



## 4x4 INDUSTRIAL BYPASS OPTICAL SWITCH -ADVANCE

### Product 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 an external Optical Bypass Box for 10 /1Gbps fiber Gigabit Ethernet networks. The 4x4 Optical Bypass Box protects from network failures and is easy to implement network maintenance by ensuring network integrity. It is suitable for all bi-directional protection switching applications where premise-side connectivity is not required in the bypass state. The optical bypass box provides excellent performance on your network and posses the advantages of compact and competitive cost. Lightwave Link 4x4 Industrial Bypass Optical Switch fully complies with RoHS Directive 2011/65/EU.



### Features

- Compact Format
- Low Return-Loss
- Available in Single Mode / Multi Mode
- Non-Latching Type
- LED indicators for Power and OSW status
- Power on Time Delay
- DIN Type Mounted

### Applications

- Node Bypass Protection
- Network Maintenance
- Industrial Ethernet Ring Switch
- Intrusion Prevention System
- SDH ADM Ring
- WAN Optimization
- High Performance Server

### Performance Specification

| Parameter                            | 9μm Core Single Mode |      |      | 50μm or 62.5μm Core Multi Mode |      |      | Unit   |
|--------------------------------------|----------------------|------|------|--------------------------------|------|------|--------|
|                                      | Min.                 | Typ. | Max. | Min.                           | Typ. | Max. |        |
| Wavelength Range <sup>1</sup>        | 1260~1630            |      |      | 850/1300                       |      |      | nm     |
| Straight Insertion Loss <sup>2</sup> |                      | 0.5  | 1.0  |                                | 0.4  | 0.8  | dB     |
| Bypass Insertion Loss <sup>2</sup>   |                      | 0.8  | 1.6  |                                | 0.6  | 1.3  |        |
| Return Loss                          |                      | -50  |      |                                |      |      | dB     |
| PDL                                  |                      |      | 0.1  |                                |      |      | dB     |
| WDL                                  |                      |      | 0.3  |                                |      |      | dB     |
| Crosstalk                            |                      | -80  |      |                                | -80  |      | dB     |
| Repeatability                        |                      |      | ±0.1 |                                |      | ±0.1 | dB     |
| Switching Time <sup>3</sup>          |                      |      | 5    |                                |      | 5    | ms     |
| Absolute Optical Input Power         |                      |      | 500  |                                |      | 500  | mW     |
| Operating Current                    | 150±10%              |      |      |                                |      |      | mA     |
| Operating Voltage                    | 12~48                |      |      |                                |      |      | VDC    |
| Power Consumption                    | 750±10%              |      |      |                                |      |      | mW     |
| EMI Certification                    | FCC Class B          |      |      |                                |      |      |        |
| Switching Life Expectancy            | 3x10 <sup>7</sup>    |      |      | 3x10 <sup>7</sup>              |      |      | Cycles |
| Operation Temperature-Normal         | -5                   |      | 70   | -5                             |      | 70   | °C     |
| Operation Temperature-Special        | -20                  |      | 70   | -20                            |      | 70   | °C     |
| Storage Temperature                  | -40                  |      | 85   | -40                            |      | 85   | °C     |
| Operation Humidity                   | 5                    |      | 95   | 5                              |      | 95   | %RH    |
| Storage Humidity                     | 5                    |      | 95   | 5                              |      | 95   | %RH    |
| Dimension (H*W*L)                    | 26 x 95 x 140        |      |      |                                |      |      | mm     |
| Weight <sup>4</sup>                  | 510                  |      |      |                                |      |      | g      |

1. Special wavelength would be upon request.

2. Optical parameters excluded connectors.

3. A minimum ≥20ms pulse is recommended for latching type of switch.

4. The product weight excluded optical connectors.