TECHNICAL DATA SHEET

PMAFIX IP68 - BVNR-RE - Fitting
Straight, PG size, connection to solid metal tube

Applications:
• In railway vehicle construction and other applications where metric metal tubes are to be connected with the flexible PMA conduits

Features & Benefits:
• Very high impact resistance
• Quick connection of solid metal tubes with flexible PMA conduits
• Vibration-proof connection to PMA conduits
• Available with or without jubilee clip
• Easy installation
• High conduit pull-out strength
• Very good chemical properties
• Fits both conduit profiles - fine (T) and coarse (G)

Ingress protection:
• On conduit side:
  IP66, IP68 & IP69 (EN/IEC 60529)
  IP69, 100 bar with Water impact protection (WPS-ring)

• On tube side:
  IP68 with sealant (please see assembly instructions)

Materials:
• High-grade, specially formulated polyamide 6

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

Conforms to:
• EN 45545-2 HL3 (R22 & R23)
• NFPA 130
• UL 94 (V0)

Weathering resistance:
• Very good UV resistance and weathering characteristics

Colour:
• Black

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>Conduit size</th>
<th>Dimensions in mm (nom.)</th>
<th>Weight</th>
<th>Packing unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NW</td>
<td>d1</td>
<td>d2</td>
</tr>
<tr>
<td>BVNR-RE12</td>
<td>BVNR-RE12-24</td>
<td>PG11</td>
<td>12</td>
<td>54.0</td>
</tr>
<tr>
<td>BVNR-RE1317</td>
<td>BVNR-RE1317-28</td>
<td>PG13</td>
<td>17</td>
<td>65.0</td>
</tr>
<tr>
<td>BVNR-RE17</td>
<td>BVNR-RE17-28</td>
<td>PG16</td>
<td>17</td>
<td>65.0</td>
</tr>
<tr>
<td>BVNR-RE23</td>
<td>BVNR-RE23-32</td>
<td>PG21</td>
<td>23</td>
<td>71.0</td>
</tr>
<tr>
<td>BVNR-RE29</td>
<td>BVNR-RE29-44</td>
<td>PG29</td>
<td>29</td>
<td>70.5</td>
</tr>
<tr>
<td>BVNR-RE36</td>
<td>BVNR-RE36-50</td>
<td>PG36</td>
<td>36</td>
<td>84.5</td>
</tr>
<tr>
<td>BVNR-RE48</td>
<td>BVNR-RE48-65</td>
<td>PG48</td>
<td>48</td>
<td>90.0</td>
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<tr>
<td>BVNR-RE1917</td>
<td>-</td>
<td>3/4&quot;</td>
<td>17</td>
<td>65.0</td>
</tr>
<tr>
<td>BVNR-RE2523</td>
<td>-</td>
<td>1&quot;</td>
<td>23</td>
<td>71.0</td>
</tr>
<tr>
<td>BVNR-RE3129</td>
<td>-</td>
<td>1 1/4&quot;</td>
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<td>71.0</td>
</tr>
<tr>
<td>BVNR-RE3836</td>
<td>-</td>
<td>1 1/2&quot;</td>
<td>36</td>
<td>130.0</td>
</tr>
</tbody>
</table>

Our customer service dept. or local distribution partner will be pleased to help you concerning product availability and lead time.
### 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>

Vibration and shock standard: Cat. 2

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>V0</td>
<td></td>
<td>UL 94</td>
</tr>
<tr>
<td>Oxygen index</td>
<td>&gt;32 %</td>
<td></td>
<td>EN ISO 4589-2</td>
</tr>
<tr>
<td>Smoke density</td>
<td>&lt;150 D, max.</td>
<td></td>
<td>EN ISO 5659-2</td>
</tr>
<tr>
<td>Toxicity</td>
<td>&lt;0.75 CIT&lt;sub&gt;elp&lt;/sub&gt;</td>
<td></td>
<td>NF X 70-100-1/2: (600°C)</td>
</tr>
</tbody>
</table>

Fire hazard level: HL3

Oxygen index: >32 %

Smoke density: <300 D, max.

Toxicity: <1.5 CIT<sub>elp</sub>

Fire performance NFPA 130:

- Flammability: compliant
- Smoke density: compliant

Heat and visible smoke: 26.00 MJ/kg

Smoke emission toxicity: compliant

Smoke emission toxicity: compliant

### Content of delivery:
- Fitting with or without jubilee clip
- Looking clip (OVN2),
- Conduit gasket (NVN3)

### Assembly instructions:
- Sealing paste, sealing band, glue etc. should be used at the junction to the metal tubing if increased sealing is required

Please consider the appropriate assembly instructions on www.pma.ch

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