

Dual 2x2B Mechanical Optical Switch Spec



The Dual 2x2 Bypass Mechanical Fiber optic switch is an integrated single device with 8 fiber ports. Based on Ephotics' s pending patent, the switch is designed especially for protection and restoration applications. The switch is activated by a 5V pulse between two states, and the latching operation preserves the selected optical path after the drive signal has been removed. The switch has integrated electrical contact based position sensors. The simple design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as an unmatched low cost. Electronic driver is available for this series of switches.

Features

- Low Insertion Loss
- Wide wavelength range
- Low channel crosstalk
- Lock or Non-lock
- High stability and reliability

Application

- Metro network
- Laboratory research and development
- Monitoring system
- Dynamic configuration distribution multiplexing

Performance Specifications

Parameters	Specifications	Unit
Operating Wavelength	1260~1620(SM)、850(MM)	nm
Insertion Loss	≤1.0	dB
Wavelength Dependent Loss	≤0.25	dB
Polarization Dependent Loss	≤0.05	dB
Temperature Dependent Loss	≤0.20	dB
Return Loss	SM≥50 MM≥30	dB
Cross Talk	SM≥55 MM≥35	dB
Switch Time	≤8	ms
Repeatability	≤±0.02	dB
Durability	≥10 ⁷	times
Operating Voltage	3 or 5	V
Switch Type	Non-Latching/Latching	
Operating Temperature	-20~+70	°C
Storage Temperature	-40~+85	°C
Optical Power	≤500	mW
Dimension	27.0L×12.0W×8.2H	mm

* Notes: 1. Insertion Loss tested without connector.

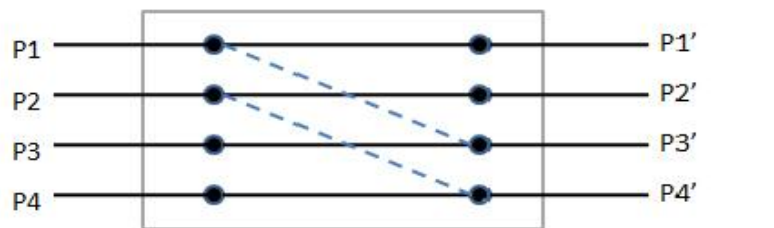
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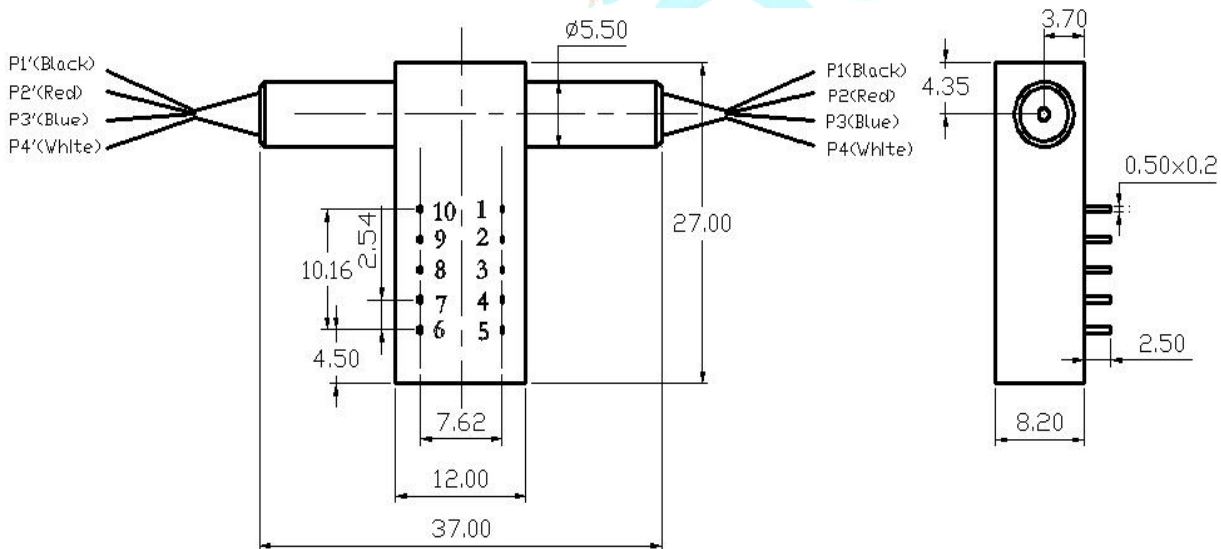
Pin Configurations

Type	Optical Path	Electric Drive				Status Sensor			
D2x2B		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	Port 1 → Port 1' Port 2 → Port 2' Port 3 → Port 3' Port 4 → Port 4'	V+	GND	--	--	Open	Close	Close	Open
	Port 1 → Port 3' Port 2 → Port 4'	--	--	GND	V+	Close	Open	Open	Close
Non-Latching	Port 1 → Port 1' Port 2 → Port 2' Port 3 → Port 3' Port 4 → Port 4'	V+	--	--	GND	Open	Close	Close	Open
	Port 1 → Port 3' Port 2 → Port 4'	--	--	--	--	Close	Open	Open	Close

Optical Route



Dimensions Diagram(Unit:mm)



Order information:

SW (Switch) PN: SW-XXXXXXXX-XX (SW+11 Code+2 Serial Number)

SW	X	XXXX	X	X	X	X	X	X	X	XX
	Type	Central Wavelength	Fiber Type	Fiber Jacket	Fiber Length	Connector	Control Type	Drive Voltage		
1	1X1	0850	SM, 9/125	250um Bare Fiber	0	0.5m	0	none	L	Latching
2	1X2	0980	MM, 50/125	0.9mm Loose	1	1.0m	1	SC/UPC	N	Non-latching
3	1X2T	1060	MM, 62.5/125	S Special	2	1.5m	2	SC/APC		
4	2X2B	1310	PM		3	2.0m	3	FC/UPC		
5	2X2T	1480	S Special		4	2.5m	4	FC/APC		
6	1X4	1550			5	3.0m	5	LC/UPC		
7	1X6	1315			6	3.5m	6	LC/APC		
8	1X8	1625			7	0.7m	7	ST/UPC		
S	Special	000S			8	1.2m	8	E2000		
					9	2.7m	S	Special		
					S	Special				

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