

1 × 2 PM relay type Miniature optical switch

Product features

- The structure is compact
- The switching speed is fast
- Low insertion loss
- High reliability and high stability

Application

- Passive Optical Network (PON)
- Light protection system
- Network monitoring
- Instrumentation



Standards

- Telcordia GR-1221
- Telcordia GR-1073

Technical parameters

Parameter	Unit	FSW-1×2-PM				
Operating wavelength	nm	1260-1560	1310-1600	770-1100	840-860	970-1550
Test wavelength	nm	1310	1550	780	850	980
Fiber type		PM1310	PM1550	PM780	PM850	PM980
Insertion loss	dB	≤ 1.0 (bare fiber) ≤ 1.2 (including head)				
Extinction ratio	dB	≥ 18 (bare fiber) ≥ 16 (including head)				
Wavelength dependent loss	dB	≤0.25				
Temperature-dependent losses	dB	≤0.2				
Polarization dependent loss	dB	≤0.05				

Return loss	dB	≥50
Crosstalk	dB	≥55
Repeatability	dB	≤±0.02
Switching time	ms	≤8
Life span	times	≥10 ⁷
Operating voltage	V	3.0 or 5.0
Maximum optical power	mW	≤500
Operating temperature	°C	-5 ~ +70
Storage temperature	°C	-40 ~ +85
Operating humidity	%	5 ~ 95
Package size	mm	L27×W12×H8.2 (±0.2)

1. All parameters were tested in a room temperature operating environment.

Drive pin definition

Type	Status	Optical path	Electronically controlled drive				Status indication			
			Pin1	Pin5	Pin6	Pin10	Pin2-3	Pin3-4	Pin7-8	Pin8-9
Latching	A	P1-P2	-	-	GND	V+	Close	Open	Open	Close
	B	P1-P3	V+	GND	-	-	Open	Close	Close	Open
Non latching	A	P1-P2	-	-	-	-	Close	Open	Open	Close
	B	P1-P3	V+	-	-	GND	Open	Close	Close	Open

Electric control parameters

Type	Voltage	Electric current	Resistance
3 V, latching	2.7~3.3V	54~66mA	50Ω
3 V, non-latching	2.7~3.3V	39~47mA	70Ω
5V, latching	4.5~5.5V	36~44mA	125Ω
5V, non-latching	4.5~5.5V	26~32mA	175Ω

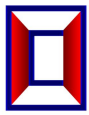
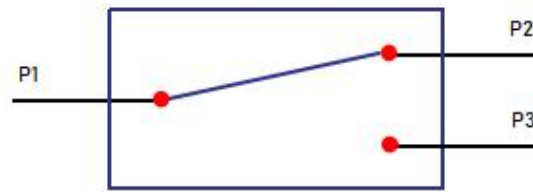


Diagram of optical path



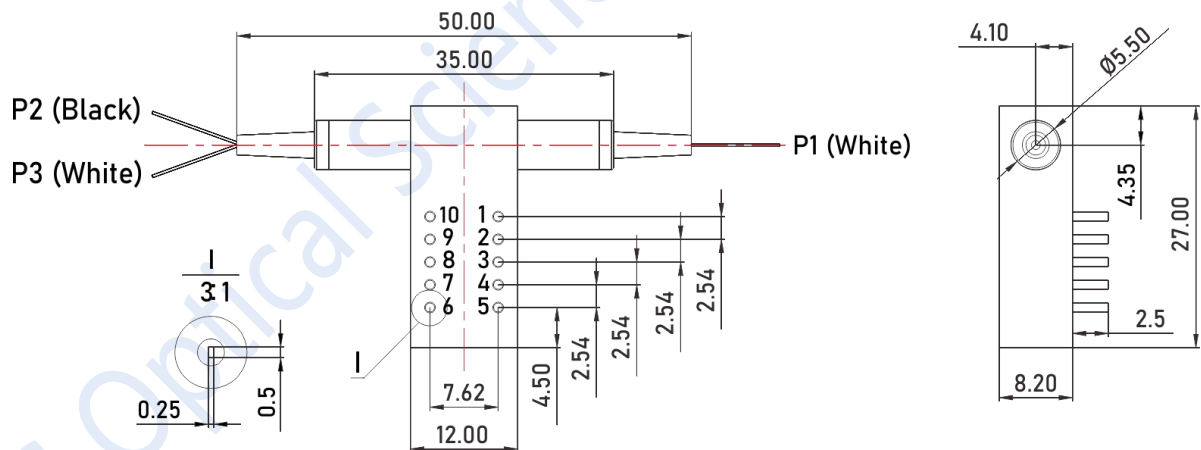
状态 A



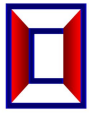
状态 B



Dimension (mm) (L27 × W12 × H8.2)



Note: The thickness of 8.2 above is the shell size, excluding the top and bottom label thickness of 0.4mm.



Ordering Information HC-FSW-1 × 2-PM-A-B-C-D-E-F

A	B	C	D	E	F
Test wavelength	Switch type	Fiber type	Fiber diameter	Fiber length	Connector
780: 780nm	3 L: 3V Latching	P78: PM780	025: Ø0.25mm	05: 0.5m	00: None
850: 850nm	3N:3V non-latching	P85: PM850	09: Ø0.9mm	10: 1.0m	FP: FC/UPC
980: 980nm	5L: 5V Latching	P98: PM980	X: Other	15: 1.5m	FA: FC/APC
1310: 1310nm	5N:5V non-latching	P13: PM1310		X: Other	SP: SC/UPC
1550: 1550nm		P15: PM1550			SA: SC/APC
X: Other		X: Other			LP: LC/UPC
					LA: LC/APC
					X: Other