

# Ruggedized Reverse Bayonet Connectors

Dynamic IP68 / IP69K  
Up to 500 hr salt spray  
VG95234 intermountable

## UTV SERIES

**Completely** *new*  
**intermountable with**  
**VG 95234 :**  
**the MS 5015 reverse**  
**bayonet connectors**

## Description

This connector series is an enhanced version of the VG 95234 connector standard but remains completely intermountable with VG 95234 : the MS 5015 reverse bayonet connectors.



## Features and benefits (see also page 3)

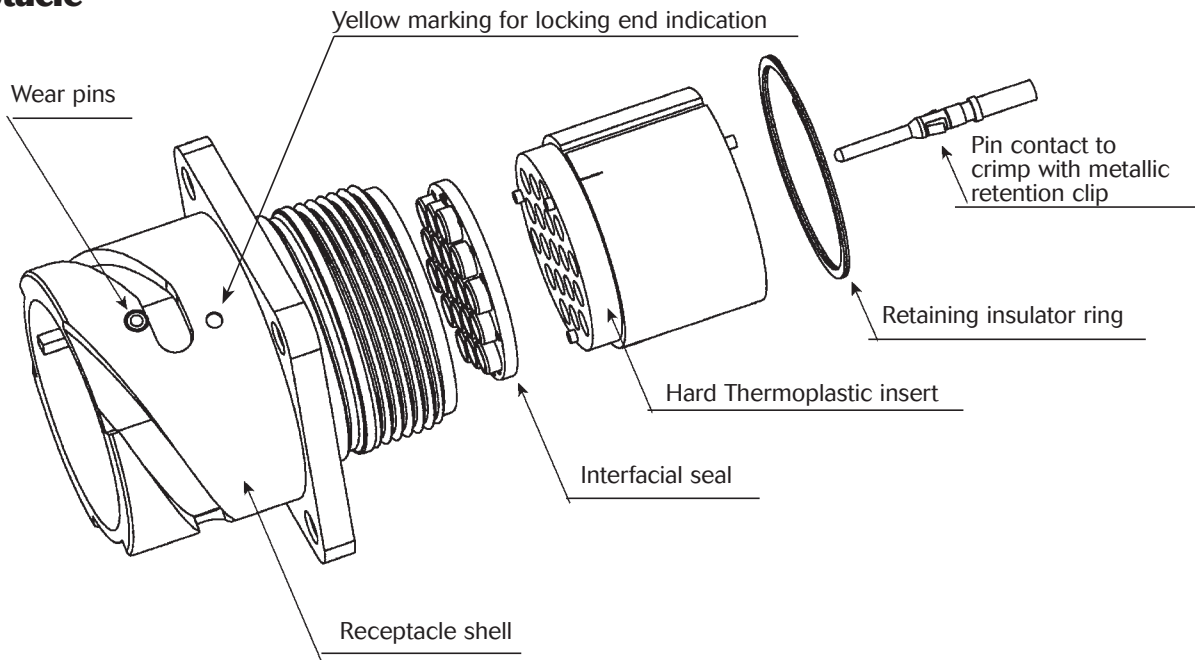
- An interfacial seal is present on the male inserts to extend the creepage distance and to have a better sealing when the connector is mated.
- The insulator is retained into the plug or receptacle shell by a metallic retaining ring which can be removed with a small screwdriver. Once removed, user can defined insulator orientation.
- Contacts gauge 8, 12 or 16 are machined crimp contacts, removable thanks to a clip on the contact.
- No tools are needed to insert contacts into the insulator. An extraction tool is available to extract the contacts. The tool is engaged by the front face of the connector and the contacts are rear released.
- Contacts are crimped thanks to very common toolings.
- The connector is rated 2 levels of water protection (see page 3):  
Dynamic IP67/IP68/IP69K when mated and used with suitable accessories, a grommet or a sealed back shell.
- This connector can be supplied fully assembled or in component form (please consult us).
- Corrosion spray resistance is rated up to 500 hours salt spray
- Cadmium and lead free materials are used

