

## 2x2 Fiber Optic Switch

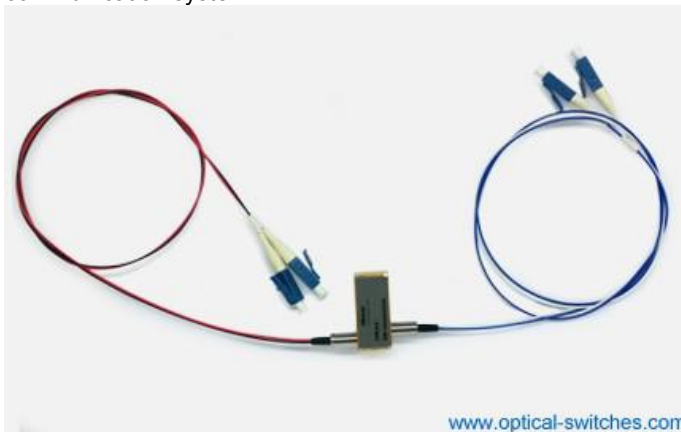
### 2x2 Optical Switch - Features

- Low Insertion Loss
- Wide Wavelength Range
- Low Crosstalk
- High Stability, High Reliability
- Epoxy-free on Optical Path
- Latching and Non-latching

### 2x2 Fiber Optic Switch, 2x2 Optical Switch Applications

- R&D in Laboratory
- System Monitoring
- OADM
- MAN (Metropolitan Area Network)

Acfiber-FSW-2x2 Optical Switch, which is famous for its high performance, low insertion loss and compact dimension: (L)28.5x(W)12.6x(H)8.7mm (SM) ; (L)27.0x(W)12.6x(H)8.2mm (MM) . It is an ideal component for OADM, OXC, system monitoring and protection. With compact package, it can be easy to integrate into a high density optical communication system.



### 2x2 Fiber Optic Switch, 2x2 Optical Switch- SM Specifications

**NO. 1 Service NO.1 Quality**

| Parameters   | Unit   | Acfiber-FSW-2×2-S           |
|--|--------|-----------------------------|
| Wavelength Range   | nm     | 1260 ~ 1650                 |
| Test Wavelength  | nm     | 1310 / 1550                 |
| Insertion Loss 1, 2  | dB     | Typ: 0.8 Max: 1.0           |
| Return Loss 1, 2   | dB     | ≥ 50                        |
| Crosstalk 1  | dB     | ≥ 55                        |
| PDL  | dB     | ≤0.05                       |
| WDL  | dB     | ≤0.25                       |
| Repeatability  | dB     | ≤±0.02                      |
| Operating Voltage  | V      | 3.0 or 5.0                  |
| Durability   | Cycles | ≥ 10 Million                |
| Switching Time   | ms     | ≤8                          |
| Optical Power  | mW     | ≤500                        |
| Operating Temperature  | °C     | -5 ~ +70                    |
| Storage Temperature  | °C     | -40 ~ +85                   |
| Relative Humidity  | %      | 5 ~ 95                      |
| Weight   | g      | 16                          |
| Dimension  | mm     | (L)28.5×(W)12.6×(H)8.7 ±0.2 |
| Note: 1 Within operating temperature and SOP<br>.<br>2 Excluding Connectors. |        |                             |

**2×2 Fiber Optic Switch, 2×2 Optical Switch- MM Specifications**

| Parameters          | Unit   | FSW-2×2-M         |                   |
|---------------------|--------|-------------------|-------------------|
| Wavelength Range    | nm     |                   | 1470 ~ 1650       |
| Test Wavelength     | nm     | 850 / 1300        | 1550              |
| Insertion Loss 1, 2 | dB     | Typ: 0.8 Max: 1.2 | Typ: 0.8 Max: 1.0 |
| Return Loss 1, 2    | dB     | ≥ 30              |                   |
| Crosstalk 1         | dB     | ≥ 35              |                   |
| PDL                 | dB     | ≤0.05             |                   |
| WDL                 | dB     | ≤0.25             |                   |
| Repeatability       | dB     | ≤±0.02            |                   |
| Operating Voltage   | V      | 3.0 or 5.0        |                   |
| Durability          | Cycles | ≥ 10 Million      |                   |
| Switching Time      | ms     | ≤8                |                   |
| Optical Power       | mW     | ≤500              |                   |

