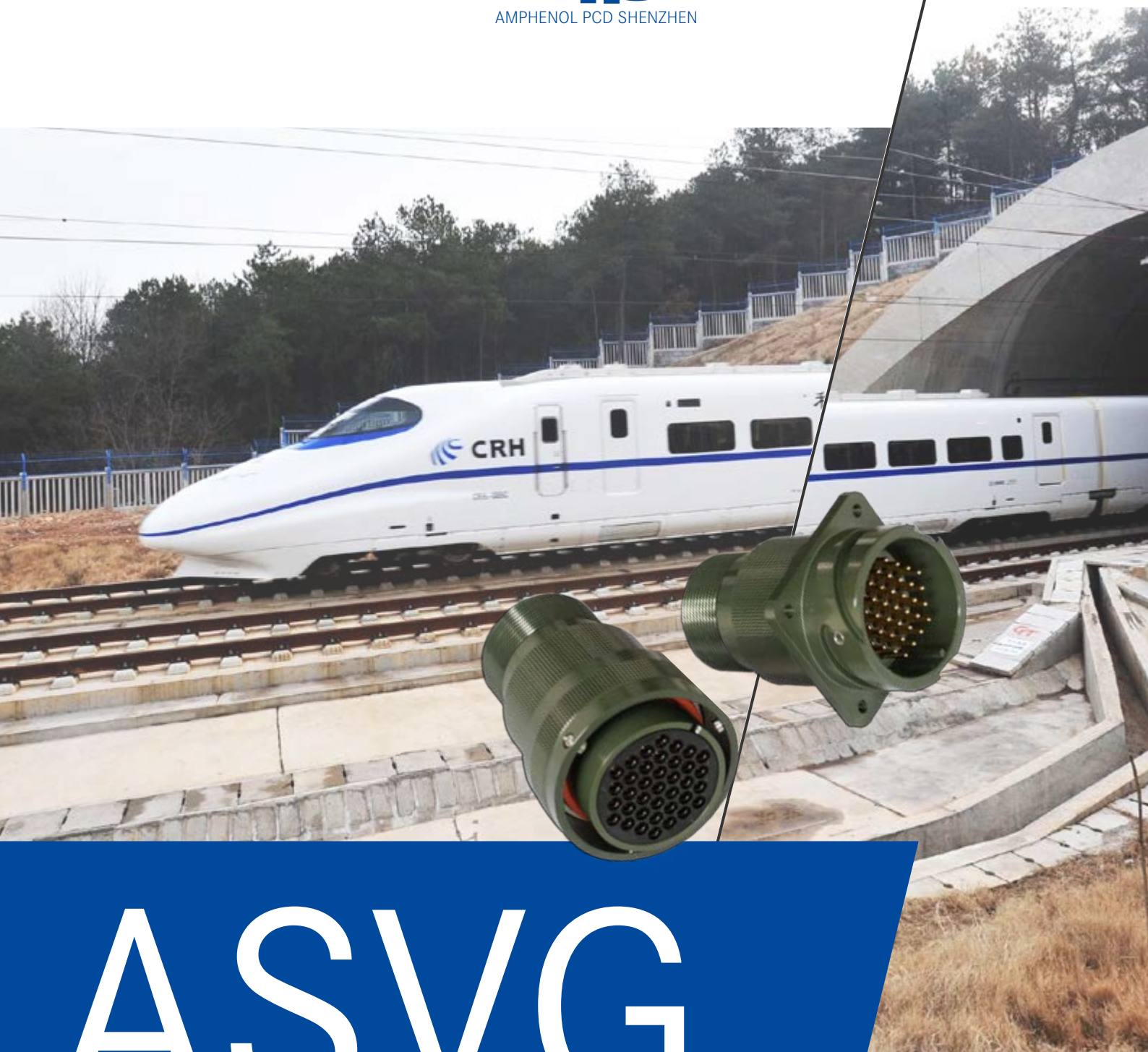




# ASVG

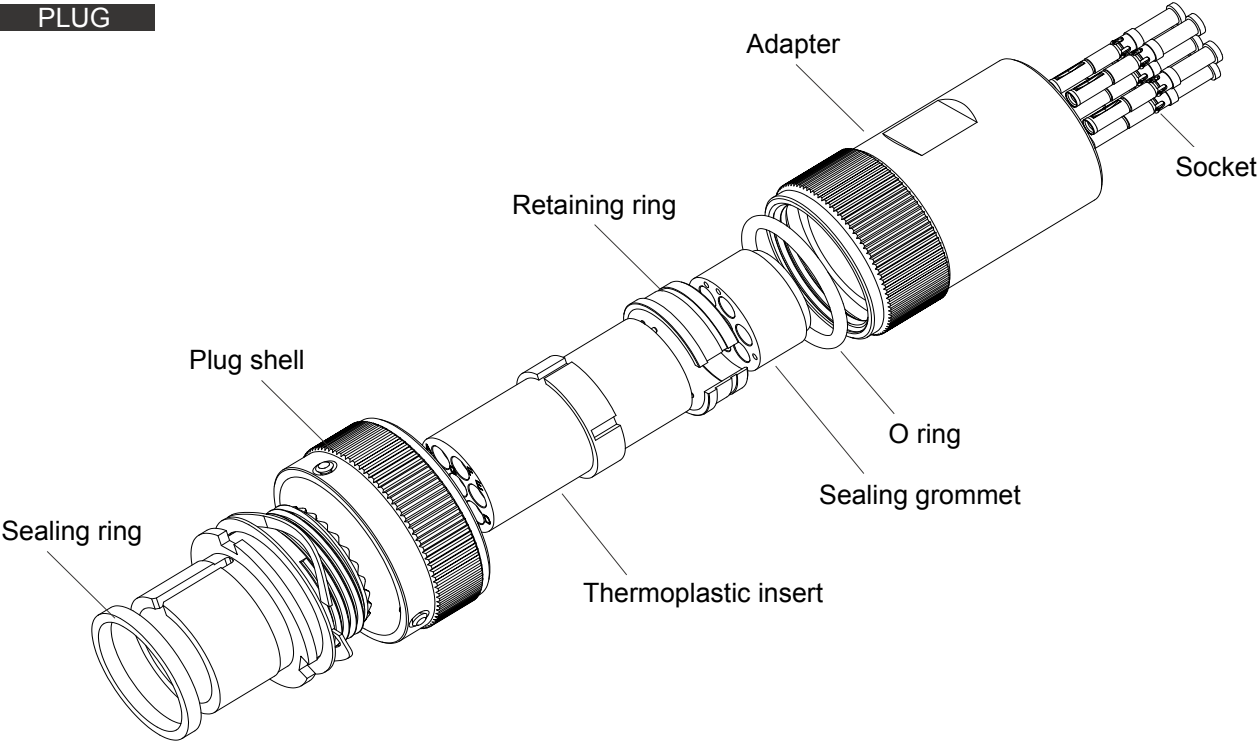
MS5015 Reverse bayonet connector

## CONTENT

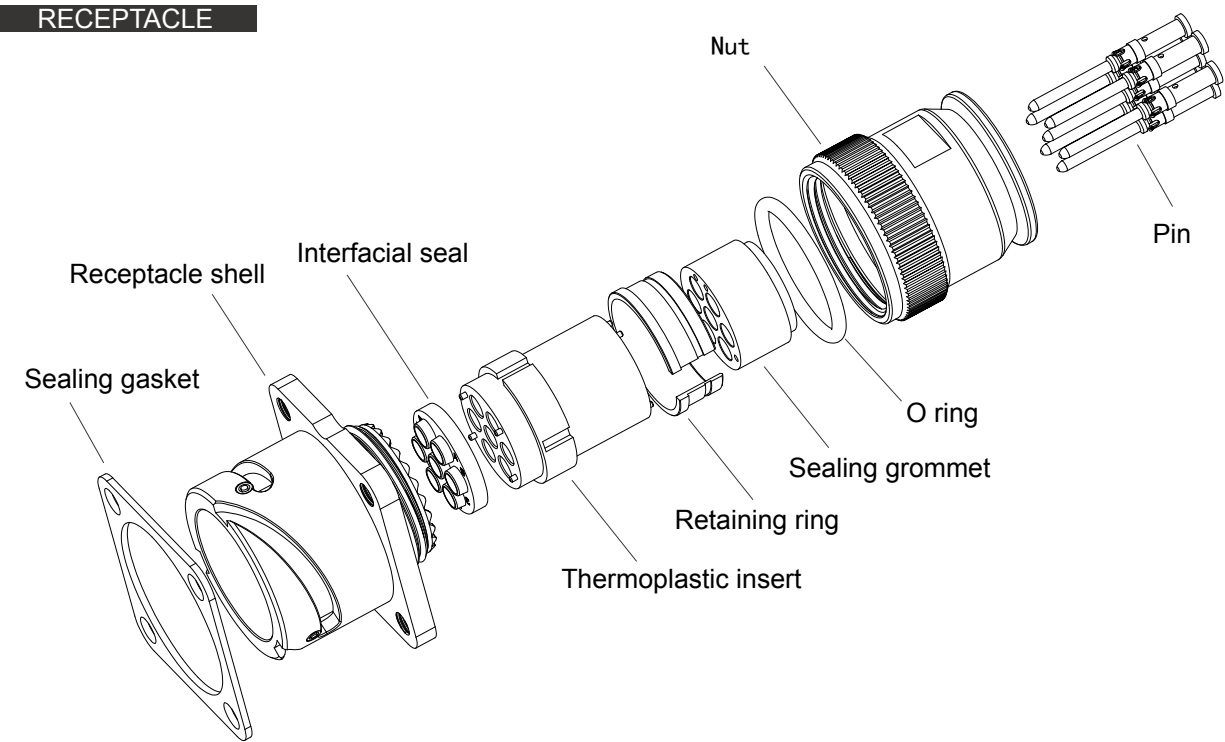
|                                               |    |
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# CONNECTOR STRUCTURE

## PLUG



## RECEPTACLE





ASVG series has been designed in accordance with the MS5015 specification. This connector is an enhanced version of the MS5015 standard connector but remains completely intermateable with the MS5015 reverse bayonet connectors.

- In conformity with the French railways standard NFF 61030.
- The insulator is in hard thermoplastic, classified UL94V0. It is also in conformity with R22(HL3) according to DIN EN45445 : 2013.
- An interfacial silicon seal is present on the male inserts to extend the creepage distance and to have better sealing when the connector is mated.
- 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 crimping tools.
- The connector is rated IP67 when mated and used with suitable accessories, a grommet or a sealed backshell.
- Offering a variety of additional insert arrangements not described in the MS5015.

The ASVG series offers high reliability and performance for common applications including RMT as well as propulsion technologies, machine tools, measurement and robotics.