# Ruggedized Reverse Bayonet Connector

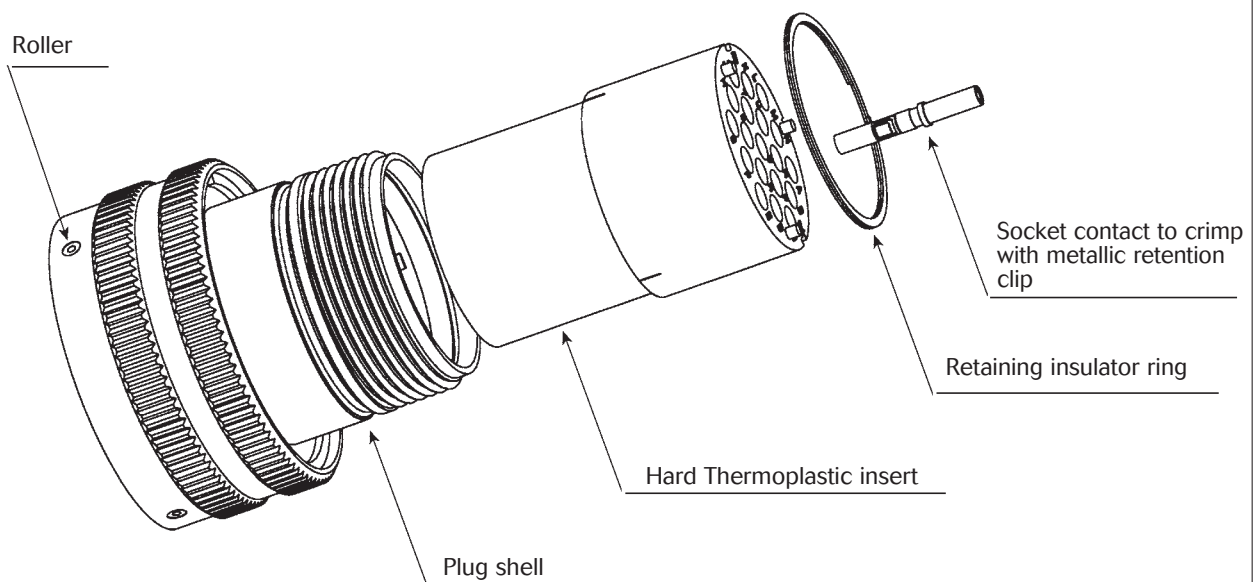


## Description

### Receptacle



### Plug



# Ruggedized Reverse Bayonet Connector



## Technical Features

### Mechanical

- Mechanical endurance : 500 mating and unmating
- Minimum retention force of the contact in the insulator :
  - 70 N for contacts # 16 (1.6 mm)
  - 90 N for contacts # 12 (2.4 mm)
  - 110 N for contacts # 8 (3.6 mm)

Minimum values with a maximum displacement of the contact of 0.3 mm (following NFF 61030)

- Retention of the insulator in the shell : (following MIL-C-26482G Series 2 class L standard)
- Bayonet coupling mechanism - Coupling torque : following VG 95234
- Vibrations : following NFF 61030  
Sinus vibrations : 10 - 100 Hz  
Acceleration : 2 g
- Shocks : Acceleration = 30 g  
Duration = 18 ms following NFF 61030
- Impact strength (free fall of the plug).  
The connector plug is subjected to a free fall test. The height of drop is 0.75 m.  
No mechanical damage.

### Electrical

- Contact resistance :
  - 2.5 mΩ maxi for contact # 16
  - 1.3 mΩ maxi for contact # 12
  - 0.9 I maxi for contact # 8 following NFF 61030
- Maximum current per contact :
  - 15 Amps for contact # 16
  - 20 Amps for contact # 12
  - 30 Amps for contact # 8
- Withstanding voltage :
  - 2550 Vrms for layouts # 16
  - 3250 Vrms for layouts # 12 and 8
- Insulation resistance :
  - $\geq 5000 \text{ M}\Omega$  under 500 Vcc
  - $\geq 4000 \text{ M}\Omega$  under 220 Vcc
- Electrical continuity of the shells :  
20 mΩ maximum
- In mated conditions (interfacial seal is compression)  
minimum creepage distance = minimum insulation distance in the air :
  - 9 mm minimum for layouts with contacts # 16
  - 12 mm minimum for layouts with contacts # 12 or # 8

### Environmental

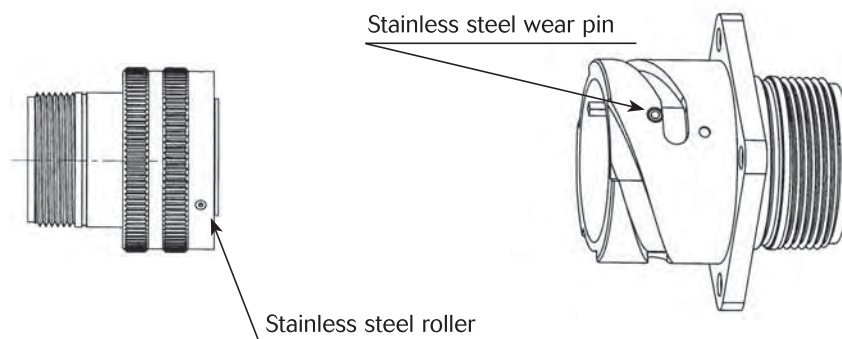
- Climatic category : -40°C +100°C  
Dry heat test : +100°C during 96 h
- Corrosion spray resistance : up to 500 hours salt spray
- Damp heat : 21 days, 40°C, 95% relative humidity
- The connector is rated 2 levels of water protection (see page 3):  
Dynamic IP67/IP68/IP69K when mated and used with suitable accessories, a grommet or a sealed back shell.
- Cadmium and lead free materials are used

### Material

- Shell in aluminium alloy with black zinc cobalt plating
- Insulator : hard thermoplastic with glass fiber
- O'ring and interfacial seal in silicone
- Retaining insulator ring in carbon steel

This full product range is qualified by ALSTOM, RATP and SNCF.

### Robustness and high reliability of the locking mechanism



# Ruggedized Reverse Bayonet Connector



## Connectors Ordering Information (without contacts and accessories)

**Shells, backshells, contacts and accessories have to be ordered separately**

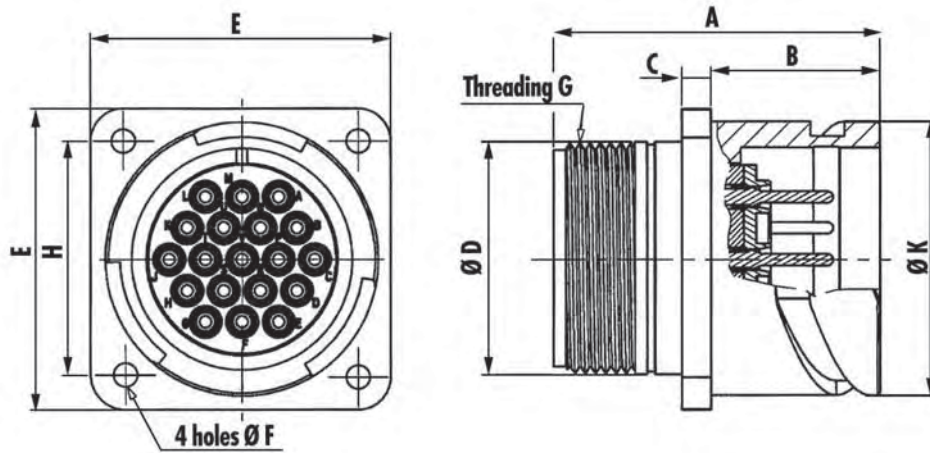
|                                                                                                    |          |           |             |          |          |           |
|----------------------------------------------------------------------------------------------------|----------|-----------|-------------|----------|----------|-----------|
| <b>UTV</b>                                                                                         | <b>B</b> | <b>22</b> | <b>– 14</b> | <b>P</b> | <b>N</b> | <b>--</b> |
| <b>Series</b>                                                                                      |          |           |             |          |          |           |
| <b>Shell type</b>                                                                                  |          |           |             |          |          |           |
| Rear mounting receptacle                                                                           | <b>B</b> |           |             |          |          |           |
| Plug                                                                                               | <b>D</b> |           |             |          |          |           |
| Rear mounting receptacle for PC tails<br>contact # 16 contacts mounted                             | <b>C</b> |           |             |          |          |           |
| <b>Shell size : 18 - 20 -22 - 24 - 28 - 32 - 36 - 40</b>                                           |          |           |             |          |          |           |
| <b>Layouts</b>                                                                                     |          |           |             |          |          |           |
| <b>Contact type : P - Pin<br/>S - Socket</b>                                                       |          |           |             |          |          |           |
| <b>Insert Orientation : N ; W ; X ; Y ; Z or 0</b><br>0 = for insulator not installed in the shell |          |           |             |          |          |           |
| <b>Modification Code :</b><br><i>Please consult us</i>                                             |          |           |             |          |          |           |

