

4x4 Mechanical Optical Switch

The 4x4 Mechanical Fiber Optical 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

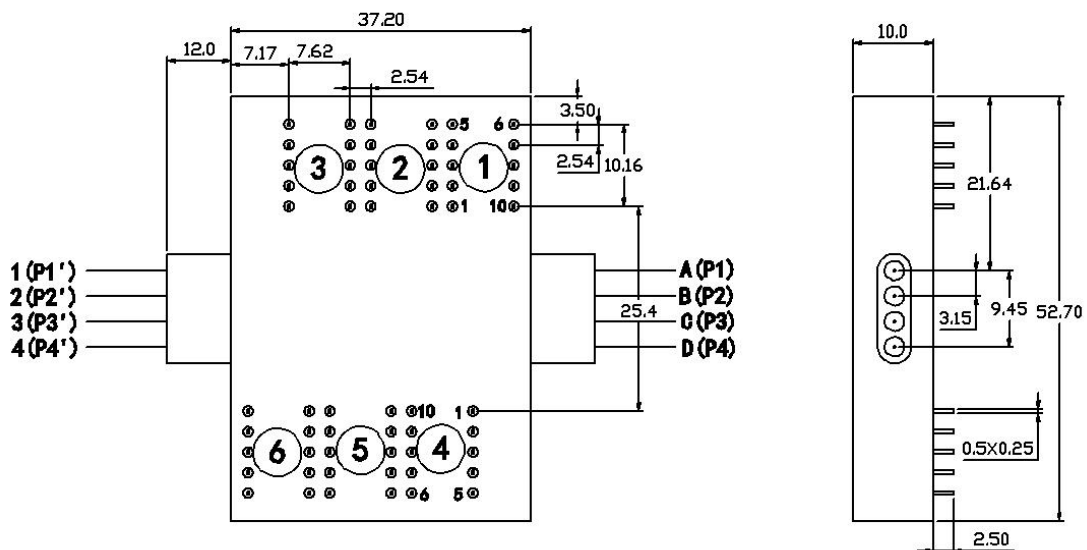
Operating Wavelength	1260~1620nm (SM) 850nm(MM)	Insertion Loss	≤1.2dB
Wavelength Dependent Loss	≤0.4dB	Polarization Dependent Loss	≤0.05dB
Temperature Dependent Loss	≤0.25dB	Return Loss	SM≥50dB MM≥30dB
Cross Talk	SM≥55dB MM≥35dB	Switch Time	≤8ms
Repeatability	≤±0.02dB	Durability	≥10 ⁷ times
Operating Voltage	3 or 5V	Switch Type	Non-Latching/Latching
Operating Temperature	-20~+70℃	Storage Temperature	-40~+85℃
Optical Power	≤500mW	Dimension	52.7L×37.2.0W×10.0H mm

Pin Configurations

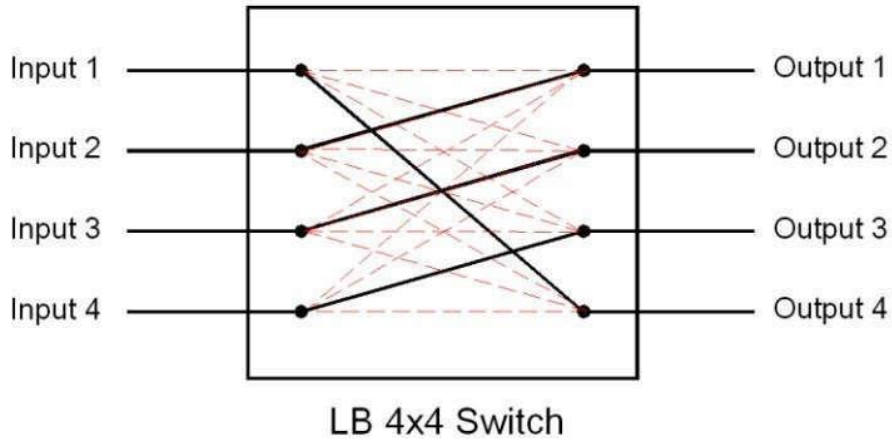
Type	State	Electric Drive				State Sensor			
4×4		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	0	--	--	GND	V+	Close	Open	Open	Close
	1	V+	GND	--	--	Open	Close	Close	Open
Non-Latching	0	--	--	--	--	Close	Open	Open	Close
	1	V+	--	--	GND	Open	Close	Close	Open

NO.	Optical Route	Relay					
		1	2	3	4	5	6
1	A-1、B-2、C-3、D-4	1	1	1	1	1	1
2	A-1、B-2、C-4、D-3	1	1	1	1	1	0
3	A-1、B-3、C-2、D-4	1	1	1	1	0	1
4	A-1、B-3、C-4、D-2	1	1	1	0	0	1
5	A-1、B-4、C-2、D-3	1	1	1	1	0	0
6	A-1、B-4、C-3、D-2	1	1	1	0	0	0
7	A-2、B-1、C-3、D-4	1	1	0	1	1	1
8	A-2、B-1、C-4、D-3	1	1	0	1	1	0
9	A-2、B-3、C-1、D-4	1	1	0	1	0	1
10	A-2、B-3、C-4、D-1	1	1	0	0	0	1
11	A-2、B-4、C-1、D-3	1	1	0	1	0	0
12	A-2、B-4、C-3、D-1	1	1	0	0	0	0
13	A-3、B-1、C-2、D-4	1	0	1	1	0	1
14	A-3、B-1、C-4、D-2	1	0	1	0	0	1
15	A-3、B-2、C-1、D-4	1	0	0	1	0	1
16	A-3、B-2、C-4、D-1	1	0	0	0	0	1
17	A-3、B-4、C-1、D-2	0	0	1	0	0	1
18	A-3、B-4、C-2、D-1	0	0	0	0	0	1
19	A-4、B-1、C-2、D-3	1	0	1	1	0	0
20	A-4、B-1、C-3、D-2	1	0	1	0	0	0
21	A-4、B-2、C-1、D-3	1	0	0	1	0	0
22	A-4、B-2、C-3、D-1	1	0	0	0	0	0
23	A-4、B-3、C-1、D-2	0	0	1	0	0	0
24	A-4、B-3、C-2、D-1	0	0	0	0	0	0

Mechanical Dimensions (Unit:mm)



Optical Route



Ordering Information

RD-FSW	-4x4-	-Wavelength-	-Switch Type-	-Voltage-	-Fiber Type-	-Package-	-Fiber length-	-Connector -
		1060=1	Latching=1	3V=3	SM28=1	Bare	0.25m=1	None=1
		C+L=2	Non-latching=2	5V=5	50/125=5	fiber=1	0.5m=2	FC/PC=2
		1310=3	Special=0	Special=0	62.5/125=6	900um	1.0m=3	FC/APC=3
		1410=4			Special=0	tube=3	Special=0	SC/PC=4
		1550=5				Special=0		SC/APC=5
		650=6						ST/PC=6
		780=7						LC/PC=7
		1260-1610=A						Duplex
		1310/1550=9						LC=8
		850=8						Special=0
		Special=0						