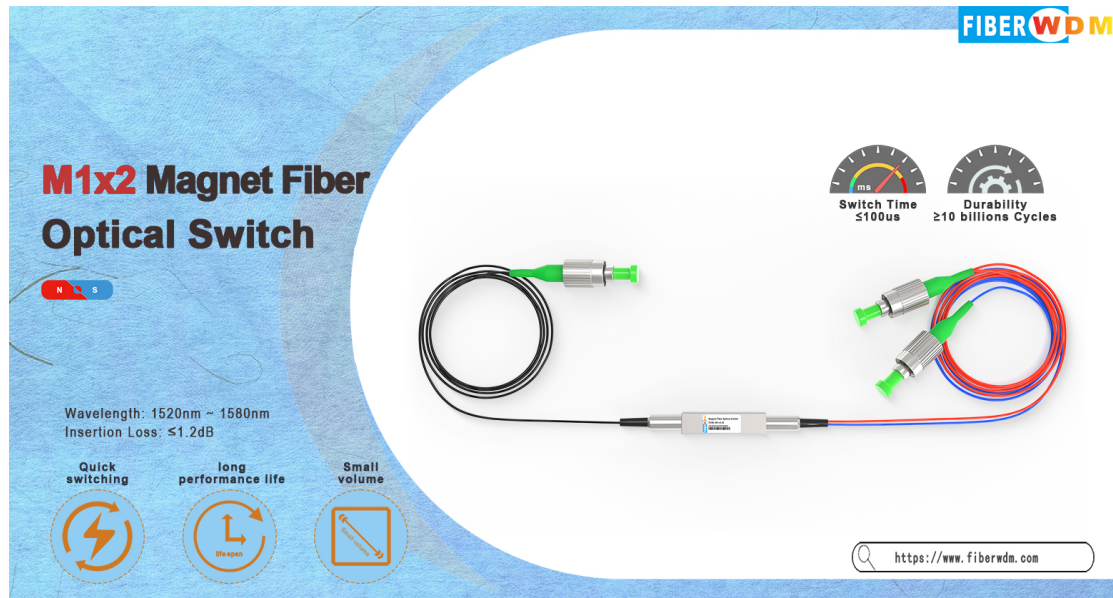


M1x2 Magnet Fiber Optical Switch

The M1x2 optical switch is connected to the optical path by connecting or blocking the optical signal. the switch has non-mechanical configurations and activated via an electrical control signal. the switch also has build-in circulator and isolator functions. Products are widely used in aerospace and military equipment.



Features

- ◆ Solid-state high speed
- ◆ High Stability, High Reliability
- ◆ Epoxy-free on Optical Path
- ◆ Fail-safe latching

Applications

- ◆ Aerospace equipment
- ◆ Configurable Add/Drop
- ◆ System monitoring
- ◆ Sensing system

Performance Specifications

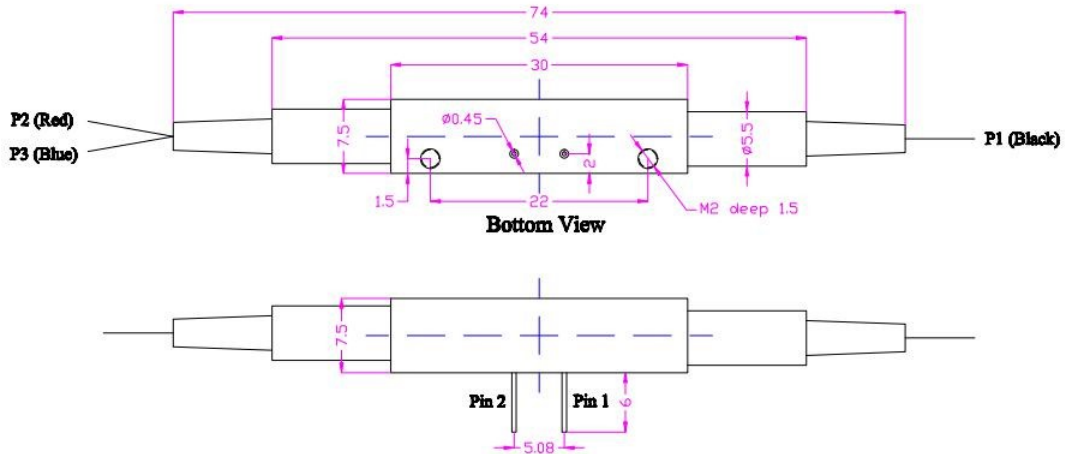
Parameters	Unit	Specifications
Wavelength Range	nm	1520 ~ 1580
Test Wavelength	nm	1550
Insertion Loss ^{1,2}	dB	≤ 1.2
TDL	dB	≤ 0.30
PDL	dB	≤ 0.20
Return Loss	dB	≥ 50
Crosstalk	dB	Bidirectional ≥ 20
		Unidirectional ≥ 40
Repeatability	dB	$\leq \pm 0.01$
Switching Time	us	≤ 100
Pulse Duration	us	≥ 200
Durability	Cycles	$\geq 10\text{ Billions}$
Switch Type	NA	Latching

Operating Current	mA	≤ 200
Maximum Optical Power	mW	≤ 500
Operating Temperature	°C	-5 ~ +70
Storage Temperature	°C	-40 ~ +85
Dimension	mm	(L)30.0×(W)7.5×(H)7.5 ±0.2

Note: 1 Test at room temperature and SOP.

2 Excluding connectors, 0.2dB for one pair connectors.

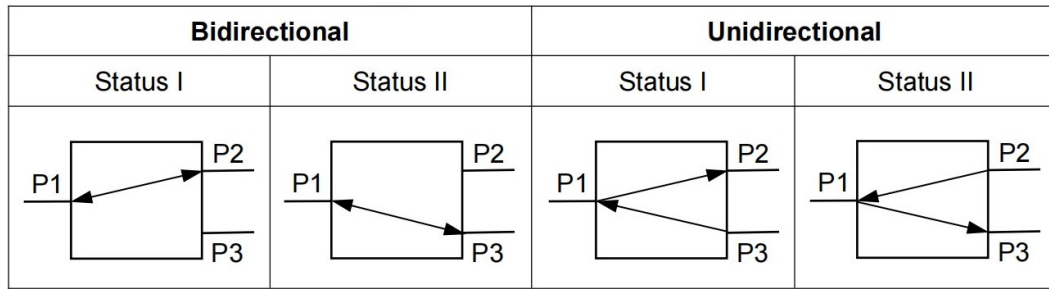
Mechanical Dimensions (Unit:mm)



Electrical Drive

Type	Status	Optical Route	Electric Drive	
			Pin 1	Pin 2
M1x2				
Bidirectional	I	P1 ↔ P2	GND	V+
	II	P1 ↔ P3	V+	GND
Unidirectional	I	P1 → P2 P1 ← P3	GND	V+
	II	P1 → P3 P1 ← P2	V+	GND

Functional Diagram



Ordering Information

FSW-M1x2-□-□-□-□-□-□-□

—□	—□	—□	—□	—□	—□	—□
Switch Type	Fiber Type	Voltage	Wavelength	Tube Type	Fiber Length	Connector
B: Bidirectional	SM: SM, 9/125	2.5: 2.5V	1550: 1550nm	250: 250um	05: 0.5m±5cm	OO: None FC: FC/PC
U: Unidirectional	X: Others	5.0 5.0V	X: Others	900: 900um X: Others	10: 1.0m±5cm X: Others	FA: FC/APC SC: SC/PC SA: SC/APC LC: LC/PC X: Others