

# IPS-1042FX-24V Series

## Industrial 6-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 2x100Base-FX, 24VDC power input

### Features

- IPS-1042FX-24V series provide 4x10/100Base-T(X) PoE (P.S.E.) and 2x100Base-FX single/multi-mode fiber ports
- Supports IEEE 802.3at compliant 30Watts PoE per port
- Support auto-negotiation and auto-MDI/MDI-X
- Support store and forward transmission
- Support flow control
- Support surge protection technology
- Warning system by relay output
- Slim type rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

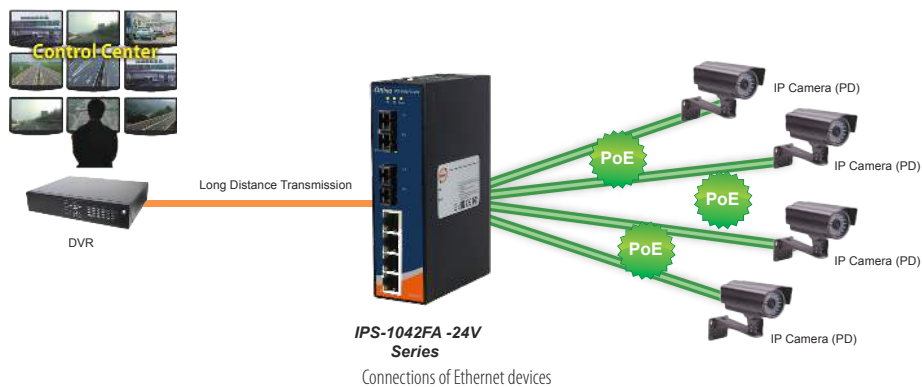


### Introduction

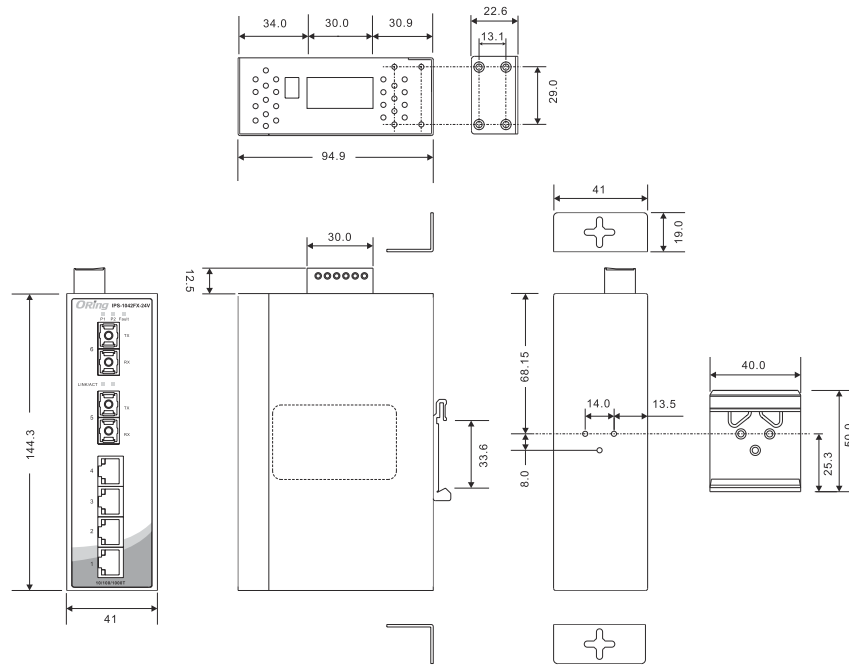
IPS-1042FX-24V series are unmanaged PoE Ethernet switches with 4 x 10/100Base-T(X) P.S.E. and 2x100Base-FX ports. IPS-1042FX-24V series supports Power over Ethernet, a system to transmit electrical power, along with data, to remote devices over standard twisted-pair cable in an Ethernet network. IPS-1042FX-24V series has 4X10/100Base-T(X) P.S.E. (Power Sourcing Equipment) ports. P.S.E. is a device (switch or hub for instance) that will provide power in a PoE setup. IPS-1042FX-24V series support redundant power inputs, configurable relay output alarm and rigid IP-30 housing. In addition, the wide operating temperature range from -40 to 70°C can satisfy most of operating environment.

### Practical Operation

IPS-1042FX-24V series can be used in connecting several Ethernet devices like Ethernet I/O, IP-Camera or other Ethernet switches. In addition, there are two different power inputs at terminal block to avoid interruption caused by power down. When the primary DC power input fails, the backup power input will take over immediately to guarantee a non-stop operation.



