W												
48VDC	138.2W	137.4W	138.2W	139.6W												
<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-402S-4PH24, IGS-401F-4PH24, IGS-402F-4PH24, IGS-600-4PH24) -40 ~ 75°C (IGS-402S-4PHE24, IGS-401F-4PHE24, IGS-402F-4PHE24, IGS-600-4PHE24)															
<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 62.5 x 134.8mm (D X W X H)
<b>Weight</b>	0.84kg (IGS-402S-4PH24) 0.67kg (IGS-401F-4PH24) 0.68kg (IGS-402F-4PH24) 0.84kg (IGS-600-4PH24)
<b>Installation Mounting</b>	DIN Rail mounting or wall mounting
<b>MTBF</b>	334,448 Hours (IGS-402S-4PH24) 316,408 Hours (IGS-401F-4PH24) 306,704 Hours (IGS-402F-4PH24) 296,517 Hours (IGS-600-4PH24) (MIL-HDBK-217)
<b>Warranty</b>	5 years

<b>Certification</b>	
<b>EMC</b>	CE
<b>EMI (Electromagnetic Interference)</b>	FCC Part 15 Subpart B Class A, CE EN55022 Class A
<b>Railway Traffic Immunity for Heavy Industrial Environment</b>	EN50121-4 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>	UL60950-1
<b>Shock</b>	IEC 60068-2-27
<b>Freefall</b>	IEC 60068-2-32
<b>Vibration</b>	IEC 60068-2-6

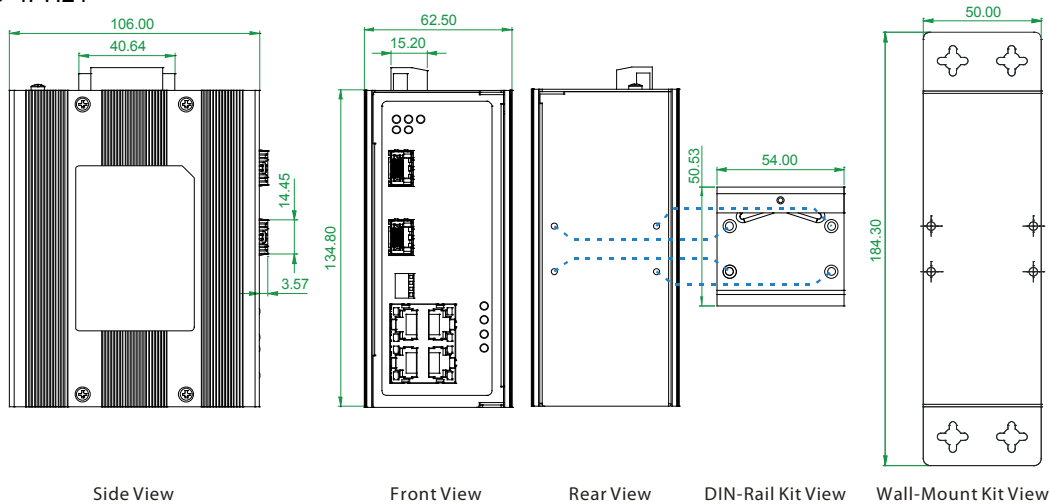
## Application



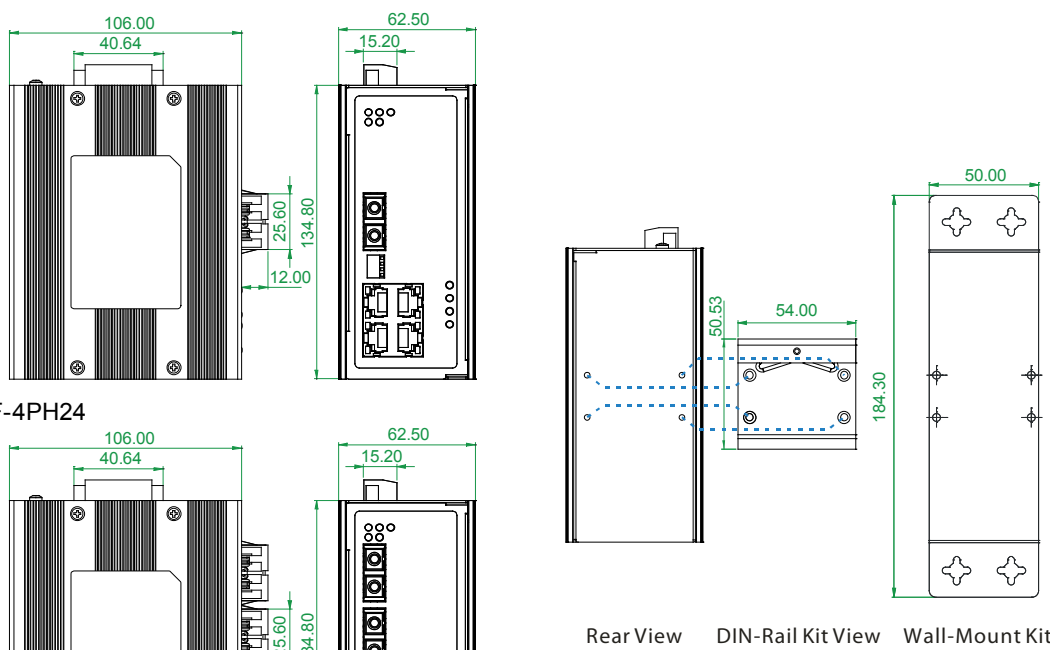
**Figure :** IGS-402S-4PH24, IGS-401F-4PH24, IGS-402F-4PH24, IGS-600-4PH24 PoE Gigabit Ethernet Switch Transmission

