

# OBS Datasheet



## Description

2x2B Mechanical Optical Switch is used to turn on, turn off and switch optical signal. The 2x2B Mechanical Optical Switch is based on Advanced Optoelectronic Integrated Technology. With the development of optical communication, Optical Switch device is the key to a new generation of all-optical network in near future.

2x2B Mechanical Optical Switch is not affected by the polarization and wavelength. It supports all wavelength at 850nm and 1260nm~1650nm, and It provides high reliability, low insertion loss, fast switching speed and bi-directional performance. They are widely used for multiplex OADM, cross connectors OXC, system testing and protection.



## Features

- ❖ Unmatched Low Cost
- ❖ Low insertion Loss
- ❖ High Channel Isolation
- ❖ High Stability, High Reliability
- ❖ Epoxy-free on Optical Path
- ❖ Latching or Non-latching

## Application

- ❖ Ring Network
- ❖ Protection/Restoration
- ❖ Remote Monitoring in Optical Network
- ❖ Configurable Optical Add/Drop
- ❖ Transmitter and receiver protection
- ❖ Network Test System

## Performance Specifications

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Website :

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Parameters	2x2 Bypass-SM/MM	
Operating Wavelength(nm)	1260-1650	850/1300
Straight Insertion Loss <sup>1</sup> (dB)	Max:1.0 (Typ:0.5)	Max:0.8 (Typ:0.5)
Bypass Insertion Loss <sup>1</sup> (dB)	Max:1.6 (Typ:0.8)	Max:1.2 (Typ:0.6)
Return Loss(dB)	Typ: 50	Typ: 30
Min. Crosstalk(dB)	SM 55	MM 45
Max. Polarization Dependent Loss(dB)	0.1	
Max. Wavelength Dependent Loss(dB)	0.3	
Max. Temperature Dependent Loss(dB)	0.25	
Repeatability(dB)	±0.1	
Lifetime(Cycles)	≥ 10 <sup>7</sup>	
Switch Time (ms)	≤8	
Optical Input Power(mW)	≤500	
Operating Temperature(°C)	-20~+70	
Storage Temperature(°C)	-40~+85	
Operating Humidity(%RH)	5~95	
Storage Humidity(%RH)	5~95	
Operating Current(mA)	150±10%	
Power supply(V)	12~48 DC	
Power Consumption(mW)	750±10%	
EMI Certification	FCC Class B	

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**Hirundo**

Weight (g)	510
Dimension(mm)	L140×W95×H26

\*Notes: 1. Special wavelength would be upon request.

2. Optical parameters excluded connectors.

3. A minimum  $\geq 20$ ms pulse is recommended for latching type of switch.

4. The product weight excluded optical connectors.

## Optical Route



## Electric For Switch

Specifications	Voltage	Current	Resistance
5V latching	4.5~5.5	36~44mA	125Q
5V non-latching	4.5~5.5	26~32mA	175Q
3V latching	2.7~3.3	54~66mA	50Q
3V non-latching	2.7~3.3	39~47mA	70Q

## Power Supply

Port	Indicator	LED	Status

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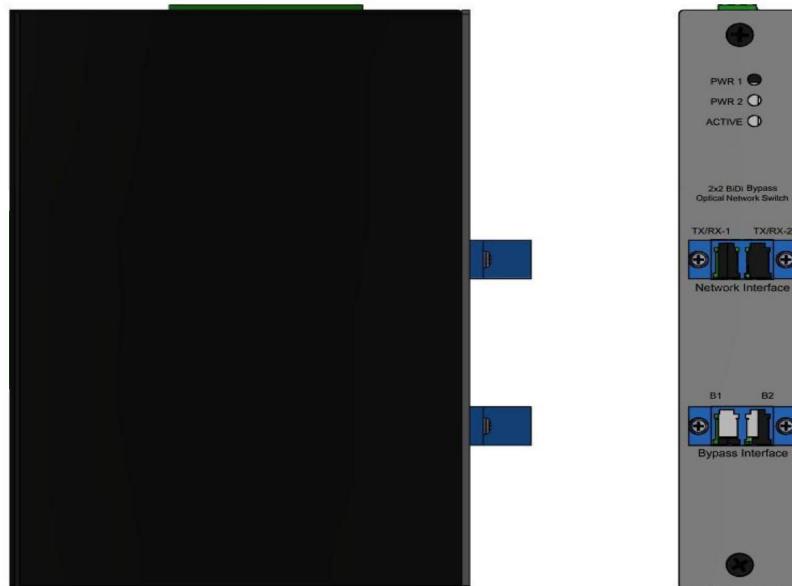
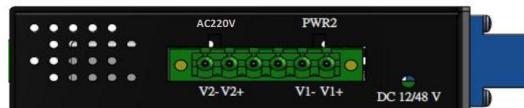
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PWR1	DC 12-48V	PWR1/DC 12-48V	ON/OFF Indicated by LED
PWR2	AC 220V	PWR2/AC 220V	ON/OFF Indicated by LED

## Mechanical Dimensions(Unit:mm)



### Connecting to the network

1. Connect Network TX1/RX1 to the appropriate switch, server or router device.
2. Connect Network TX2/RX2 to the appropriate switch, server or router device.
3. Verify that the Bypass Switch Network Ports are cabled in-line between two devices.

### Connecting to the in-line device

1. Connect In-line B1 to the in-line device using a LC/PC patch cord.
2. Connect In-line B2 to the in-line device using a LC/PC patch cord.
3. Verify that the Switch In-line Ports are cabled in-line between two devices.
4. Making sure you connect the switches' power supply to the same power sources that in-line appliance is using.

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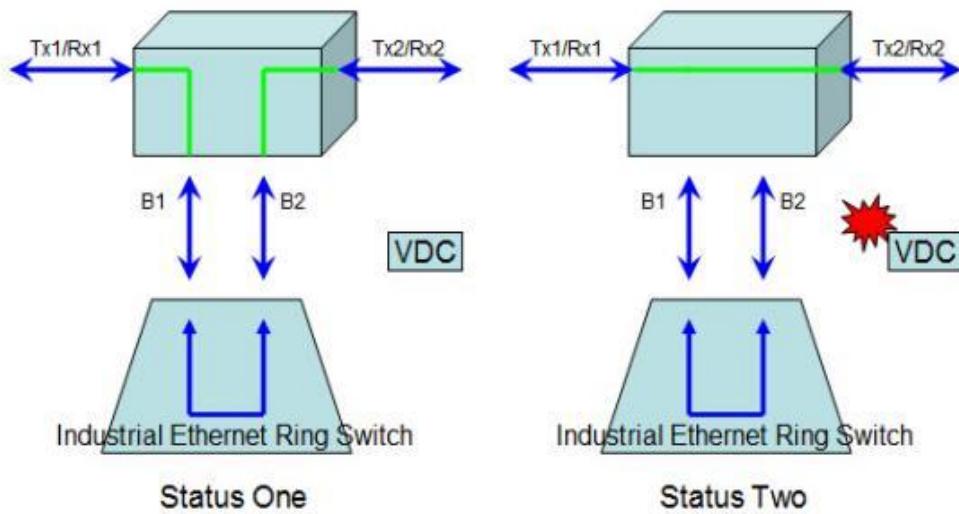
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## Application Example



## Order information:

Type	Product Version	Input	Output	Control Model	Fiber Type	Fiber Diameter	Connect
OBS	C: Version C with LC connectors	No. Of Input	No. Of Output	N=Non- Latching	5=50/125 6=62.5/125 9=9/125	90=900um Loosetube	1=LC/PC