

M2x2 Magneto-Optic Switch



● Product Description

The M2x2 optical switch achieves optical path connection by either passing or blocking optical signals. This switch features a non-mechanical configuration and is activated by electrical control signals. It also has built-in circulator and isolator functions. The product is widely used in aerospace and military equipment.

● Part Number

YFS-M2x2-B-S-2.5-1550-900-10-FA

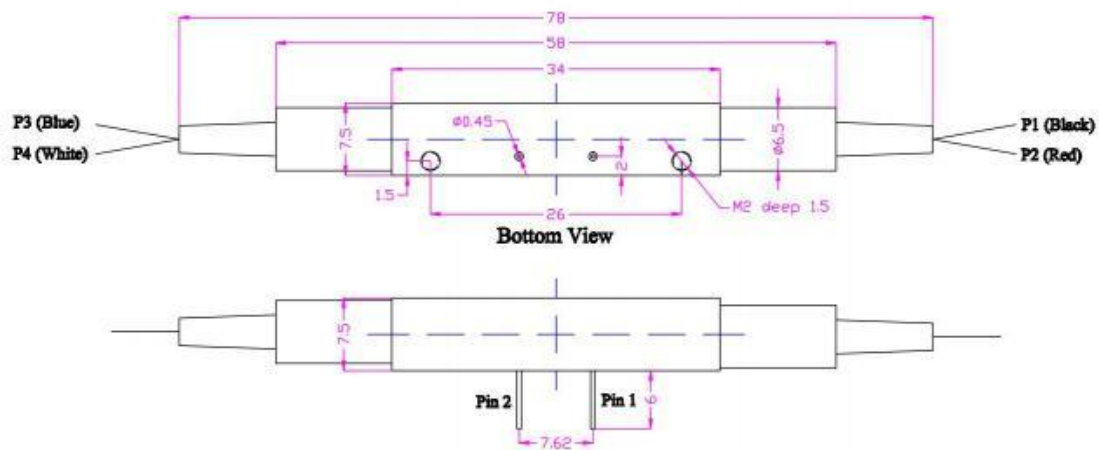
● Product features

Solid-state high-speed operation 、 High stability and reliability 、 No epoxy resin in the optical path 、 Fail-safe locking mechanism

● Application area

Aerospace equipment 、 Configurable for add/drop functionality 、 System monitoring 、 Sensor systems

● Dimensional Drawing



Parameters

Performance Specifications

Parameter	Unit	Specification
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	Bi-directional ≥ 20
		Uni-directional ≥ 35
Repeatability	dB	$\leq \pm 0.01$
Switching Time	us	≤ 100
Pulse Duration	us	≥ 200
Durability	Cycles	≥ 10 Billions
Switch Type	NA	Latching
Operating Current	mA	≤ 200
Max Optical Power	mW	≤ 500
Operating Temperature	°C	-5 ~ +70

Storage Temperature	°C	-40 ~ +85
Dimensions	mm	(L)34.0 × (W)7.5 ×(H)7.5 ±0.2
Notes:		
1.Tested at room temperature and SOP.		
2.Does not include connectors; a pair of connectors has 0.2dB loss.		

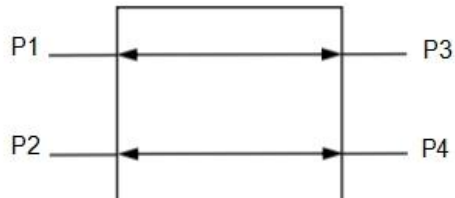
Power Drive

Type	Status	Optical Path	Power Drive	
Bidirectional	I	P1 ↔ P3 P2 ↔ P4	GND	V+
	II	P1 ↔ P4 P2 ↔ P3	V+	GND
Unidirectional	I	P1 → P3 P3 → P2 P2 → P4 P4 → P1	GND	V+
	II	P1 → P4 P4 → P2 P2 → P3 P3 → P1	V+	GND

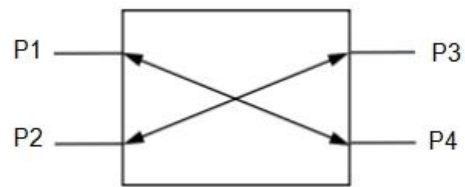
Functional Diagram

Bidirectional

State I

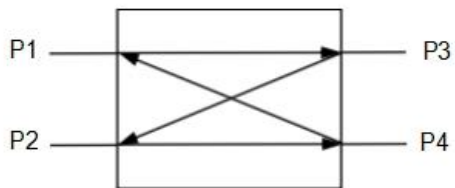


State II

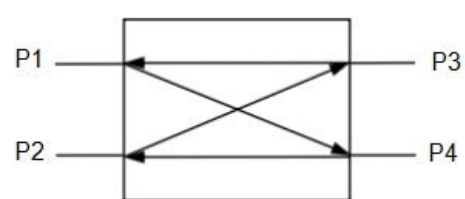


Unidirectional

State I



State II



Ordering Reference Information

YFS-M2x2-□-□-□-□-□-□-□

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