### KEY FEATURES

MS5015 Reverse bayonet connector

Conforming with the French Railway standard NFF 61030

High density of insert arrangement

Alternate insert position

Sealing, IP67 (mated and used with backshell and grommet)

### MECHANICAL

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Durability              | ≥ 500 mating cycles                                      |
| Vibration & shock       | IEC 61373-1999 (GB/T 21563-2008)                         |
| Contact retention force | #16: 70N<br>#12: 90N<br>#8: 110N<br>#4: 150N<br>#0: 200N |

### ELECTRICAL

|                      |                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------|
| Rated current        | #16: 13A max<br>#12: 23A max<br>#8 (normal): 46A max<br>#8 (Radsok): 70A max<br>#4: 80A max<br>#0: 150A max |
| Rated voltage        | Comforming with MS5015, please refer to p.5 and p.6                                                         |
| Contact resistance   | #16: 2.5mΩ max<br>#12: 1.3mΩ max<br>#8: 0.9mΩ max<br>#4: 0.5mΩ max<br>#0: 0.3mΩ max                         |
| Insulator resistance | ≥ 5000MΩ                                                                                                    |
| Temperature rise     | ≤ 60°C                                                                                                      |

### ENVIRONMENTAL

|                   |                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------|
| Temperature range | -55°C to 125°C                                                                                           |
| Humidity          | 90% to 95% (40±2°C)                                                                                      |
| Sealing           | DIN EN 60529, IP67                                                                                       |
| Inflammability    | EN 45545-2 - R22                                                                                         |
| Salt spray        | 48h (nickel plating)<br>96h (zinc plating)<br>200h (anodized plating)<br>500h (Si-Ni conductive plating) |

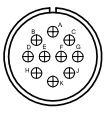
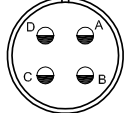
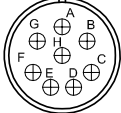
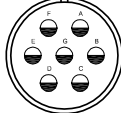
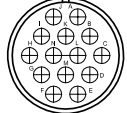
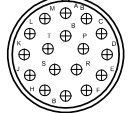
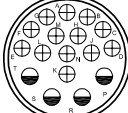
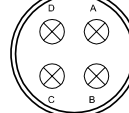
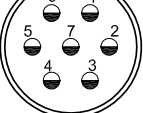
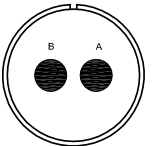
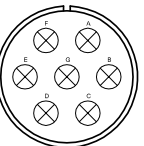
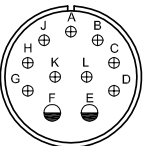
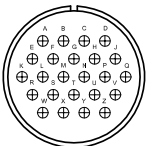
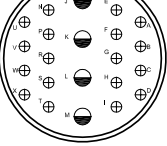
### MATERIAL

|                |                                                                   |
|----------------|-------------------------------------------------------------------|
| Shell          | Alu.alloy, zinc or nickel or anodized or Si-Ni conductive plating |
| Inserts        | Thermoplastic                                                     |
| Sealing gasket | Silicon rubber                                                    |
| Contact        | Copper alloy, silver or gold plating                              |

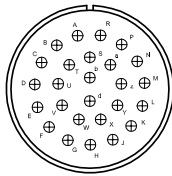


# INSERT ARRANGEMENT

Contacts       
16 12 8 4 0

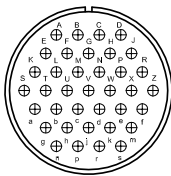
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|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      |    |    |    |      |    |  |  |
| Insert arrangement   | 14S-A5                                                                              | 14S-6                                                                               | 14S-9                                                                               | 16S-1                                                                                 | 16-9                                                                                  | 18-1                                                                                | 18-11                                                                               |
| Rated voltage        | 200V AC                                                                             | 200V AC                                                                             | 500V AC                                                                             | 500V AC                                                                               | 500V AC                                                                               | 500V AC                                                                             | 200V AC                                                                             |
| Rated current        | 13A                                                                                 | 13A                                                                                 | 13A                                                                                 | 13A                                                                                   | 13A, 23A                                                                              | 13A                                                                                 | 23A                                                                                 |
| Number of contacts   | 5                                                                                   | 6                                                                                   | 2                                                                                   | 7                                                                                     | 2X #16, 2X #12                                                                        | 10                                                                                  | 5                                                                                   |
| Contact size         | #16                                                                                 | #16                                                                                 | #16                                                                                 | #16                                                                                   | #16, #12                                                                              | #16                                                                                 | #12                                                                                 |
| Withstanding voltage | 1000V                                                                               | 1000V                                                                               | 2000V                                                                               | 2000V                                                                                 | 2000V                                                                                 | 2000V                                                                               | 1000V                                                                               |
|                      |    |    |    |    |    |                                                                                     |                                                                                     |
| Insert arrangement   | 18-19                                                                               | 20-4                                                                                | 20-7                                                                                | 20-15                                                                                 | 20-27                                                                                 |                                                                                     |                                                                                     |
| Rated voltage        | 500V AC                                                                             | 900V AC                                                                             | 500V AC                                                                             | 500V AC                                                                               | 500V AC                                                                               |                                                                                     |                                                                                     |
| Rated current        | 13A                                                                                 | 23A                                                                                 | 13A                                                                                 | 23A                                                                                   | 16A                                                                                   |                                                                                     |                                                                                     |
| Number of contacts   | 10                                                                                  | 4                                                                                   | 8                                                                                   | 7                                                                                     | 14                                                                                    |                                                                                     |                                                                                     |
| Contact size         | #16                                                                                 | #12                                                                                 | #16                                                                                 | #12                                                                                   | #16                                                                                   |                                                                                     |                                                                                     |
| Withstanding voltage | 2000V                                                                               | 2800V                                                                               | 2000V                                                                               | 2000V                                                                                 | 2000V                                                                                 |                                                                                     |                                                                                     |
|                      |  |  |  |  |  |                                                                                     |                                                                                     |
| Insert arrangement   | 20-29                                                                               | 22-14                                                                               | 22-A17                                                                              | 22-22                                                                                 | 24-2                                                                                  |                                                                                     |                                                                                     |
| Rated voltage        | 500V AC                                                                             | 500V AC                                                                             | 500V AC                                                                             | 500V AC                                                                               | 900V AC                                                                               |                                                                                     |                                                                                     |
| Rated current        | 16A                                                                                 | 13A                                                                                 | 13A, 23A                                                                            | 46A                                                                                   | 23A                                                                                   |                                                                                     |                                                                                     |
| Number of contacts   | 17                                                                                  | 19                                                                                  | 13X #16, 4X #12                                                                     | 4X #8                                                                                 | 7                                                                                     |                                                                                     |                                                                                     |
| Contact size         | #16                                                                                 | #16                                                                                 | #16, #12                                                                            | #8                                                                                    | #12                                                                                   |                                                                                     |                                                                                     |
| Withstanding voltage | 2000V                                                                               | 2000V                                                                               | 2000V                                                                               | 2000V                                                                                 | 2800V                                                                                 |                                                                                     |                                                                                     |
|                      |  |  |  |  |  |                                                                                     |                                                                                     |
| Insert arrangement   | 24-9                                                                                | 24-10                                                                               | 24-20                                                                               | 24-28                                                                                 | 28-11                                                                                 |                                                                                     |                                                                                     |
| Rated voltage        | 500V AC                                                                             | 500V AC                                                                             | 900V AC                                                                             | 500V AC                                                                               | 500V AC                                                                               |                                                                                     |                                                                                     |
| Rated current        | 80A                                                                                 | 46A                                                                                 | 13A, 23A                                                                            | 13A                                                                                   | 13A, 23A                                                                              |                                                                                     |                                                                                     |
| Number of contacts   | 2                                                                                   | 7                                                                                   | 9X #16, 2X #12                                                                      | 24                                                                                    | 18X #16, 4X #12                                                                       |                                                                                     |                                                                                     |
| Contact size         | #4                                                                                  | #8                                                                                  | #16, #12                                                                            | #16                                                                                   | #16, #12                                                                              |                                                                                     |                                                                                     |
| Withstanding voltage | 2000V                                                                               | 2000V                                                                               | 2800V                                                                               | 2000V                                                                                 | 2000V                                                                                 |                                                                                     |                                                                                     |

# INSERT ARRANGEMENT

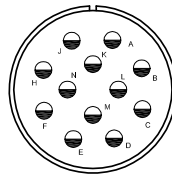


Insert arrangement  
Rated voltage  
Rated current  
Number of contacts  
Contact size  
Withstanding voltage

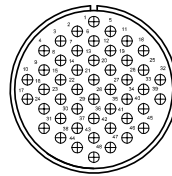
28-12  
500V AC  
13A  
26  
#16  
2000V



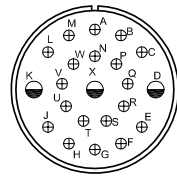
28-21  
500V AC  
13A  
37  
#16  
2000V



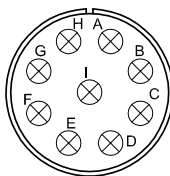
28-51  
900V AC  
23A  
12  
#12  
2800V



28-48  
500V AC  
13A  
48  
#16  
2000V

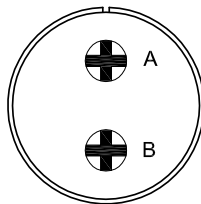


28-A63  
500V AC  
13A, 23A  
19X #16, 3X #12  
#16, #12  
2000V

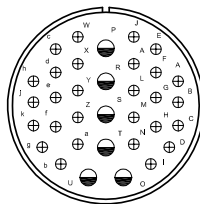


Insert arrangement  
Rated voltage  
Rated current  
Number of contacts  
Contact size  
Withstanding voltage

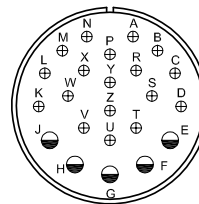
28-84  
500V AC  
46A  
9X #8  
#8  
2000V



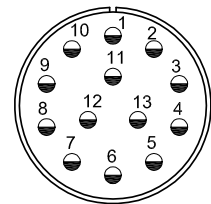
32-5  
900V AC  
150A  
2  
#0  
2800V



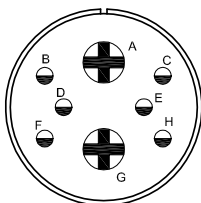
32-A7  
500V AC  
13A, 23A  
28X #16, 6X #12  
#16, #12  
2000V



32-13  
900V AC  
13A, 23A  
18X #16, 5X #12  
#16, #12  
2800V

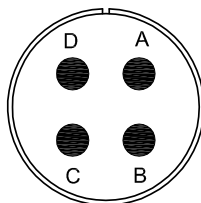


32-013  
900V AC  
23A  
13X #12  
#12  
2800V

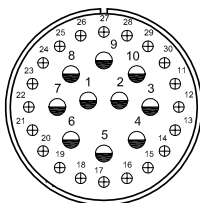


Insert arrangement  
Rated voltage  
Rated current  
Number of contacts  
Contact size  
Withstanding voltage

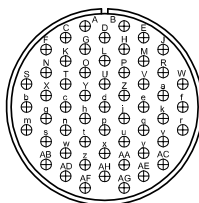
32-15  
900V AC  
23A, 150A  
6X #12, 2X #0  
#12, #0  
2800V



