M SERIES
USB CONNECTORS
RATCHET COUPLING

Rugged waterproof USB connector (IP68)

A USB connector is added to LEMO’s M series range. M series USB type A connector offers a reliable solution for harsh environment. The interface meets IP 68 when mated.

The complete product line includes panel mount sockets, plugs, protective cap and also MIL spec adaptor backshell.

Benefits
- Lightweight
- Dark finish
- Rugged

Features
- IP 68
- Aluminium outershell with nickel anthracite finish
- Optional threaded backend for MIL DTL-38999L backshell
- USB 2.0

The connector is designed for outdoor use, for factory automation, oil/petroleum industries, heavy duty, railways, automotive, military, any market that requires rugged and reliable connection.
Interconnections

USB models

![USB models diagram]

Alignment Key and Polarized Keying System

<table>
<thead>
<tr>
<th>Front view of a socket</th>
<th>Model</th>
<th>Nb of keys</th>
<th>Angles</th>
<th>Colour code</th>
<th>Contact type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>●●W</td>
<td>5</td>
<td>α  95°</td>
<td>blue</td>
<td>Plug</td>
</tr>
<tr>
<td></td>
<td>●●R</td>
<td></td>
<td>β  115°</td>
<td></td>
<td>Socket</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>γ  35°</td>
<td>yellow</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>δ  25°</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Models

**FM•.LM.U2A.XPAT**  
Straight plug, key (W) or key (R) with knurled grip and mold stop

![Models diagram]
**FG•LM.U2A.XPAT**  Straight plug, key (W) or key (R) with arctic grip and mold stop

**EG•LM.U2A.XPP**  Fixed socket, female to female, nut fixing, key (W) or key (R)

**EG•LM.U2A.XPL**  Fixed socket, nut fixing, key (W) or key (R)
Insert configuration

<table>
<thead>
<tr>
<th>Reference</th>
<th>Number of contacts</th>
<th>Solder contact</th>
<th>AWG</th>
<th>Test voltage (kV rms)</th>
<th>Test voltage (kV rms)</th>
<th>Rated current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U2A</td>
<td>4</td>
<td>–</td>
<td>–</td>
<td>1.20</td>
<td>0.95</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Note: 1) Test voltage according to IEC 60512-2 test 4a.

Cut-outs

Mounting nut torque (on panel)

<table>
<thead>
<tr>
<th>Torque (Nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.5</td>
</tr>
</tbody>
</table>