

Mini Bypass Mechanical Optical Switch

The Mini bypass fiber optic switch, include 2x2, 1x2, 1x1 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

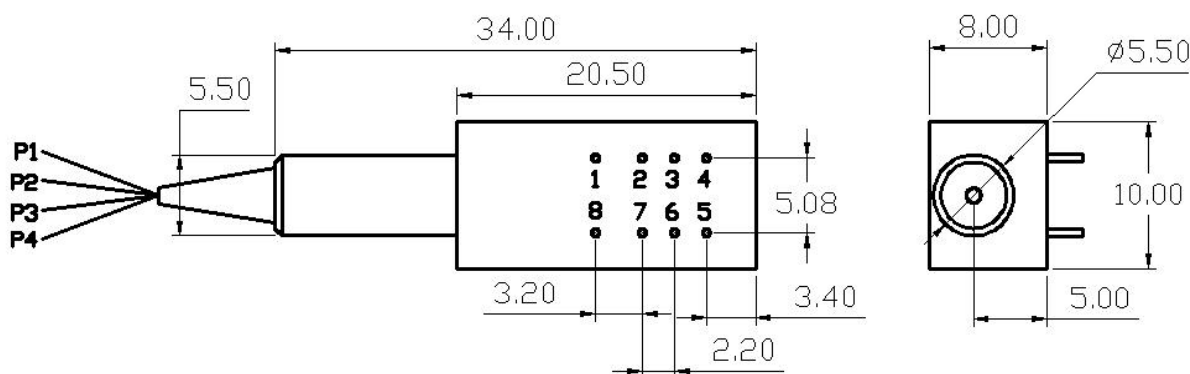
Operating Wavelength	1260~1620nm (SM) 850nm(MM)	Insertion Loss	≤1.0dB
Wavelength Dependent Loss	≤0.25dB	Polarization Dependent Loss	≤0.05dB
Temperature Dependent Loss	≤0.20dB	Return Loss	SM≥50dB MM≥30dB
Cross Talk	SM≥55dB MM≥35dB	Switch Time	≤8ms
Repeatability	≤±0.02dB	Durability	≥10 ⁷ times
Operating Voltage	3 or 5V	Switch Type	Non-Latching/Latching
Operating Temperature	−20~+70℃	Storage Temperature	−40~+85℃
Optical Power	≤500mW	Dimension	20.5L×10.0W×8.2H mm

Pin Configurations

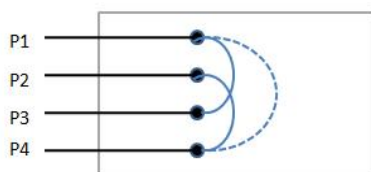
Type		Optical Route	Electric Drive		State Sensor			
			Pin 1	Pin 8	Pin 2-3	Pin 3-4	Pin 5-6	Pin 6-7
2x2	Latching	P1-P4	GND	V+	Close	Open	Open	Close
		P1-P3、P2-P4	V+	GND	Open	Close	Close	Open
	Non-latching	P1-P4	--	--	Close	Open	Open	Close
		P1-P3、P2-P4	V+	GND	Open	Close	Close	Open

1x2	Latching	P1-P3	GND	V+	Close	Open	Open	Close
		P1-P2	V+	GND	Open	Close	Close	Open
	Non-latching	P1-P3	--	--	Close	Open	Open	Close
		P1-P2	V+	GND	Open	Close	Close	Open
1x1	Latching	Non-light	GND	V+	Close	Open	Open	Close
		P1-P2	V+	GND	Open	Close	Close	Open
	Non-latching	Non-light	--	--	Close	Open	Open	Close
		P1-P2	V+	GND	Open	Close	Close	Open

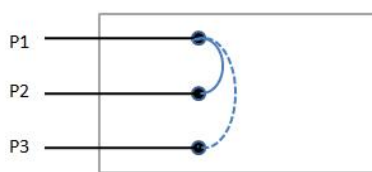
Mechanical Dimensions (Unit:mm)



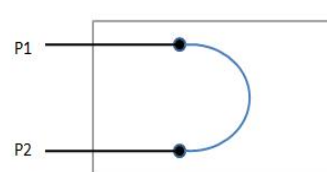
Optical Route



2×2 Optical Route



1×2 Optical Route



1×1 Optical Route

Ordering Information

RD-FSW	-M-	-Wavelength-	-Switch Type-	-Voltage-	-Fiber Type-	-Package-	-Fiber length-	-Connector
	1x1	1060=1	Latching=1	3V=3	SM28=1	Bare	0.25m=1	None=1
	1x2B	C+L=2	Non-latching=2	5V=5	50/125=5	fiber=1	0.5m=2	FC/PC=2
	2x2B	1310=3	MINI Latching=3	Special=0	62.5/125=6	900um	1.0m=3	FC/APC=3
		1410=4	MINI Non-latching=4		Special=0	tube=3	Special=0	SC/PC=4
		1550=5	Special=0			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
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