



# IES-1041FX/1042FX Series

## Industrial slim type 5-port/6-port unmanaged Ethernet switch

### Features

- IES-1041FX series provide 4x10/100Base-T(X) and 1x100Base-FX single/multi-mode fiber ports
- IES-1042FX series provide 4x10/100Base-T(X) and 2x100Base-FX single/multi-mode fiber ports
- 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
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

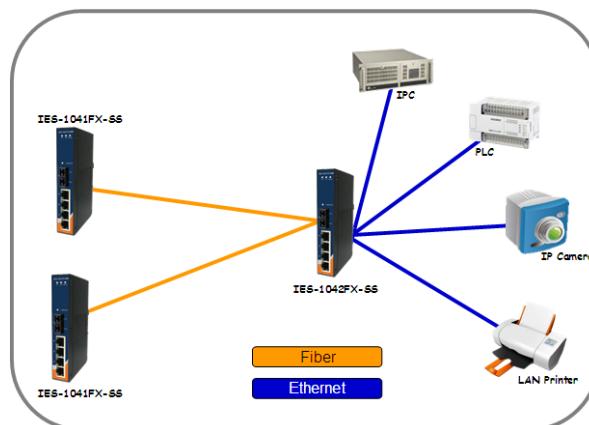


### Introduction

IES-1041FX/1042FX series are unmanaged Ethernet switches with 4 x 10/100Base-T(X) and 100Base-FX ports. IES-1041FX/1042FX 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

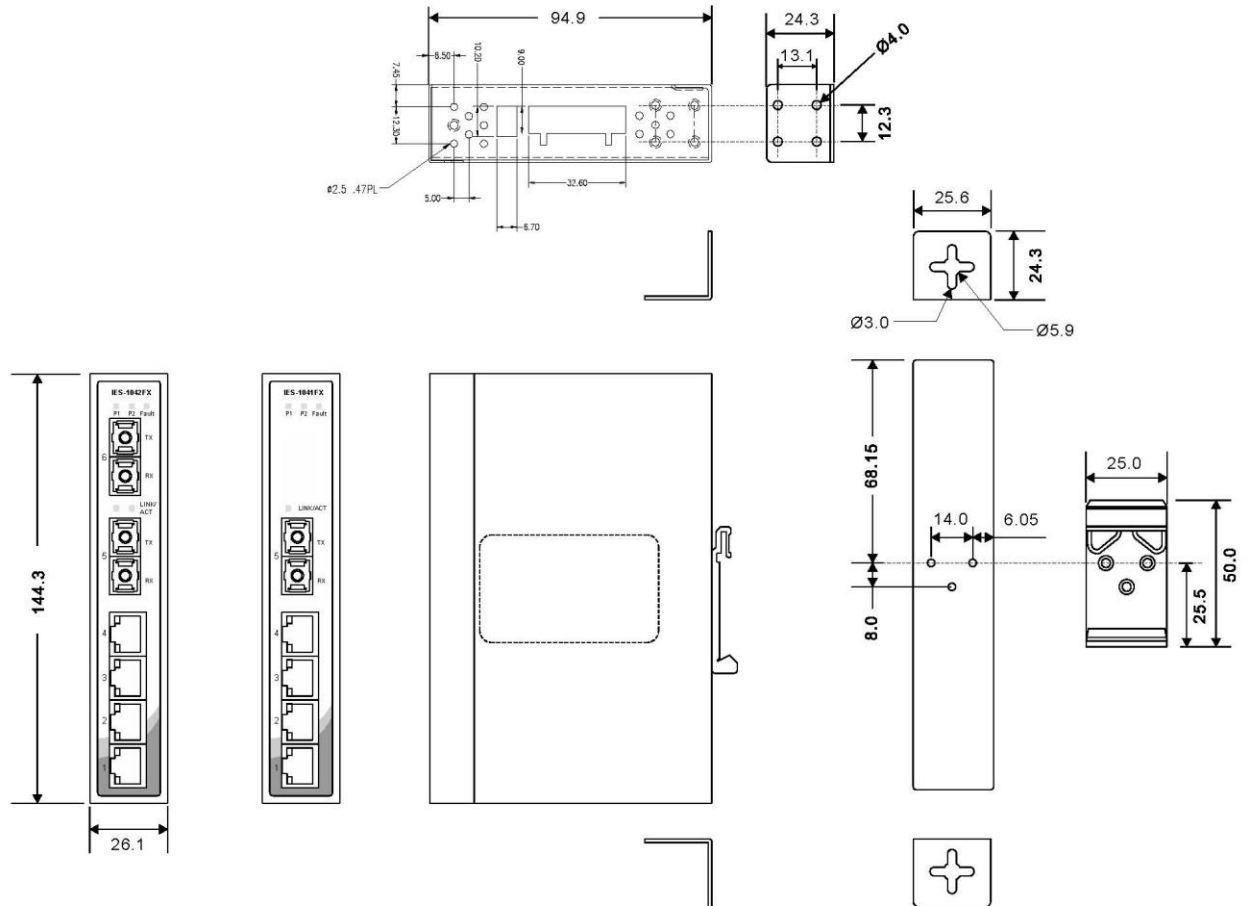
IES-1041FX/1042FX series can be used in connecting several Ethernet devices like Ethernet I/O, IP-Camera or other Ethernet switches. In addition, there are two different power inputs at terminal block to avoid interruption caused by power down. When the primary DC power input fails, the backup power input will take over immediately to guarantee a non-stop operation.



