Unlike conventional ferrules, the Diamond lensed ferrule operates on the Expanded Beam principle. Setting new standards in terms of optical performance by using single-mode fibers, lensed ferrules are used for applications that were not suitable, until now, because of high optical requirements.

**XB lensed ferrule**

**FEATURES**
- High precision ferrule
- Single mode fiber 9um
- Low insertion Loss
- Similar RL to standard contact connectors
- High power reliability

**XB2 connectors**

**FEATURES**
- Push-Pull
- 2 channel
- Contactless connection
- 900um Fiber or 2mm Cable
- Easy Cleaning
- Mating durability: 500 cycling
- Max 3W at 1550nm
- Field repair

**STANDARDS**
- Performance standard IEC 61753-1
- RoHs compliant
- Reach
### OPTICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>MEASUREMENT / TEST</th>
<th>METHOD</th>
<th>VALUES SINGLE MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion loss, random mated</td>
<td>IEC 61300-3-34</td>
<td>IL type 0.6 dB max 1 dB</td>
</tr>
<tr>
<td>Return loss</td>
<td>IEC 61300-3-6</td>
<td>RL min. 35 dB</td>
</tr>
</tbody>
</table>

### MECHANICAL AND ENVIRONMENTAL CONDITIONS

<table>
<thead>
<tr>
<th>MEASUREMENT / TEST</th>
<th>METHOD</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change of temperature (Reliability)</td>
<td>IEC 61300-2-22</td>
<td>-25°C / +70°C / 1 h</td>
</tr>
<tr>
<td>Cold</td>
<td>IEC 61300-2-17</td>
<td>-25°C / 96 h</td>
</tr>
<tr>
<td>Dry heat (Reliability)</td>
<td>IEC 61300-2-19</td>
<td>+40°C / 96 h</td>
</tr>
<tr>
<td>Damp heat, cyclic</td>
<td>IEC 61300-2-46</td>
<td>+25°C / +55°C / 95% r.h. / 144 h</td>
</tr>
<tr>
<td>Fibre retention</td>
<td>IEC 61300-2-6</td>
<td>40 N / 2 min</td>
</tr>
<tr>
<td>Vibration, sinusoidal</td>
<td>IEC 61300-2-1</td>
<td>10 Hz - 55 Hz / 30 min</td>
</tr>
<tr>
<td>Mating durability</td>
<td>IEC 61300-2-2</td>
<td>500 cycles</td>
</tr>
</tbody>
</table>

### DRAWINGS AND DIMENSIONS

#### XB2 MALE AND FEMALE CONNECTORS

**XB2 male connector**
- Ferrule material: Zirconia/Lense
- External parts: Plastic

![XB2 male connector diagram](image)

**XB2 female connector**
- Ferrule material: Zirconia/Lense
- External parts: Plastic

![XB2 female connector diagram](image)

**XB2 adapter**

![XB2 adapter diagram](image)