



FOBP-I-4x4-D-MM OR SM

4X4 INDUSTRIEL - BYPASS OPTICAL SWITCH



FEATURES

Compact Format

Low Return-Loss

Available in Single
Mode / Multi
Mode

Non-Latching Type

LED indicators for
Power and OSW
status

Power on Time
Delay

DIN Type Mounted

Product Description

The 4x4 Industrial Bypass Optical Switch utilizes fiber-to-fiber technology over an angled surface to achieve ultra low losses and crosstalk. It is an external Optical Bypass Box for 10 /1Gbps fiber Gigabit Ethernet networks. The 4x4 Optical Bypass Box protects from network failures and is easy to implement network maintenance by ensuring network integrity. It is suitable for all bi-directional protection switching applications where premise-side connectivity is not required in the bypass state. The optical bypass box provides excellent performance on your network and posses the advantages of compact and competitive cost.

Applications

- Node Bypass Protection
- Network Maintenance
- Industrial Ethernet Ring Switch
- Intrusion Prevention System
- SDH ADM Ring
- WAN Optimization
- High Performance Server

Performance Specification

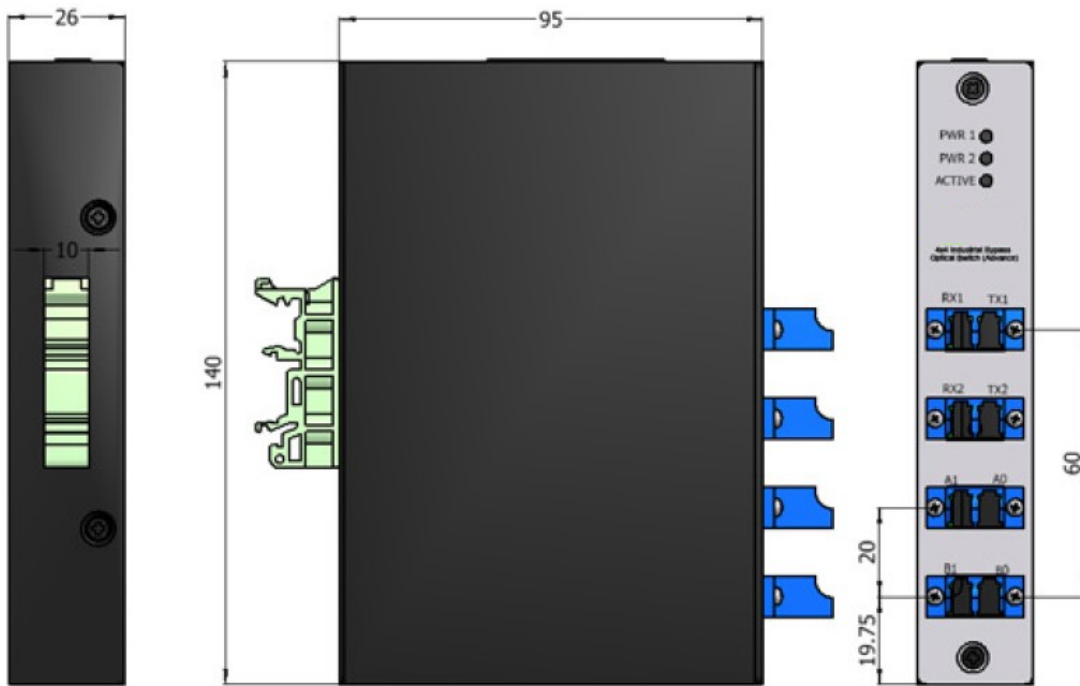
Parameter	9µm Core Single Mode			50µm or 62.5µm Core Multi Mode			Unit
	Min.	Typ.	Max.	Min.	Typ.	Max.	
Wavelength Range ¹	1260~1630			850/1300			nm
Straight Insertion Loss ²		0.5	1.0		0.4	0.8	dB
Bypass Insertion Loss ²		0.8	1.6		0.6	1.3	dB
Return Loss		-50					dB
PDL			0.1				dB
WDL			0.3				dB
Crosstalk		-80			-80		dB
Repeatability			±0.1			±0.1	dB
Switching Time ³			5			5	ms
Absolute Optical Input Power			500			500	mW
Operating Voltage	12~48						VDC
Power Consumption	750±10%						mW
EMI Certification	FCC Class B						
Switching Life Expectancy	3x10 ⁷			3x10 ⁷			Cycles
Operation Temperature-Normal	-5		70	-5		70	°C
Operation Temperature-Special	-20		70	-20		70	°C
Storage Temperature	-40		85	-40		85	°C
Relative Humidity	5		85	5		85	% H
				5		85	% H