## Dimensions



(Unit=mm)

## PoE Pin Assignment

| 10/100Base-T(X) P.S.E. RJ-45 Port |                            |
|-----------------------------------|----------------------------|
| RJ-45 Pin Definition              |                            |
| Pin No.                           | Description                |
| #1                                | TD+ with PoE Power input + |
| #2                                | TD- with PoE Power input + |
| #3                                | RD+ with PoE Power input - |
| #6                                | RD- with PoE Power input - |

## Specifications

| ORing Switch Model  | IIPS-1042FX-MM-SC-24V   | IPS-1042FX-SS-SC-24V    |             |
|---|-------------------------|-------------------------|-------------|
| <b>Physical Ports</b>                                       |                         |                         |             |
| 10/100 Base-T(X) Ports in RJ45<br>Auto MDI/MDIX with P.S.E. | 4                       | 4                       |             |
| <b>Fiber Ports Specifications</b>                           | Fiber Ports Number      | 2                       | 2           |
|   | Fiber Ports standard    | 100Base-FX              | 100Base-FX  |
|   | Fiber Mode              | Multi-mode              | Single-mode |
|   | Fiber Diameter (µm)     | 62.5/125 µm & 50/125 µm | 9/125 µm    |
|   | Fiber Optical Connector | SC                      | SC          |
|   | Typical Distance (km)   | 2 km                    | 30 km       |
|   | Wavelength (nm)         | 1310 nm                 | 1310 nm     |

| ORing Switch Model                  |  | IPS-1042FA-MM-SC   | IPS-1042FA-SS-SC |
|-------------------------------------|--|--|------------------|
| Fiber Ports Specifications          | Max. Output Optical Power (dBm)  | -14 dBm  | -8 dBm           |
|                                     | Min. Output Optical Power (dBm)  | -23.5 dBm  | -15 dBm          |
|                                     | Max. Input Optical Power (Saturation)  | 0 dBm  | 0 dBm            |
|                                     | Min. Input Optical Power(Sensitivity)  | -31 dBm  | -34 dBm          |
|                                     | Link Budget (dB)   | 7.5 dB   | 19 dB            |
| <b>Technology</b>                   |  |  |                  |
| Ethernet Standards                  | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-T(X) and 100Base-FX<br>IEEE 802.3x for Flow control<br>IEEE 802.3at PoE specification |  |                  |
| MAC Table                           | 2048 MAC addresses   |  |                  |
| Processing                          | Store-and-Forward  |  |                  |
| <b>LED Indicators</b>               |  |  |                  |
| Power Indicator                     | Green : Power LED x 2  |  |                  |
| Fault Indicator                     | Amber : Indicate PWR1 or PWR2 failure  |  |                  |
| 10/100Base-T(X) RJ45 Port Indicator | Green for port Link/Act.<br>Green for PoE power injected.  |  |                  |
| 100Base-FX Fiber Port Indicator     | Green for port Link/Act.   |  |                  |
| <b>Fault contact</b>                |  |  |                  |
| Relay                               | Relay output to carry capacity of 1A at 24VDC  |  |                  |
| <b>Power</b>                        |  |  |                  |
| Redundant Input Power               | Dual DC inputs, 24~36VDC on 6-pin terminal block.  |  |                  |
| Power Consumption (Typ.)            | 6.48 Watts<br>(power consumption of P.S.E. is not included)  | 5.4 Watts<br>(power consumption of P.S.E. is not included) |                  |
| Overload Current Protection         | Present  |  |                  |
| Reverse Polarity Protection         | NOT Present  |  |                  |
| <b>Physical Characteristics</b>     |  |  |                  |
| Enclosure                           | IP-30  |  |                  |
| Dimensions (W x D x H)              | 41 (W) x 144.3 (H) x 94.9 (D) mm (1.61 x 5.68 x 3.74 inch)   |  |                  |
| Weight (g)                          | 530 g  |  |                  |
| <b>Environmental</b>                |  |  |                  |
| Storage Temperature                 | -40 to 85°C (-40 to 185°F)   |  |                  |
| Operating Temperature               | -40 to 70°C (-40 to 158°F)   |  |                  |
| Operating Humidity                  | 5% to 95% Non-condensing   |  |                  |
| <b>Regulatory Approvals</b>         |  |  |                  |
| EMI                                 | FCC Part 15, CISPR (EN55022) class A   |  |                  |
| EMS                                 | EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11                 |  |                  |
| Shock                               | IEC60068-2-27  |  |                  |
| Free Fall                           | IEC60068-2-32  |  |                  |
| Vibration                           | IEC60068-2-6   |  |                  |
| Safety                              | EN60950-1  |  |                  |
| Warranty                            | 5 years  |  |                  |

## Ordering Information

IPS-1 **AA** **B** **CC** -**DD**-**EE** -24V

| Code Definition | 10/100Base-T(X) P.S.E. Port Number | Additional Port Number | Additional Port Type      | Fiber Optical Mode                                    | Fiber Optical Connector    |
|-----------------|------------------------------------|------------------------|---------------------------|---|----------------------------|
| <b>Option</b>   | - <b>04</b> : 4 ports              | - <b>2</b> : 2 ports   | - <b>FA</b> : 100 Base-FX | - <b>MM</b> : Multi-mode<br>- <b>SS</b> : Single-mode | - <b>SC</b> : SC connector |

| Available Model      | Model Name  | Description   |
|----------------------|---|---|
|                      | IPS-1042FX-MM-SC-24V  | Industrial 6-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 2x100Base-FX, multi-mode, 2Km/1310nm, SC connector, 24VDC power input |
| IPS-1042FX-SS-SC-24V | Industrial 6-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 2x100Base-FX, single-mode, 30Km/1310nm, SC connector, 24VDC power input |   |

### Packing List

- IPS-1042FX-MM/SS-24V
- DIN-Rail Kit
- Wall-mount Kit
- Quick Installation Guide

### Optional Accessories (Can be purchased separately)

- DR-45-24 : 45 Watts@24VDC DIN-Rail power supply
- DR-75-24 : 75 Watts@24VDC DIN-Rail power supply
- DR-120-24 : 120 Watts@24VDC DIN-Rail power supply