AC Photonics

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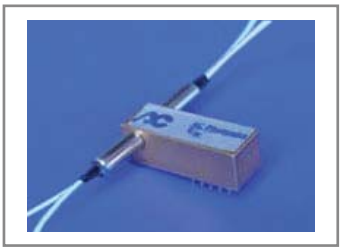
# 2x2 Mechanical Multi-mode Fiberoptic Switch



**ACP's** MMS Series switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using a patent pending opto-mechanical proprietary configuration and activated via an electrical control signal. The Switch offers ultra-high reliability and fast switching speed as well as bi-directional performance. The MMS fiberoptic switches are true switching solution for optical networking applications.

## Key Features

- Unmatched Low Cost
- Low Insertion Loss
- High Channel Isolation
- High Stability and Reliability
- Epoxy Free Optical Path
- Latching or Non-Latching

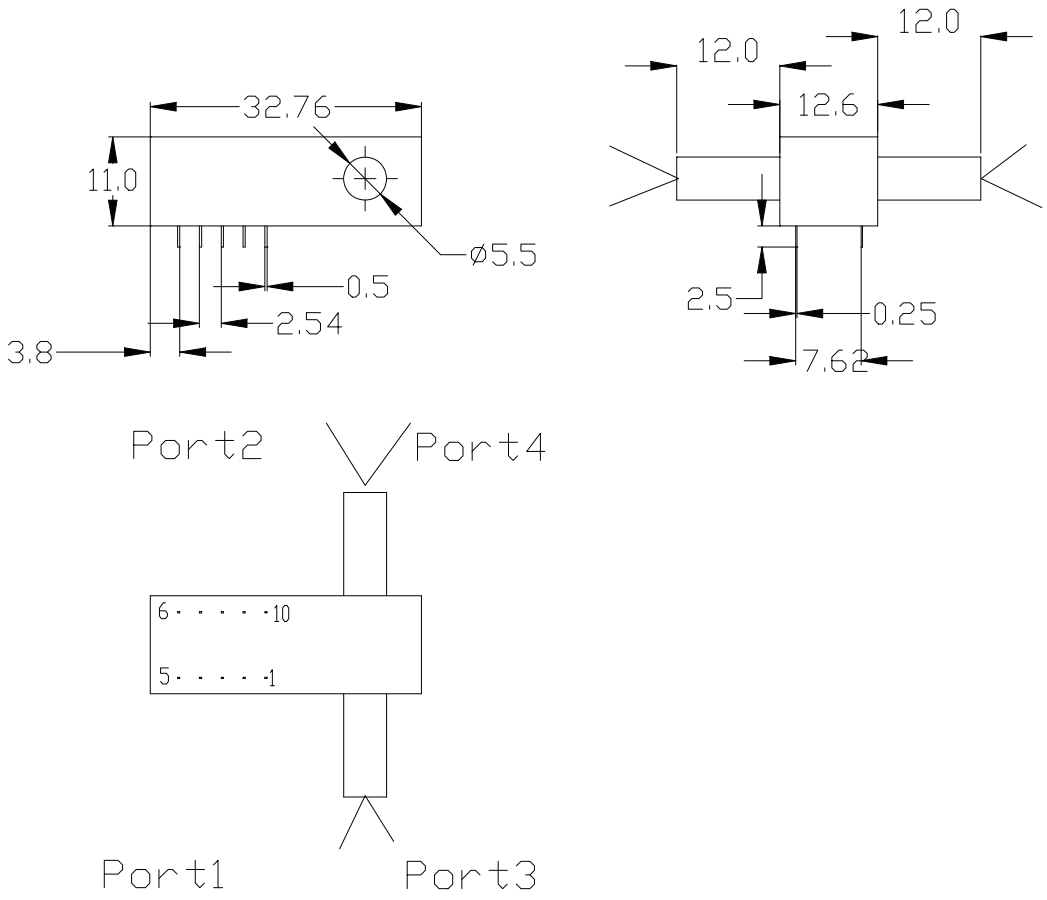
## Applications

- Optical Netrwork Protection/Restoration
- Optical Signal Routing
- Configurable Optical Add/Drop
- Transmitter and Receiver Protection
- Network Test Systems
- Instrumentation

## Performance Specifications

| Parameter | Specifications | | | |
|---|---|---|---|---|
| Channel Wavelength | 850nm, 1310nm, or 1550 ± 40nm | | 850nm / 1310nm, 850nm / 1550nm 1310nm / 1550nm | |
| Insertion Loss | **P Grade** | **A Grade** | **P Grade** | **A Grade** |
| | ≤ 1.0dB | ≤ 1.2dB | ≤ 1.2dB | ≤ 1.4dB |
| Wavelength Dependent Loss | ≤ 0.25dB | | ≤ 0.30dB | |
| Polarization Dependent Loss | ≤ 0.05dB | | | |
| Channel Cross Talk | ≥ 35dB | | | |
| Return Loss | ≥ 35dB | | | |
| Switching Speed | ≤ 10ms (4ms Typ.) | | | |
| Operating Voltage | 5V | | | |
| Durability (Cycles) | 10 Million (Min.) | | | |
| Optical Power | 500mW | | | |
| Operating Temperature | 0 to +70°C | | | |
| Storage Temperature | -40 to +85°C | | | |
| Package Dimensions | L32.76mm x W12.6mm x H11.0mm (Or custom size) | | | |

## Mechanical Dimensions




## Electrical Pin Configuration

| Optical Path | | Port1 - Port3 and Port2 - Port4 | | Port1 - Port4 and Port2 - Port3 | |
|---|---|---|---|---|---|
| **Electric Drive** | Non-Latching | Pin1 | Pin10 | | |
| | Latching | Pin1 | Pin5 | Pin6 | Pin10 |
| | | V+ | GND | GND | V+ |
| **Sensor Status** | Non-Latching and Latching | Pin2-3, Pin8-9 Open | | Pin2-3, Pin8-9 Close | |
| | | Pin3-4, Pin7-8 Close | | Pin3-4, Pin7-8 Open | |

| Parameter | Typical | Minmum | Maxmum |
|---|---|---|---|
| **Switch Voltage** | 5V | 4.5V | 5.5V |
| **Switch Current** | > 40mA | | |
| **Pulse Duration** | > 25ms | | |

## Ordering Information

| MMS □ | □□ | □□□□ | □ | □ | □ | □□ |
|---|---|---|---|---|---|---|
| **Option** | **Operating Wavelength** | **Port** | **Grade** | **Fiber Type** | **Pigtail Style** | **In/Out Connector** |
| L = Latching<br>N = Non-Latching | 13 = 1310±40nm<br>15 = 1550±40nm<br>85 = 850±40nm<br>35 = 1310/1550nm<br>38 = 1310/850nm<br>58 = 1550/850nm | 0202 = 2x2 | P = P Grade<br>A = A Grade | 1 = 50/125 Multi-mode<br>2 = 62.5/125 Multi-mode | 1 = Bare Fiber<br>2 = 900um Jacket | 0 = None<br>1 = FC/APC<br>2 = FC/PC<br>3 = SC/APC<br>4 = SC/PC<br>5 = ST<br>6 = LC/UPC |