



## IPS-1042FA Series

**Industrial 6-port slim type unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 2x100Base-FX**

### Features

- IPS-1042FA 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

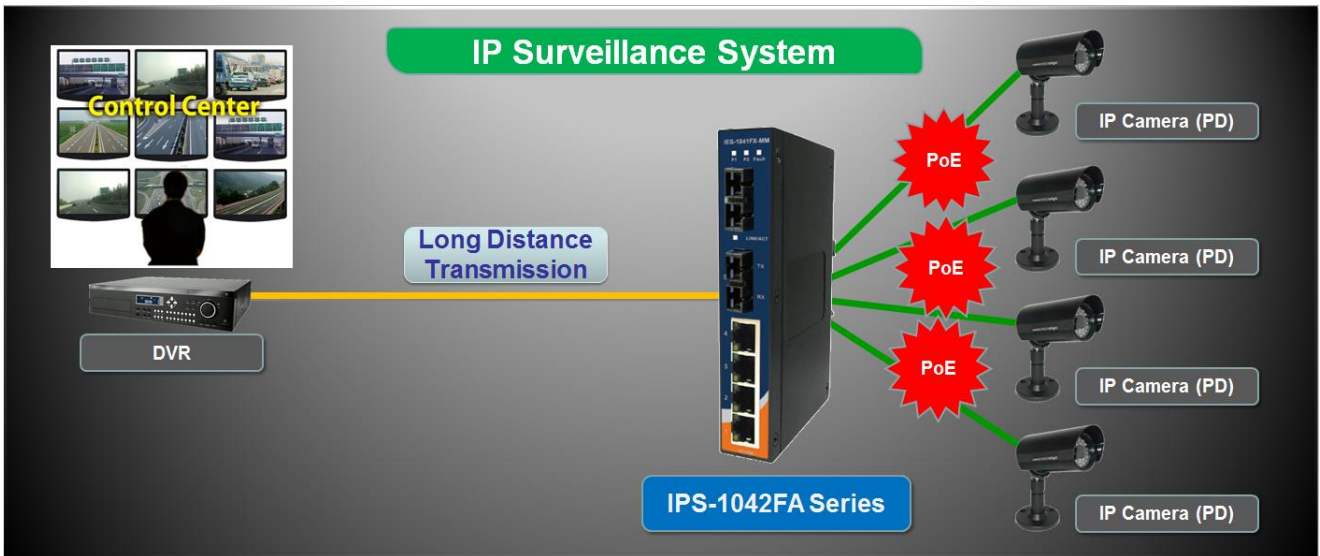


### Introduction

IPS-1042FA series are unmanaged PoE Ethernet switches with 4 x 10/100Base-T(X) P.S.E. and 2x100Base-FX ports. IPS-1042FA 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-1042FA 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-1042FA series support redundant power inputs, configurable relay output alarm and rigid IP-30 housing. In addition, the wide operating temperature range from -40 to 75°C can satisfy most of operating environment.

