

# 4 x 4 Industrial Bypass Optical Switch

| OSW Mode    | Optical Path |          |          |  |  |  |  |
|-------------|--------------|----------|----------|--|--|--|--|
| Normal Mode | TX1→A0       | TX1 — A0 | )        |  |  |  |  |
|             | RX1→A1       | RX1 — A1 |          |  |  |  |  |
|             | TX2→B0       | TX2 B0   |          |  |  |  |  |
|             | RX2→B1       | RX2 B1   |          |  |  |  |  |
| Bypass Mode | TX1→RX2      |          | A0<br>A1 |  |  |  |  |
|             | TX2→RX1      |          | B0<br>B1 |  |  |  |  |



## **Description:**

The 4x4 Industrial Bypass Optical Switch utilizes fiber-to-fiber technology over an angled surface to achieve ultra-low losses and crosstalk. It is suitable for all bi-directional protection switching applications where premise-side connectivity is not required in the bypass state. Compact and competitive cost, this optical switch provides excellent performance on your network. Fibernet 4x4 Industrial Bypass Optical Switch fully complies with RoHS Directive 2002/95/EC (2008/385/EC).

#### Features:

- > Fast switchover time
- > Compact Size
- > Low Loss and Return-Loss
- > Available in Single Mode / Multi Mode
- > Non-Latching Type

#### Benefits:

> Network resiliency during power down at specific node

## Applications:

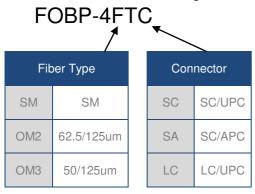
- > Node Bypass Protection
- > Network Maintenance
- > Industrial Ethernet Ring Switch
- > SDH ADM Ring

## Specifications:

| Daramatar                          | 9µm Core Single Mode |      |          | 50µm or 62.5µm Core Multi Mode |      |        |  |
|------------------------------------|----------------------|------|----------|--------------------------------|------|--------|--|
| Parameter                          | Min.                 | Тур. | Мах.     | Min.                           | Тур. | Max.   |  |
| Wavelength range (nm)              | 1260-1630            |      | 850/1300 |                                |      |        |  |
| Straight Insertion loss (dB)       |                      | 0.5  | 1.0      |                                | 0.4  | 0.8    |  |
| Bypass Insertion loss (dB)         |                      | 0.8  | 1.6      |                                | 0.6  | 1.3    |  |
| Return Loss (dB)                   |                      | -50  |          |                                |      |        |  |
| Crosstalk (dB)                     |                      | -80  |          |                                | -80  |        |  |
| WDL (dB)                           |                      | 0.3  |          |                                |      |        |  |
| PDL (dB)                           |                      | 0.1  |          |                                |      |        |  |
| Switching time (ms)                |                      | 5    |          |                                | 5    |        |  |
| Repeatability (dB)                 |                      |      | +/-0.1   |                                |      | +/-0.1 |  |
| Optical Input Power (mW)           |                      |      | 500      |                                |      | 500    |  |
| Power Supply (VDC)                 | 4.5                  | 5    | 5.5      | 4.5                            | 5    | 5.5    |  |
| Power Consumption (mW)             | 130                  |      | 155      | 130                            |      | 155    |  |
| Switching Life Expectancy (cycles) | 3 x 10 <sup>7</sup>  |      |          | 3 x 10 <sup>7</sup>            |      |        |  |
| Operating Temperature (°C)         | -5                   |      | 70       | -5                             |      | 70     |  |
| Operating Humidity (%RH)           | 5                    |      | 85       | 5                              |      | 85     |  |
| Dimensions HxWxL (mm)              | 22x108x126           |      |          |                                |      |        |  |
| Weight (g)                         | 635                  |      |          |                                |      |        |  |

## Ordering Information:

The product is available with a range of standard options, to specify your need, simply choose one option from the column on the right of each character.



<u>Example:</u> **FOBP-4SMSC** represents 4 x 4, SingleMode Optical Bypass switch with SC/UPC connectors.