

# *Autosport* *Interconnection Solutions*

*Eighth Edition*



DEUTSCH

AUTOSPORT

# Autosport Interconnection Solutions

**CONSISTENTLY LEADING THE  
WAY IN RESEARCH, DEVELOPMENT,  
INNOVATION, RELIABILITY & SERVICE**

Deutsch UK offers unrivalled expertise in the design and manufacture of interconnection solutions for harsh environments. With over 40-years of international experience, Deutsch's products are well proven in the Aerospace, Defence, Industrial Transportation and Autosport markets.

In the early 1990's Deutsch UK were the first to pioneer a range of interconnection solutions specifically for the Autosport industry, enabling them to reach their position as market leader. The AS Series and AS Micro Series radically changed the face of autosport connection technology. Following the success of these products, Deutsch established a dedicated autosport division to attend to the growing needs of the autosport teams and harness houses.

A knowledgeable and experienced team of experts, supported with considerable investment in research and backed by an international distribution network, ensures the Deutsch autosport range of connectors continue to meet the constantly evolving technical challenges faced in this dynamic and demanding industry.

Specified across the entire autosport industry from F1, A1GP, IRL and Champcar to World Rally, NASCAR, Moto GP, Le Mans Series and Superbikes, Deutsch's dominance in the autosport industry has been proven many times, with world champions across practically every discipline choosing Deutsch Autosport connectors as the most reliable, light weight and technologically advanced products available.



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The original Autosport connector – the AS Series – continues to set the standard for the autosport industry. Invented by Deutsch for the 93/94 season, the AS Series has been used by race winning teams throughout autosport ever since.

Deutsch UK continue to push the boundaries of technology and innovation, consistently driving the market forwards with new products that match the ever increasing demands of lower weight, smaller size and better performance. All Deutsch connectors are thermal cycle tested and environmentally sealed to IP67 when mated\*. All Deutsch Autosport connectors also offer:

- **Compact design/minimum space envelope**
- **Interfacial & wire sealing**
- **Boot termination feature**
- **PCB option**
- **Universal option available (not ASC)**
- **Standard crimp tooling**
- **Suitable for blind mating**
- **Visual indication of keyway orientation of connector**
- **Scoop-proof interface**
- **Shell-to-shell grounding (not ASC)**
- **Positive locking coupling mechanism**
- **No need for backshells or boot termination**
- **In-line and two hole mounting styles (not ASC)**
- **Surface finishing options**
- **Keyway options.**

\* 1 metre for 30 minutes minimum

## MATERIALS

**Shell / coupling ring:** High strength aluminium alloy with a conductive black zinc finish\*\*

**Contacts:** Gold plated crimp contacts\*

**Insulators:** Thermoplastic

**Interface / wire seals:** Fluorinated silicone.

\* Except hermetic connectors

\*\* Except hermetic and ASC connectors

## VIBRATION

All connectors undergo three rigorous tests for vibration and all exceed the following:

**Dynamic test** - random on random 60g RMS in 3 axis.

**Endurance test** - random 57g RMS in 2 axis for 8 hours each axis.

**Sinusoidal resonance** to over 75g.

## FLUID RESISTANCE

All connectors show no damage when exposed to most fluids used in most autosport applications.

## AS SERIES

Developed by Deutsch from the MIL-C-38999 Series 1.5 (Eurofighter connector), the AS Series was the first range of high specification connectors designed by Deutsch specifically for the autosport market. The AS Series offers weight and space saving over standard military designs and is available a wide variety of options, with medium and high density arrangements up to 128 ways with four shell styles, and five keyway orientations. Refer to page 18 for technical specifications.

## AS DOUBLE DENSITY (ASDD)

Next generation connector technology developed by Deutsch, which brings together high density and high performance, inline with racing teams using smaller wire sizes. The AS Double Density range allows almost double the number of contacts to be packaged in the same shell as compared to the standard AS Series. Refer to page 24 for technical specifications.

## AS MICRO HE HERMETIC

A unique hermetic receptacle developed by Deutsch for transducers, sensors and instrumentation where space and performance is critical. The AS Micro HE Hermetic offers high density, harsh environment sealing as standard and is more compact than any other product currently available on the market. Mounting and ease of termination has also been a major consideration with PCB style contacts and weld mounting (316 St) offered as standard. Refer to page 26 for technical specifications.