Connections of Ethernet devices

## Dimension

Unit =mm (Tolerance  $\pm 0.5\text{mm}$ )



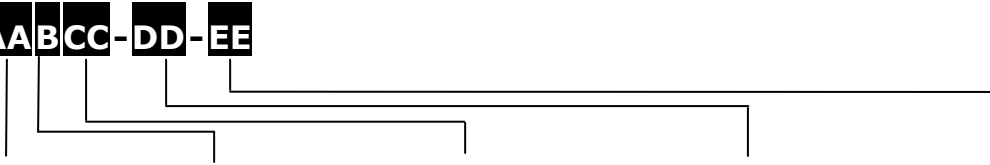
## Specifications

ORing Switch Model		IES-1041X-MM-SC	IES-1041X-SS-SC	IES-1042FX-MM-SC	IES-1042FX-SS-SC
<b>Physical Ports</b>					
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX		4	4	4	4
Fiber Ports Specification	Fiber Ports Number	1	1	2	2
	Fiber Ports standard	100Base-FX	100Base-FX	100Base-FX	100Base-FX
	Fiber Mode	Multi-mode	Single-mode	Multi-mode	Single-mode
	Fiber Diameter ( $\mu\text{m}$ )	62.5/125 $\mu\text{m}$ 50/125 $\mu\text{m}$	9/125 $\mu\text{m}$	62.5/125 $\mu\text{m}$ 50/125 $\mu\text{m}$	9/125 $\mu\text{m}$
	Fiber Optical Connector	SC	SC	SC	SC
	Typical Distance (Km)	2 Km	30 Km	2 Km	30 Km
	Wavelength (nm)	1310 nm	1310 nm	1310 nm	1310 nm
	Max. Output Optical Power (dbm)	-14 dbm	-8 dbm	-14 dbm	-8 dbm
	Min. Output Optical Power (dbm)	-23.5 dbm	-15 dbm	-23.5 dbm	-15 dbm

Max. Input Optical Power (Saturation)	0 dbm	0 dbm	0 dbm	0 dbm
Min. Input Optical Power (Sensitivity)	-31 dbm	-34 dbm	-31 dbm	-34 dbm
Link Budget (db)	7.5 db	19 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			
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. Amber for Duplex/Collision			
Fiber Port LED	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. 12~48VDC on 6-pin terminal block.			
Power Consumption (Typ.)	5 Watts		7 Watts	
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)	378 g		382 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	EN 55032, EN 55024(CE EMC), FCC Part 15 B, EN 61000-3-2, EN 61000-3-3			
EMI	CISPR 32, EN 55032, FCC Part 15 B class A, C-Tick, VCCI			
EMS	IEC 61000-4-2 (ESD), IEC 61000-4-3 (RS), IEC 61000-4-4 (EFT), IEC 61000-4-5 (Surge), IEC 61000-4-6 (CS), IEC 61000-4-8 (PFMF), IEC 61000-4-11 (DIP)			
Shock	IEC 60068-2-27			
Free Fall	IEC 60068-2-31			
Vibration	IEC 60068-2-6			
Safety	IEC 60950-1, UL 60950-1, EN60950-1			
Other	E-Mark			
<b>MTBF</b>	668,306 hours		712,104 hours	
<b>Warranty</b>	5 years		5 years	

## Ordering Information

**IES-1 AABCC-DD-EE**



Code Definition	10/100Base-T(X) Port Number	Additional Port Number	Additional Port Type	Fiber Optical Mode	Fiber Optical Connector
Option	- 04: 4 ports	- 1: 1 port - 2: 2 ports	- FX: 100Base-FX	- MM: Multi-mode - SS: Single-mode	- SC: SC connector

	Model Name	Description
Available Model	IES-1041FX-MM-SC	Industrial 5-port slim type unmanaged Ethernet switch with 4x10/100Base-T(X) and 1x100Base-FX, multi-mode, 2Km/1310nm, SC connector
	IES-1041FX-SS-SC	Industrial 5-port slim type unmanaged Ethernet switch with 4x10/100Base-T(X) and 1x100Base-FX, single-mode, 30Km/1310nm, SC connector
	IES-1042FX-MM-SC	Industrial 6-port slim type unmanaged Ethernet switch with 4x10/100Base-T(X) and 2x100Base-FX, multi-mode, 2Km/1310nm, SC connector
	IES-1042FX-SS-SC	Industrial 6-port slim type unmanaged Ethernet switch with 4x10/100Base-T(X) and 2x100Base-FX, single-mode, 30Km/1310nm, SC connector

## Packing List

- IES-1041FX/1042FX x 1
- Wall-mount Kit x 1
- Quick Installation Guide x 1
- Din-Rail Kit x 1

## Optional Accessories

- SDR/DRP Series Din-Rail power supply