

# **PAPDB**

# Barrier cable glands for armoured, lead sheathed cables



#### Reference standards

| Neierence standards                |  |  |  |  |  |
|------------------------------------|--|--|--|--|--|
| Directive 2014/34/EU               |  |  |  |  |  |
| Execution                          | ©    2 G Ex db / Ex eb/ Ex ia/   C Gb<br>©    2 D Ex tb    C Db<br>©    3 G Ex nR   C Gc<br>©    3 D Ex tc    C Dc |  |  |  |  |
| 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                    | IECEx: IECEx INE 11.0017X  |  |  |  |  |
| Certificates                       | ECASEx: 23-06-22481/Q23-06-048569/NB0002   |  |  |  |  |
|                                    | INMETRO: CEPEL 12.2177X  |  |  |  |  |
|                                    | KC: in progress  |  |  |  |  |

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

#### Classification

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

#### **Mechanical characteristics**

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

#### **Applications**

For steel wire armoured cables (swa) for steel tape armoured cables and for lead inner sheath cables

Double Compression Type For Indoor And Outdoor Use

Provided armour clamping using clamping arrangements suitable for all

Double compression - under armour and overall of armour cable (inner and outer sealing)

Internal lead device for elettrical bond of cable lead inner sheath. Sealing with proper resin into "chamber of sealing"

#### **On Request Accessories**

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















Cable gland selection table

| Code (1) | Size - | Entry thread size |     |            |     | Dia.under<br>armour |     | Outer sheath dia.                    |                                      | Hexagon              | Material              |       |                                     |          |
|----------|--------|-------------------|-----|------------|-----|---------------------|-----|--------------------------------------|--------------------------------------|----------------------|-----------------------|-------|-------------------------------------|----------|
|          | Size   | Metric            | (2) | NPT        | (2) | ISO 228             | (2) | min<br>[mm]                          | max<br>[mm]                          | min<br>[mm]          | max<br>[mm]           | [mm]  |                                     | (3)      |
| PAPDB#   | 01     | ISO-M20           | М   | 1/2" NPT   | N   | 1/2"                | G   | 3,5<br>6,0<br>8,5                    | 6,0<br>8,5<br>11,0                   | 10,0<br>14,0         | 15,0<br>19,0          | 32,0  | Nickel pl. brass<br>Stainless steel | AO<br>XX |
| PAPDB#   | 02     | ISO-M25           | М   | 3/4" NPT   | N   | 3/4"                | G   | 8,5<br>11,0<br>13,5                  | 11,0<br>13,5<br>16,0                 | 15,0<br>19,0         | 20,0<br>24,0          | 36,0  | Nickel pl. brass<br>Stainless steel | ON<br>XX |
| PAPDB#   | 03     | ISO-M32           | М   | 1" NPT     | N   | 1"                  | G   | 13,0<br>16,0<br>19,0                 | 16,0<br>19,0<br>22,0                 | 20,0<br>25,0         | 26,0<br>31,0          | 45,0  | Nickel pl. brass<br>Stainless steel | ON<br>XX |
| PAPDB#   | 04     | ISO-M40           | М   | 1 1/4" NPT | N   | 1 1/4"              | G   | 19,0<br>22,0<br>25,0                 | 22,0<br>25,0<br>28,0                 | 26,0<br>31,0<br>34,0 | 32,0<br>37,0<br>40,0  | 53,0  | Nickel pl. brass<br>Stainless steel | ON<br>XX |
| PAPDB#   | 05     | ISO-M50           | М   | 1 1/2" NPT | N   | 1 1/2"              | G   | 22,0<br>25,0<br>28,0<br>31,0         | 25,0<br>28,0<br>31,0<br>34,0         | 30,0<br>36,0<br>40,0 | 37,0<br>43,0<br>47,0  | 61,0  | Nickel pl. brass<br>Stainless steel | ON<br>XX |
| PAPDB#   | 06     | ISO-M63           | М   | 2" NPT     | N   | 2"                  | G   | 34,0<br>37,0<br>40,0                 | 37,0<br>40,0<br>43,0                 | 42,0<br>47,0<br>50,0 | 48,0<br>53,0<br>56,0  | 71,0  | Nickel pl. brass<br>Stainless steel | ON<br>XX |
| PAPDB#   | 07     | ISO-M75           | М   | 2 1/2" NPT | N   | 2 1/2"              | G   | 40,0<br>43,0<br>46,0<br>49,0         | 43,0<br>46,0<br>49,0<br>52,0         | 52,0<br>58,0<br>61,0 | 58,0<br>64,0<br>67,0  | 84,0  | Nickel pl. brass<br>Stainless steel | ON<br>XX |
| PAPDB#   | 08     | ISO-M90           | М   | 3" NPT     | N   | 3"                  | G   | 52,0<br>56,0<br>57,0<br>60,0<br>63,0 | 55,0<br>59,0<br>60,0<br>63,0<br>66,0 | 65,0<br>71,0<br>74.0 | 72,0<br>78,0<br>81,0  | 101,0 | Nickel pl. brass<br>Stainless steel | ON<br>XX |
| PAPDB#   | 09     | ISO-M115          | М   | 4" NPT     | N   | 4"                  | G   | 58,0<br>66,0<br>72,0<br>78,0<br>84,0 | 66,0<br>72,0<br>78,0<br>84,0<br>90,0 | 81,0<br>88,0<br>96,0 | 88,0<br>96,0<br>104,0 | 126,0 | Nickel pl. brass<br>Stainless steel | ON<br>XX |
|          |        |                   |     |            |     |                     |     |                                      |                                      |                      |                       |       |                                     |          |

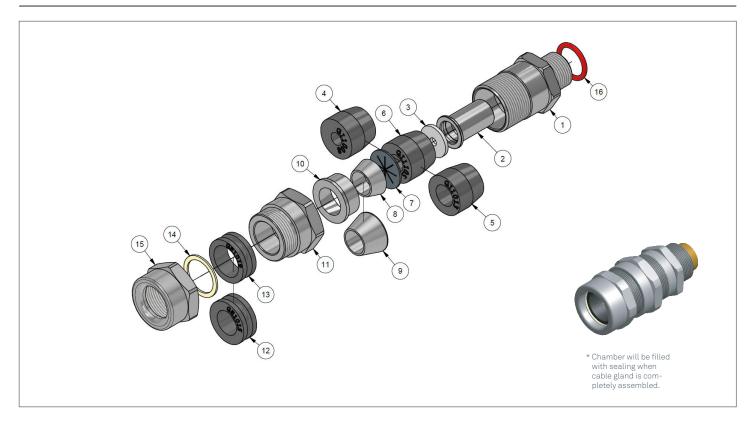
## Cable gland ordering examples

### Legend

| (1) - cable gland type/model |                      | PAPDB# = 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 brass / XX = AISI-316l stainless steel              |  |  |



#### **PAPDB** dimensional



| 1         | Barrier cable gland body       |
|-----------|--------------------------------|
| 2         | Sealing chamber                |
| 3         | Resin seal rubber              |
| 4 - 5 - 6 | Inner rubber seal              |
| 7         | Lead sheath earth ring         |
| 8 - 9     | Pushing seal cone              |
| 10        | Armour clamping ring           |
| 11        | Intermediate gland body        |
| 12 - 13   | Outer rubber seal              |
| 14        | Nylon washer                   |
| 15        | Gland nut                      |
| 16        | 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.