**Nota : Please consult us if you want to order the connector in component form (shell and insert).**

# Ruggedized Reverse Bayonet Connector

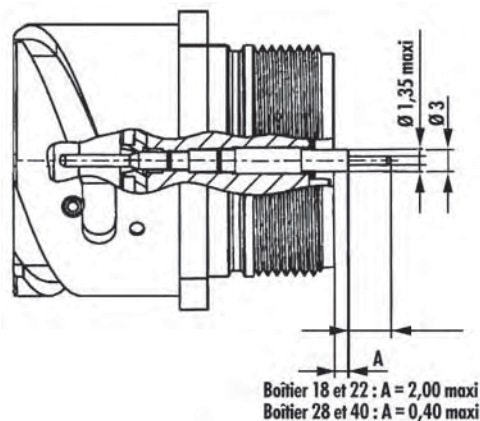


## Connector Dimensions Receptacle



| Shell size | A Max | B 0/+0.4 | C ±0.2 | ØD Max | E ±0.3 | ØF 0/+0.15 | Threading G Class 2A | H ±0.1 | ØK -0.15/0 |
|------------|-------|----------|--------|--------|--------|------------|----------------------|--------|------------|
| 18         | 45.50 | 23.05    | 4.00   | 25.50  | 35.00  | 3.25       | 1"x20 UNEF           | 27.00  | 30.80      |
| 20         | 45.50 | 23.05    | 4.00   | 28.70  | 38.00  | 3.25       | 1 1/8"x18 UNEF       | 29.40  | 34.20      |
| 22         | 45.50 | 23.05    | 4.00   | 31.90  | 41.00  | 3.25       | 1 1/4"x18 UNEF       | 31.80  | 37.40      |
| 24         | 48.00 | 23.05    | 4.00   | 35.20  | 44.50  | 3.75       | 1 3/8"x18 UNEF       | 34.90  | 40.90      |
| 28         | 48.00 | 24.05    | 4.00   | 41.50  | 50.80  | 3.75       | 1 5/8"x18 UNE        | 39.70  | 46.70      |
| 32         | 48.00 | 24.05    | 4.00   | 47.90  | 57.00  | 4.35       | 1 7/8"x16 UN         | 44.50  | 53.40      |
| 36         | 48.00 | 24.05    | 4.00   | 52.50  | 63.50  | 4.35       | 2 1/16"x16 UNS       | 49.20  | 59.60      |
| 40         | 48.00 | 24.05    | 4.00   | 59.00  | 70.00  | 4.35       | 2 5/16"x16 UN        | 55.50  | 65.50      |

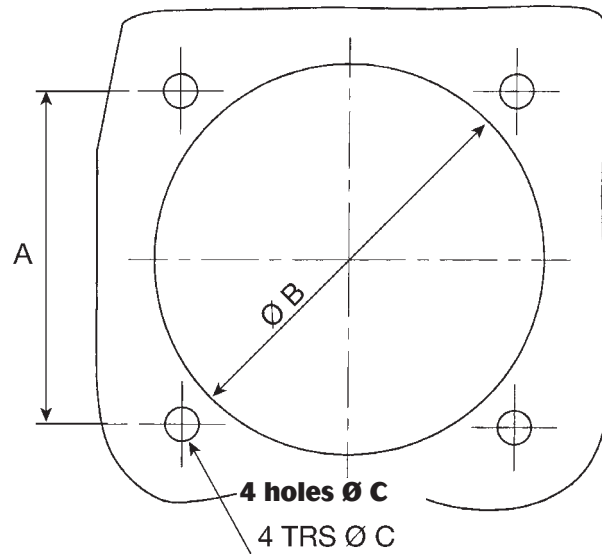
## Receptacle with PC tails contact # 16



