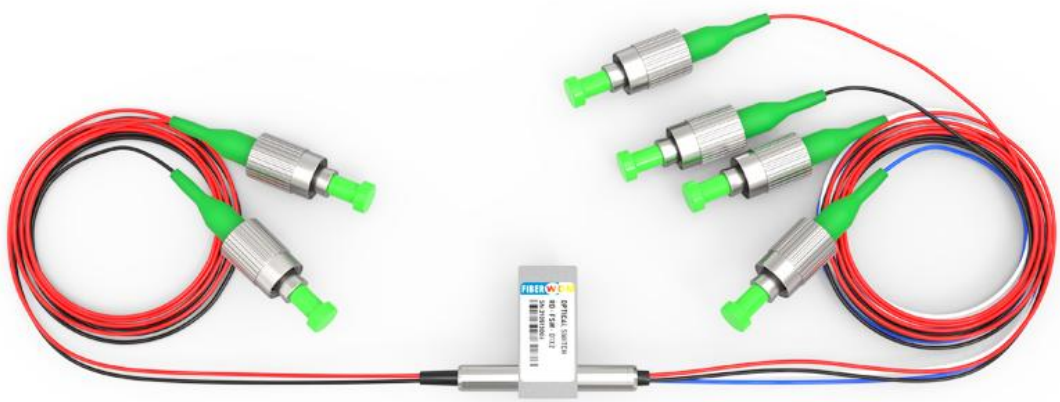
Dual 1x2 Mechanical Optical Switch

The dual 1x2 fiber optic switch connects optical channels by directing or blocking an incoming optical signal into the output fiber. This is achieved using a patent pen ding 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

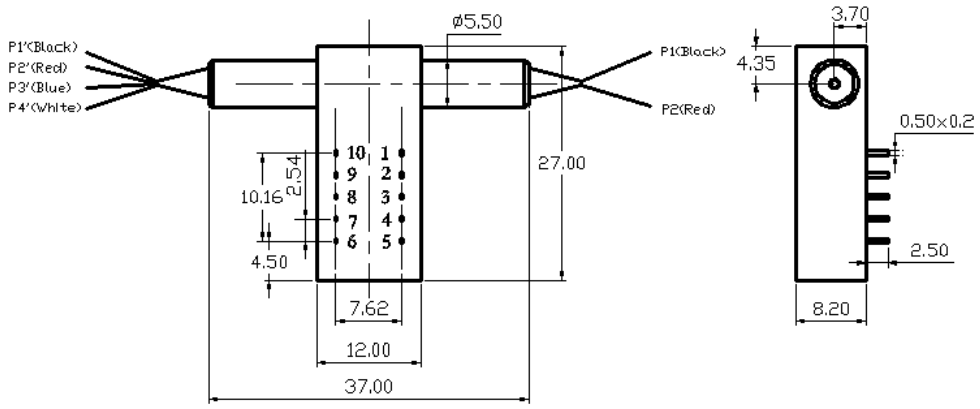
Specifications

Operating Wavelength	1260~1620nm (SM) 850nm(MM)	**Insertion Loss**	≤1.0dB
Wavelength Dependent Loss	≤0.25dB	**Polarization Dependent Loss**	≤0.05dB
Temperature Dependent Loss	≤0.25dB	**Return Loss**	SM≥50dB MM≥30dB
Cross Talk	SM≥55dB MM≥35dB	**Switch Time**	≤8ms
Repeatability	≤±0.02dB	**Durability**	≥10^7 times
Operating Voltage	3 or 5V	**Switch Type**	Non-Latching/Latching
Operating Temperature	－20~＋70℃	**Storage Temperature**	－40~＋85℃
Optical Power	≤500mW	**Dimension**	27.0L×12.0W×8.2H mm

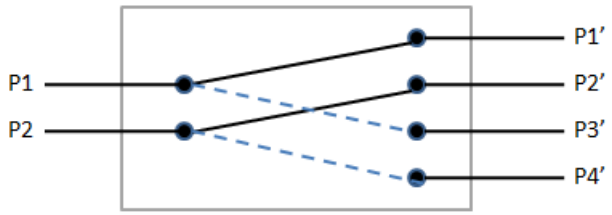
Pin Configurations

Type	Optical Route	Electric Drive				State Sensor			
D1×2		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	P1-P3′、P2-P4′	--	--	GND	V＋	Close	Open	Open	Close
	P1-P1′、P2-P2′	V＋	GND	--	--	Open	Close	Close	Open
Non-latching	P1-P3′、P2-P4′	--	--	--	--	Close	Open	Open	Close
	P1-P1′、P2-P2′	V＋	--	--	GND	Open	Close	Close	Open

Mechanical Dimensions (Unit:mm)



Optical Route



Ordering Information

RD-FSW	-D1X2-	-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