# **BARTEC**

## **PNAFB**

### Barrier cable glands for unarmoured cables



#### Reference standards

| Directive 2014/34/EU               |  |
|------------------------------------|--|
| Execution                          | <ul> <li>(Image: Bold (B) </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <li>(Image: B)  </li> <!--</th--></ul> |
| Rules of compliance                | EN/IEC 60079-0;<br>EN/IEC 60079-1;<br>EN/IEC 60079-7;<br>EN/IEC 60079-11;<br>EN/IEC 60079-15;<br>EN/IEC 60079-31   |
| EU Type-Examination<br>Certificate | INERIS 09 ATEX 0028X<br>INERIS 23 ATEX 3004X (Ex nR only)  |
| Protection degree                  | IP66 or IP66/68  |
| Ambient temperature                | -40 °C ÷ +90 °C (Rubber rings EPDM-60)<br>-60 °C ÷ +100 °C (Rubber rings SILICON)  |
| Other Available<br>Certificates    | IECEx: IECEx INE 11.0017X<br>ECASEx: 23-06-22481/Q23-06-048569/NB0002<br>INMETRO: CEPEL 12.2177X<br>CCC: 2023122313116542<br>KC: in progress   |

#### Installation

hazardous areas - Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)

#### Classification

Group II - Category 2G 2D / 3G 3D

| Mec | han | ical | cha | ract | eri | stics |
|-----|-----|------|-----|------|-----|-------|

| Body / cap          | OT-58 marine brass (ON) - AISI-316L stainless<br>steel (XX) marine grade copper free aluminium<br>(on project request only) |
|---------------------|---|
| Finishes            | full nickel plating treatment<br>(brass material only)  |
| Rubber rings        | EPDM rubber 50-60 shore hardness (standard<br>supply) Silicon rubber 60 shore hardness (on<br>demand only)                  |
| 0-ring              | silicon rubber - 60 shore hardness  |
| Skid washer         | nylon 6.0   |
| Chamber for sealing | OT-58 marine brass<br>OT-58 nickel plated marine brass (on demand)<br>AISI-316L stainless steel (on demand)                 |

#### Applications

For unarmoured cables only Suitable for flexible conduit coupling connection by threaded cap (uni iso 228)

| Single compression type suitable for indoor and outdoor use |
|---|
| Single compression - on cable (inner sealing)               |
| Sealing with proper resin into "chamber of sealing"         |

#### **On Request Accessories**

 Locknuts, Gaskets, PVC Shrouds, Earthing Tags, Sealing, (See DL-NW-PTD-ET bulletin)