## Dimensions

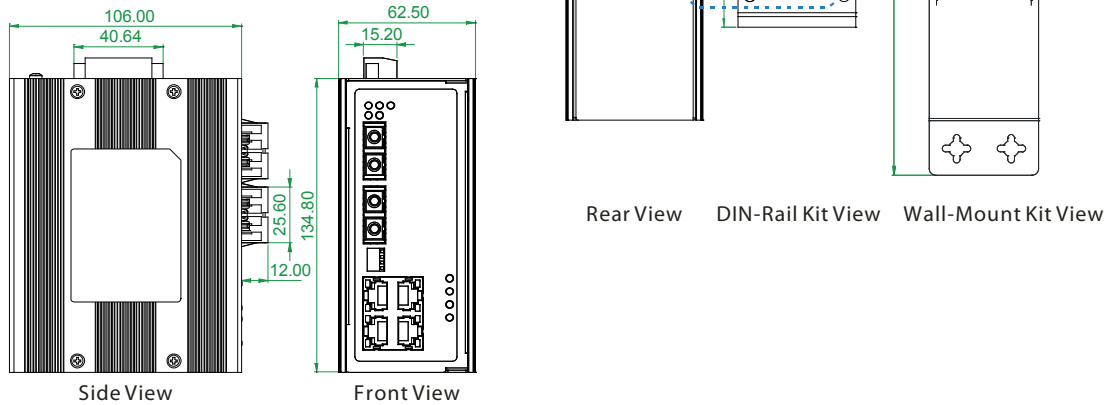
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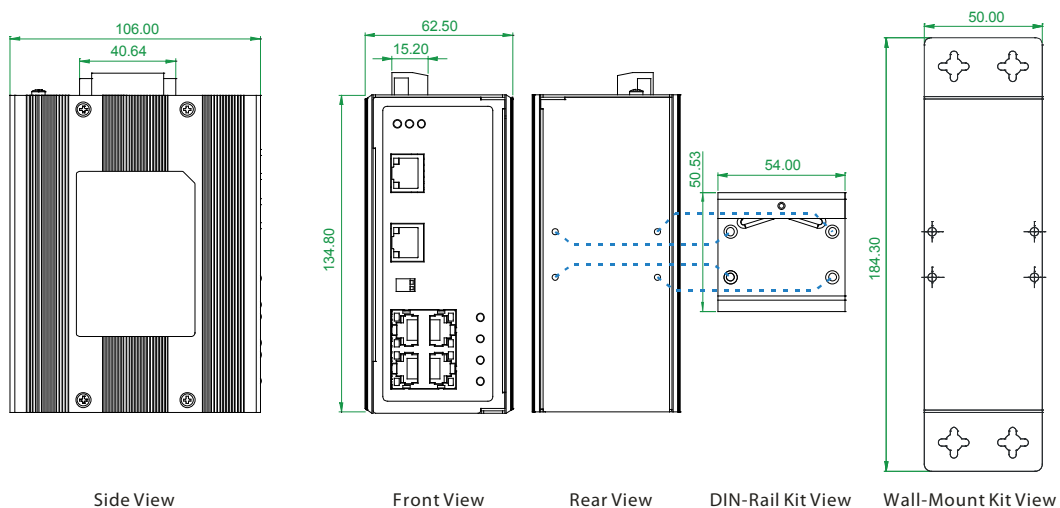
### IGS-401F-4PH24



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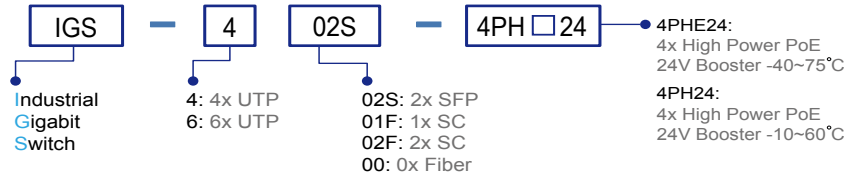
### IGS-600-4PH24



## Ordering Information

Model Name	Port	UTP Port		Fiber Port		Certification				Operating Temperature
		10/100/1000 Base-T(X)	1000 Base-X	100/1000 Base-X	Railway EN50121-4	Safety UL60950-1	EN61000-6-2 EN61000-6-4	CE, FCC		
IGS-402S-4PH24	6	4	—	2 SFP	V	V	V	V	-10~60 C	
IGS-402S-4PHE24	6	4	—	2 SFP	V	V	V	V	-40~75 C	
IGS-401F-4PH24	5	4	1 SC	—	V	V	V	V	-10~60 C	
IGS-401F-4PHE24	5	4	1 SC	—	V	V	V	V	-40~75 C	
IGS-402F-4PH24	6	4	2 SC	—	V	V	V	V	-10~60 C	
IGS-402F-4PHE24	6	4	2 SC	—	V	V	V	V	-40~75 C	
IGS-600-4PH24	6	6	—	—	V	V	V	V	-10~60 C	
IGS-600-4PHE24	6	6	—	—	V	V	V	V	-40~75 C	

### Model Naming Rule



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)
(Only for IGS-401F-4PH24, IGS-402F-4PH24)	SC020A: WDM 20km A type (TX: 1310nm) SC020B: WDM 20km B type (TX: 1550nm)

### Accessories

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

### SFP Naming Rule