# Ruggedized Reverse Bayonet Connector



## Panel Cutout



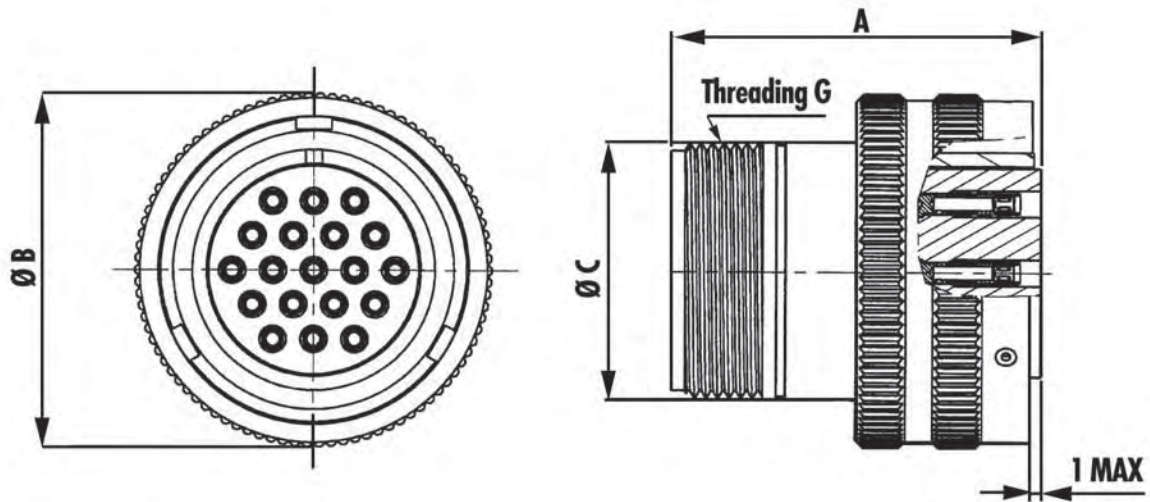
| Shell size | A<br>$\pm 0.15$ | B<br>0/+0.3 | C<br>$\pm 0.10$ | Maximum thickness of the panel<br>for rear mounting |
|------------|-----------------|-------------|-----------------|-----------------------------------------------------|
| 18         | 27              | 31,2        | 3,4             | 3                                                   |
| 20         | 29,4            | 34,6        | 3,4             | 3                                                   |
| 22         | 31,8            | 37,8        | 3,4             | 3                                                   |
| 24         | 34,9            | 41,3        | 3,9             | 3                                                   |
| 28         | 39,7            | 47,1        | 3,9             | 3                                                   |
| 32         | 44,5            | 53,8        | 4,5             | 3                                                   |
| 36         | 49,2            | 60          | 4,5             | 3                                                   |
| 40         | 55,5            | 66,4        | 4,5             | 3                                                   |

**Note :** The above panel cut-out enables front mounting of all receptacles.

# Ruggedized Reverse Bayonet Connector



## Plug

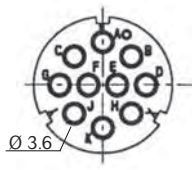
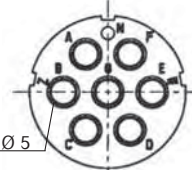
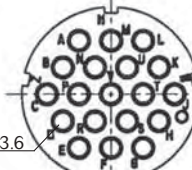
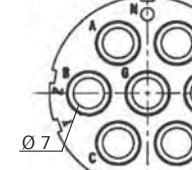
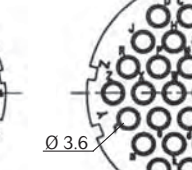
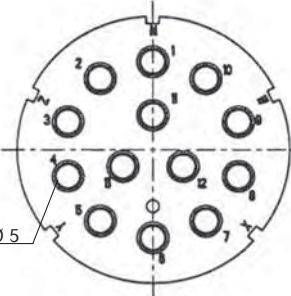
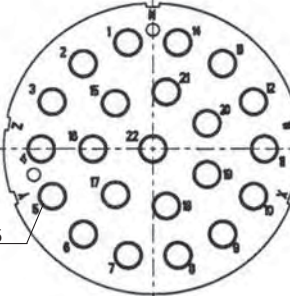
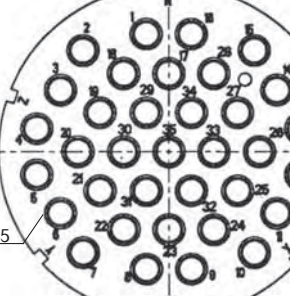
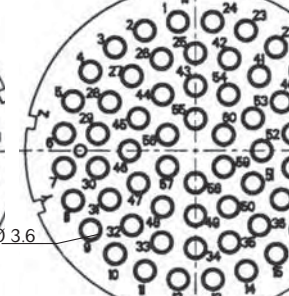


| Shell size | A Max | B Max | C Max | Threading G Class 2A |
|------------|-------|-------|-------|----------------------|
| 18         | 45.60 | 37.30 | 25.50 | 1"x 20 UNEF          |
| 20         | 45.60 | 41.50 | 28.70 | 1 1/8"x 18 UNEF      |
| 22         | 45.60 | 44.00 | 31.90 | 1 1/4"x 18 UNEF      |
| 24         | 45.60 | 48.50 | 35.20 | 1 3/8"x 18 UNEF      |
| 28         | 48.10 | 55.30 | 41.50 | 1 5/8"x 18 UNEF      |
| 32         | 48.10 | 62.00 | 47.90 | 1 7/8"x 16 UN        |
| 36         | 48.10 | 66.80 | 52.50 | 2 1/6" x 16 UNS      |
| 40         | 48.10 | 74.50 | 59.00 | 2 5/16"x 16 UN       |

# Ruggedized Reverse Bayonet Connector



## Layouts (marking on front face of female insulator)

| 18-19                                                                              | 20-15                                                                              | 22-14                                                                               | 24-10                                                                                | 28-21                                                                               |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|   |   |    |    |  |
| 10 contacts # 16                                                                   | 7 contacts # 12                                                                    | 19 contacts # 16                                                                    | 7 contacts # 8                                                                       | 37 contacts # 16                                                                    |
| 32 A13                                                                             | 36 A22                                                                             | 40 A35                                                                              | 40 A60                                                                               |                                                                                     |
|  |  |  |  |                                                                                     |
| 13 contacts # 12                                                                   | 22 contacts # 12                                                                   | 35 contacts # 12                                                                    | 60 contacts # 16                                                                     |                                                                                     |

**Note :** For other layouts: consult factory.

## Alternative insert orientation positions

A 3D perspective view of a square connector housing. A label 'Key' points to a small rectangular feature on the inner rim of the housing.