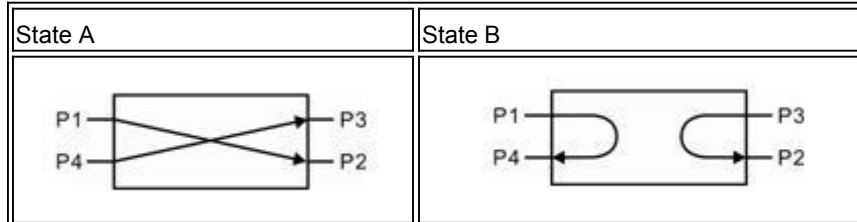
NO. 1 Service NO.1 Quality

|   |    |                             |
|---|----|-----------------------------|
| Operating Temperature   | °C | -5 ~ +70                    |
| Storage Temperature   | °C | -40 ~ +85                   |
| Relative Humidity   | %  | 5 ~ 95                      |
| Weight  | g  | 14                          |
| Dimension   | mm | (L)27.0×(W)12.6×(H)8.2 ±0.2 |
| Note:1.Within operating temperature and SOP.<br>2.Excluding Connectors. |    |                             |

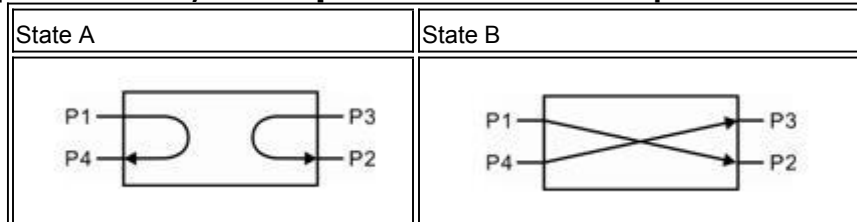
### 2x2 Fiber Optic Switch, 2x2 Optical Switch- Pin Configurations

| Type         | State | Optical Route | Electric Drive |       |       |        | Status Sensor |         |         |         |
|--------------|-------|---------------|----------------|-------|-------|--------|---------------|---------|---------|---------|
|              |       |               | Pin 1          | Pin 5 | Pin 6 | Pin 10 | Pin 2-3       | Pin 3-4 | Pin 7-8 | Pin 8-9 |
| 2x2          |       |               | Pin 1          | Pin 5 | Pin 6 | Pin 10 | Pin 2-3       | Pin 3-4 | Pin 7-8 | Pin 8-9 |
| Latching     | A     | P1-P2, P3-P4  | --             | --    | GND   | V+     | Close         | Open    | Open    | Close   |
|              | B     | P1-P4, P3-P2  | V+             | GND   | --    | --     | Open          | Close   | Close   | Open    |
| Non-latching | A     | P1-P2, P3-P4  | --             | --    | --    | --     | Close         | Open    | Open    | Close   |
|              | B     | P1-P4, P3-P2  | V+             | --    | --    | GND    | Open          | Close   | Close   | Open    |