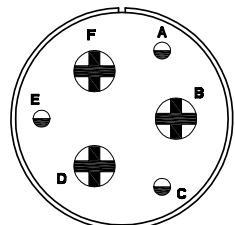
32-17  
900V AC  
70A  
4  
#4  
2800V



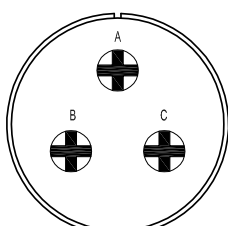
32-A30  
500V AC  
13A, 23A  
20X #16, 10X #12  
#16, #12  
2000V



32-A55  
500V AC  
13A  
55X #165  
#165  
2000V

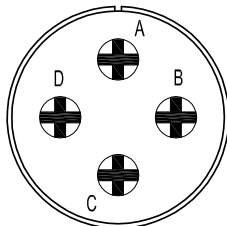


36-3  
900V AC  
23A, 150A  
3X #12, 3X #0  
#12, #0  
2800V

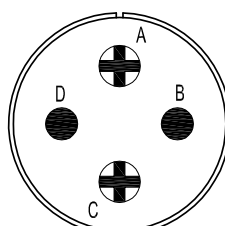


Insert arrangement  
Rated voltage  
Rated current  
Number of contacts  
Contact size  
Withstanding voltage

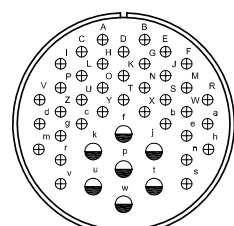
36-4  
500V AC  
150A  
3  
#0  
2000V



36-5  
500V AC  
150A  
4  
#0  
2000V

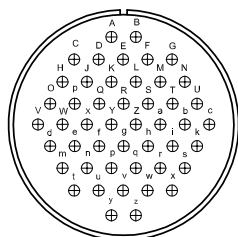


36-A6  
500V AC  
70A, 150A  
2X #4, 2X #0  
#4, #0  
2000V



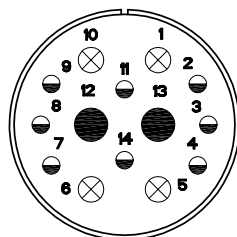
36-A7  
500V AC  
13A, 23A  
37X #16, 7X #12  
#16, #12  
2000V

# INSERT ARRANGEMENT

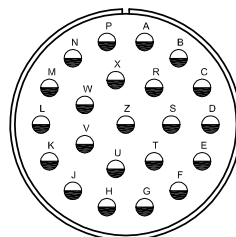


Insert arrangement  
Rated voltage  
Rated current  
Number of contacts  
Contact size  
Withstanding voltage

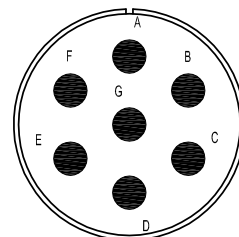
36-10  
500V AC  
13A  
48  
#16  
2000V



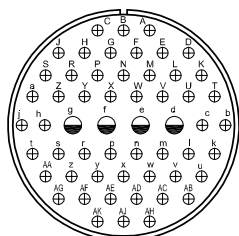
36-A14  
500V  
23A, 46A, 80A  
8X #12, 4X #8, 2X #4  
#12, #8, #4  
2000V



36-22  
900V AC  
23A  
22  
#12  
2800V

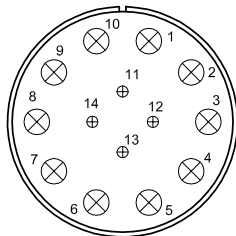


36-77  
900V AC  
70A  
7  
#4  
2800V

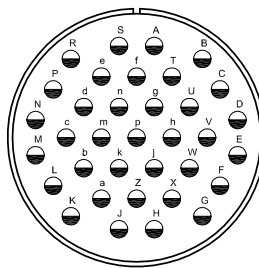


Insert arrangement  
Rated voltage  
Rated current  
Number of contacts  
Contact size  
Withstanding voltage

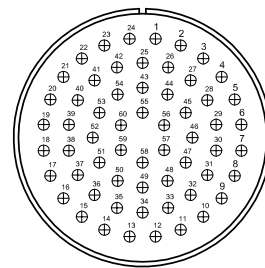
36-66  
500V AC  
16A, 23A  
52X #16, 4X #12  
#16, #12  
2000V



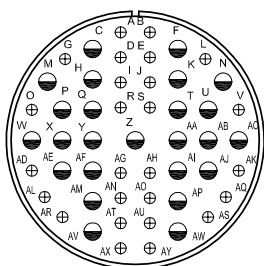
36-A78  
500V  
13A, 46A  
4X #16, 10X #8  
#16, #8  
2000V



40-35  
900V AC  
23A  
35  
#12  
2800V



40-53  
500V AC  
13A  
60  
#16  
2000V



Insert arrangement  
Rated voltage  
Rated current  
Number of contacts  
Contact size  
Withstanding voltage

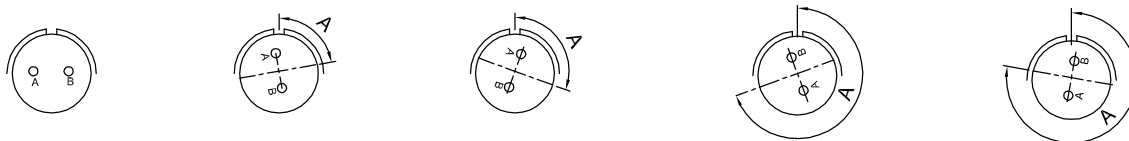
40-951  
500V  
13A, 23A  
26X #16, 25X #12  
#16, #12  
2000V



## HOW TO ORDER

|                                                                                                                                                                                                                                                                                                                                                                                                             | ASVG | RM | 03 | R | 18 | 19 | PC | X | / |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----|---|----|----|----|---|---|
| <b>Box mounted receptacle:</b><br><b>RM:</b> Rear panel mount receptacle<br><b>Omit:</b> Front panel mount receptacle                                                                                                                                                                                                                                                                                       |      |    |    |   |    |    |    |   |   |
| <b>Connector type:</b><br><b>02:</b> Box mounted receptacle,<br><i>for thread mounting holes</i><br><b>020:</b> Box mounted receptacle,<br><i>through mounting holes</i><br><b>03:</b> Box mounted receptacle with backshell,<br><i>for thread mounting holes</i><br><b>030:</b> Box mounted receptacle with backshell,<br><i>through mounting holes</i><br><b>06:</b> Straight plug<br><b>08:</b> R/A plug |      |    |    |   |    |    |    |   |   |
| <b>Connector service class:</b><br><b>R:</b> With backshell and sealing gromet<br><b>A:</b> With backshell, without sealing gromet<br><b>F:</b> With cable clamp<br><b>SF:</b> With external scew thread<br><b>RS:</b> With sealing gromet                                                                                                                                                                  |      |    |    |   |    |    |    |   |   |
| <b>Shell size:</b><br>14S, 16S, 18, 20, 22, 24, 28, 32, 36, 40                                                                                                                                                                                                                                                                                                                                              |      |    |    |   |    |    |    |   |   |
| Insert arrangement, please refer to Page 5 to 7                                                                                                                                                                                                                                                                                                                                                             |      |    |    |   |    |    |    |   |   |
| <b>Contact type:</b><br><b>PC:</b> Pin, crimp<br><b>SC:</b> Socket, crimp                                                                                                                                                                                                                                                                                                                                   |      |    |    |   |    |    |    |   |   |
| <b>Alternate insert position:</b><br><b>Omit:</b> Standard position<br><b>W:</b> Please refer to Page 9<br><b>X:</b> Please refer to Page 9<br><b>Y:</b> Please refer to Page 9<br><b>Z:</b> Please refer to Page 9                                                                                                                                                                                         |      |    |    |   |    |    |    |   |   |
| <b>Plating:</b><br><b>Omit:</b> Black zinc<br><b>NI:</b> Nickel<br><b>GZ:</b> Olive drab zinc<br><b>BA:</b> Black hard anodized<br><b>ZN:</b> Sn-nickel                                                                                                                                                                                                                                                     |      |    |    |   |    |    |    |   |   |

# ALTERNATE INSERT POSITION



Standard position

Position W

Position X

Position Y

Position Z

Diagrams show front face of pin insert or rear of socket insert

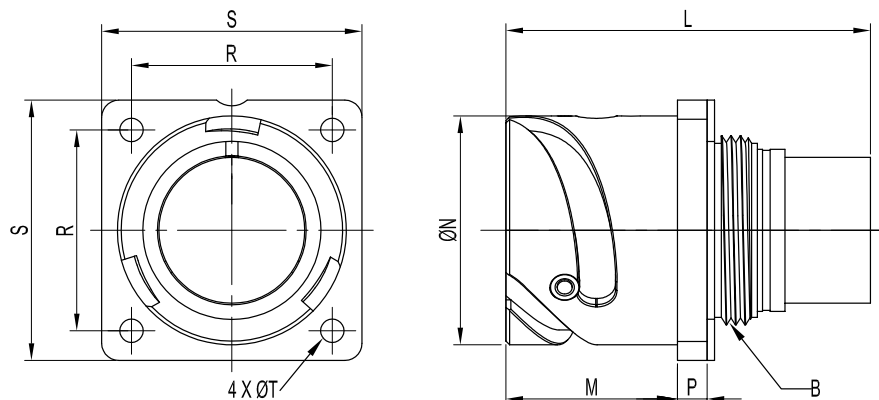
| Insert arrangement | Degrees for alternate position |     |     |     |
|--------------------|--------------------------------|-----|-----|-----|
|                    | W                              | X   | Y   | Z   |
| 14S-A5             | -                              | 110 | -   | -   |
| 14S-6              | -                              | 110 | -   | -   |
| 14S-9              | 70                             | 145 | 215 | 290 |
| 16S-1              | 80                             | -   | -   | 280 |
| 16-9               | 35                             | 110 | 250 | 325 |
| 18-1               | 70                             | 145 | 215 | 290 |
| 18-11              | -                              | 170 | 265 | -   |
| 18-19              | -                              | 120 | 240 | -   |
| 20-3               | 70                             | 145 | 215 | 290 |
| 20-4               | 45                             | 110 | 250 | -   |
| 20-7               | 80                             | 110 | 250 | 280 |
| 20-15              | 80                             | -   | -   | 280 |
| 20-27              | 35                             | 110 | 250 | 325 |
| 20-29              | 80                             | -   | -   | 280 |
| 22-14              | 80                             | -   | -   | 280 |
| 22-A17             | 80                             | 110 | 250 | 280 |
| 22-22              | -                              | 110 | 250 | -   |
| 24-2               | 80                             | -   | -   | 280 |
| 24-9               | 35                             | 110 | 250 | 325 |
| 24-10              | 80                             | -   | -   | 280 |
| 24-20              | 80                             | 110 | 250 | 280 |
| 24-28              | 80                             | 110 | 250 | 280 |
| 28-11              | 80                             | 110 | 250 | 280 |
| 28-12              | 90                             | 180 | 270 | -   |
| 28-21              | 80                             | 110 | 250 | 280 |
| 28-48              | 80                             | 110 | 250 | 280 |
| 28-51              | 80                             | 135 | 190 | -   |
| 28-A63             | -                              | 100 | 260 | -   |
| 28-84              | 45                             | 90  | 135 | 157 |
| 32-5               | 80                             | 110 | 250 | 325 |
| 32-A7              | 80                             | 125 | 235 | 280 |
| 32-013             | 65                             | 130 | 230 | 295 |
| 32-13              | 80                             | 110 | 250 | 280 |
| 32-15              | 35                             | 110 | 250 | 280 |
| 32-17              | 45                             | 110 | 250 | -   |
| 32-A30             | 90                             | 180 | -   | -   |
| 32-A55             | 80                             | 110 | 250 | 280 |
| 36-3               | 70                             | 145 | 215 | 290 |
| 36-4               | 70                             | 145 | 215 | 290 |
| 36-5               | -                              | 120 | 240 | -   |
| 36-A6              | 35                             | 110 | 250 | 325 |
| 36-A7              | 80                             | 110 | 250 | 280 |
| 36-10              | 80                             | 125 | 235 | 280 |
| 36-A14             | 35                             | 110 | 250 | 325 |
| 36-22              | 80                             | 110 | 250 | 280 |
| 36-77              | 45                             | 90  | -   | -   |
| 40-35              | 70                             | 130 | 230 | 290 |
| 40-53              | 80                             | 110 | 250 | 280 |
| 36-66              | 110                            | 250 | 260 | 280 |
| 36-A78             | 90                             | -   | -   | -   |
| 40-951             | 90                             | 105 | -   | -   |