A top-down view of the connector housing. It shows a circular array of 19 pins. A label 'Angular Position N' points to the top pin. Other labels 'Z', 'Y', 'W', and 'X' point to pins at different angular positions around the array.

|         | Angular displacement of insert |    |     |     |     | Insulator weight (g) |        |
|---------|--------------------------------|----|-----|-----|-----|----------------------|--------|
| Layouts | N                              | W  | X   | Y   | Z   | Male                 | Female |
| 18-19   | 0                              | -  | 120 | 240 | -   | 10                   | 16     |
| 20-15   | 0                              | 80 | -   | -   | 280 | 13                   | 21     |
| 22-14   | 0                              | 80 | -   | -   | 280 | 16                   | 25     |
| 24-10   | 0                              | 80 | 110 | 250 | 280 | 19                   | 31     |
| 28-21   | 0                              | 80 | 110 | 250 | 280 | 27                   | 40     |
| 32-A13  | 0                              | 65 | 130 | 230 | 295 | 45                   | 75     |
| 36-A22  | 0                              | 80 | 110 | 250 | 280 | 53                   | 88     |
| 40-A35  | 0                              | 70 | 130 | 230 | 290 | 61                   | 99     |
| 40-A60  | 0                              | 80 | 110 | 250 | 280 | 63                   | 100    |

# Ruggedized Reverse Bayonet Connector



## Accessories

### Backshells ordering information

| Series                                                               | UTV<br>UTV | J<br>C | S<br>S | 18<br>22 | – 00<br>– 14 | 00<br>00 | M |
|----------------------------------------------------------------------|------------|--------|--------|----------|--------------|----------|---|
| Backnut                                                              |            | R      |        |          |              |          |   |
| Cable clamp                                                          |            | C      |        |          |              |          |   |
| Backshell for PMA tube                                               |            | S      |        |          |              |          |   |
| Cable clamp with sealing gland                                       |            | J      |        |          |              |          |   |
| Cable clamp with sealing gland (trumpet)                             |            | K      |        |          |              |          |   |
| Cable clamp with sealing gland for shielding                         |            | T      |        |          |              |          |   |
| <b>S</b> - Straight backshell <b>E</b> - Elbow backshell             |            |        |        |          |              |          |   |
| <b>Shell size : 18 - 20 - 22 - 24 - 28 - 32 - 36 - 40</b>            |            |        |        |          |              |          |   |
| <b>Layout (grommet included) or 00 (without grommet)</b>             |            |        |        |          |              |          |   |
| <b>Adaptor type : 10</b> - long <b>00</b> - short                    |            |        |        |          |              |          |   |
| <b>Grommet type : M for male or L for female (if grommet needed)</b> |            |        |        |          |              |          |   |



Plug cap: F  
ex: VGE1Fxx (xx = shell size)

receptacle cap: E  
ex: VGE1Exx (xx = shell size)

### Adaptor ordering information

| Series                                                    | UTV | P | S | 18 | – 00 | 00 |
|-----------------------------------------------------------|-----|---|---|----|------|----|
| <b>P</b> - Adaptor with PG outlet*                        |     |   |   |    |      |    |
| <b>S</b> - Adaptor for straight backshell                 |     |   |   |    |      |    |
| <b>Shell size : 18 - 20 - 22 - 24 - 28 - 32 - 36 - 40</b> |     |   |   |    |      |    |
| <b>Adaptor type : 10</b> - long <b>00</b> - short         |     |   |   |    |      |    |

\* For metric threading: consult factory

# Ruggedized Reverse Bayonet Connector



## Accessories

### Grommet (only when needed on spare parts)

Grommet are delivered with a conical ring

| Layout | Grommet type | Part number | Wire insulator diameter (mm) |        |
|--------|--------------|-------------|------------------------------|--------|
|        |              |             | Mini                         | Maxi * |
| 18-19  | male         | UTVM18-1900 | 1,2                          | 2,95   |
| 18-19  | female       | UTVL18-1900 | 1,2                          | 2,95   |
| 20-15  | male         | UTVM20-1500 | 1,2                          | 3,6    |
| 20-15  | female       | UTVL20-1500 | 1,2                          | 3,6    |
| 22-14  | male         | UTVM22-1400 | 1,2                          | 2,95   |
| 22-14  | female       | UTVL22-1400 | 1,2                          | 2,95   |
| 24-10  | male         | UTVM24-1000 | 4,2                          | 6,2    |
| 24-10  | female       | UTVL24-1000 | 4,2                          | 6,2    |
| 28-21  | male         | UTVM28-2100 | 1,2                          | 2,95   |
| 28-21  | female       | UTVL28-2100 | 1,2                          | 2,95   |
| 32A13  | male         | UTVM32A1300 | 1,2                          | 3,6    |
| 32A13  | female       | UTVL32A1300 | 1,2                          | 3,6    |
| 36A22  | male         | UTVM36A2200 | 1,2                          | 3,6    |
| 36A22  | female       | UTVL36A2200 | 1,2                          | 3,6    |
| 40A35  | male         | UTVM40A3500 | 1,2                          | 3,6    |
| 40A35  | female       | UTVL40A3500 | 1,2                          | 3,6    |
| 40A60  | male         | UTVM40A6000 | 1,2                          | 2,95   |
| 40A60  | female       | UTVL40A6000 | 1,2                          | 2,95   |

\* Please consult us if your wire has an insulation diameter over these values, we will propose you another grommet.