### Practical Operation

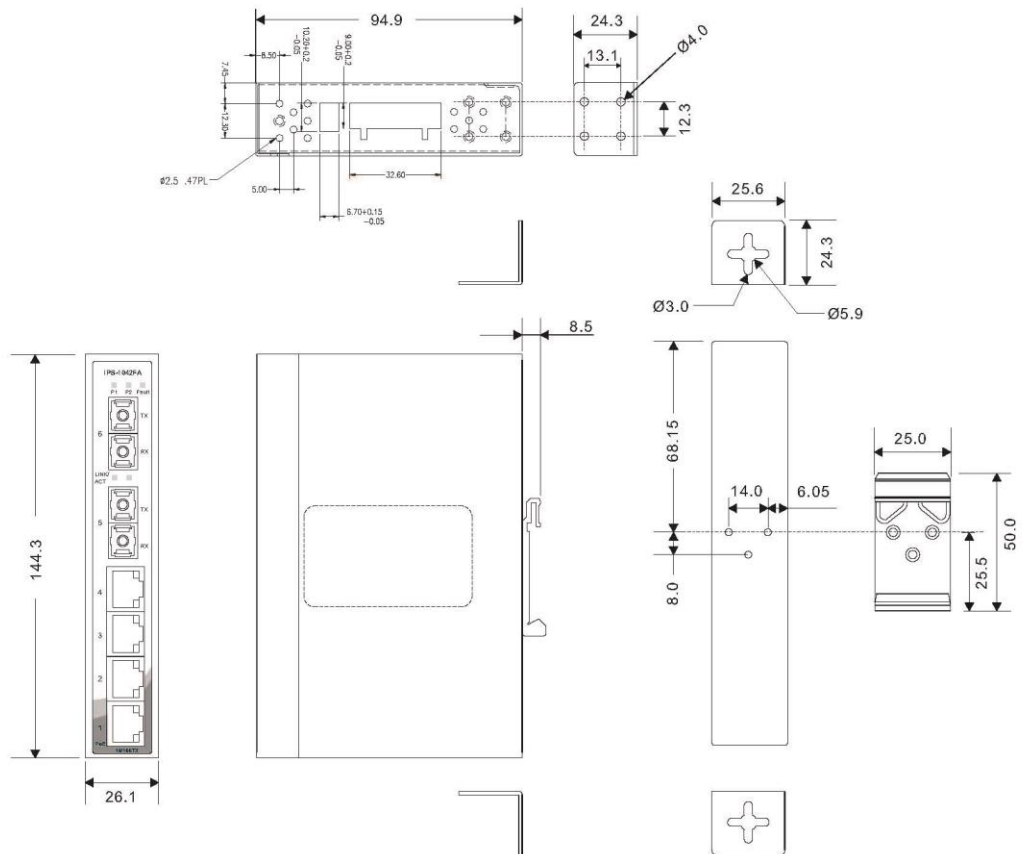
IPS-1042FA series can be used in connecting several Ethernet devices like Ethernet I/O, IP-Camera or other Ethernet switches. In addition, there are two different power inputs at terminal block to avoid interruption caused by power down. When the primary DC power input fails, the backup power input will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



Connections of Ethernet devices

## Dimension

Unit = mm (Tolerance  $\pm 0.5$ mm)



## PoE Pin Definition

- 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

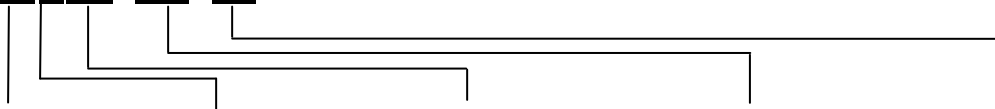
ORing Switch Model	IPS-1042FA-MM-SC	IPS-1042FA-SS-SC	
<b>Physical Ports</b>			
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX with P.S.E.	<b>4</b>		
Fiber Ports Specification	Fiber Ports Number	<b>2</b>	<b>2</b>
	Fiber Ports standard	100Base-FX	100Base-FX
	Fiber Mode	Multi-mode	Single-mode
	Fiber Diameter (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
	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, IEEE 802.3u for 100Base-T(X) and 100Base-FX, IEEE 802.3x for Flow control, IEEE 802.3at PoE specification		
MAC Table	1K MAC addresses		
Processing	Store-and-Forward		
Switch Latency	<7us		
Switch Bandwidth	1.2Gbps		
Packet buffer size	448K bits		
<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	Upper for Link/Act indicator, Green for port Link/Act. Lower for PoE indicator, 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. 50~57VDC on 6-pin terminal block.	
Power Consumption (Typ.)	4 Watts (power consumption of P.S.E. is not included)	4 Watts (power consumption of P.S.E. is not included)
PoE power budget	120W	
Overload Current Protection	Present	
Reverse Polarity Protection	Present	
<b>Physical Characteristic</b>		
Enclosure	IP-30	
Dimension (W x D x H)	26.1(W) x 94.9(D) x 144.3(H) mm (1.03 x 3.74 x 5.68 inch.)	
Weight (g)	438 g	
<b>Environmental</b>		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-40 to 75°C (-40 to 167°F)	
Operating Humidity	5% to 95% Non-condensing	
<b>Regulatory approvals</b>		
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15B	
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15B class A	
EMS	EN 55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8 (PFMF), IEC/EN 61000-4-11 (DIP))	
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-31	
Vibration	IEC60068-2-6	
Safety	UL 60950-1, CSA C22.2 No. 60950-1-07, EN 60950-1, IEC 60950-1	
MTBF	576828 hrs	624538 hrs
<b>Warranty</b>	5 years	

Note : HW version 5.0

## Ordering Information

**IPS-1 AABCC-DD-EE**



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

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