# ASVG02A ASVG020A

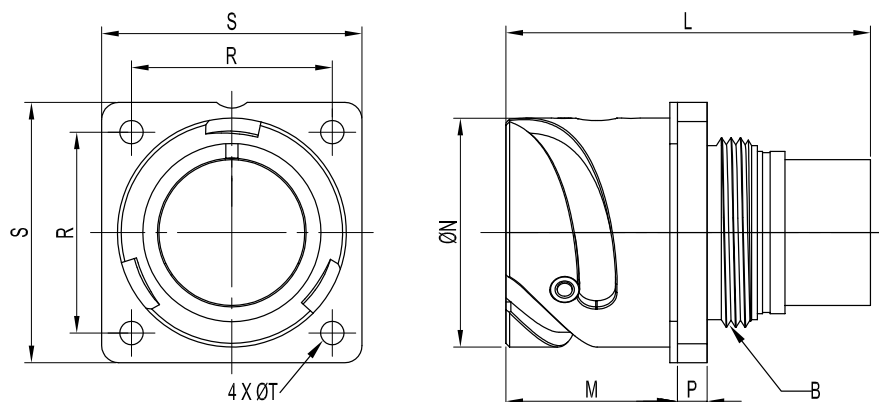
## BOX MOUNTED RECEPTACLE

ASVG02A / ASVG020A - With threaded shell to accept backshell

### FRONT MOUNTED



### REAR MOUNTED

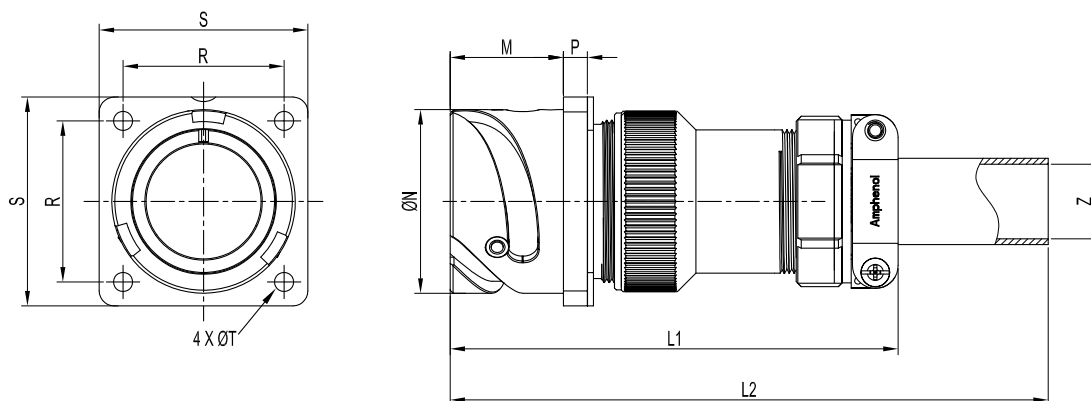


| Shell size | B Thread - 2A | L Ref | M $\pm 0.3$ | N $\pm 0.2$ | P $\pm 0.2$ | R $\pm 0.1$ | S $\pm 0.15$ | T      |
|------------|---------------|-------|-------------|-------------|-------------|-------------|--------------|--------|
| 14S        | 0.7500-20UNEF | 33.0  | 18.4        | 24.6        | 3.2         | 23.0        | 30.0         | 3.2/M4 |
| 16S        | 0.8750-20UNEF | 36.0  | 18.4        | 27.4        | 3.2         | 24.6        | 32.5         | 3.2/M4 |
| 18         | 1.0000-20UNEF | 50.0  | 23.2        | 30.8        | 4.0         | 27.0        | 35.0         | 3.2/M4 |
| 20         | 1.1250-18UNEF | 50.0  | 23.2        | 34.2        | 4.0         | 29.4        | 38.0         | 3.2/M4 |
| 22         | 1.2500-18UNEF | 50.0  | 23.2        | 35.3        | 4.0         | 31.8        | 41.0         | 3.2/M4 |
| 24         | 1.3750-18UNEF | 50.0  | 23.2        | 40.8        | 4.0         | 34.9        | 44.5         | 3.7/M4 |
| 28         | 1.6250-18UNEF | 50.0  | 24.2        | 46.6        | 4.0         | 39.7        | 50.8         | 3.7/M5 |
| 32         | 1.8750-16UNS  | 50.0  | 24.2        | 53.3        | 4.0         | 44.5        | 57.0         | 4.3/M5 |
| 36         | 2.0625-16UNS  | 50.0  | 24.2        | 59.5        | 4.0         | 49.2        | 63.5         | 4.3/M5 |
| 40         | 2.3125-16UNS  | 50.0  | 24.2        | 65.5        | 4.0         | 55.5        | 69.9         | 4.3/M5 |

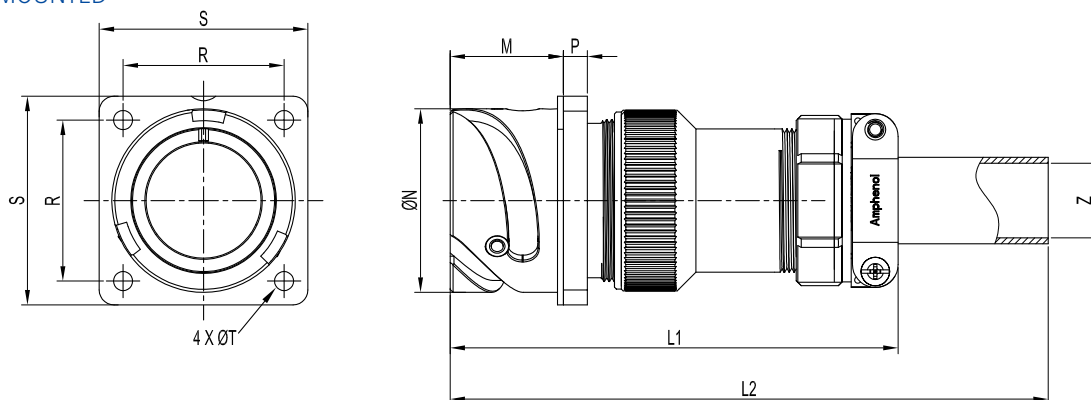
Dimension in mm

# BOX MOUNTED RECEPTACLE ASVG03F/ASVG030F - For cable

## FRONT MOUNTED



## REAR MOUNTED



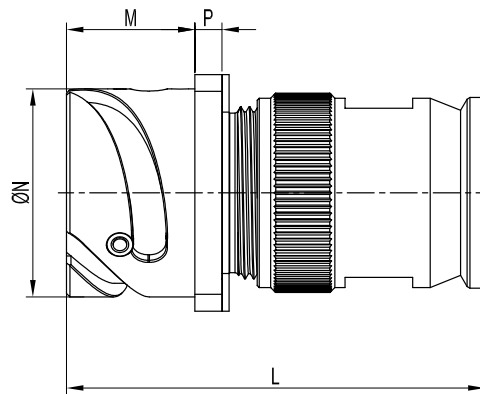
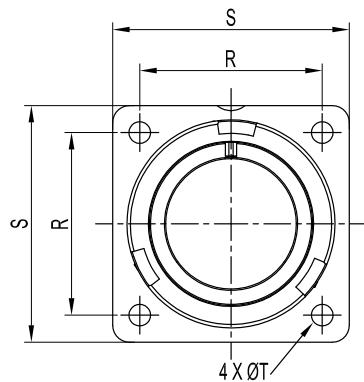
| Shell size | L1 Ref | L2 Ref | M $\pm 0.3$ | N $\pm 0.2$ | P $\pm 0.2$ | R $\pm 0.1$ | S $\pm 0.15$ | T      | Z $\pm 0.2$ |
|------------|--------|--------|-------------|-------------|-------------|-------------|--------------|--------|-------------|
| 14S        | 65.0   | 120.0  | 18.4        | 24.6        | 3.2         | 23.0        | 30.0         | 3.2/M4 | 8.0         |
| 16S        | 65.0   | 120.0  | 18.4        | 27.4        | 3.2         | 24.6        | 32.5         | 3.2/M4 | 11.1        |
| 18         | 81.0   | 130.0  | 23.2        | 30.8        | 4.0         | 27.0        | 35.0         | 3.2/M4 | 14.3        |
| 20         | 81.0   | 125.0  | 23.2        | 34.2        | 4.0         | 29.4        | 38.0         | 3.2/M4 | 15.9        |
| 22         | 81.0   | 125.0  | 23.2        | 35.3        | 4.0         | 31.8        | 41.0         | 3.2/M4 | 15.9        |
| 24         | 81.0   | 120.0  | 23.2        | 40.8        | 4.0         | 34.9        | 44.5         | 3.7/M4 | 19.1        |
| 28         | 85.0   | 120.0  | 24.2        | 46.6        | 4.0         | 39.7        | 50.8         | 3.7/M5 | 19.1        |
| 32         | 85.0   | 120.0  | 24.2        | 53.3        | 4.0         | 44.5        | 57.0         | 4.3/M5 | 23.8        |
| 36         | 85.0   | 120.0  | 24.2        | 59.5        | 4.0         | 49.2        | 63.5         | 4.3/M5 | 31.8        |
| 40         | 85.0   | 120.0  | 24.2        | 65.5        | 4.0         | 55.5        | 69.9         | 4.3/M5 | 35.0        |

