



**BYPASS SWITCH INDUSTRIAL**

# Quick Installation Guide

# IBS-102FX

# Industrial Optical Bypass Switch

## Introduction

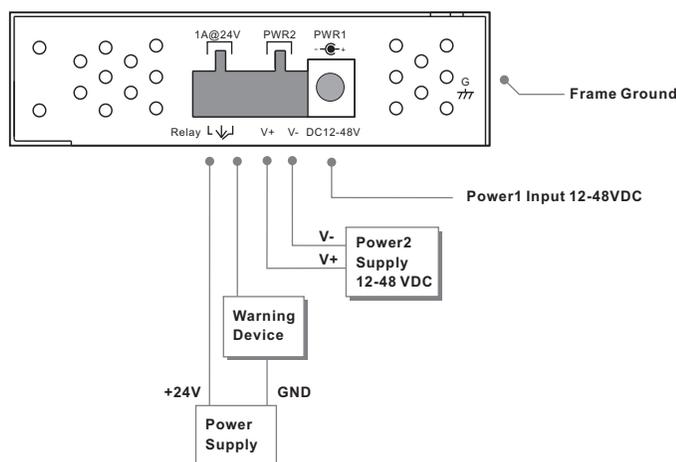
**IBS-102FX Series** is an external Bypass switch for 100M/1G/10G fiber optical networks. This fiber optical bypass switch protects from network failures and Network maintenance by ensuring network integrity during power loss. This fiber optical bypass switch includes Network ports and Monitor ports. The Network ports are used to connect to main-network connections and provide protection mechanism and the Monitor ports are used for down-link local networking device. When power is on, the mode of the Bypass switch is in Normal operation mode and the local networking device is connected with main-network. When on the power failure state, the Bypass switch is set to bypass mode to isolate the main-network from the local networking device.



## Features

- > Support 100M/1G/10G optical bypass function of 2 port duplex or 4 port simplex fiber connection
- > Different model supported for multi-mode or single-mode optical fiber
- > Low insertions loss
- > Throughput not affected and no extra delay
- > Bypass switching time <10ms
- > Dual Wide range power inputs: 12~48VDC
- > Relay output for pwer failed warning
- > Rigid IP-30 housing design
- > DIN-Rail and wall mounting enabled

## Power Connection Guide



## Specifications

ORing Bypass Switch Model	IBS-102FX-SS-LC	IBS-102FX-MM-LC
<b>Physical Ports</b>		
LC connector	4 Duplex Single-mode LC connector	4 Duplex Multi-mode LC connector
<b>Fiber Ethernet</b>		
Optical Fiber	Single-mode: 9/125µm	Multi-mode: 50/125µm or 62.5/125µm
Operating Wavelength	1260 ~ 1570 nm	780 ~ 1350 nm
Insert loss	typical1.2 dB, Maximun 1.6 dB	< 1.0 dB
Switching time	< 10ms	
<b>DIP Switch Setting</b>		
DIP-Switch No.1	Power-1 failed warning detection: (On) relay enabled (Off) relay disabled	
DIP-Switch No.2	Power-2 failed warning detection: (On) relay enabled (Off) relay disabled	
<b>LED Indicators</b>		
Power indicator	Green : power LED x 2.	
Normal indicator	Green On : Operated in normal mode	
Fault Indicator	Amber for power failed indicator	
<b>Fault contact</b>		
Relay	Relay output to carry capacity of 1A at 24 VDC	
<b>Power</b>		
Input power	Dual 12~48 VDC power inputs at DC-Jack and 4-pin terminal block	
Power consumption (Typ.)	2.7 Watts	
Overload current protection	Present	
Reverse Polarity	Present on Terminal Block	
<b>Physical Characteristic</b>		
Enclosure	IP-30	
Dimension (W x D x H)	26.1(W)x94.9(D)x144.3(H) mm (1.03x3.74x5.68inch.)	
Weight (g)	405g	
<b>Environmental</b>		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-20 to 70°C (-4 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	
<b>Warranty</b>	1 years	

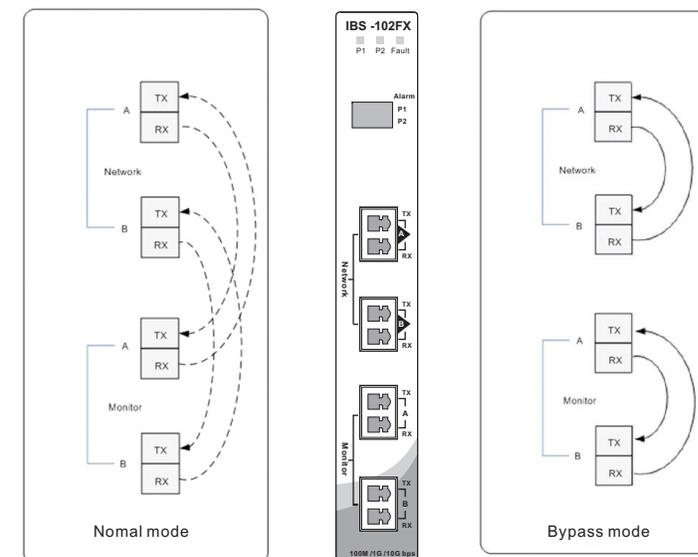
## Practical Operation

### Normal mode:

The Bypass switch deliver the data between the Network ports and the Monitor (local) ports

### Bypass mode:

The Network data traffic routed directly to the other Network port. And the Monitor data traffic routed directly to the other Monitor port.



