

2x2 Bypass Mechanical Optical Switch



The 2x2 bypass fiber optic switch connects optical channels by directing or blocking an incoming optical signal into the output fiber. This is achieved using a patent pending opto-mechanical configuration and activated via an electrical control signal. A latching version preserves the selected optical path after the drive signal has been removed, while the non-latching versions default to either the open or closed state when power is removed. The switch has integrated electrical position sensors. The new material based advanced design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as unmatched low cost.

Features

- ◆ Unmatched Low Cost
- ◆ Low Optical Distortions
- ◆ High Isolation
- ◆ High Reliability
- ◆ Epoxy-Free Optical Path

Applications

- ◆ Channel Blocking
- ◆ Configurable Add/Drop
- ◆ System Monitoring
- ◆ Instrumentation

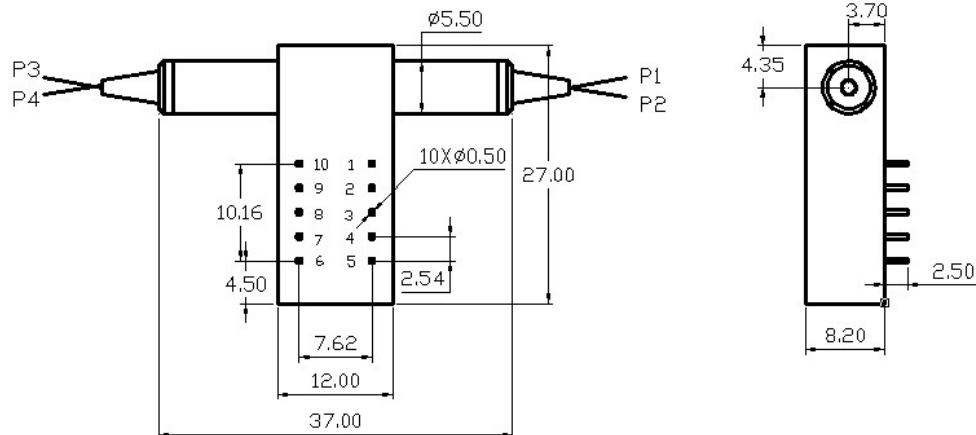
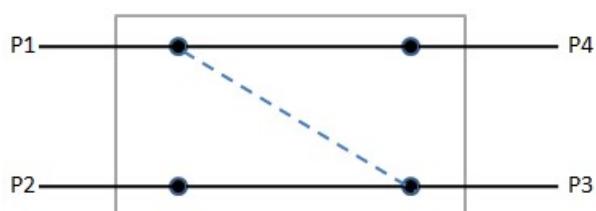
Specifications

Operating Wavelength	1260~1620nm (SM) 850nm(MM)	Insertion Loss	≤1.0dB
Wavelength Dependent Loss	≤0.25dB	Polarization Dependent Loss	≤0.05dB

Temperature Dependent Loss	$\leq 0.20\text{dB}$	Return Loss	$\text{SM} \geq 50\text{dB}$ $\text{MM} \geq 30\text{dB}$
Cross Talk	$\text{SM} \geq 55\text{dB}$ $\text{MM} \geq 35\text{dB}$	Switch Time	$\leq 8\text{ms}$
Repeatability	$\leq \pm 0.02\text{dB}$	Durability	$\geq 10^7$ times
Operating Voltage	3 or 5V	Switch Type	Non-Latching/Latching
Operating Temperature	$-20\text{~}+70^\circ\text{C}$	Storage Temperature	$-40\text{~}+85^\circ\text{C}$
Optical Power	$\leq 500\text{mW}$	Dimension	27.0L×12.0W×8.2H mm

Pin Configurations

Type	Optical Route	Electric Drive				State Sensor			
		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
2x2B	P1-P3	--	--	GND	V+	Close	Open	Open	Close
	P1-P4、P2-P3	V+	GND	--	--	Open	Close	Close	Open
Non-latching	P1-P3	--	--	--	--	Close	Open	Open	Close
	P1-P4、P2-P3	V+	--	--	GND	Open	Close	Close	Open

Mechanical Dimensions (Unit:mm)**Optical Route**

Ordering Information

RD-FSW	-2X2B-	-Wavelength-	-Switch Type-	-Voltage-	-Fiber Type-	-Package-	-Fiber length-	-Connector-
		1060=1 C+L=2 1310=3 1410=4 1550=5 650=6 780=7 1260-1610=A 1310/1550=9 850=8 Special=0	Latching=1 Non-latching=2 MINI Latching=3 MINI Non-latching=4 Special=0	3V=3 5V=5 Special=0	SM28=1 50/125=5 62.5/125=6 Special=0	Bare fiber=1 900um tube=3 Special=0	0.25m=1 0.5m=2 1.0m=3 Special=0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC/PC=7 Duplex LC=8 Special=0