Dimension in mm

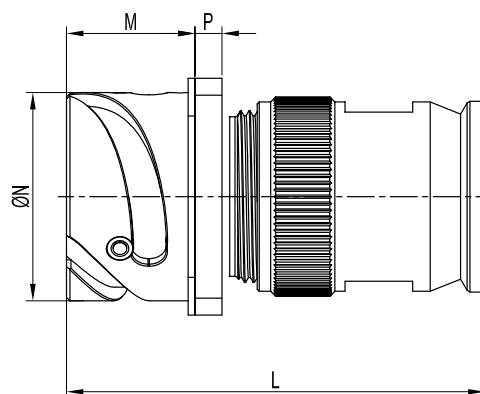
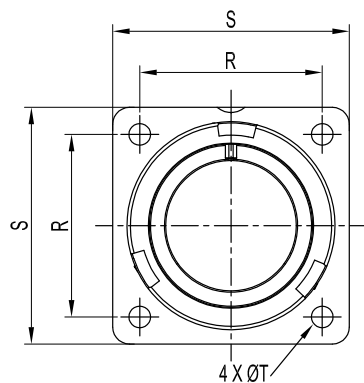
# ASVG03RS ASVG030RS

## BOX MOUNTED RECEPTACLE ASVG03RS/ASVG030RS - For single wire

### FRONT MOUNTED



### REAR MOUNTED



| Shell size | L Ref | M $\pm 0.3$ | N $\pm 0.2$ | P $\pm 0.2$ | R $\pm 0.1$ | S $\pm 0.15$ | T      |
|------------|-------|-------------|-------------|-------------|-------------|--------------|--------|
| 14S        | 45.0  | 18.4        | 24.6        | 3.2         | 23.0        | 30.0         | 3.2/M4 |
| 16S        | 48.0  | 18.4        | 27.4        | 3.2         | 24.6        | 32.5         | 3.2/M4 |
| 18         | 58.0  | 23.2        | 30.8        | 4.0         | 27.0        | 35.0         | 3.2/M4 |
| 20         | 58.0  | 23.2        | 34.2        | 4.0         | 29.4        | 38.0         | 3.2/M4 |
| 22         | 58.0  | 23.2        | 35.3        | 4.0         | 31.8        | 41.0         | 3.2/M4 |
| 24         | 58.0  | 23.2        | 40.8        | 4.0         | 34.9        | 44.5         | 3.7/M4 |
| 28         | 58.0  | 24.2        | 46.6        | 4.0         | 39.7        | 50.8         | 3.7/M5 |
| 32         | 70.0  | 24.2        | 53.3        | 4.0         | 44.5        | 57.0         | 4.3/M5 |
| 36         | 70.0  | 24.2        | 59.5        | 4.0         | 49.2        | 63.5         | 4.3/M5 |
| 40         | 70.0  | 24.2        | 65.5        | 4.0         | 55.5        | 69.9         | 4.3/M5 |

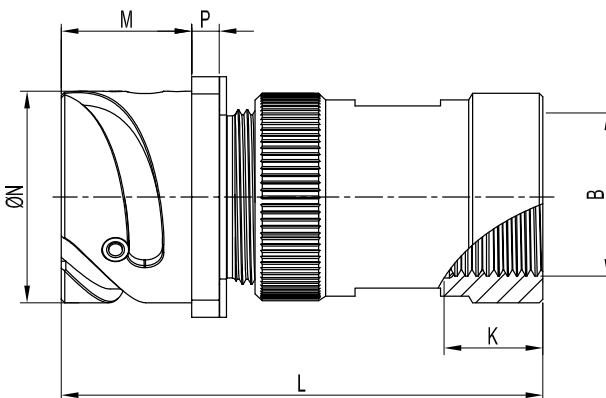
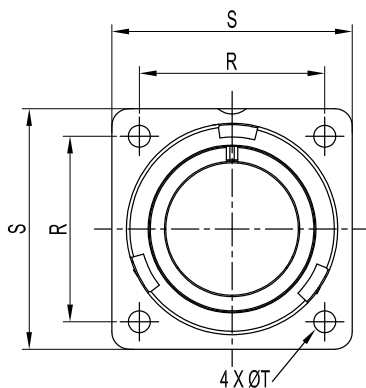
Dimension in mm



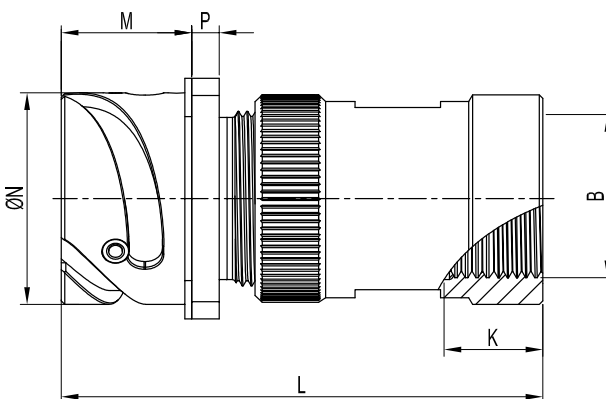
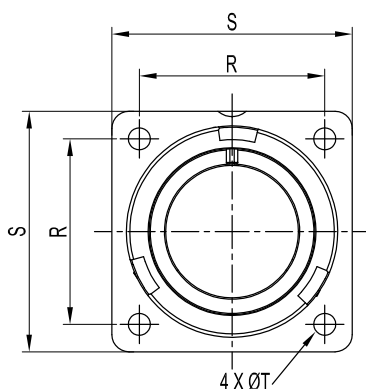
# BOX MOUNTED RECEPTACLE

ASVG03SF/ ASVG030SF- With threaded shell to accept backshell & sealing grommet

## FRONT MOUNTED



## REAR MOUNTED



| Shell size | B Thread – 2B | L Ref | M $\pm 0.3$ | N $\pm 0.2$ | P $\pm 0.2$ | R $\pm 0.1$ | S $\pm 0.15$ | T      | K $\pm 0.1$ |
|------------|---------------|-------|-------------|-------------|-------------|-------------|--------------|--------|-------------|
| 14S        | 0.7500-20UNEF | 55.0  | 18.4        | 24.6        | 3.2         | 23.0        | 30.0         | 3.2/M4 | 10.0        |
| 16S        | 0.8750-20UNEF | 60.0  | 18.4        | 27.4        | 3.2         | 24.6        | 32.5         | 3.2/M4 | 10.0        |
| 18         | 1.0000-20UNEF | 70.0  | 23.2        | 30.8        | 4.0         | 27.0        | 35.0         | 3.2/M4 | 10.0        |
| 20         | 1.1875-18UNEF | 70.0  | 23.2        | 34.2        | 4.0         | 29.4        | 38.0         | 3.2/M4 | 10.0        |
| 22         | 1.1875-18UNEF | 75.0  | 23.2        | 35.3        | 4.0         | 31.8        | 41.0         | 3.2/M4 | 10.0        |
| 24         | 1.4375-18UNEF | 75.0  | 23.2        | 40.8        | 4.0         | 34.9        | 44.5         | 3.7/M4 | 11.0        |
| 28         | 1.4375-18UNEF | 75.0  | 24.2        | 46.6        | 4.0         | 39.7        | 50.8         | 3.7/M5 | 11.0        |
| 32         | 1.7500-18UNS  | 75.0  | 24.2        | 53.3        | 4.0         | 44.5        | 57.0         | 4.3/M5 | 12.0        |
| 36         | 2.0000-18UNS  | 75.0  | 24.2        | 59.5        | 4.0         | 49.2        | 63.5         | 4.3/M5 | 12.0        |
| 40         | 2.2500-16UNS  | 75.0  | 24.2        | 65.5        | 4.0         | 55.5        | 69.9         | 4.3/M5 | 12.0        |

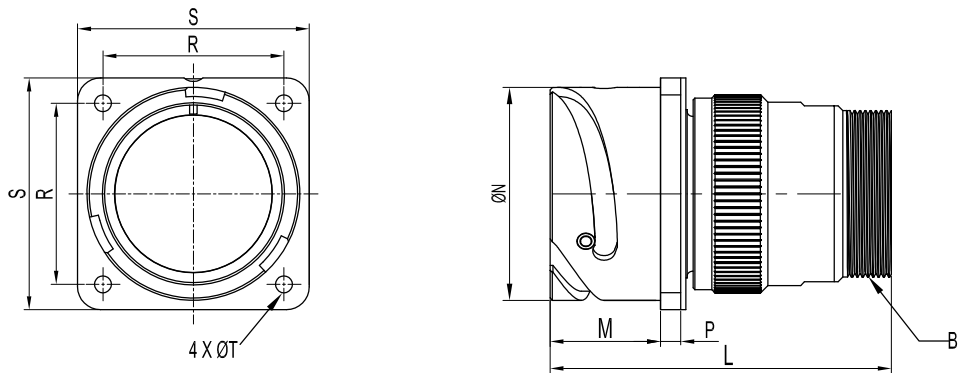
Dimension in mm

ASVG03A/ASVG030A  
ASVG03R/ASVG030R

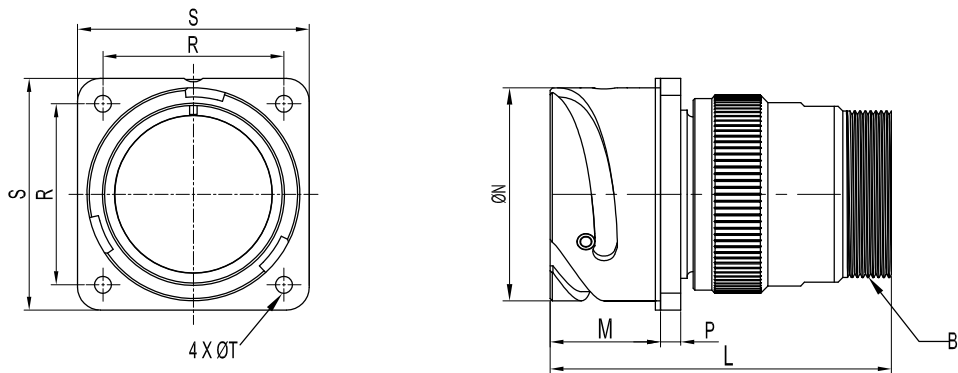
BOX MOUNTED RECEPTACLE

ASVG03A/ASVG030A - With threaded shell to accept backshell, without sealing grommet  
ASVG03R/ASVG030R - With threaded shell to accept backshell & sealing grommet

