

## APPLICATIONS

- FDDIbypass
- Local area network bypass
- Optical routing
- Loopback diagnostic testing
- Ring network protection
- Test access


## FEATURES

- Small size $1.25^{\prime \prime} \mathrm{L} \times 0.54^{\prime \prime}$ W X 0.50 " H
- Switching time <10.0 ms
- Low power consumption
- Fail-safe return to bypass mode with power-off
- Printed circuit board mountable
- Switch status, electrical contacts
- Low insertion loss
- High reliability
- High loss option for bypass \& loopback testing
- Non-latching
- MEMS based design


## Multimode <br> Fiber Optic Switch

## FO4635

The Micro ElectroMechanical System (MEMS) based multimode switch uses a movable mirror process to allow light to pass through the switch on activation or to beblocked/diverted when the switch is deactivated. This makes the switch particularly well suited for fail-safe bypass applications.

Switches are available in on/off, $1 \times 2$, and $2 \times 2$ configurations. There is also a high attenuation version of the $2 x 2$ switch used for node bypass (i.e. FDDI) applications.

A standard PCB footprint allows the switch to be conveniently mounted with control electronics.

The standard switch is equipped with 62.5/ $125 \mu \mathrm{~m}$ multimode fiber pigtails with no connectors, but a variety of fiber and connector options are available.

## We speak the language of light. ${ }^{\text {TM }}$

For more information about our fiber optic products, contact Litton Poly-Scientific, Fiber Optic Products, 1213 North Main Street, Blacksburg, Virginia24060-3100.

## SPECIFICATIONS

|  | Min | Typ | Max | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Environmental Ratings |  |  |  |  |
| Operating Temperature Range | -30 | - | 85 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | -40 | - | 85 | ${ }^{\circ} \mathrm{C}$ |
| Humidity (non-condensing) | -- | - | 95 | \%RH |
| Mechanical Life | 1.0 | - | - | $\mathrm{M}_{\text {cycle }}$ |
| Characteristics |  |  |  |  |
| Actuation Voltage | 4.75 | 5.0 | 5.5 | V |
| Actuation Current | - | 40 | - | mA |
| Switching Time | - | - | 10.0 | ms |
| Loss* 1-3 port | - | 0.7 | 0.8 | dB |
| Loss* 2-4 port | - | 0.7 | 0.8 | dB |
| Loss* 3-4 port | - | 0.8 | 1.0 | dB |
| Loss* 1-2 port | - | 0.8 | 1.0 | dB |
| Loss* 1-2 port (high atten. bypass) | 4.5 | 5.5 | 6.0 | dB |
| Crosstalk | 60 | - | - | dB |
| Status Contacts @ 24VDC | - | - | 1.0 | A |

Loss without connectors.

## PART NUMBERING



| BASICPARTNUMBER |  |
| :---: | :---: |
| INPUT PORTS |  |
| CODE | QUANTITY |
| 01 | 1 |
| 02 | 2 |


| OUTPUT |  |
| :---: | :--- |
| CODE | QUANTITY |
| 01 | 1 |
| 02 | 2 |
| B2 | $2 \mathrm{HA}^{*}$ |

* High Attenuation Bypass

| MULTIMODE | FIBER |  |  |
| :---: | :---: | :---: | :---: |
| CODE | SIZE | INDEX | NA |
| M | $62.5 / 125 \mu \mathrm{~m}$ | GRADED | .28 |
| X | SPECIAL | Identify Before | Sale |


| WAVELENGTH |  |
| :---: | :--- |
| CODE | $\boldsymbol{\lambda}$ |
| 8 | 850 nm |
| 3 | 1300 nm |
| $X$ | SPECIAL |


| CONNECTOR |  |
| :--- | :--- |
| CODE | STYLE |
| NC | NONE |
| FC | FC/PC |
| SC | SC/PC |
| SM | SMA |
| ST | ST |
| XX | SPECIAL |


| PIGTAIL |  |
| :---: | :--- |
| LENGTH |  |
| CODE | LENGTH |
| S | 1.5 meters |
| X | SPECIAL |

DIMENSIONS


| TYPICAL SWITCH CONFIGURATION (2x2) |  |  |
| :---: | :---: | :---: |
|  | OPTICAL PATH | STATUS CONTACTS |
| Switch on | $1-3,2-4$ | Closed |
| Switch off | $1-2,3-4$ | Open |


| SWITCH PIN CONFIGURATION |  |
| :---: | :---: |
| PIN NUMBER | DESCRIPTION |
| 1 | +5 VDC |
| 2 | Common |
| 3 | N.O. Status Contact |
| 4 | N.O. Status Contact |
| 5 | Not Used |

