# IGS-402S-4PH24

## 4x GbE RJ45 + 2x 100/1000 SFP with 4x PoE 120W, 24/48VDC

◢ 24/48VDC (20~57VDC) redundant dual input power with built-in very high efficiency booster

◢ Regulate PoE output voltage (52VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100meter

◢ Provides a DIP-Switch to set functions

◢ EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC certified

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

The model is 6 ports unmanaged industrial grade Gigabit PoE switch with 4x 10/100/1000Base-T PoE ports that provides stable and reliable Ethernet transmission. Housed in rugged DIN rail or wall mountable enclosures, the switch is 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)
- Supports power failure alarm message by relay
- Supports flow control
- Jumbo frame support
- IP30 rugged metal housing and fanless
- Wide operating temperature -40 ~ 75° C ("E" model)

## Specifications

| 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 802.3af | PoE (Power over Ethernet) |
| | IEEE 802.3at | PoE+ (Power over Ethernet enhancements) |
| Switch Architecture | Back-Plane (Switching Fabric): 12Gbps (Full Wire-Speed) | |
| Data Processing | Store and Forward | |
| Flow Control | IEEE 802.3x flow control, back pressure flow control | |
| Provides Broadcast Storm Protection | Enable / Disable set by DIP SW | |
| Jumbo Frame | 10K Bytes | |
| MAC Address Table | 8K | |
| Packet Buffer Size | 1Mbits | |
| PoE standard & RJ-45 Pin Assignment | 4x IEEE 802.3at/af PoE+<br>2 pairs PoE, PoE+<br>Positive (V+) : RJ-45 pin 1, 2.<br>Negative (V-) : RJ-45 pin 3, 6.<br>Data (1, 2, 3, 6, 4, 5, 7, 8) | |

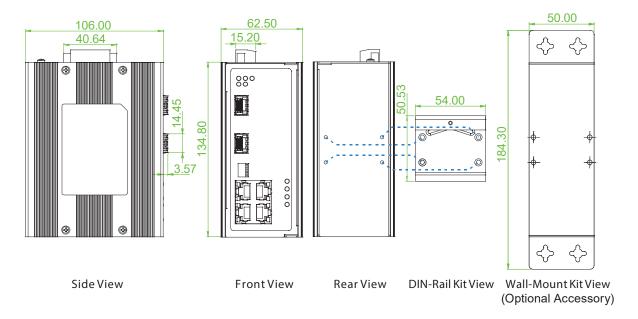| | |
|---|---|
| Network Connector | 4 x RJ-45 10/100/1000Base-T, Auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex |
| | 2x 100/1000Base-X SFP |
| Network Cable | UTP/STP Cat. 5e cable or above |
| | EIA/TIA-568 100-ohm (100meter) |
| | Fiber Cable (Multi-mode): 50/125um, 62.5/125um  /  Fiber Cable (Single-mode): 9/125um |
| Protocols | CSMA/CD |
| LED | Sysrem: Power 1 (Green), Power 2 (Green), Fault (Amber) |
| | SFP Slot: Link/Active (Green) |
| | PoE: ON (Green) |
| 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 |
| | DIP 3    ON : Fiber 2 for 100Base-FX SFP  /  OFF : Fiber 2 for Gigabit SFP |
| | DIP 4    ON : Fiber 1 for 100Base-FX SFP  /  OFF : Fiber 1 for Gigabit SFP |
| Reverse Polarity Protection | Supported for Power Input |
| Overload Current Protection | Supported |
| Power Supply | Redundant Dual DC 24/48V (20~57VDC) input power (Removable Terminal Block)<br>Built-in very high efficiency booster(94~97%) to rise up 52VDC for PoE output<br>Regulated PoE output voltage (52VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100meter (Figure) |

| Power Consumption | Input Voltage | IGS-402S-4PH24 |
|---|---|---|
| | 24VDC | 143.3W |
| | 48VDC | 138.2W |
| | (Include full load 120W PoE output) | |

| | |
|---|---|
| PoE Power Budget | Maximum PoE Output  power budget 120W, 30W/ per port |
| Alarm Relay Contact | Relay outputs with current carrying capacity of 1A @24VDC |
| Removable Terminal Block | Provides 2 Redundant power, Alarm relay contact, 6Pin |
| Operating Temperature | -10 ~ 60°C (IGS-402S-4PH24) |
| | -40 ~ 75°C (IGS-402S-4PHE24) |
| Operating Humidity | 5% to 95% (Non-condensing) |
| Dimensions | 106 x 62.5 x 134.8mm  (D x W x H) |
| Housing | Rugged Metal, IP30 Protection, Fanless |
| Weight | 0.84kg |
| Installation Mounting | DIN Rail mounting, or wall mounting  (Optional accessories) |
| MTBF | 736,988 Hours @25°C (MIL-HDBK-217) |
| Warranty | 5 years |

## Certification

| | |
|---|---|
| EMC | CE |
| EMI (Electromagnetic Interference) | FCC Part 15 Subpart B Class A, CE EN55022 Class A |
| 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 |
| Railway Traffic | EN50121-4 |
| Immunity for Heavy Industrial Environment | EN61000-6-2 |
| Emission for Heavy Industrial Environment | EN61000-6-4 |
| Shock | IEC 60068-2-27 |
| Freefall | IEC 60068-2-32 |
| Vibration | IEC 60068-2-6 |

*Product specifications and design subject to change without notice. Visit our website for the most up-to-date product information.*

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## 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 |
| | | 10/100/1000 Base-T(X) | 100/1000 Base-X | IEEE 802.3 af/at | Power Budget | Redundant | EN50121-4 | EN61000-6-2 EN61000-6-4 | CE, FCC | |
|---|---|---|---|---|---|---|---|---|---|---|
| IGS-402S-4PH24 | 6 | 4 | 2 SFP | 4 | 120W | 24/48VDC | V | V | V | -10~60°C |
| IGS-402S-4PHE24 | 6 | 4 | 2 SFP | 4 | 120W | 24/48VDC | V | V | V | -40~75°C |

## Optional Accessories

### ■ Wall Mount Kit

| IND-WMK02 | Wall Mount kit for Industrial product (Wide) (184x50mm) |
|---|---|

### ■ 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, DDMI, -10~70°C (-40~85°C) |
|---|---|
| ISFP-S7020-31-D(E) | Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, DDMI, -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, DDMI, -10~70°C (-40~85°C) |
| ISFP-S5030-31-D(E) | Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDMI, -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 |
|---|---|
| NDR-240-48 | Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 240W, -20 ~ +70°C  (For more ref.) |

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