FRONT MOUNTED



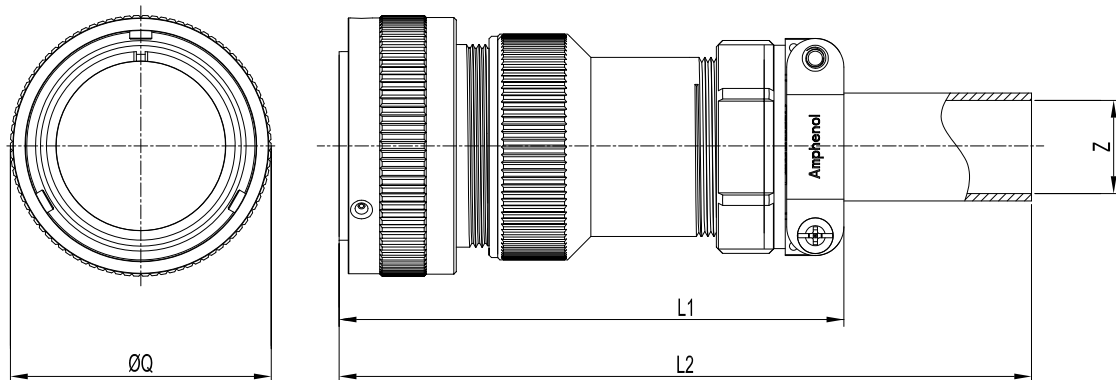
REAR MOUNTED



| Shell size | B Thread - 2A | L Ref | M ±0.3 | N ±0.2 | P ±0.2 | R ±0.1 | S ±0.15 | T      |
|------------|---------------|-------|--------|--------|--------|--------|---------|--------|
| 14S        | 0.7500-20UNEF | 55.0  | 18.4   | 24.6   | 3.2    | 23.0   | 30.0    | 3.2/M4 |
| 16S        | 0.8750-20UNEF | 60.0  | 18.4   | 27.4   | 3.2    | 24.6   | 32.5    | 3.2/M4 |
| 18         | 1.0000-20UNEF | 62.0  | 23.2   | 30.8   | 4.0    | 27.0   | 35.0    | 3.2/M4 |
| 20         | 1.1875-18UNEF | 65.0  | 23.2   | 34.2   | 4.0    | 29.4   | 38.0    | 3.2/M4 |
| 22         | 1.1875-18UNEF | 65.0  | 23.2   | 35.3   | 4.0    | 31.8   | 41.0    | 3.2/M4 |
| 24         | 1.4375-18UNEF | 65.0  | 23.2   | 40.8   | 4.0    | 34.9   | 44.5    | 3.7/M4 |
| 28         | 1.4375-18UNEF | 65.0  | 24.2   | 46.6   | 4.0    | 39.7   | 50.8    | 3.7/M5 |
| 32         | 1.7500-18UNS  | 65.0  | 24.2   | 53.3   | 4.0    | 44.5   | 57.0    | 4.3/M5 |
| 36         | 2.0000-18UNS  | 65.0  | 24.2   | 59.5   | 4.0    | 49.2   | 63.5    | 4.3/M5 |
| 40         | 2.2500-16UNS  | 65.0  | 24.2   | 65.5   | 4.0    | 55.0   | 69.8    | 4.3/M5 |

Dimension in mm

STRAIGHT PLUG  
ASVG06F - For cable

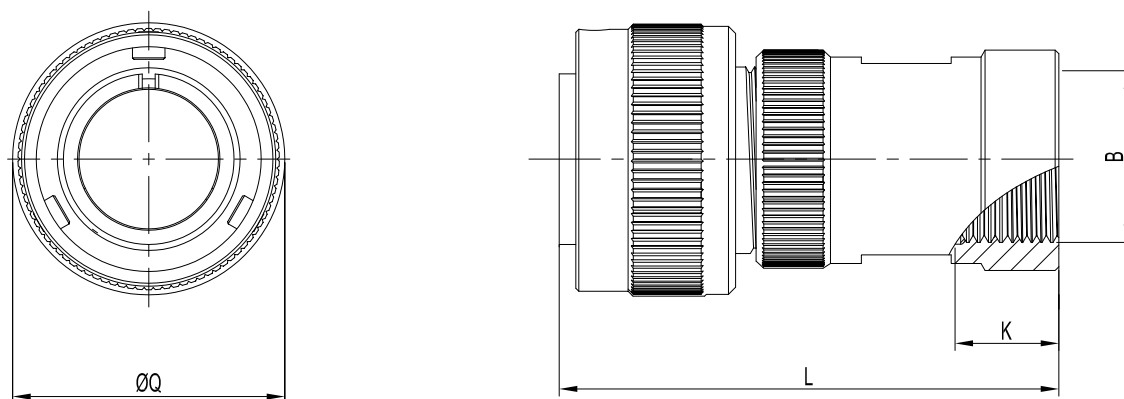


| Shell size | L1 Ref | L2 Ref | Q Max | Z ±0.2 |
|------------|--------|--------|-------|--------|
| 14S        | 65.0   | 120.0  | 29.5  | 9.0    |
| 16S        | 65.0   | 120.0  | 32.0  | 11.1   |
| 18         | 81.0   | 130.0  | 36.5  | 14.3   |
| 20         | 81.0   | 125.0  | 39.9  | 15.9   |
| 22         | 81.0   | 125.0  | 43.1  | 15.9   |
| 24         | 81.0   | 120.0  | 46.6  | 19.1   |
| 28         | 85.0   | 120.0  | 53.4  | 19.1   |
| 32         | 85.0   | 120.0  | 60.1  | 23.8   |
| 36         | 85.0   | 120.0  | 66.3  | 31.8   |
| 40         | 85.0   | 120.0  | 72.4  | 35.0   |

Dimension in mm

## STRAIGHT PLUG

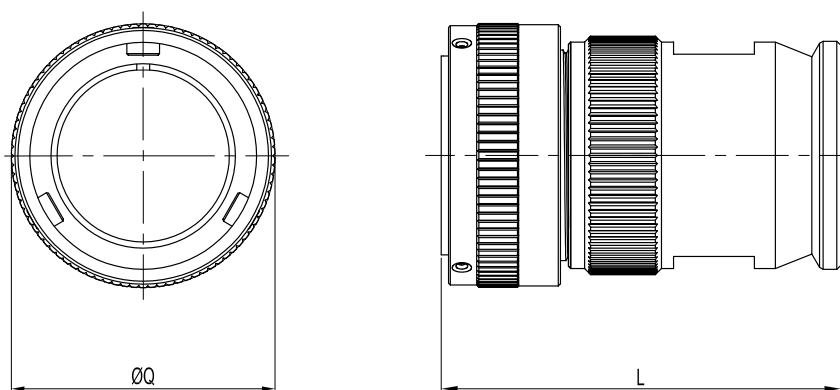
ASVG06SF - With threaded shell to accept backshell & sealing grommet



| Shell size | B Thread – 2B | L Ref | Q Max | K ±0.2 |
|------------|---------------|-------|-------|--------|
| 14S        | 0.7500-20UNEF | 60.0  | 29.5  | 10.0   |
| 16S        | 0.8750-20UNEF | 65.0  | 32.0  | 10.0   |
| 18         | 1.0000-20UNEF | 75.0  | 36.5  | 10.0   |
| 20         | 1.1875-18UNEF | 75.0  | 39.9  | 10.0   |
| 22         | 1.1875-18UNEF | 75.0  | 43.1  | 10.0   |
| 24         | 1.4375-18UNEF | 75.0  | 46.6  | 11.0   |
| 28         | 1.4375-18UNEF | 75.0  | 53.4  | 11.0   |
| 32         | 1.7500-18UNS  | 75.0  | 60.1  | 12.0   |
| 36         | 2.0000-18UNS  | 75.0  | 66.3  | 12.0   |
| 40         | 2.2500-16UNS  | 75.0  | 72.4  | 12.0   |

Dimension in mm

STRAIGHT PLUG, RESISTANT TO HARSH ENVIRONMENT  
ASVG06RS - For single core cable



| Shell size | L Ref | Q Max |
|------------|-------|-------|
| 14S        | 45.0  | 29.5  |
| 16S        | 48.0  | 32.0  |
| 18         | 58.0  | 36.2  |
| 20         | 58.0  | 39.8  |
| 22         | 58.0  | 43.0  |
| 24         | 58.0  | 46.5  |
| 28         | 58.0  | 53.2  |
| 32         | 70.0  | 59.6  |
| 36         | 70.0  | 66.1  |
| 40         | 70.0  | 72.2  |

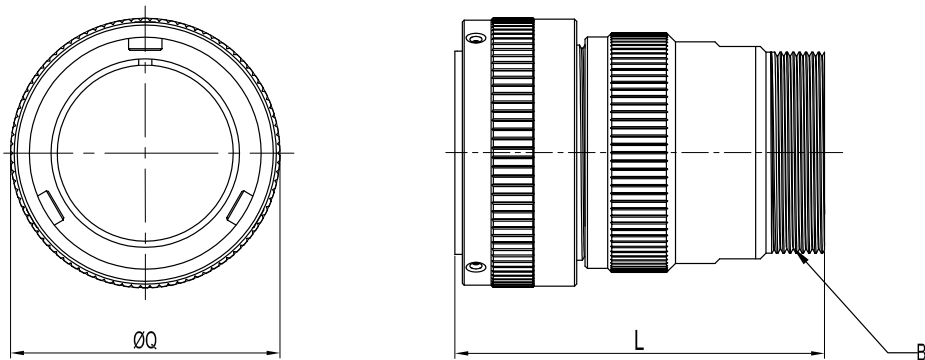
Dimension in mm

# ASVG06A ASVG06R

## STRAIGHT PLUG, RESISTANT TO HARSH ENVIRONMENT

ASVG06A - With threaded shell to accept backshell, without sealing grommet

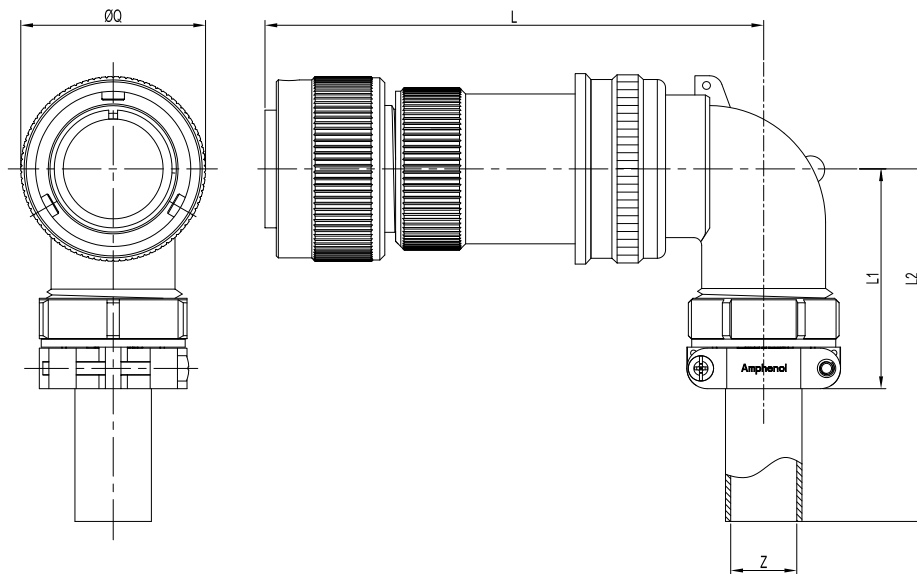
ASVG06R - With threaded shell to accept backshell & sealing grommet



| Shell size | B Thread – 2A | L Ref | Q Max |
|------------|---------------|-------|-------|
| 14S        | 0.7500-20UNEF | 55.0  | 29.5  |
| 16S        | 0.8750-20UNEF | 60.0  | 32.0  |
| 18         | 1.0000-20UNEF | 65.0  | 36.2  |
| 20         | 1.1875-18UNEF | 65.0  | 39.8  |
| 22         | 1.1875-18UNEF | 65.0  | 43.0  |
| 24         | 1.4375-18UNEF | 65.0  | 46.5  |
| 28         | 1.4375-18UNEF | 70.0  | 53.2  |
| 32         | 1.7500-18UNS  | 70.0  | 59.6  |
| 36         | 2.0000-18UNS  | 70.0  | 66.1  |
| 40         | 2.2500-16UNS  | 70.0  | 72.2  |

