**IBP-202** 

## **Optical Fiber Bypass Switch**

- >> 100M/1G/2.5G/10G Ethernet or Telecom Applications
- >> SC/ST/LC SM or MM Optical
- >> Optical Bypass Switching Time <10ms
- >> Provides Rotary Switch to Set Delay Boot Time (0~180 Seconds)
- > EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC Certified









Industrial-grade fiber optic bypass switches can be installed in 100M/1G/10G fiber optic networks. It protects the network from failures and subsequent maintenance by ensuring the integrity of the network during power outages. When a power failure occurs, the bypass switch is quickly set to bypass mode to isolate the main network from local network equipment. When the power returns to normal, the bypass switch will switch to the normal state and the local network equipment will be connected to the main network. It can be used with a CTCU industrial network switches to ensure non-stop network connectivity.

## **Features**

- Low insertions loss (<1.5dB)</li>
- Redundant dual DC power input 12/24/48VDC (9.6 ~ 60VDC)
- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 70°C

<b>Specifications</b>						
Fiber Connector	SC, ST, LC					
Operating Wavelength	SM: 1260 ~ 1650nm / MM: 810~890nm , 1260~1340nm					
Optic Fiber Cable	Single mode: 8/125um~10/125um / Multi mode: 50/125um					
Insertion Loss	<1.5dB					
Optical Switching Time	< 10ms					
LED Indicator	Power 1, Power 2, Operation mode (Normal /Bypass)					
Boot Up Delay Adjuster	Provides a rotary switch to configure boot up delay time (0~180 seconds)					
Removable Terminal Block	Provide for redundant power					
Power Supply	12/24/48VDC (9.6~60VDC), Redundant power with polarity reverse protect function and removable terminal block					
Reverse Polarity Protection	Supported for Power Input					
Overload Current Protection	Supported					
Power Consumption	0.4W (12VDC), 0.5W (24VDC), 0.8W (48VDC)					
Housing	Rugged metal, IP30 protection and fanless					
Dimensions	106 x 62.5 x 135mm (D x W x H)					
Weight	530g (IBP-202-SLC) 545g (IBP-202-SSC, IBP-202-SST)					
Installation	DIN Rail mounting or wall mounting (Optional)					
Operating Temperature	-20~70°C					
Storage Temperature	-40 ~ 85°C					
Operating Humidity	5% ~ 95% (Non-condensing)					
MTBF	273,054 Hours (MIL-HDBK-217)					
Warranty	5 Years					

# **Industrial Fiber Bypass Switch**

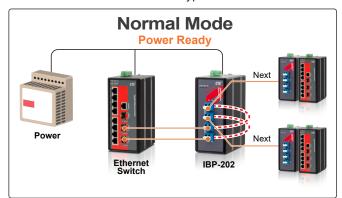
**10** 

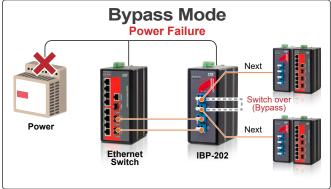
Certification					
EMC	CE (EN55024, EN55032)				
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE				
Railway Traffic	EN50121-4				
Immunity for Heavy Industrial Environment	EN61000-6-2				
Emission for Heavy Industrial Environment	EN61000-6-4				
EMS	EN61000-4-2 (ESD) Level 3, Criteria B				
(Electromagnetic Susceptibility)	EN61000-4-3 (RS) Level 3, Criteria A				
Protection Leve	EN61000-4-4 (EFT) Level 3, Criteria A				
	EN61000-4-5 (Surge) Level 3, Criteria B				
	EN61000-4-6 (CS) Level 3, Criteria A				
	EN61000-4-8 (PFMF) Field strength 300A/m Criteria A				
Shock	IEC 60068-2-27				
Freefall	IEC 60068-2-32				
Vibration	IEC 60068-2-6				

# **Application**

The IBP-202 supports the function of optical path Normal mode and Bypass mode for fiber optical networks. It offers a simple mechanism to switch both of upload and down load fiber path when a power system failure occurs, and a path restores when power back. It offers a simple way to reduce the risk of optical network Node-Down which is caused by the power system.

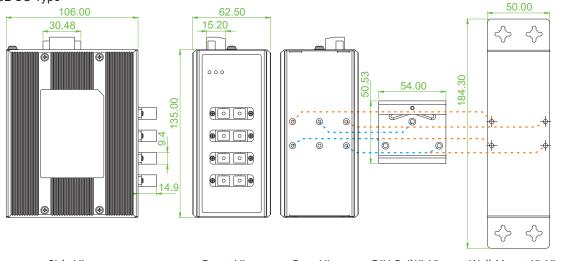
### IBP-202 Data flow in Normal or Bypass mode





# **Dimensions**





Side View

Front View

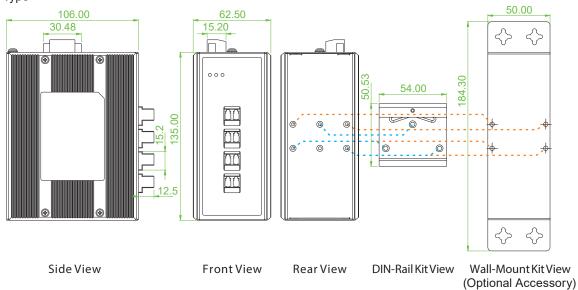
Rear View

DIN-Rail Kit View

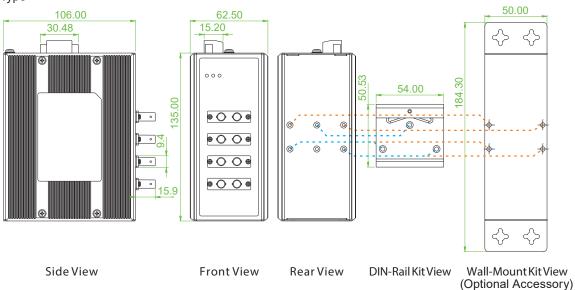
Wall-Mount Kit View (Optional Accessory)

# **Industrial Fiber Bypass Switch**

► IBP-202 LC Type



#### ► IBP-202 ST Type



Ordering Information									
Model Name	Fiber connector			Power Input	Certification				
	Connector type	Connector Q'ty	Data Rate	Redundant	EN50121-4	EN61000-6-2 EN61000-6-4	CE FCC	Operating Temperature	
IBP-202-SSC	SM SC	4	100M/Giga/10G	12/24/48VDC	V	V	V	-20~70°C	
IBP-202-SST	SM ST	4	100M/Giga/10G	12/24/48VDC	V	V	V	-20~70°C	
IBP-202-SLC	SM LC	4	100M/Giga/10G	12/24/48VDC	V	V	V	-20~70°C	
IBP-202-MSC	MM SC	4	100M/Giga/10G	12/24/48VDC	V	V	V	-20~70°C	
IBP-202-MST	MM ST	4	100M/Giga/10G	12/24/48VDC	V	V	V	-20~70°C	
IBP-202-MLC	MM LC	4	100M/Giga/10G	12/24/48VDC	V	V	V	-20~70°C	

## **Optional Accessories**

## ■ Wall Mount Kit

IND-WMK02 Wall Mount kit for Industrial product, 184 x 50mm (Wide)

### ■ Industrial Power Supply

MDR-20-24	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ 70°C
MDR-40-48	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ 70°C