



Mini 1X2 Mechanical Switch

Features

- Low insertion Loss
- Wide Wavelength Range
- High Channel Isolation
- High Stability, High Reliability
- Epoxy-free on Optical Path
- Latching or Non-latching

Applications

- OADM
- Protection/Restoration
- Optical Singnal Routing
- Configurable Optical Add/Drop
- Transmitter and receiver protection
- Network Test System

The **Mini 1X2 Switch** developed by **Optiworks** is an Electromechanical optic switch and based on unique optics design and packaging for fast and reliable fiber optic switching. The switching between these two states is achieved by applying 5V DC to the switch module. The switch is bi-directional so that the optical input and output can be reversed.

Performance Specifications

| Parameters | OW-Mini1x2-SW | | |
|-----------------------|------------------------------|-------------------------------------|------|
| Wavelength Range | 850 | 1270~1625 | nm |
| Operatino Wavelength | 850 | 1310/1490/1550 | nm |
| Insertion Loss | Tvp:0.8 Max:1.0 | Tvp:0.6 Max:0.8(1.0 for dual bands) | dB |
| Switch Time | ≤7.5 | | ms |
| Crosstalk | MM≥35 SM≥55 | | dB |
| Return Loss | MM≥30 SM≥50 | | dB |
| PDL | SM≤0.1 | | dB |
| WDL | ≤0.35 | | dB |
| Repeatabilitv | ±0.05 | | dB |
| Power supply | 5.0 or 3.3 | | v |
| Life time | ≥10 ⁷ | | Time |
| Transmission Power | ≤500 | | mW |
| Operatino Temperature | -20~+70 | | °C |
| Storage Temperature | -40~+85 | | °C |
| Dimension | (L)27.0×(W)12.0×(H)8.0(±0.2) | | mm |



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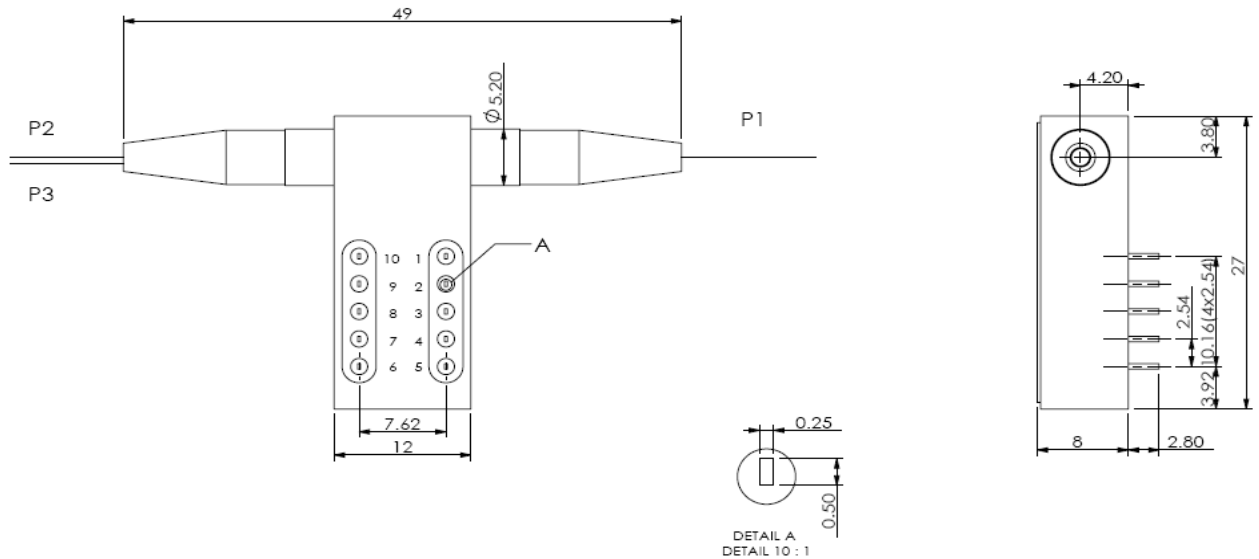
Electrical Pin Configuration

| Type | Pin | Electric Drive | | | | Status sensor | | | |
|--------------|---------|----------------|-----|-----|-----|---------------|-------|-------|-------|
| 1×2 | channel | 1 | 5 | 6 | 10 | 2-3 | 3-4 | 7-8 | 8-9 |
| Latching | P1-P2 | -- | -- | GND | V+ | Close | Open | Open | Close |
| | P1-P3 | V+ | GND | -- | -- | Open | Close | Close | Open |
| Non-latching | P1-P2 | -- | -- | -- | -- | Close | Open | Open | Close |
| | P1-P3 | V+ | -- | -- | GND | Open | Close | Close | Open |

Optical Route



Dimension



Electrical Parameters

| Specifications | Voltage | Current | Resistance |
|-----------------|---------|---------|------------|
| 5V latching | 4.5~5.5 | 44~54mA | 101Ω |
| 5V non-latching | 4.5~5.5 | 31~38mA | 145Ω |
| 3V latching | 2.7~3.3 | 60~78mA | 45Ω |
| 3V non-latching | 2.7~3.3 | 42~55mA | 64Ω |



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Ordering Information

| Category | Mode | Wavelength | Voltage Type | Control Model | Fiber Type | Fiber Diameter | Fiber Length | Connector |
|-----------|------|--|--------------|----------------|---|---|---|--|
| SW=Switch | S=SM | 85=850nm | 5=5V | L=Latching | SM=SMF-28e | 25=250um | 10=1m | 0=None |
| | M=MM | 13=1310nm 14=1490nm 15=1550nm 61=1610nm 13/15=1310/ 1550nm XX=Others | 3=3V | N=Non-Latching | M5=MM50/125 M6=MM62.5/125 XX=Others | 90=900um 20=2.0mm 30=3.0mm XX=Others | 13=1.3m 15=1.5m 20=2m mn=m.n Meter | 1=FC/PC 2=FC/APC 3=SC/PC 4=SC/APC 5=ST/PC 6=ST/APC 7=LC/PC 8=LC/APC 9=MU/PC A=MU/APC XX=Others |

