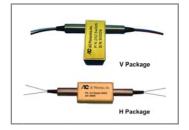


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# 2x2 Singlemode Bypass Mechanical Fiberoptic Switch



**ACP's** MS Series switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using a patent pending opto-mechanical proprietary configuration and activated via an electrical control signal. The Switch offers ultra-high reliability and fast switching speed as well as bi-directional performance. The MS fiberoptic switches are true switching solution for optical networking applications.

#### **Key Features**

- Unmatched Low Cost
- Low Insertion Loss
- High Channel Isolation
- High Stability and Reliability
- Epoxy Free Optical Path
- Latching or Non-Latching

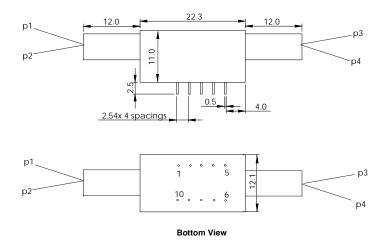
#### **Applications**

- Optical Netrwork Protection/Restoration
- Optical Signal Routing
- Configurable Optical Add/Drop
- Transmitter and Receiver Protection
- Network Test Systems
- Instrumentation

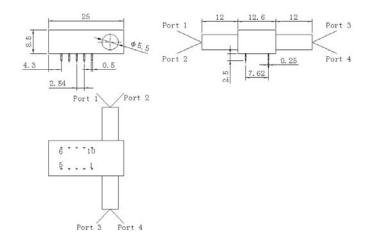
#### **Performance Specifications**

Parameter		Specifications				
Channel Wavelength	1260nm to1360nm o	1260nm to1360nm or 1510nm to 1610nm				
Insertion Loss	P Grade	A Grade	P Grade	A Grade		
	<u>≤</u> 0.6dB	<u>≤</u> 0.9dB	<u>≤</u> 0.8dB	<u>≤</u> 1.0dB		
Wavelength Dependent Loss	<u>≤</u> 0.2	≤ 0.25dB ≤ 0.30dB				
Polarization Dependent Loss		<u>≤</u> 0.05dB				
Channel Cross Talk		<u>≥</u> 55dB				
Return Loss		<u>≥</u> 55dB				
Repeatability		± 0.02dB				
Switching Speed (Typ.)		4ms				
Operating Voltage		5V				
Durability (Cycles)		10 Million				
Optical Power		500mW				
Operating Temperature		0 to +70°C				
Storage Temperature		-40 to +85°C				
Package Dimensions	H Package: L22.3mm x W12.1mm x H11.0mm					
	V package: L25mm x W12.6mm x H8.5mm					

## Mechanical Dimensions (H Package)

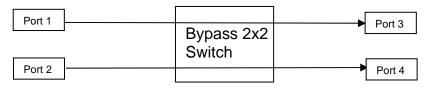


## **Mechanical Dimensions (V Package)**

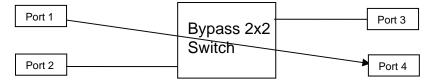


## Bypass 2x2 switch ports configurations

#### Normal Mode



**Bypass Mode** 



# **Electrical Pin Configuration (Type A)**

Optical Path		Port1- Port4 (Bypass)		Port1- Port3 and Por2 - Port4 (Normal)		
Electric Drive	Non-Latching	Pin1	Pin10			
	Latching	Pin1	Pin5	Pin6	Pin10	
		V+	GND	GND	V+	
Sensor Status	Non-Latching and Latching	Pin2-3, Pin8-9 Open		Pin2-3, Pin8-9 Close		
		Pin3-4, Pin7-8 Close		Pin3-4, Pin7-8 Open		

# **Electrical Pin Configuration (Type B)**

Optical Path		Port1- Port3 and Por2 - Port4		Port1- Port4		
Electric Drive	Non-Latching	Pin6	Pin5			
	Latching	Pin6	Pin10	Pin1	Pin5	
		V+	GND	GND	V+	
Sensor Status	Non-Latching and Latching	Pin3-4, Pin7-8 Open		Pin3-4, Pin7-8 Close		
		Pin8-9, Pin2-3 Close		Pin8-9, Pin2-3 Open		

# **Electrical Configuration**

Paramete	Тур.	Min.	Max.	Unit
Switch Voltage	5	4.5	5.5	V
Switch Current	>40			mA
Pulse Duration	>20			ms

#### **Ordering Information**

MS							
Option	Operating Wavelength	Port	Grade	Pigtail Style	Fiber Length	In/Out Connector	
L = Latching N = Non-Latching	15 = 1510 to 1610nm 13 = 1260 to 1360nm 35 = 1310 /1550nm	BP2A = Bypass 2x2 Type A BP2B = Bypass 2x2 Type B	P = P Grade A = A Grade	1 = Bare Fiber 2 = 900um Jacket	1 = 1.0m 2 = 2.0m	0 = None 1 = FC/APC 2 = FC/PC 3 = SC/APC 4 = SC/PC 5 = ST 6 = LC/UPC 7 = LC/APC	H = H Package V = V Package