

1X4 Magnet Optical Switch

Product Description

The M1x4 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

- 1.Solid-state high speed
- 2.High Stability, High Reliability
- 3.Epoxy-free on Optical Path
- 4.Fail-safe latching

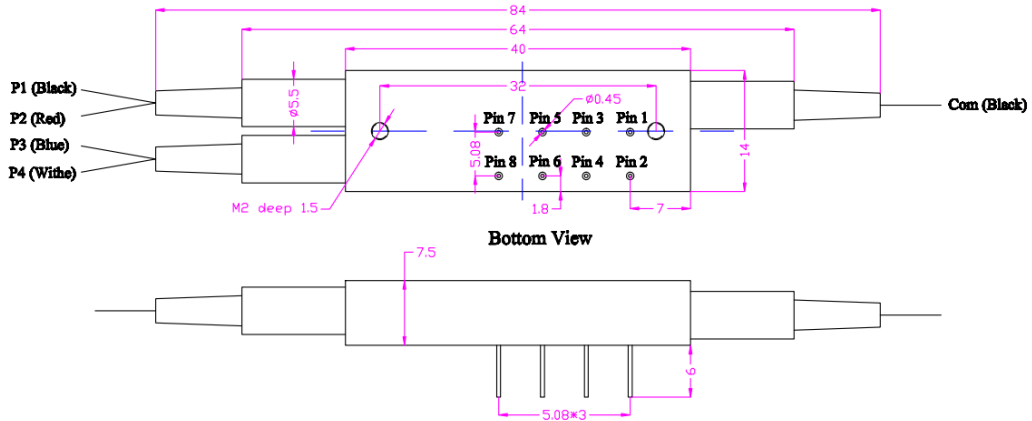
Applications

- 1.Aerospace equipment
- 2.Configurable Add/Drop
- 3.System monitoring
- 4.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 | ≥ 40 |
| Repeatability | dB | ≤ ±0.01 |
| Switching Time | us | ≤ 100 |
| Pulse Duration | us | ≥ 200 |
| Durability | Cycles | ≥10 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×(W)14×(H)7.5 ±0.2 |
| Note: | <ol style="list-style-type: none"> 1 Test at room temperature and SOP. 2 Excluding connectors, 0.2dB for one pair connectors. | |

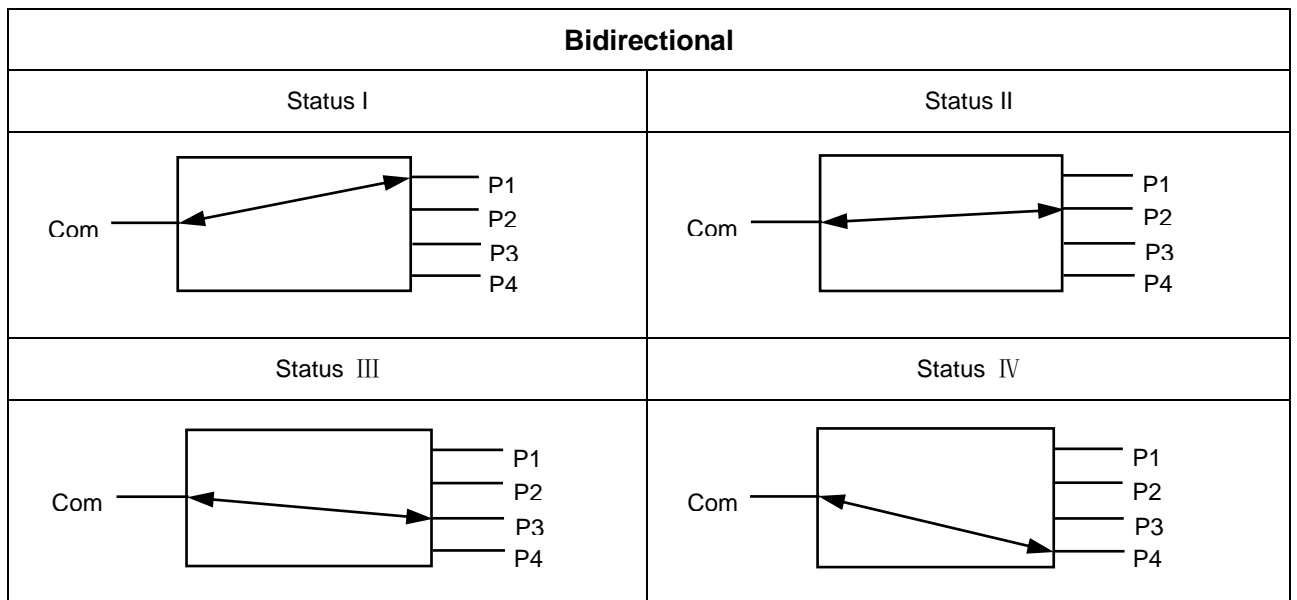
Mechanical Dimensions (Unit: mm)



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 |
| M1x4 | 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

M1x4-□-□-□-□-□-□-□

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