Dimension in mm

R/A PLUG  
ASVG08F - For cable



| Shell size | L Ref | L1 Ref | L2 Ref | Q Max | Z ±0.2 |
|------------|-------|--------|--------|-------|--------|
| 14S        | 70.0  | 30.0   | 90.0   | 29.5  | 9.0    |
| 16S        | 85.0  | 40.0   | 90.0   | 32.0  | 11.1   |
| 18         | 95.0  | 40.0   | 90.0   | 36.5  | 14.3   |
| 20         | 95.0  | 40.0   | 90.0   | 39.9  | 15.9   |
| 22         | 95.0  | 40.0   | 90.0   | 43.1  | 15.9   |
| 24         | 95.0  | 50.0   | 85.0   | 46.6  | 19.1   |
| 28         | 95.0  | 50.0   | 90.0   | 53.4  | 19.1   |
| 32         | 100.0 | 55.0   | 100.0  | 60.1  | 23.8   |
| 36         | 100.0 | 60.0   | 100.0  | 66.3  | 31.8   |
| 40         | 100.0 | 60.0   | 100.0  | 72.4  | 35.0   |

Dimension in mm

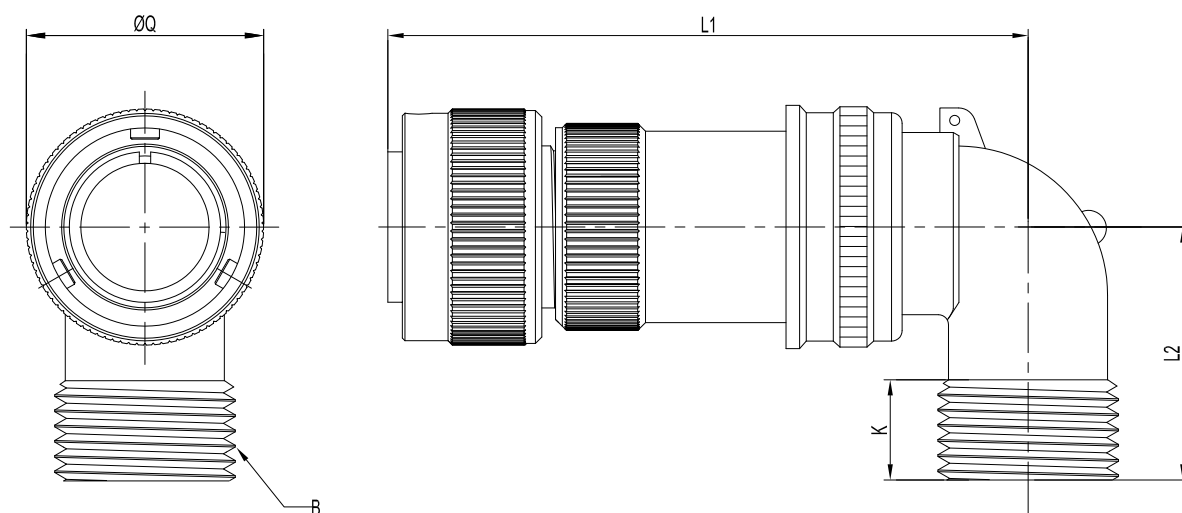


# ASVG08A ASVG08R

## R/A PLUG

ASVG08A - With threaded shell to accept backshell, without sealing grommet

ASVG08R - With threaded shell to accept backshell & sealing grommet

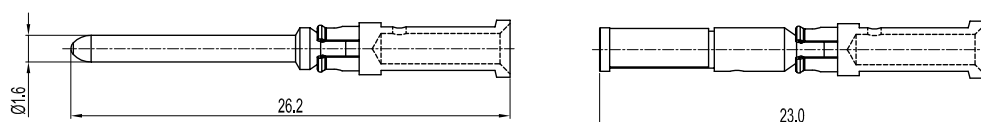


| Shell size | B Thread – 2A | L1 Ref | L2 Ref | Q Max | K ±0.2 |
|------------|---------------|--------|--------|-------|--------|
| 14S        | 0.7500-20UNEF | 70.0   | 30.0   | 29.5  | 9.0    |
| 16S        | 0.8750-20UNEF | 85.0   | 25.0   | 32.0  | 9.5    |
| 18         | 1.0000-20UNEF | 90.0   | 30.0   | 36.5  | 9.5    |
| 20         | 1.1875-18UNEF | 90.0   | 30.0   | 39.9  | 9.5    |
| 22         | 1.1875-18UNEF | 90.0   | 30.0   | 43.1  | 9.5    |
| 24         | 1.4375-18UNEF | 90.0   | 30.0   | 46.6  | 9.5    |
| 28         | 1.4375-18UNEF | 95.0   | 35.0   | 53.4  | 9.5    |
| 32         | 1.7500-18UNS  | 100.0  | 40.0   | 60.1  | 11.0   |
| 36         | 2.0000-18UNS  | 100.0  | 45.0   | 66.3  | 12.6   |
| 40         | 2.2500-16UNS  | 100.0  | 45.0   | 72.4  | 12.6   |

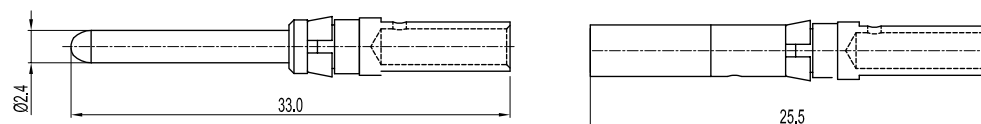
Dimension in mm

## CONTACTS

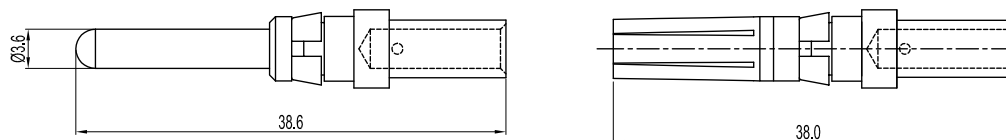
#16



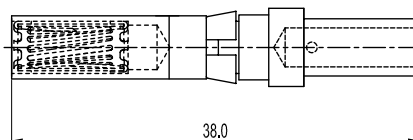
#12



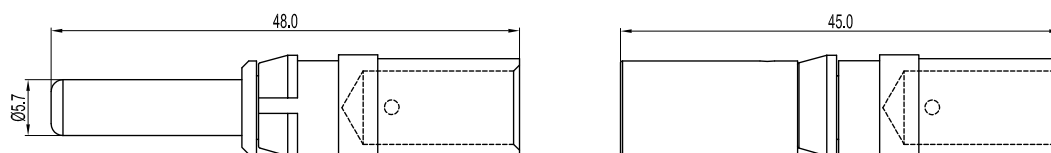
#8



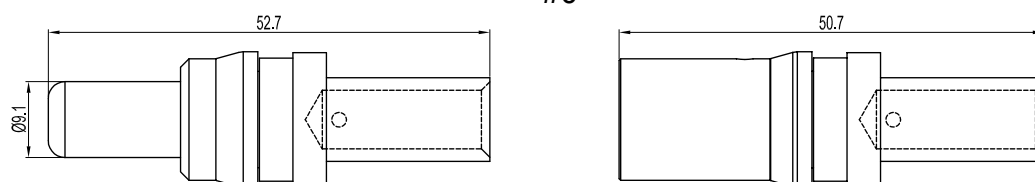
#8 (Radsok)



#4



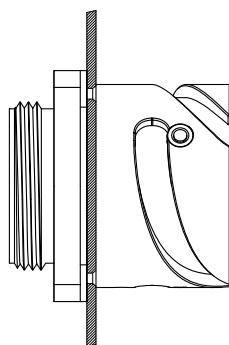
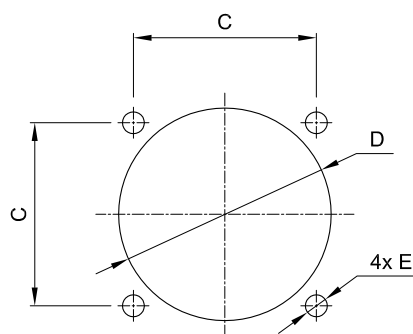
#0



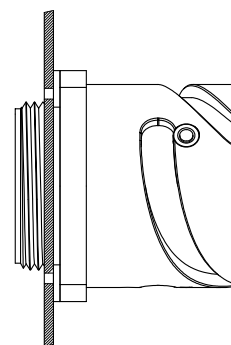
# CONTACTS



| Contact size | Pin contact P/N | Socket contact P/N | Section of conductor (mm <sup>2</sup> ) | Plating | Crimp tools | Extraction tools |
|--------------|-----------------|--------------------|-----------------------------------------|---------|-------------|------------------|
| #16          | C52001305203    | C52001305303       | 0.15~0.6                                | GOLD    | M22520/1-01 | ASVG-R-16        |
|              | C52001305205    | C52001305305       | 0.5~1.0                                 |         |             |                  |
|              | C52001305206    | C52001305304       | 1.0~1.5                                 |         |             |                  |
|              | C52001305213    | C52001305312       | 0.15~0.6                                | SLIVER  |             |                  |
|              | C52001305215    | C52001305315       | 0.5~1.0                                 |         |             |                  |
|              | C52001305216    | C52001305316       | 1.0~1.5                                 |         |             |                  |
| #12          | C42001305606    | C42001305706       | 1.0~1.5                                 | SLIVER  | M22520/1-01 | ASVG-R-12        |
|              | C42001305601    | C42001305701       | 1.5~2.0                                 |         | M317        |                  |
|              | C420013056      | C420013057         | 2.5~4.0                                 |         |             |                  |
|              | C42001305605    | C42001305705       | 6.0                                     |         | GOLD        |                  |
|              | C42001305606G   | C42001305706G      | 1.0~1.5                                 | M317    |             |                  |
|              | C42001305601G   | C42001305701G      | 1.5~2.0                                 |         |             |                  |
|              | C42001305603G   | C42001305704G      | 2.5~4.0                                 |         |             |                  |
|              | C42001305605G   | C42001305705G      | 6.0                                     |         |             |                  |
| #8           | C42001306201    | C42001306301       | 5.0~7.0                                 | SLIVER  | M317        | ASVG-R-8         |
|              | C42001306202    | C42001306302       | 2.5~4.0                                 |         |             |                  |
|              | C42001306203    | C42001306303       | 10                                      |         |             |                  |
| #8 (Radsok)  | -               | C420013058         | 5.0~7.0                                 |         |             |                  |
| #4           | C42001309001    | C42001309101       | 22~25                                   | SLIVER  | APHWA23KIT  | ASVG-R-4         |
|              | C42001309002    | C42001309102       | 10                                      |         |             |                  |
| #0           | C42001309402    | C42001309502       | 16                                      | SLIVER  | APHWA23KIT  | ASVG-R-0         |
|              | C420013094      | C420013095         | 25                                      |         |             |                  |
|              | C42001309403    | C42001309503       | 35                                      |         |             |                  |
|              | C42001309401    | C42001309501       | 50                                      |         | APH1130-C2  |                  |