# **BARTEC**

#### Cable gland selection table

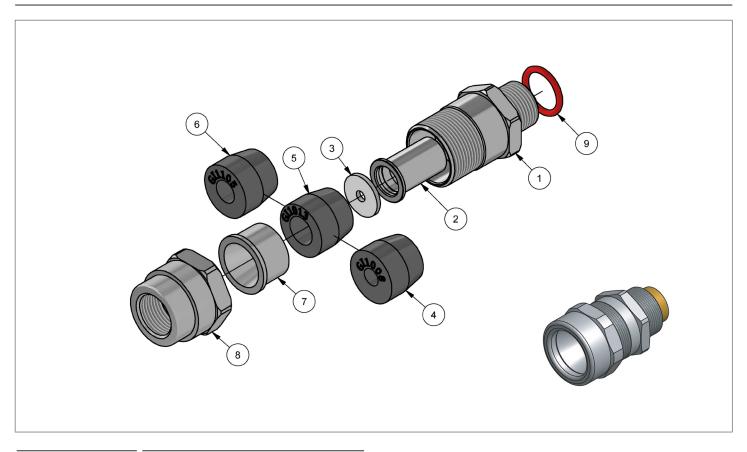
| Metric         (2)           ISO-M16         M           ISO-M20         M           ISO-M20         M           ISO-M20         M           ISO-M25         M           ISO-M32         M           ISO-M32         M           ISO-M40         M           ISO-M50         M | NPT<br>3/8" NPT<br>1/2" NPT<br>1/2" NPT<br>3/4" NPT<br>1" NPT<br>1 1/4" NPT<br>1 1/2" NPT<br>1 1/2" NPT | (2)<br>N<br>N<br>N<br>N<br>N<br>N | ISO 228<br>3/8"<br>1/2"<br>1/2"<br>3/4"<br>1"<br>1 1/4" | (2)<br>G<br>G<br>G<br>G | min<br>[mm]<br>4,0<br>7,0<br>5,5<br>8,0<br>10,5<br>10,5<br>13,0<br>15,5<br>15,0<br>15,0<br>18,0<br>21,0<br>21,0<br>24,0 | max         [mm]           7,0         10,0           7,0         10,0           10,0         8,0           10,5         13,0           15,5         18,0           18,0         24,0           24,0         24,0   | UNI ISO<br>228 (4)<br>3/8"<br>1/2"<br>1/2"<br>3/4"<br>1"  | [mm]<br>24,0<br>32,0<br>32,0<br>36,0<br>45,0  | Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass<br>Stainless steel | (3)<br>ON<br>XX<br>ON<br>XX<br>ON<br>XX<br>ON<br>XX   |
|--|---|-----------------------------------|---|-------------------------|---|---|---|---|---|---|
| ISO-M20 M<br>ISO-M20 M<br>ISO-M25 M<br>ISO-M32 M<br>ISO-M40 M<br>ISO-M50 M   | 1/2" NPT<br>1/2" NPT<br>3/4" NPT<br>1" NPT<br>1 1/4" NPT  | N<br>N<br>N<br>N                  | 1/2"<br>1/2"<br>3/4"<br>1"                              | G<br>G<br>G             | 7,0<br>4,0<br>7,0<br>5,5<br>8,0<br>10,5<br>10,5<br>13,0<br>15,5<br>15,0<br>18,0<br>21,0<br>21,0                         | 10,0<br>7,0<br>10,0<br>8,0<br>10,5<br>13,0<br>13,0<br>15,5<br>18,0<br>21,0<br>24,0<br>24,0  | 1/2"<br>1/2"<br>3/4"  | 32,0<br>  | Stainless steel<br>Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass  | XX<br>ON<br>XX<br>ON<br>XX<br>ON<br>XX<br>ON  |
| ISO-M25 M<br>ISO-M32 M<br>ISO-M40 M<br>ISO-M50 M   | 3/4" NPT<br>1" NPT<br>1 1/4" NPT  | N<br>N<br>N                       | 3/4"  | G                       | 8,0<br>10,5<br>10,5<br>13,0<br>15,5<br>15,0<br>18,0<br>21,0<br>21,0   | 10,5<br>13,0<br>13,0<br>15,5<br>18,0<br>21,0<br>24,0<br>24,0  | 3/4"  | 36,0  | Stainless steel<br>Nickel pl. brass<br>Stainless steel<br>Nickel pl. brass  | XX<br>ON<br>XX<br>ON  |
| ISO-M32 M<br>ISO-M40 M<br>ISO-M50 M  | 1" NPT  | N<br>N<br>N                       | 1"  | G                       | 13,0<br>15,5<br>15,0<br>18,0<br>21,0<br>21,0  | 15,5<br>18,0<br>21,0<br>24,0<br>24,0  |   |   | Stainless steel<br>Nickel pl. brass   | XX<br>ON  |
| ISO-M40 M<br>ISO-M50 M   | 1 1/4" NPT  | N                                 |   |                         | 18,0<br>21,0<br>21,0  | 21,0<br>24,0<br>24,0  | 1"  | 45,0  |   |   |
| ISO-M50 M  |   |                                   | 1 1/4"  | G                       |   |   |   |   |   | ~~  |
|  | 1 1/2" NPT  | N                                 |   |                         | 27,0  | 27,0<br>30,0  | 1 1/4"  | 53,0  | Nickel pl. brass<br>Stainless steel   | ON<br>XX  |
|  |   |                                   | 1 1/2"  | G                       | 24,0<br>27,0<br>30,0<br>33,0  | 27,0<br>30,0<br>33,0<br>36,0  | 1 1/2"  | 61,0  | Nickel pl. brass<br>Stainless steel   | ON<br>XX  |
| ISO-10103 IVI  | 2" NPT  | N                                 | 2"  | G                       | 36,0<br>39,0<br>42,0  | 39,0<br>42,0<br>45,0  | 2"  | 71,0  | Nickel pl. brass<br>Stainless steel   | ON<br>XX  |
| ISO-M75 M  | 2 1/2" NPT  | N                                 | 2 1/2"  | G                       | 42,0<br>45,0<br>48,0<br>51,0  | 45,0<br>48,0<br>51,0<br>54,0  | 2 1/2"  | 84,0  | Nickel pl. brass<br>Stainless steel   | ON<br>XX  |
| SO-M90 M   | 3" NPT  | N                                 | 3"  | G                       | 52,0<br>56,0<br>59,0<br>62,0<br>65,0  | 56,0<br>59,0<br>62,0<br>65,0<br>68,0  | 3"  | 101,0   | Nickel pl. brass<br>Stainless steel   | ON<br>XX  |
| SO-M100 M  | 4" NPT  | N                                 | 4"  | G                       | 68,0<br>74,0<br>80,0<br>86,0  | 74,0<br>80,0<br>86,0<br>92,0  | 4"  | 126,0   | Nickel pl. brass<br>Stainless steel   | ON<br>XX  |
|  |   |                                   |   |                         |   |   |   |   |   |   |
| ↓ ↓  | •   |                                   |   |                         |   |   |   |   |   |   |
|  |   | -M100 M 4" NPT                    | -M100 M 4" NPT N  | -M100 M 4" NPT N 4"     | -M100 M 4" NPT N 4" G   | -M100 M 4" NPT N 4" G<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>74,0<br>80,0<br>86,0<br>86,0<br>74,0<br>80,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>86,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0<br>80,0 | -M100 M 4" NPT N 4" G<br>80,0 86,0<br>80,0 86,0<br>80,0 86,0<br>80,0 86,0<br>80,0 92,0<br>0 1 M 0 N → PNAFB01M0N (barrier cable gland nickel plated | -M100 M 4" NPT N 4" G $\begin{array}{c} 62,0 \\ 65,0 \\ 68,0 \\ 74,0 \\ 80,0 \\ 86,0 \\ 92,0 \end{array}$<br>0 1 M 0 N $\rightarrow$ PNAFB01MON (barrier cable gland nickel plated brass ISO- | $-M100  M  4" \text{ NPT } \text{ N } 4"  G  \begin{cases} 62,0 & 65,0 \\ 65,0 & 68,0 \\ 68,0 & 74,0 \\ 80,0 & 86,0 \\ 86,0 & 92,0 \\ \end{cases}$  | -M90 M 3"NPT N 3" G 59,0 62,0 3" 101,0 Stainless steel<br>62,0 65,0<br>68,0 74,0<br>74,0 80,0 4" 126,0 Nickel pl. brass<br>86,0 92,0 Stainless steel<br>126,0 Stainless steel |