Function Diagram

OSW Mode	Optical Path	
Normal Mode	TX1 → A0	TX1 ————— A0
	RX1 → A1	RX1 ————— A1
	TX2 → B0	TX2 ————— B0
	RX2 → B1	RX2 ————— B1
Bypass Mode	TX1 ↔ RX2	
	RX1 ↔ TX2	

Physical Dimension



Connecting to the network

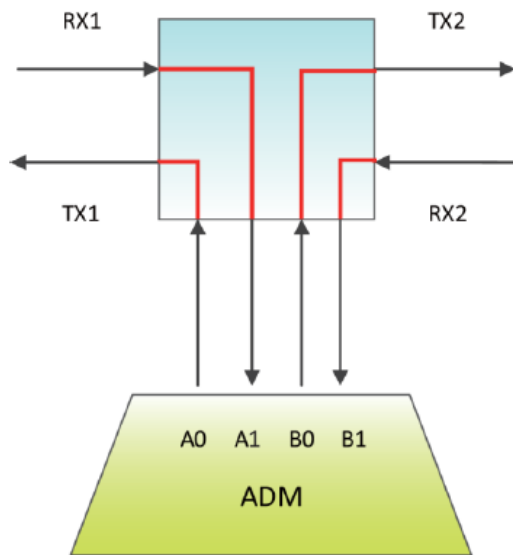
1. Connect Network Port A (TX1/RX1) to the appropriate switch, server or router device.
2. Connect Network Port B (TX2/RX2) to the appropriate switch, server or router device.
3. Verify that the Bypass Switch Network Ports are cabled in-line between two devices.

Connecting to the in-line device

1. Connect In-line Port A (A0/A1) to the in-line device using a LC/PC patch cord.
2. Connect In-line Port B (B0/B1) 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.

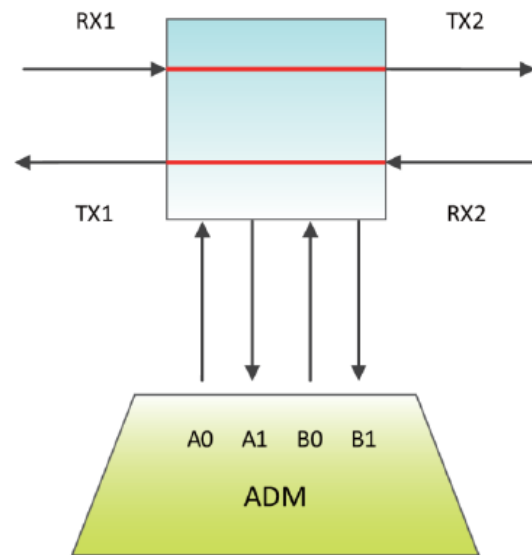
Application Examples

Normal Mode




VDC connect

Bypass Mode



VDC Broken

Ordering Information

FOBP-I-	4x	4-	D -	 -	-	LC
Product Version	Input	Output	Format	Fiber Type	Fiber Cabling	Connector Type
C: Version C with LC connectors	No. of Input	No. of Output	D: DIN-RAIL N: Non-Latching	SM: 9/125µm MM: 50/125µm M62: 62.5/125µm	... : 900µm loose tube	LC: LC/PC SC=SC/PC



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