## AS MICRO HE HERMETIC (JAM-NUT)

An evolution of the AS Micro HE Hermetic featuring a jam-nut, this connector is ideally suited to fuel tank applications. Refer to page 27 for technical specifications.

## AS HERMETIC FUEL TANK

A range of hermetically sealed connectors designed specifically for autosport fuel tank applications. AS Hermetic Fuel Tank provides a high degree of performance where normal resilient connectors would fail, by using glass to metal sealing in place of traditional plastic and elastomer inserts. Connectors are supplied with a Viton® O ring to provide a high standard of sealing between the connector and bulkhead. Refer to page 28 for technical specifications.

## AS MICRO<sup>Lite</sup> HE FUEL IMMERSIBLE

An evolution of the AS Micro<sup>Lite</sup> connector, the AS Micro<sup>Lite</sup> Fuel Immersible contains a unique Deutsch designed fuel resistant elastomer insert which offers excellent resistance to racing fuel. An upgraded hermetic version, including an inline receptacle is also available. Refer to page 30 for technical specifications.

## AS HEAVY DUTY (ASHD)

A single way power connector designed specifically for autosport high current applications, the Deutsch AS Heavy Duty is ideally suited to battery, alternator and starter motor applications. Specially designed low insertion/extraction force contacts ensure maximum performance in extreme heat and vibration conditions. Refer to page 32 for technical specifications.

## FILTER AND FIBRE OPTIC SOLUTIONS

Deutsch also offer Fibre Optic and Filter solutions. Refer to page 34 at the back of this brochure for more information.

## AS MICRO HE SERIES

Developed by Deutsch, the AS Micro HE Series is compact and cost effective, and is available as a 5-way connector in four shell styles. Refer to page 6 for technical specifications.

## AS MICRO<sup>Lite</sup> HE (ASL)

The Micro<sup>Lite</sup> HE is in excess of 30% lighter than the original AS Micro HE and approximately 8mm shorter, whilst still retaining all the critical features including the renowned Deutsch #23 contacts. The AS Micro<sup>Lite</sup> HE is fully intermateable with the AS Micro HE. Refer to page 8 for technical specifications.

## AS RALLY MICRO (ASR)

An evolution of the AS Micro<sup>Lite</sup> HE, the AS Rally Micro has been created with direct input from World Rally Teams. A wider coupling ring and more knurling enables mechanics wearing gloves to get a better grip when connecting and disconnecting in severe environments (snow, ice and mud). Refer to page 10 for technical specifications.

## AS COMPOSITE (ASC)

Made as one unit, in a military approved, rugged thermoplastic housing, the AS Composite is extremely resistant to vibration. Refer to page 12 for technical specifications.

## AS ULTRA<sup>Lite</sup> HE AND AS MICRO ULTRA<sup>Lite</sup> HE

The AS Ultra<sup>Lite</sup> HE is a 5-way connector offers teams the smallest, lightest package for five wires. The AS Micro Ultra<sup>Lite</sup> HE 3-way is the shortest, lightest AS connector for three wires and offers a solution where space is at its most restrictive. Refer to page 14 for technical specifications.

## AS MINI SERIES

Developed by Deutsch, the AS Mini Series bridges the gap between the existing standard AS Series (Size 8) and the AS Micro range (Size 6), offering 6-way and 3-way connectors in three shell styles. Refer to page 16 for technical specifications.





## KEY FEATURES

- First unique micro connector for the autosport market
- Cable accommodation 22, 24, 26 and 28 AWG
- Screening braid and boot can both be fitted
- Fully Intermateable with Micro<sup>Lite</sup> HE and Fuel Immersible connectors.

## GENERAL SPECIFICATION

| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|--------------|------------|---------------------|---|---|----------------------------|-------------------|------|-------------------|------|
|              |            |                     |   |   |                            | Min               | Max  | Min               | Max  |
| 23           | 6          | 3                   | 500   | 1000                                    | 5                          | 0.60              | 1.37 | -55               | +170 |

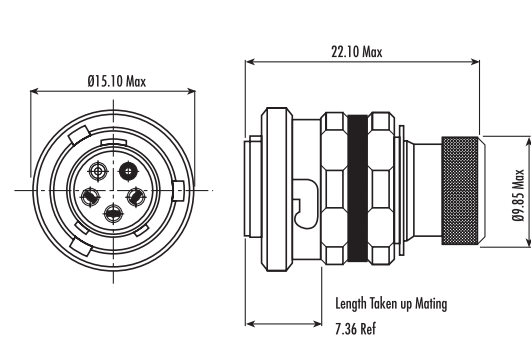
\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