### 2x2 Fiber Optic Switch, 2x2 Optical Switch - SM Optical Route

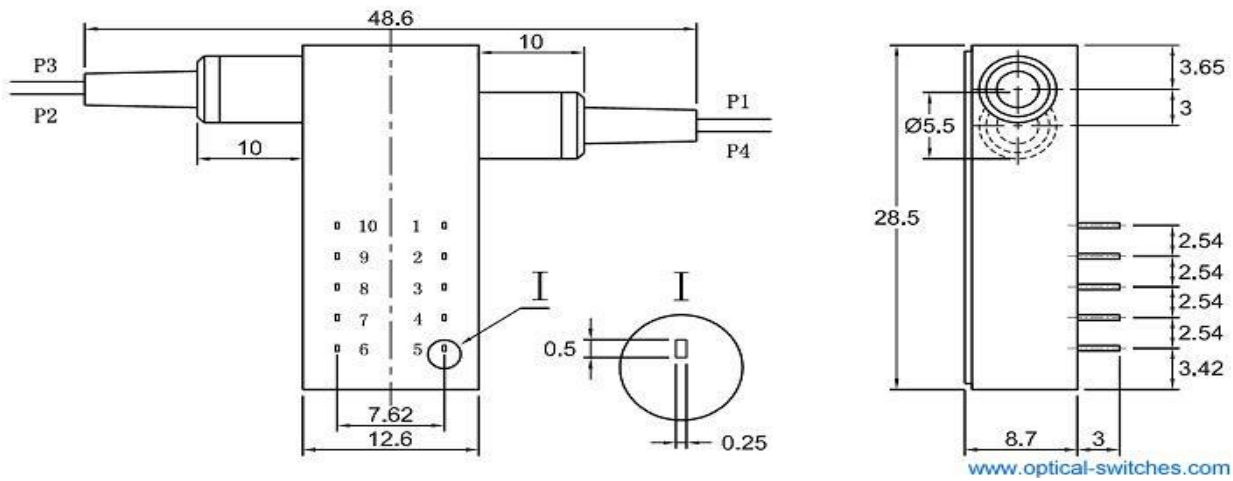


### 2x2 Fiber Optic Switch, 2x2 Optical Switch- MM Optical Route

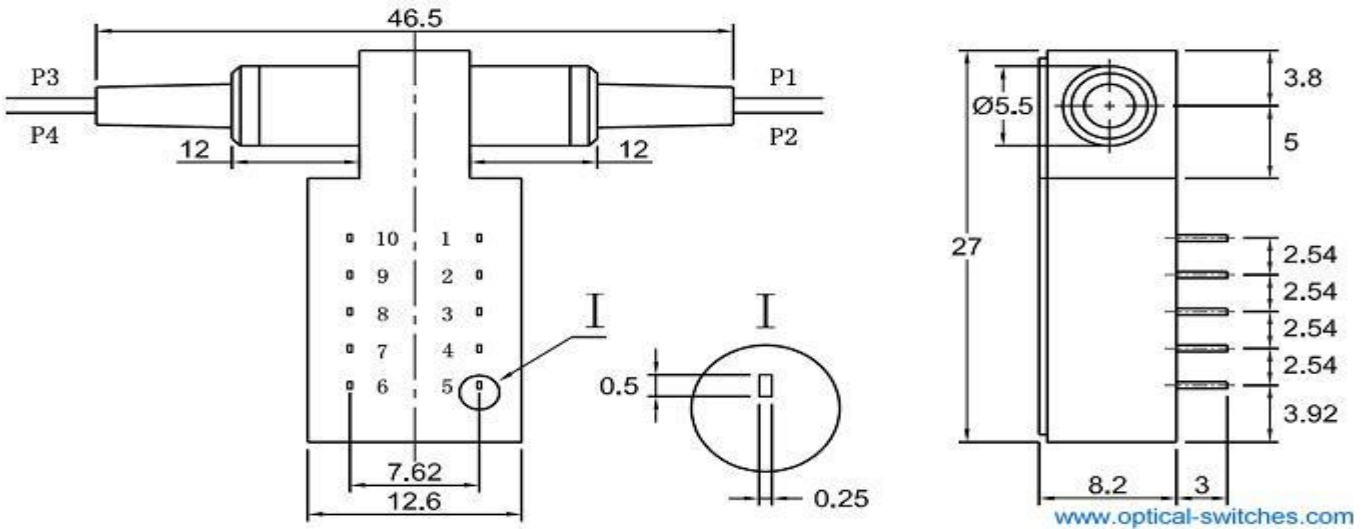


### 2x2 Fiber Optic Switch, 2x2 Optical Switch- SM Dimension

NO. 1 Service NO.1 Quality



**2x2 Fiber Optic Switch, 2x2 Optical Switch- MM Dimension**



**2x2 Fiber Optic Switch, 2x2 Optical Switch- Electrical Specification**

| Specifications  | Voltage   | Current  | Resistance |
|-----------------|-----------|----------|------------|
| 5V latching     | 4.5~5.5 V | 36~44 mA | 125 Ω      |
| 5V non-latching | 4.5~5.5 V | 26~32 mA | 175 Ω      |
| 3V latching     | 2.7~3.3 V | 54~66 mA | 50 Ω       |
| 3V non-latching | 2.7~3.3 V | 39~47 mA | 70 Ω       |

NO. 1 Service NO.1 Quality

**2x2 Fiber Optic Switch, 2x2 Optical Switch- Ordering Information:  
Acfiber-FSW-2x2-A-B-C-D-E-F-G**

| A  | B                 | C                            | D  | E                                 | F   | G  |
|--|-------------------|------------------------------|--|-----------------------------------|---|--|
| Fiber Type   | Operating Voltage | Switch Type                  | Test Wavelength  | Tube Type                         | Fiber Length<br>(Include connector)                       | Connector  |
| SM: SM, 9/125<br>M5:MM, 50/125<br>M6:MM, 62.5/125<br>X: Others | 3: 3V<br>5: 5V    | L:Latching<br>N:Non-latching | 850:850nm<br>1310: 1310nm<br>1550: 1550nm<br>1310/1550:1310/1550nm<br>X:Others | 25:250um<br>90:900um<br>X: Others | 05: 0.5m±5cm<br>10: 1.0m±5cm<br>15: 1.5m±5cm<br>X: Others | OO:None<br>FP: FC/PC<br>FA: FC/APC<br>SP: SC/PC<br>SA: SC/APC<br>STP: ST/PC<br>STA: ST/APC<br>LP: LC/PC<br>LA: LC/APC<br>X: Others |