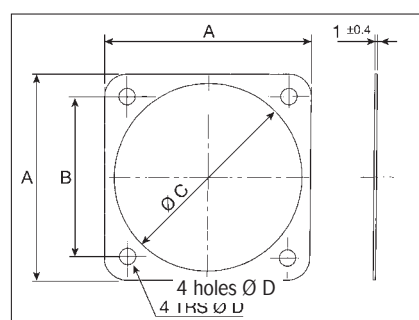


### Grommet filler plug

| Contact size | Part number | Color | Photo                                                                                 |
|--------------|-------------|-------|---------------------------------------------------------------------------------------|
| # 16<br># 12 | 8500-479    | blue  |  |

## Panel gasket

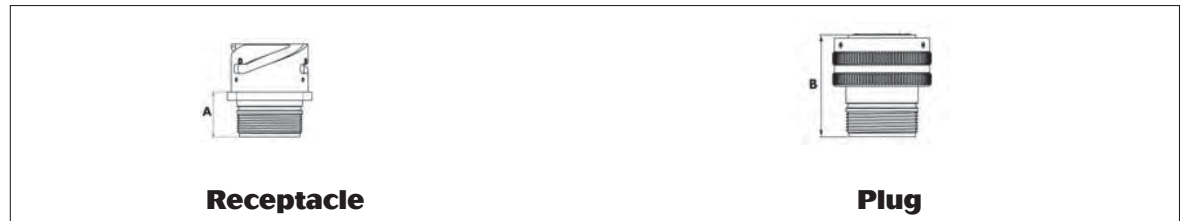
| Shell size | Part number | Dimensions |         |          |            |
|------------|-------------|------------|---------|----------|------------|
|            |             | A ± 0.5    | B ± 0.2 | C 0/+0.3 | Ø D 0/+0.3 |
| 20         | UTVG20      | 38         | 29.4    | 34.2     | 4.2        |
| 22         | UTVG22      | 41         | 31.8    | 37.4     | 4.2        |
| 24         | UTVG24      | 44.5       | 34.9    | 40.9     | 4.2        |
| 28         | UTVG28      | 50.8       | 39.7    | 46.7     | 5.1        |
| 32         | UTVG32      | 57         | 44.5    | 53.4     | 5.1        |
| 36         | UTVG36      | 63.5       | 49.2    | 59.6     | 5.1        |
| 40         | UTVG40      | 69.9       | 55.5    | 65.5     | 5.1        |

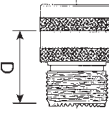
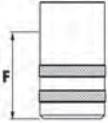
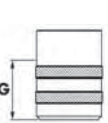
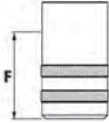
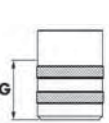
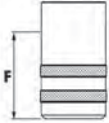
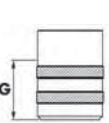
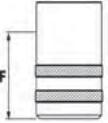
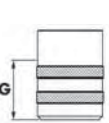
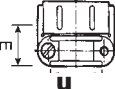
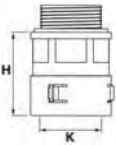
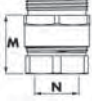
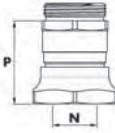


# Ruggedized Reverse Bayonet Connector

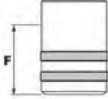
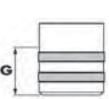


## Synoptic of straight backshells (for IP67 applications)



|                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    |                                                                                     |    |    |    |      |      |  |  |  |  |
|                    |                                                                                     | +                                                                                   | +                                                                                   | +                                                                                   | +                                                                                     | +                                                                                     | +                                                                                   | +                                                                                   | +                                                                                   | +                                                                                   |
|                    |  |  |  |  |  |  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Description</b> | Backnut                                                                             | Cable clamp                                                                         | Backshell for PMA tube                                                              | Backshell for PMA tube                                                              | Cable clamp with sealing gland                                                        | Cable clamp with sealing gland                                                        | Cable clamp with sealing gland (trumpet shape to avoid cable wound)                 | Cable clamp with sealing gland (trumpet shape to avoid cable wound)                 | Cable clamp with sealing gland for shielding                                        | Cable clamp with sealing gland for shielding                                        |
| <b>Ref</b>         | UTV RS****00                                                                        | UTV CS****00                                                                        | UTV SS****10                                                                        | UTV SS****00                                                                        | UTV JS****10                                                                          | UTV JS****00                                                                          | UTV KS****10                                                                        | UTV KS****00                                                                        | UTV TS****10                                                                        | UTV TS****00                                                                        |

## Synoptic of adaptors

|                    |                                                                                     |                                                                                     |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    |  |  |
| <b>Description</b> | Long adaptor with PG outlet                                                         | Short adaptor with PG outlet                                                        |
| <b>Ref</b>         | UTV PS**0010                                                                        | UTV PS**0000                                                                        |

