

PM1x4 Magneto-Optical Switch

Features

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



Applications

- Optical switching
- Fault Protection
- Time Delay measurement
- System monitoring
- Sensing system

Product Description

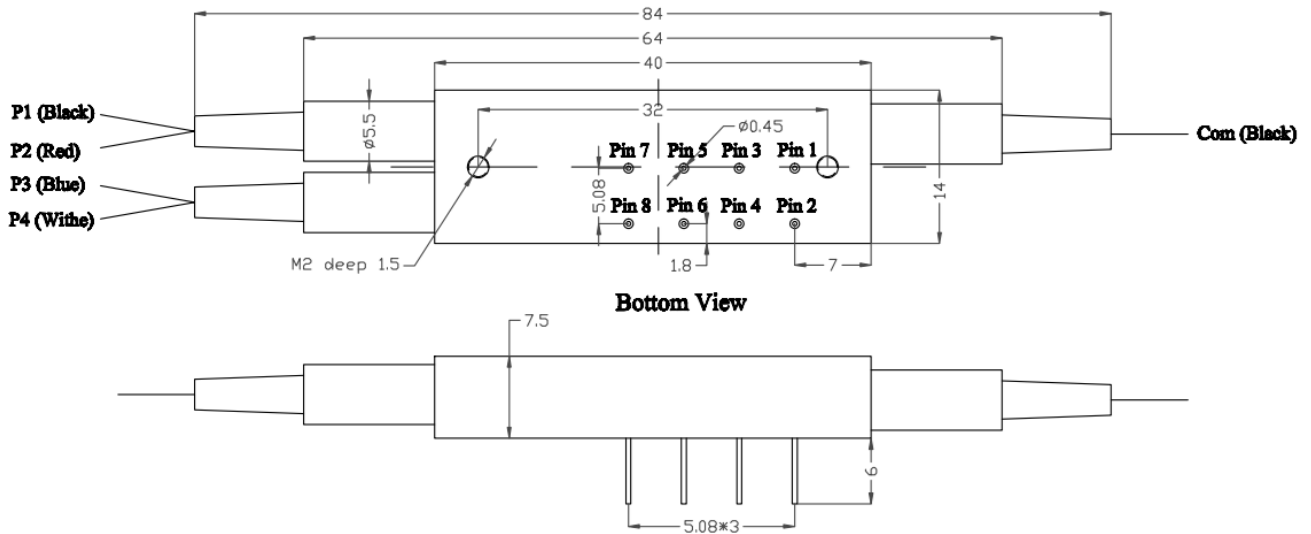
The PM1x4 Magneto-Optical Switch is connected to the optical path by connecting or blocking the optical signal. The switch has non-mechanical configurations and activated via an electrical control signal. The switch also has build-in circulator and isolator functions.

Products are widely used in aerospace and military equipment.

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
ER	dB	≥ 18
PDL	dB	≤ 0.20
Return Loss	dB	≥ 50
Crosstalk	dB	≥ 40
Repeatability	dB	≤ ±0.01
Switching Time	us	≤ 100
Pulse Duration	us	≥ 200
Durability	Cycles	≥ 100 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)40.0×(W)14×(H)7.5 ±0.2
Note: 1 Test at room temperature and SOP. 2 Excluding connectors, 0.2dB for one pair connectors.		

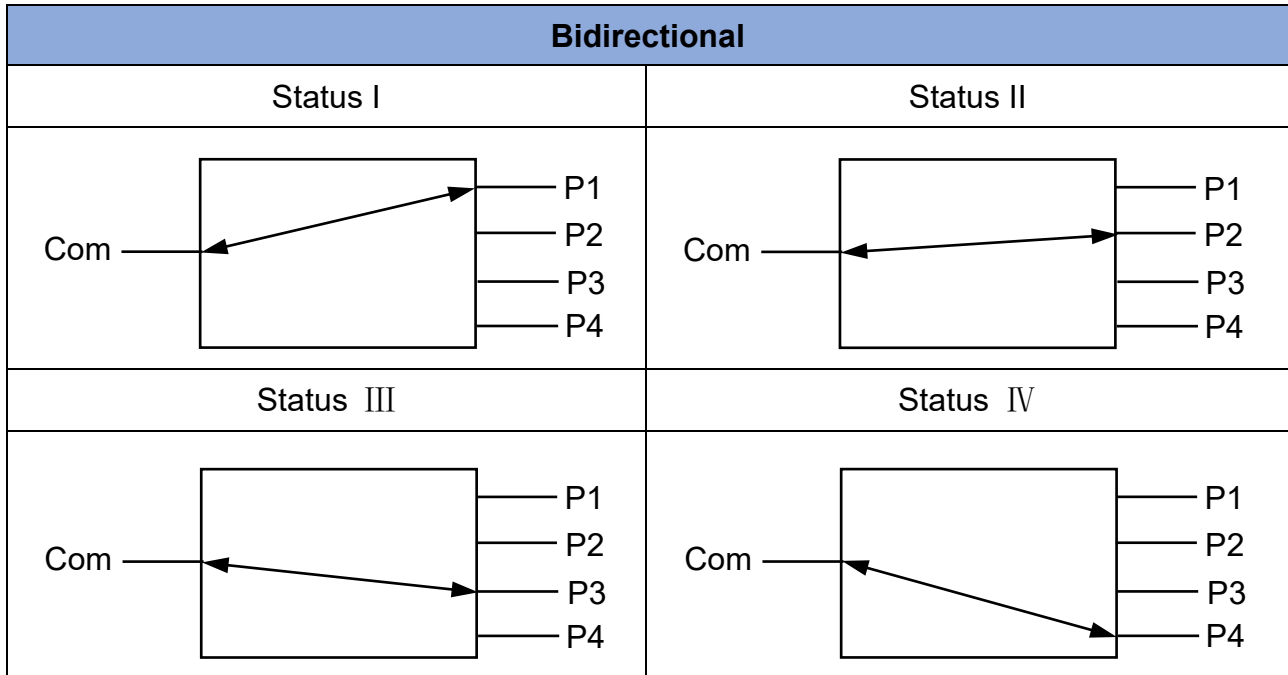
Mechanical Dimensions (Unit:mm)



Electrical Drive

Type	Status	Optical Route	Electric Drive							
			Pin Group A		Pin Group B		Pin Group C		Pin Group D	
			Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
PM1x4	I	Com – P1	V+	GND	V+	GND	V+	GND	GND	V+
	II	Com – P2	GND	V+	GND	V+	V+	GND	GND	V+
	III	Com – P3	V+	GND	GND	V+	GND	V+	V+	GND
	IV	Com – P4	GND	V+	V+	GND	GND	V+	V+	GND

Functional Diagram



Ordering Information

FSW-PM1x4-□-□-□-□-□-□-□

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Switch Type	Fiber Type	Voltage	Wavelength	Tube Type	Fiber Length	Connector
B:	PM15:	2.5:	1550:	250:	05:	FA:
Bidirectional	PM1550	2.5V	1550nm	250um	0.5m±5cm	FC/APC (align to slow axis)
	X:	X:	X:	900:	10:	OO: None
	Others	Others	Others	900um	1.0m±5cm	X: Others
				X:	X:	
				Others	Others	