\*\* Current leakage less than 2 milliamps at (VAC)

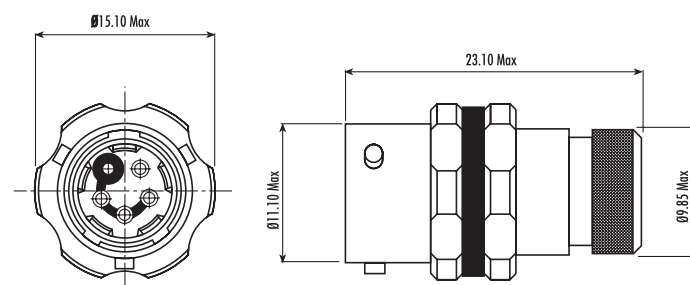
## CONTACTS & TOOLING PART NUMBERS

| Socket | Pin       | PCB Socket | PCB Pin   | Filler Plug | Ins/Ext Tool | Uncoupling Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------|-----------|------------|-----------|-------------|--------------|-----------------|-------------|----------------|-------------------|
| 604935 | 604927-31 | 604019-LNG | 604023-31 | 600300-22   | M81969/14-01 | AS6HE-UCT       | M22520/2-01 | 604972         | 604973            |

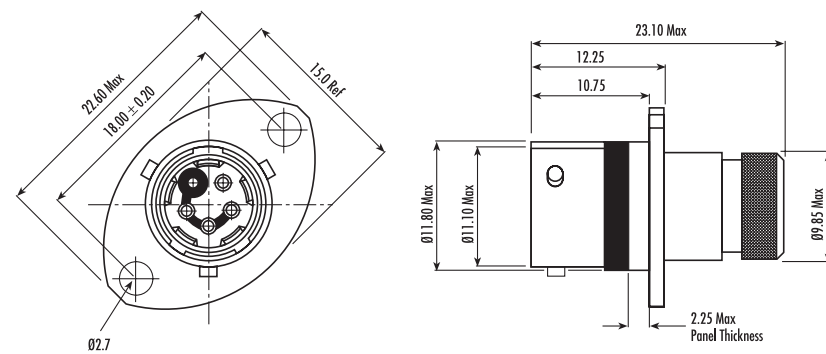
## PLUG – TYPE 6



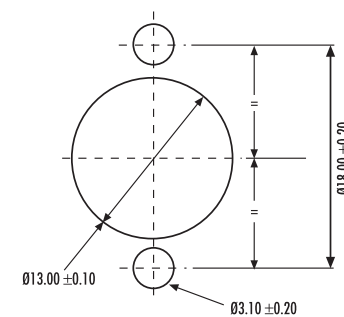
## INLINE RECEPTACLE – TYPE 1



## RECEPTACLE – TYPE 0



## PANEL CUT-OUT DETAIL



## ORDERING INFORMATION

AS \* 06 — 05 \* \* — HE — \*\*\*

Range Ref: |

Style  
 0 = 2-hole flange receptacle  
 1 = Inline receptacle  
 2 = 2-hole flange receptacle with PCB contacts  
 6 = Free plug

Shell Size |

Contact Arrangement: |

Insert Type: P = Pin S = Socket |

Shell Keyways:  
 N = Red (standard)  
 A = Yellow  
 B = Blue  
 C = Orange  
 D = Green  
 U = Violet  
 (U = Universal for test harnesses)  
 (Plug type 6 only)

Harsh Environment: |

Modification Code: |

For more information on how to order see page 37.

|           | Boot     |           |
|-----------|----------|-----------|
|           | Straight | 90 Degree |
| Raychem   | 202A111  | 222A111   |
| Hellerman | 113-4-G  | 1108-4-G  |

| Pro Cap    |        | Nut Plate | Gasket |
|------------|--------|-----------|--------|
| Receptacle | Plug   |           |        |
| 604029     | 604027 | ATM396-6  | GV-6   |



**KEY FEATURES**

- Most widely used micro connector in autosport
- Cable accommodation 22, 24, 26 and 28 AWG
- Fully intermateable with Micro HE and Micro<sup>Lite</sup> HE Fuel Immersible
- Purpose designed coupling / decoupling tools.

