**Polarization Maintaining Isolator (PMISO)**

**Description**

The Polarization Maintaining Isolator is a micro-optic device built with an input and an output PM fiber. It is characterized with low insertion loss, high extinction ratio, high isolation, high return loss and excellent environmental stability and reliability. It is widely used in EDFA, Raman amplifier, fiber lasers, optical fiber sensors and instrumentation.

**Key Features**

- Low insertion loss
- High extinction ratio
- High isolation
- Excellent stability and reliability

**Applications**

- Fiber amplifier
- Fiber lasers
- Fiber Sensors
- Instrumentation

**Mechanical Dimension**

![Mechanical Dimension Diagram]

**Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Unit</th>
<th>Single stage</th>
<th>Dual stage</th>
<th>Single stage</th>
<th>Dual stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center wavelength</td>
<td>nm</td>
<td></td>
<td>1064</td>
<td></td>
<td>1310,1440,1550</td>
<td></td>
</tr>
<tr>
<td>Operating bandwidth</td>
<td>nm</td>
<td>±5</td>
<td>±15</td>
<td></td>
<td>±0.6</td>
<td>±0.7</td>
</tr>
<tr>
<td>Insertion loss @23°C</td>
<td>dB</td>
<td></td>
<td>≤2.0</td>
<td>≤3.0</td>
<td>≤0.6</td>
<td>≤0.7</td>
</tr>
<tr>
<td>Extinction ratio</td>
<td>dB</td>
<td></td>
<td>≥20(Type B)</td>
<td>≥23(Type F)</td>
<td>≥20(Type B)</td>
<td>≥25(Type F)</td>
</tr>
<tr>
<td>Isolation @23°C</td>
<td>dB</td>
<td></td>
<td>≥30</td>
<td>≥45</td>
<td>≥30</td>
<td>≥46</td>
</tr>
<tr>
<td>Return loss (Input/Output)</td>
<td>dB</td>
<td></td>
<td>≥55/50</td>
<td></td>
<td>≥55/50</td>
<td></td>
</tr>
<tr>
<td>Handling power</td>
<td>mW</td>
<td></td>
<td>≤300</td>
<td></td>
<td>≤500</td>
<td></td>
</tr>
<tr>
<td>Fiber type</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°C</td>
<td>-5~+50</td>
<td></td>
<td></td>
<td>-5~+70</td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>°C</td>
<td>-40~+85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>mm</td>
<td></td>
<td>Φ5.5× L35</td>
<td>Φ5.5× L35</td>
<td>Φ3.0× L25</td>
<td></td>
</tr>
</tbody>
</table>

Product information is subject to change without notice.  
www.lightcomm.com
* Type B: Both axis working, Type F: for Fast axis blocked.

** IL is 0.3dB (1310~1550nm) or 0.5dB (1064nm) higher, RL is 5dB lower and ER is 2dB lower for each connector added. The default connector key is aligned to slow axis.

### Ordering Information

```
PMISO-X-X-XXXX-X-X-XX/XXX-XX*XX
```

- Package Size: 5.5x35 etc.
- Input/Output Connector: FC/UPC, FC/APC etc.
- Fiber Type: 4 = others (PM fiber model number)
- Pigtail Type: 0 = 250µm, 1 = 900µm, 4 = others
- Operating Wavelength: 1310, 1550nm etc.
- Working axis type: B = Both axis working, F = Fast axis blocked
- Stage: S = Single stage, D = Dual stage