Dual 1x1 Mechanical Optical Switch Spec

The dual 1x1 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

- 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	≤0.25	dB
Return Loss	SM≥55 MM≥35	dB
Cross Talk	SM≥55 MM≥35	dB
Switch Time	≤8	ms
Repeatability	≤±0.02	dB
Durability	$\geq 10^7$	times
Operating Voltage	3 or 5	V
Switch Type	Non-Latching/Latching	
Operating Temperature	－20~＋70	℃
Storage Temperature	－40~＋85	℃
Optical Power	≤500	mW
Dimension	27.0L×12.0W×8.2H	mm

* Notes: 1. Insertion Loss tested without connector.

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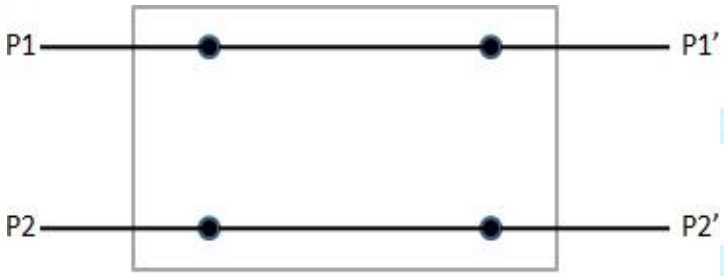
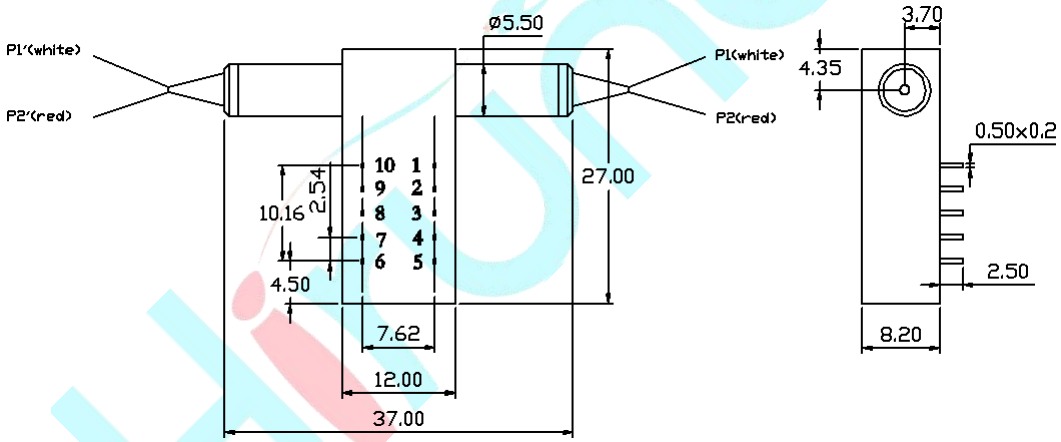
Pin Configurations

Type	Optical Path	Electric Drive				Status Sensor			
Dual 1×1		Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	Non - light	--	--	GND	V+	Close	Open	Open	Close
	P1-P1′、P2-P2′	V+	GND	--	--	Open	Close	Close	Open
Non-Latching	Non - light	--	--	--	--	Close	Open	Open	Close
	P1-P1′、P2-P2′	V+	--	--	GND	Open	Close	Close	Open

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		XX
	Type		Central Wavelength		Fiber Type		Fiber Jacket		Fiber Length		Connector		Contrel Type		Drive Voltage		
	1	1X1	0850	850	0	SM，9/125	0	250um Bare Fiber	0	0.5m	0	none	L	Latching	3	3V	
	2	1X2	0980	980	1	MM，50/125	1	0.9mm Loose	1	1.0m	1	SC/UPC	N	Non-latching	5	5V	
	3	1X2T	1060	1060	2	MM，62.5/125	S	Special	2	1.5m	2	SC/APC			S	Special	S
	4	2X2B	1310	1310	3	PM			3	2.0m	3	FC/UPC					N
	5	2X2T	1480	1480	S	Special			4	2.5m	4	FC/APC					
	6	1X4	1550	1550					5	3.0m	5	LC/UPC					
	7	1X6	1315	1310&1550					6	3.5m	6	LC/APC					
	8	1X8	1625	1625					7	0.7m	7	ST/UPC					
	S	Special	000S	Special					8	1.2m	8	E2000					
									9	2.7m	S	Special					
									S	Special							

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