**NB: IP68 backshells are available under request**

# Ruggedized Reverse Bayonet Connector



## Dimensions

|          | Shell 18           |                    | Shell 20           |                    | Shell 22           |                    | Shell 24           |                    | Shell 28           |                    | Shell 32           |                    | Shell 36           |                    | Shell 40                    |                    |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------|--------------------|
|          | with<br>grommet    | without<br>grommet | with<br>grommet    | without<br>grommet | with<br>grommet    | without<br>grommet | with<br>grommet    | without<br>grommet | with<br>grommet    | without<br>grommet | with<br>grommet    | without<br>grommet | with<br>grommet    | without<br>grommet | with<br>grommet             | without<br>grommet |
|          | ****<br>=<br>18-19 | ****<br>=<br>18-00 | ****<br>=<br>20-15 | ****<br>=<br>20-00 | ****<br>=<br>22-14 | ****<br>=<br>22-00 | ****<br>=<br>24-10 | ****<br>=<br>24-00 | ****<br>=<br>28-21 | ****<br>=<br>28-00 | ****<br>=<br>32A13 | ****<br>=<br>32A00 | ****<br>=<br>36A22 | ****<br>=<br>36A00 | ****<br>=<br>40A35<br>40A60 | ****<br>=<br>40A00 |
| <b>A</b> | 22,5               |                    | 22,5               |                    | 22,5               |                    | 22,5               |                    | 24                 |                    | 24                 |                    | 24                 |                    | 24                          |                    |
| <b>B</b> | 45,6               |                    | 45,6               |                    | 45,6               |                    | 45,6               |                    | 48,1               |                    | 48,1               |                    | 48,1               |                    | 48,1                        |                    |
| <b>C</b> | 18                 |                    | 18                 |                    | 18                 |                    | 18                 |                    | 17                 |                    | 17                 |                    | 17                 |                    | 17                          |                    |
| <b>D</b> | 44                 |                    | 44                 |                    | 44                 |                    | 44                 |                    | 47                 |                    |                    |                    |                    |                    |                             |                    |
| <b>E</b> | 28,5               |                    | 28,5               |                    | 26                 |                    | 26                 |                    | 23                 |                    |                    |                    |                    |                    |                             |                    |
| <b>F</b> | 48,6               |                    | 48,6               |                    | 48,6               |                    | 48,6               |                    | 58                 |                    | 48                 |                    | 48                 |                    | 48                          |                    |
| <b>G</b> | 34                 |                    | 34                 |                    | 34                 |                    | 34                 |                    | 33                 |                    | 33                 |                    | 33                 |                    | 33                          |                    |
| <b>H</b> | 35,5               |                    | 35,5               |                    | 38,5               |                    | 38,5               |                    | 38,5               |                    | 38,5               |                    | 52                 |                    | 46                          |                    |
| <b>K</b> | PMA17              |                    | PMA17              |                    | PMA23              |                    | PMA23              |                    | PMA29              |                    | PMA29              |                    | PMA36              |                    | PMA48                       |                    |
| <b>M</b> | 23                 |                    | 23                 |                    | 31                 |                    | 31                 |                    | 31,5               |                    | 31,5               |                    | 37,5               |                    | 45                          |                    |
| <b>N</b> | 7/12               |                    | 9/14               |                    | 10/18              |                    | 10/18              |                    | 14/24              |                    | 14/24              |                    | 22/30              |                    | 25/35                       |                    |
| <b>P</b> | 30                 |                    | 31,5               |                    | 38,5               |                    | 38,5               |                    | 45                 |                    | 45                 |                    | 51,5               |                    | 57                          |                    |
| <b>S</b> | 33,5               |                    | 33,5               |                    | 43                 |                    | 43                 |                    | 52                 |                    | 52                 |                    |                    |                    |                             |                    |
| <b>T</b> | 8/12,5             |                    | 10/14,5            |                    | 13,5/18            |                    | 13,5/18            |                    | 17/24              |                    | 17/24              |                    |                    |                    |                             |                    |
| <b>U</b> | 4/15,5             |                    | 7/15,5             |                    | 9/15,5             |                    | 8,5/19,5           |                    | 9,5/19,5           |                    |                    |                    |                    |                    |                             |                    |
|          | PG13,5             |                    | PG16               |                    | PG 21              |                    | PG21               |                    | PG29               |                    | PG29               |                    | PG36               |                    | PG42                        |                    |

**Note :** Dimensions are not contractual and may be subject to modifications.

⇒ All backshells are compatible with a grommet and a conical ring.

⇒ For cable or PMA tube diameter not included in the above chart please consult us.

### Example of rear dimensions calculation of a shell size 18 connector with a sealing gland cable clamp backshell without grommet and with a long adaptor

Backshell P/N : UTV JS 18 00 10

### Rear dimensions receptacle + backshell :

$$A + F + M = 94,1 \text{ mm}$$



**Receptacle**

**Plug**



|                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| +                                                                                  | +                                                                                   | +                                                                                   | +                                                                                   |
|  |  |  |  |
| <b>Description</b>                                                                 | Backshell for PMA tube                                                              | Cable clamp with sealing gland                                                      | Cable clamp with sealing gland (trumpet shape to avoid cable wound)                 |
| <b>Part number</b>                                                                 | UTV SE****00                                                                        | UTV JE****00                                                                        | UTV KE****00                                                                        |



**Receptacle**

**Plug**



|                                                                                       |
|---------------------------------------------------------------------------------------|
| +                                                                                     |
|  |
| <b>Description</b>                                                                    |
| <b>Part number</b>                                                                    |