**GENERAL SPECIFICATION**

| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC) | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|--------------|------------|---------------------|---|---------------------------------------|----------------------------|-------------------|------|-------------------|------|
|              |            |                     |   |                                       |                            | Min               | Max  | Min               | Max  |
| 23           | 6          | 3                   | 500   | 1000                                  | 6                          | 0.60              | 1.37 | -55               | +170 |

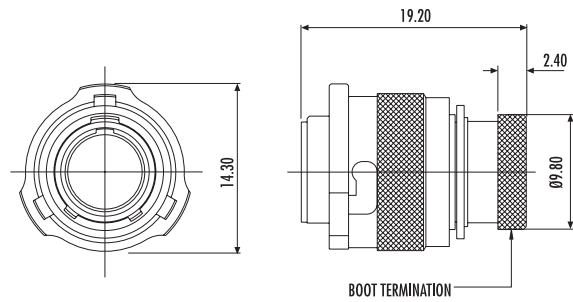
\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

\*\* Current leakage less than 2 milliamps at (VAC)

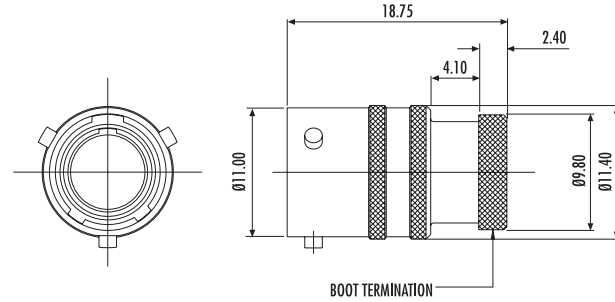
**CONTACTS & TOOLING PART NUMBERS**

| Socket | Pin       | PCB Socket | PCB Pin   | Filler Plug | Ins/Ext Tool | Uncoupling Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------|-----------|------------|-----------|-------------|--------------|-----------------|-------------|----------------|-------------------|
| 604935 | 604927-31 | 604019-LNG | 604023-31 | 600300-22   | M81969/14-01 | AS6HE-UCT       | M22520/2-01 | 604972         | 604973            |

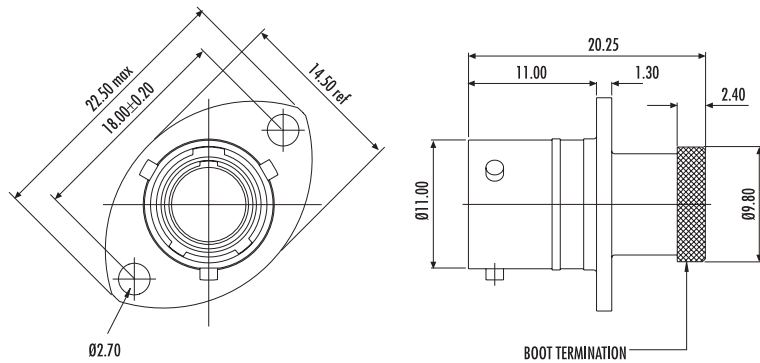
**PLUG – TYPE 6**



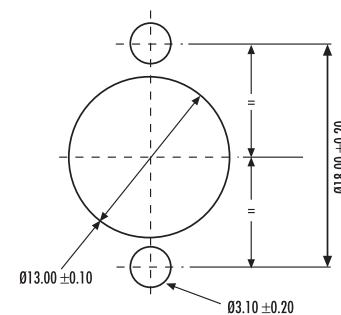
**INLINE RECEPTACLE – TYPE 1**



**RECEPTACLE – TYPE 0**



**PANEL CUT-OUT DETAIL**



**ORDERING INFORMATION**

ASL \* 06 — 05 \* \* — HE — \*\*

Range Ref: \_\_\_\_\_

Style  
 0 = 2-hole flange receptacle  
 1 = Inline receptacle  
 2 = 2-hole flange receptacle with PCB contacts  
 6 = Free plug

Shell Size \_\_\_\_\_

Contact Arrangement: \_\_\_\_\_

Insert Type: P = Pin S = Socket \_\_\_\_\_

Shell Keyways:  
 N = Red (standard)  
 A = Yellow  
 B = Blue  
 C = Orange  
 D = Green  
 E = Grey  
 U = Violet  
 (U = Universal for test harnesses)  
 (Plug type 6 only)

Harsh Environment: \_\_\_\_\_

Modification Code: \_\_\_\_\_

For more information on how to order see page 37.