**ORing Industrial Networking Corp.**

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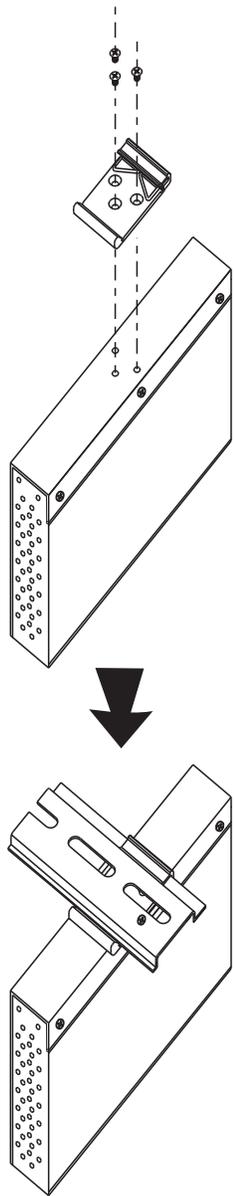
# Quick Installation Guide

# IBS-102FX

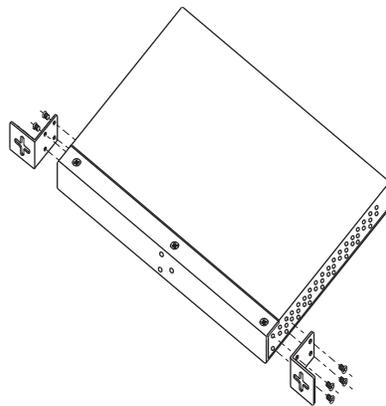
# Industrial Optical Bypass Switch

## Installation

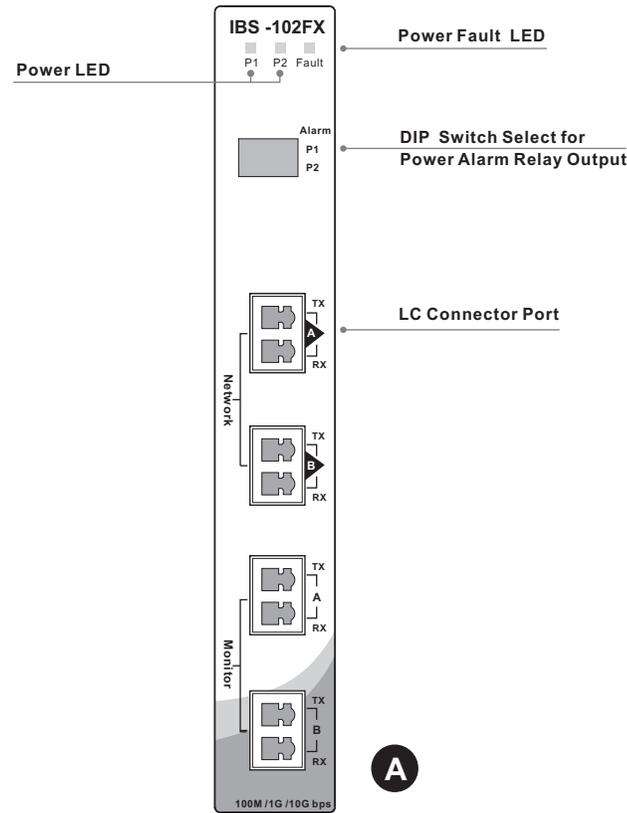
### DIN-Rail Install Step



### Wall-mounted Install Step



## Front Panel

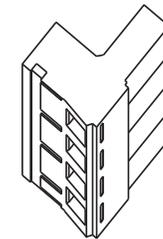


### DIP Switch Function

DIP-1	DIP-2	Description
OFF	OFF	Power failure relay alarm disabled
ON	OFF	PWR-1 failure, relay alarm enabled
OFF	ON	PWR-2 failure, relay alarm enabled
ON	ON	PWR-1 or PWR-2 failure, relay alarm enabled

## Accessory

① 4-Pin Terminal block



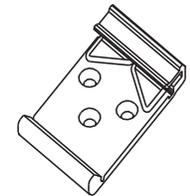
② Round Screw (M3 X3)



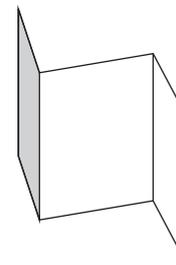
③ Wall-mounted kit (for Slim Type)



④ 25mm DIN-Rail kit



⑤ QIG



## Packing list

Model name	Front Panel	Model Description	Accessory
IBS-102FX-MM-LC	A	Industrial 2-port bypass switch for fiber optical network with 4xLC duplex, multi-mode, LC connector	⊙X1, ⊙X8, ⊙X2, ⊙X1, ⊙X1
IBS-102FX-SS-LC	A	Industrial 2-port bypass switch for fiber optical network with 4xLC duplex, single-mode, LC connector	⊙X1, ⊙X8, ⊙X2, ⊙X1, ⊙X1