**NB: IP68 backshells are available upon request**

# Ruggedized Reverse Bayonet Connector



## Dimensions

|          | Shell 18        |                    | Shell 20        |                    | Shell 22        |                    | Shell 24        |                    | Shell 28        |                    | Shell 32        |                    | Shell 36        |                    | Shell 40                 |                    |
|----------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|--------------------------|--------------------|
|          | with<br>grommet | without<br>grommet | with<br>grommet | without<br>grommet | with<br>grommet | without<br>grommet | with<br>grommet | without<br>grommet | with<br>grommet | without<br>grommet | with<br>grommet | without<br>grommet | with<br>grommet | without<br>grommet | with<br>grommet          | without<br>grommet |
|          | ****<br>= 18-19 | ****<br>= 18-00    | ****<br>= 20-15 | ****<br>= 20-00    | ****<br>= 22-14 | ****<br>= 22-00    | ****<br>= 24-10 | ****<br>= 24-00    | ****<br>= 28-21 | ****<br>= 28-00    | ****<br>= 32A13 | ****<br>= 32A00    | ****<br>= 36A22 | ****<br>= 36A00    | ****<br>= 40A35<br>40A60 | ****<br>= 40A40    |
| <b>A</b> | 22,5            |                    | 22,5            |                    | 22,5            |                    | 22,5            |                    | 24              |                    | 24              |                    | 24              |                    | 24                       |                    |
| <b>B</b> | 45,6            |                    | 45,6            |                    | 45,6            |                    | 45,6            |                    | 48,1            |                    | 48,1            |                    | 48,1            |                    | 48,1                     |                    |
| <b>C</b> | 44              |                    | 43,5            |                    | 43,5            |                    | 46              |                    | 41              |                    |                 |                    |                 |                    |                          |                    |
| <b>D</b> | 26              |                    | 25,5            |                    | 17,5            |                    | 20              |                    | 18              |                    |                 |                    |                 |                    |                          |                    |
| <b>E</b> | 28,5            |                    | 28,5            |                    | 26              |                    | 26              |                    | 23              |                    |                 |                    |                 |                    |                          |                    |
| <b>F</b> | 43              |                    | 44              |                    | 44              |                    | 49              |                    | 46              |                    | 59              |                    | 60              |                    |                          |                    |
| <b>H</b> | 35,5            |                    | 35,5            |                    | 38,5            |                    | 38,5            |                    | 38,5            |                    | 38,5            |                    | 46              |                    |                          |                    |
| <b>K</b> | PMA 17          |                    | PMA 17          |                    | PMA 23          |                    | PMA 23          |                    | PMA 29          |                    | PMA 36          |                    | PMA 36          |                    |                          |                    |
| <b>M</b> | 23              |                    | 23              |                    | 31              |                    | 31              |                    | 31,5            |                    | 31,5            |                    | 37,5            |                    |                          |                    |
| <b>N</b> | 7/12            |                    | 9/14            |                    | 10/18           |                    | 10/18           |                    | 14/24           |                    | 14/24           |                    | 22/30           |                    |                          |                    |
| <b>P</b> | 30              |                    | 31,5            |                    | 38,5            |                    | 38,5            |                    | 45              |                    | 45              |                    | 51,5            |                    |                          |                    |
| <b>S</b> | 33,5            |                    | 33,5            |                    | 43              |                    | 43              |                    | 52              |                    | 52              |                    |                 |                    |                          |                    |
| <b>T</b> | 8/12,5          |                    | 10/14,5         |                    | 13,5/18         |                    | 13,5/18         |                    | 17/24           |                    | 17/24           |                    |                 |                    |                          |                    |
| <b>U</b> | 4/15,5          |                    | 7/15,5          |                    | 9/15,5          |                    | 8,5/19,5        |                    | 9,5/19,5        |                    |                 |                    |                 |                    |                          |                    |
|          | PG 13,5         |                    | PG 16           |                    | PG 21           |                    | PG 21           |                    | PG 29           |                    | PG 29           |                    | PG 36           |                    | PG 42                    |                    |

**Note :** Dimensions are not contractual and may be subject to modifications.

⇒ All backshells are compatible with a grommet and a conical ring.

⇒ For cable or PMA tube diameter not included in the above chart please consult us.

# Ruggedized Reverse Bayonet Connector



## Tooling Data

| Contact size | Contact type | Contact Ø mm | Contact Part number | Contact Size    |       | Crimp tool          | Locator                | Extraction tool |
|--------------|--------------|--------------|---------------------|-----------------|-------|---------------------|------------------------|-----------------|
|              |              |              |                     | mm <sup>2</sup> | AWG   |                     |                        |                 |
| #16          | Male         | 1.6          | RM16M23K            | 0.52 - 1.50     | 20-16 | MH860 (M22520/7-01) | MH86164G               | RX2025GE1       |
| #16          | Female       | 1.6          | RC16M23K            | 0.52 - 1.50     | 20-16 | MH860 (M22520/7-01) | MH86164G               | RX2025GE1       |
| #16          | Male         | 1.6          | RM14M30K            | 2.50            | 14    | AF8 (M22520/3-1)    | TP1142 (selector on 8) | RX2025GE1       |
| #16          | Female       | 1.6          | RC14M30K            | 2.50            | 14    | AF8 (M22520/3-1)    | TP1142 (selector on 8) | RX2025GE1       |
| #12          | Male         | 2.4          | 8291 1437 NA        | 0.50            | 20    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1436 A         | 0.50            | 20    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Male         | 2.4          | 8291 1435 NA        | 0.75 - 1.00     | 18    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1434 A         | 0.75 - 1.00     | 18    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Male         | 2.4          | 8291 1463 NA        | 1.50            | 16    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1462 A         | 1.50            | 16    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Male         | 2.4          | 8291 1465 NA        | 2.50            | 14    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1464 A         | 2.50            | 14    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Male         | 2.4          | 8291 1437 NK        | 0.50            | 20    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1436 K         | 0.50            | 20    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Male         | 2.4          | 8291 1435 NK        | 0.75 - 100      | 18    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1434 K         | 0.75 - 100      | 18    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Male         | 2.4          | 8291 1463 NK        | 1.50            | 16    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1462 K         | 1.50            | 16    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Male         | 2.4          | 8291 1465 NK        | 2.50            | 14    | M317                | VGE10077A              | 5106.021.09.24  |
| #12          | Female       | 2.4          | 8291 1464 K         | 2.50            | 14    | M317                | VGE10077A              | 5106.021.09.24  |
| #8           | Male         | 3.6          | 8291 3601 A         | 1.50            | 16    | M317                | VGE10078A              | 5106.021.09.36  |
| #8           | Female       | 3.6          | 8291 3600 A         | 1.50            | 16    | M317                | VGE10078A              | 5106.021.09.36  |
| #8           | Male         | 3.6          | 8291 3603 A         | 2.50            | 14    | M317                | VGE10078A              | 5106.021.09.36  |
| #8           | Female       | 3.6          | 8291 3602 A         | 2.50            | 14    | M317                | VGE10078A              | 5106.021.09.36  |
| #8           | Male         | 3.6          | 8291 3605 A         | 4.00            | 12    | M317                | VGE10078A              | 5106.021.09.36  |
| #8           | Female       | 3.6          | 8291 3604 A         | 4.00            | 12    | M317                | VGE10078A              | 5106.021.09.36  |
| #8           | Male         | 3.6          | 8291 3607 A         | 6.00            | 10    | M317                | VGE10078A              | 5106.021.09.36  |
| #8           | Female       | 3.6          | 8291 3606 A         | 6.00            | 10    | M317                | VGE10078A              | 5106.021.09.36  |

For detailed information on crimp tooling: see crimp tooling section.

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