REAR MOUNTED



FRONT MOUNTED

## FRONT MOUNTED (RECOMMENDED DIMENSIONS)

| Size                             | 14S | 16S  | 18   | 20   | 22   | 24   | 28   | 32   | 36   | 40   |
|----------------------------------|-----|------|------|------|------|------|------|------|------|------|
| C $\pm 0.2$                      | 23  | 24.6 | 27   | 29.4 | 31.8 | 34.9 | 39.7 | 44.5 | 49.2 | 55.5 |
| $\Phi D$                         | 20  | 23   | 26.5 | 30   | 33   | 36   | 42   | 48.5 | 55   | 61   |
| $\Phi E$<br>through-hole flange  | 3.4 | 3.4  | 3.4  | 3.4  | 3.4  | 3.9  | 3.9  | 4.5  | 4.5  | 4.5  |
| $\Phi E$<br>threaded-hole flange | 4.5 | 4.5  | 4.5  | 4.5  | 4.5  | 5.5  | 5.5  | 5.5  | 5.5  | 5.5  |

## REAR MOUNTED (RECOMMENDED DIMENSIONS)

| Size                             | 14S  | 16S  | 18   | 20   | 22   | 24   | 28   | 32   | 36   | 40   |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|
| C $\pm 0.2$                      | 23   | 24.6 | 27   | 29.4 | 31.8 | 34.9 | 39.7 | 44.5 | 49.2 | 55.5 |
| $\Phi D$                         | 25.5 | 28.3 | 31.7 | 35   | 38.3 | 41.8 | 47.6 | 54.3 | 60.5 | 66.4 |
| $\Phi E$<br>through-hole flange  | 3.4  | 3.4  | 3.4  | 3.4  | 3.4  | 3.9  | 3.9  | 4.5  | 4.5  | 4.5  |
| $\Phi E$<br>threaded-hole flange | 4.5  | 4.5  | 4.5  | 4.5  | 4.5  | 4.5  | 5.5  | 5.5  | 5.5  | 5.5  |

Dimension in mm

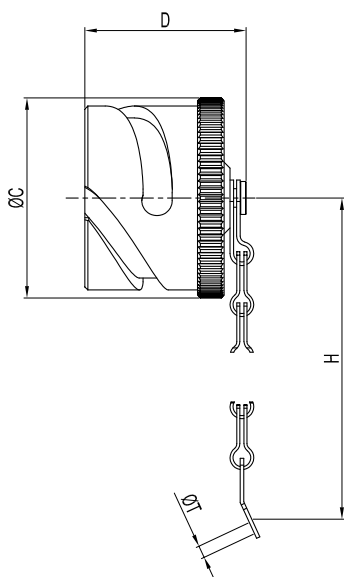
## SEALING PLUGS



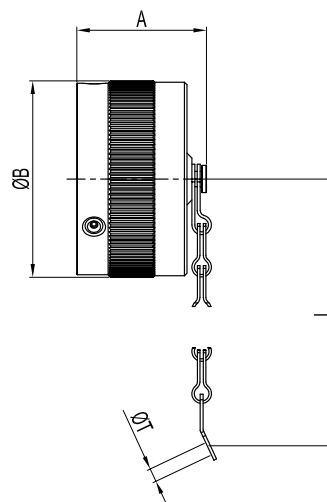
| Contact size | Rear seal plug | Color | Insert seal plug | Color |
|--------------|----------------|-------|------------------|-------|
| #16          | C422013060     | Black | C422013050       | Black |
| #12          | C422013061     | Black | C427013052       | Black |
| #8           | C422013062     | Black | C422013053       | Black |
| #4           | C422013063     | Black | C422013051       | Black |
| #0           | C422013064     | Black | C427013054       | Black |

# DUST CAPS

Dust cap for plug (metal)



Dust caps for receptacle (metal)



| Shell size | Dust cap for receptacle (metal) | L   | A    | B    | T   |
|------------|---------------------------------|-----|------|------|-----|
| 14S        | ASVG2504314SCAPBA               | 125 | 20.0 | 29.5 | 3.5 |
| 16S        | ASVG2504316SCAPBA               | 125 | 20.0 | 32.0 | 3.5 |
| 18         | ASVG2504318CAPBA                | 125 | 27.0 | 36.5 | 3.5 |
| 20         | ASVG2504320CAPBA                | 125 | 27.0 | 39.9 | 3.5 |
| 22         | ASVG2504322CAPBA                | 125 | 27.0 | 43.1 | 3.5 |
| 24         | ASVG2504324CAPBA                | 125 | 27.0 | 46.6 | 4.5 |
| 28         | ASVG2504328CAPBA                | 125 | 27.0 | 53.4 | 4.5 |
| 32         | ASVG2504332CAPBA                | 125 | 27.0 | 60.1 | 5.5 |
| 36         | ASVG2504336CAPBA                | 125 | 27.0 | 66.3 | 5.5 |
| 40         | ASVG2504340CAPBA                | 125 | 27.0 | 72.4 | 5.5 |

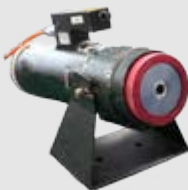
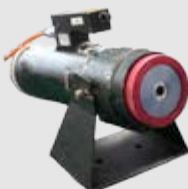
Remark: black plating anodized. For other requirements, please contact us.

| Shell size | Dust caps for plug (metal) | H   | C    | D    | T   |
|------------|----------------------------|-----|------|------|-----|
| 14S        | ASVG2504214SCAPBA          | 125 | 27.5 | 26.0 | 3.5 |
| 16S        | ASVG2504216SCAPBA          | 125 | 30.0 | 26.0 | 3.5 |
| 18         | ASVG2504218CAPBA           | 125 | 34.0 | 27.0 | 3.5 |
| 20         | ASVG2504220CAPBA           | 125 | 37.0 | 27.0 | 3.5 |
| 22         | ASVG2504222CAPBA           | 125 | 40.3 | 27.0 | 3.5 |
| 24         | ASVG2504224CAPBA           | 125 | 44.0 | 28.6 | 4.5 |
| 28         | ASVG2504228CAPBA           | 125 | 50.0 | 28.6 | 4.5 |
| 32         | ASVG2504232CAPBA           | 125 | 56.0 | 30.2 | 5.5 |
| 36         | ASVG2504236CAPBA           | 125 | 63.0 | 30.2 | 5.5 |
| 40         | ASVG2504240CAPBA           | 125 | 68.5 | 30.2 | 5.5 |

Dimension in mm

TOOLS

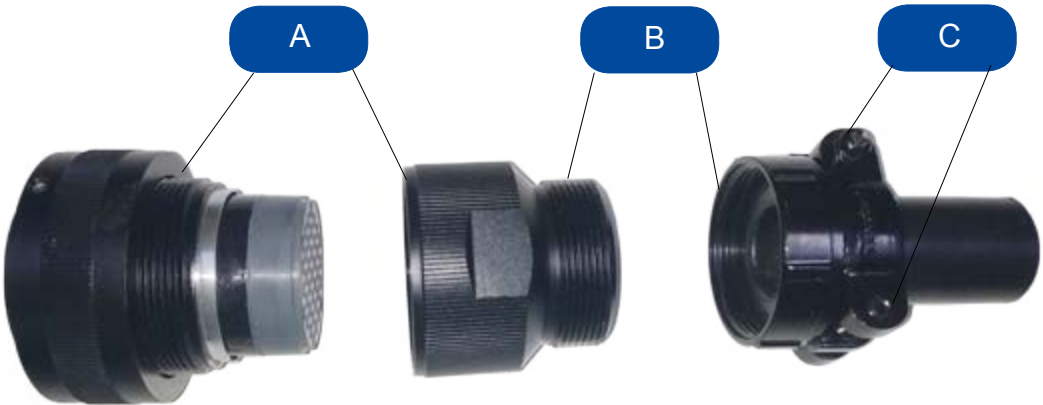
| Contact size | Section of conductor       | Crimping tool           | Extraction tool |
|--------------|----------------------------|-------------------------|-----------------|
| #16          | 0.15 to 1.5mm <sup>2</sup> | M22520/1-01             | ASVG-R-16       |
| #12          | 1.0 to 6.0mm <sup>2</sup>  | MH317 or M22520/1-01    | ASVG-R-12       |
| #8           | 5.0 to 10.0mm <sup>2</sup> | APHWA23KIT or MH317     | ASVG-R-8        |
| #4           | 10.0 to 25mm <sup>2</sup>  | APHWA23KIT              | ASVG-R-4        |
| #0           | 16 to 50mm <sup>2</sup>    | AHP1130C2 or APHWA23KIT | ASVG-R-0        |

|                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| #16 Crimping tool M22520/1-01                                                       | #16 Extraction tool ASVG-R-16                                                        |
|    |    |
| #12 Crimping tool M317                                                              | #12 Extraction tool ASVG-R-12                                                        |
|  |  |
| #8 Crimping tool APHWA23KIT                                                         | #8 Extraction tool ASVG-R-8                                                          |
|  |  |
| #4 Crimping tool APHWA23KIT                                                         | #4 Extraction tool ASVG-R-4                                                          |
|  |  |
| #0 Crimping tool AHP1130C2                                                          | #0 Extraction tool ASVG-R-0                                                          |
|  |  |

# TORQUE

## Torque

| Connector assembly touque / Nm |         |         |             |
|--------------------------------|---------|---------|-------------|
| Shell size                     | A       | B       | C           |
| 14S                            | 5 - 8   | 5 - 8   | 0.47 (M3)   |
| 16S                            | 6 - 9   | 6 - 9   | 0.73 (M3.5) |
| 18                             | 8 -10   | 10 - 12 |             |
| 20                             | 8 -10   | 10 - 12 | 1.08 (M4)   |
| 22                             | 10- 12  | 10 - 12 |             |
| 24                             | 12 -14  | 12 - 15 |             |
| 28                             | 14 - 16 | 12 - 15 |             |
| 32                             | 16 -18  | 12 - 15 | 2.28 (M5)   |
| 36                             | 18 -20  | 12 - 15 |             |
| 40                             | 20 -22  | 12 - 15 |             |



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