

TECHNICAL DATA SHEET

PMAFIX IP68 - BVNR-RE - Fitting

Straight, PG size, connection to solid metal tube

PMA



IP68, polyamide fitting for 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)

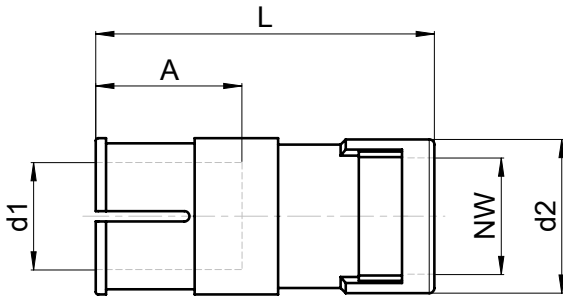
Environmental properties:

- Free from halogens and cadmium
- RoHS and REACH compliant

Product selection:

| Part no. | | Metal tube | Conduit size | Dimensions in mm (nom.) | | | | Weight | Packing unit |
|-------------------------------|----------------------------|------------|--------------|-------------------------|------|------|------|------------|--------------|
| black without jubilee clip | black with jubilee clip | metric | NW | L | d1 | d2 | A | kg/100 pcs | pcs/PU |
| BVNR-RE12 | BVNR-RE12-24 | PG11 | 12 | 54.0 | 18.5 | 26.0 | 25.0 | 1.2 (3.1) | 50 |
| BVNR-RE1317 | BVNR-RE1317-28 | PG13 | 17 | 65.0 | 20.4 | 30.0 | 28.0 | 1.3 (3.9) | 50 |
| BVNR-RE17 | BVNR-RE17-28 | PG16 | 17 | 65.0 | 22.5 | 30.0 | 28.0 | 2.1 (3.9) | 50 |
| BVNR-RE23 | BVNR-RE23-32 | PG21 | 23 | 71.0 | 28.3 | 37.0 | 30.0 | 2.5 (4.9) | 30 |
| BVNR-RE29 | BVNR-RE29-44 | PG29 | 29 | 70.5 | 37.0 | 45.0 | 30.0 | 3.4 (6.5) | 20 |
| BVNR-RE36 | BVNR-RE36-50 | PG36 | 36 | 84.5 | 47.0 | 56.0 | 30.0 | 5.3 (8.8) | 20 |
| BVNR-RE48 | BVNR-RE48-65 | PG48 | 48 | 90.0 | 59.3 | 67.5 | 35.0 | 7.9 (12.0) | 10 |
| BVNR-RE1917 | - | 3/4" | 17 | 65.0 | 19.0 | 29.5 | 28.0 | 1.8 (-) | 50 |
| BVNR-RE2523 | - | 1" | 23 | 71.0 | 25.5 | 37.0 | 30.0 | 2.5 (-) | 30 |
| BVNR-RE3129 | - | 1 1/4" | 29 | 71.0 | 32.0 | 44.0 | 30.0 | 3.4 (-) | 10 |
| BVNR-RE3836 | - | 1 1/2" | 36 | 130.0 | 38.0 | 53.5 | 76.0 | 5.3 (-) | 10 |

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



| Mechanical Properties: | Value: | Test parameters: | Test method: |
|-------------------------------|-----------------------------------|-------------------------|---------------------------------|
| Tensile modulus | 1'200 ... 3'700 N/mm ² | | ISO 527 |
| Tensile strength | 45 ... 65 N/mm ² | | ISO 527 |
| Notched bar impact test | 4 ... 20 kJ/m ² | | ISO 180/1C |
| <hr/> | | | |
| Vibration and shock standard | Cat. 2 | | IEC 61373, IEC 60068-2-27 / -64 |

| Thermal properties: | Value: | Test parameters: | Test method: |
|------------------------------------|-------------------|-------------------------|---------------------|
| Continuous application temperature | - 50 ... + 105 °C | | PMA DO 9.21-4510 |
| Upper application temperature | + 120°C | (20'000 h) | PMA DO 9.21-4360 |
| Short-term | + 160 °C | (168 h) | PMA DO 9.21-4360 |

| Fire safety properties: | Value: | Test parameters: | Test method: |
|--------------------------------|---------------------------|-------------------------|---------------------------------------|
| Fire performance | non flame-propagating | | IEC EN 61386-1 |
| Flame class | V0 | | UL 94 |
| <hr/> | | | |
| Fire hazard level | HL3 | | EN 45545-2 (R22) |
| Oxygen index | > 32 % | | EN ISO 4589-2 |
| Smoke density | < 150 Ds max. | | EN ISO 5659-2 (25 kW/m ²) |
| Toxicity | < 0.75 CIT _{NLP} | | NF X 70-100-1/-2: (600°C) |
| <hr/> | | | |
| Fire hazard level | HL3 | | EN 45545-2 (R23) |
| Oxygen index | > 32 % | | EN ISO 4589-2 |
| Smoke density | < 300 Ds max. | | EN ISO 5659-2 (25 kW/m ²) |
| Toxicity | < 1.5 CIT _{NLP} | | NF X 70-100-1/-2: (600°C) |
| <hr/> | | | |
| Fire performance NFPA 130: | | | NFPA 130 |
| - Flammability | compliant | | ASTM E 162 |
| - Smoke density | compliant | | ASTM E 662 |
| <hr/> | | | |
| Heat and visible smoke | 26.00 MJ/kg | | ASTM E 1354 |
| Smoke emission toxicity | compliant | | Bombardier SMP 800-C |
| Smoke emission toxicity | compliant | | Boeing BSS 7241 |

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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