#### Legend

| Logonia |                        |   |  |  |
|---------|------------------------|---|--|--|
| (1) -   | cable gland type/model | PNAFB# = non-barrier cable gland                                      |  |  |
| (2) -   | threading              | M = ISO metric pitch 1,5mm / N =NPT (ANSI/ASME B1.20.1) / G = ISO-228 |  |  |
| (3) -   | cable gland material   | ON – nickel plated marine brass / XX = AISI-316l stainless steel      |  |  |
| (4) -   | female thread          | ISO-228 female thread suitable for flexible conduit coupling          |  |  |

### **BARTEC**

#### **PNAFB** dimensional



| 1         | Barrier cable gland body       |  |  |
|-----------|--------------------------------|--|--|
| 2         | Sealing chamber                |  |  |
| 3         | Resin seal rubber              |  |  |
| 4 - 5 - 6 | Inner rubber seal              |  |  |
| 7         | Pushing seal cone              |  |  |
| 8         | Gland nut                      |  |  |
| 9         | Or gasket (metric thread only) |  |  |
|           |                                |  |  |

| Flowable epoxy resin RSN#C0200 |                    |  |
|--------------------------------|--------------------|--|
| Cable gland size               | Resin quantity [g] |  |
| 0                              | 4                  |  |
| 1                              | 7                  |  |
| 2                              | 12                 |  |
| 3                              | 21                 |  |
| 4                              | 36                 |  |
| 5                              | 53                 |  |
| 6                              | 86                 |  |
| 7                              | 159                |  |
| 8                              | 250                |  |
| 9                              | 533                |  |

REMARK:

Due to the development of the national and international specifications and of the technology, the above technical characteristics showed on this bulletin can be considered as binding on our confirmation only.

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