TECHNICAL DATA SHEET

PMA Smart Line - ALWD-P - Fitting
90° elbow, one-piece, IP66, metric thread

One-piece, IP66 polyamide fitting for flexible non-metallic conduit

Applications:
- In machine building, installation and construction industries

Features & Benefits:
- Economical
- Easy "push-in" installation
- Re-opening with screwdriver (for security reasons hand opening not possible)
- Space saving due to compact design
- Fits both conduit profiles - fine (T) and coarse (G)

Ingress protection:
- IP66 (EN/IEC 60529)

Materials:
- High-grade, specially formulated polyamide 6

Compatible with:
- PMAFLEX Pro Conduits
- PMAFLEX Multilayer Conduits
- PMAFLEX Conduits
- PMA Smart Line Conduits

Weathering resistance:
- Very good UV resistance and weathering characteristics, particularly in black

Colour:
- Black
- Grey

Chemical properties:
- Please refer to www.pma.ch (Technical Information / Chemical Resistance)

Environmental properties:
- Free from halogens and cadmium
- RoHS and REACH compliant
<table>
<thead>
<tr>
<th>Part no.</th>
<th>Thread size</th>
<th>Conduit size</th>
<th>Dimensions in mm (nom.)</th>
<th>Weight</th>
<th>Packing unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALWD-P070*</td>
<td>SLWD-P070*</td>
<td>PG</td>
<td>g   d2    A   B</td>
<td>7.0</td>
<td>21.5</td>
</tr>
<tr>
<td>ALWD-P090</td>
<td>SLWD-P090</td>
<td>PG</td>
<td>g   d2    A   B</td>
<td>9.0</td>
<td>25.0</td>
</tr>
<tr>
<td>ALWD-P110*</td>
<td>SLWD-P110*</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>11.0</td>
<td>25.0</td>
</tr>
<tr>
<td>ALWD-P112</td>
<td>SLWD-P112</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>11.0</td>
<td>31.0</td>
</tr>
<tr>
<td>ALWD-P132</td>
<td>SLWD-P132</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>13.5</td>
<td>31.0</td>
</tr>
<tr>
<td>ALWD-P137</td>
<td>SLWD-P137</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>13.5</td>
<td>39.0</td>
</tr>
<tr>
<td>ALWD-P167</td>
<td>SLWD-P167</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>16.0</td>
<td>46.0</td>
</tr>
<tr>
<td>ALWD-P213</td>
<td>SLWD-P213</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>21.0</td>
<td>46.0</td>
</tr>
<tr>
<td>ALWD-P299</td>
<td>SLWD-P299</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>29.0</td>
<td>56.0</td>
</tr>
<tr>
<td>ALWD-P366</td>
<td>SLWD-P366</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>36.0</td>
<td>56.0</td>
</tr>
<tr>
<td>ALWD-P488</td>
<td>SLWD-P488</td>
<td>NW</td>
<td>g   d2    A   B</td>
<td>48.0</td>
<td>68.0</td>
</tr>
</tbody>
</table>

These products will be delivered with a thread adapter.
Our customer service dept. or local distribution partner will be pleased to help you concerning product availability and lead time.

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**Diagram:**

- **A:** Conduit size
- **B:** Dimensions in mm (nom.)
- **G:** Weight
- **D:** Packing unit

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**Thread Adapter:**

- **PG:** Black
- **NW:** Grey

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**Part Numbers:**

- ALWD-P070*
- SLWD-P070*
- ALWD-P090
- SLWD-P090
- ALWD-P092*
- SLWD-P092*
- ALWD-P110*
- SLWD-P110*
- ALWD-P112
- SLWD-P112
- ALWD-P130*
- SLWD-P130*
- ALWD-P132
- SLWD-P132
- ALWD-P137
- SLWD-P137
- ALWD-P167
- SLWD-P167
- ALWD-P213
- SLWD-P213
- ALWD-P299
- SLWD-P299
- ALWD-P366
- SLWD-P366
- ALWD-P488
- SLWD-P488
### Mechanical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test parameters</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile modulus</td>
<td>1'200 ... 3'700 N/mm²</td>
<td></td>
<td>ISO 527</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>45 ... 65 N/mm²</td>
<td></td>
<td>ISO 527</td>
</tr>
<tr>
<td>Notched bar impact test</td>
<td>4 ... 20 kJ/m²</td>
<td></td>
<td>ISO 180/1C</td>
</tr>
</tbody>
</table>

### Thermal Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test parameters</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous application temperature</td>
<td>−50 ... +105 °C</td>
<td></td>
<td>PMA DO 9.21-4510</td>
</tr>
<tr>
<td>Upper application temperature</td>
<td>+120°C</td>
<td>(20'000 h)</td>
<td>PMA DO 9.21-4360</td>
</tr>
<tr>
<td>Short-term</td>
<td>+160 °C</td>
<td>(168 h)</td>
<td>PMA DO 9.21-4360</td>
</tr>
</tbody>
</table>

### Fire Safety Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test parameters</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire performance</td>
<td>non flame-propagating</td>
<td></td>
<td>IEC EN 61386-1</td>
</tr>
<tr>
<td>Flame class</td>
<td>V2</td>
<td></td>
<td>UL 94</td>
</tr>
</tbody>
</table>

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### Content of delivery:
- Fitting

### Assembly instructions:
- When mounting, push-in conduit completely and then pull back slightly to ensure the locking mechanism is fully engaged
- To disassemble: reopen with screwdriver and twist for easy release
- Please consider the appropriate assembly instructions on www.pma.ch