|           | Boot     |           |
|-----------|----------|-----------|
|           | Straight | 90 Degree |
| Raychem   | 204W221  | 224W221   |
| Hellerman | 1030-4-G | 1181-AG   |

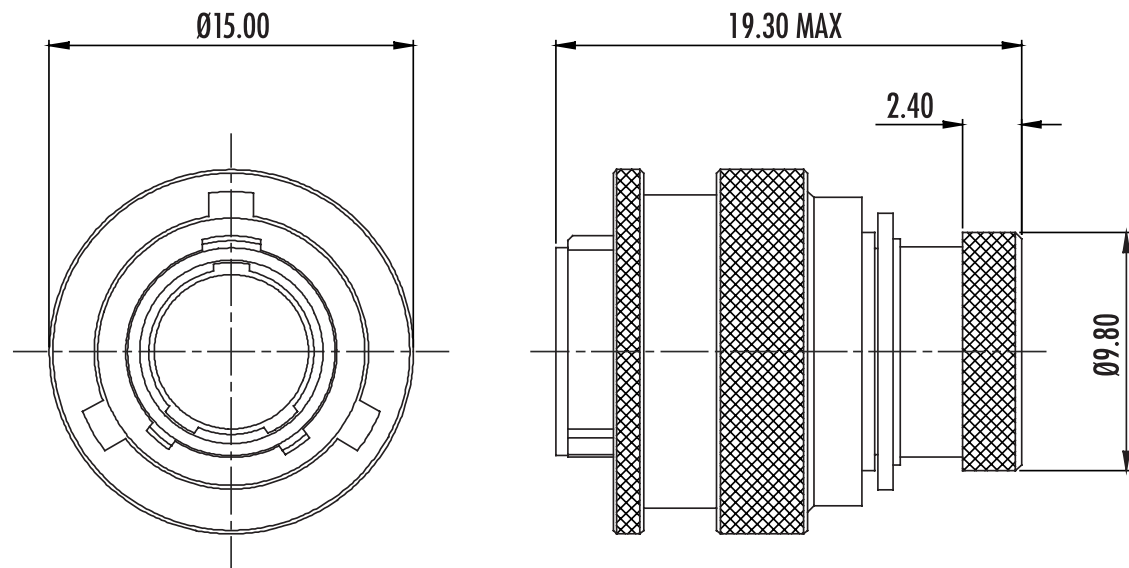
| Pro Cap    |        | Nut Plate | Gasket |
|------------|--------|-----------|--------|
| Receptacle | Plug   |           |        |
| 604029     | 604027 | ATM396-6  | GV-6   |



## KEY FEATURES

- Deutsch designed with direct input from WRC team
- Version of ASL plug connector
- Intermateable with standard ASL receptacle
- Suitable for mechanics who wear gloves
- Enhanced coupling ring for easier coupling/uncoupling.

PLUG – TYPE 6



All dimensions are in mm unless otherwise stated.

## GENERAL SPECIFICATION

| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|--------------|------------|---------------------|---|---|----------------------------|-------------------|------|-------------------|------|
|              |            |                     |   |   |                            | Min               | Max  | Min               | Max  |
| 23           | 6          | 3                   | 500   | 1000                                    | 6                          | 0.60              | 1.37 | -55               | +170 |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

\*\* Current leakage less than 2 milliamps at (VAC)

## CONTACTS & TOOLING PART NUMBERS

| Socket | Pin       | Filler Plug | Ins/Ext Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------|-----------|-------------|--------------|-------------|----------------|-------------------|
| 604935 | 604927-31 | 600300-22   | M81969/14-01 | M22520/2-01 | 604972         | 604973            |

## ORDERING INFORMATION

Range Ref: | \_\_\_\_\_ ASR | 6 | 06 | — | 05 | \* | \* | — | HE | — | \*\*\*

Style

6 = Free plug | \_\_\_\_\_

Shell Size | \_\_\_\_\_

Contact Arrangement: | \_\_\_\_\_

Insert Type: P = Pin S = Socket | \_\_\_\_\_

Shell Keyways:  
 N = Red (standard)  
 A = Yellow  
 B = Blue  
 C = Orange  
 D = Green  
 E = Grey  
 U = Violet  
 (U = Universal for test harnesses)  
 (Plug type 6 only)

Harsh Environment: | \_\_\_\_\_

Modification Code: | \_\_\_\_\_

ASR = Enhanced Plug, for mating Receptacles see ASL page 8

For more information on how to order see page 37.

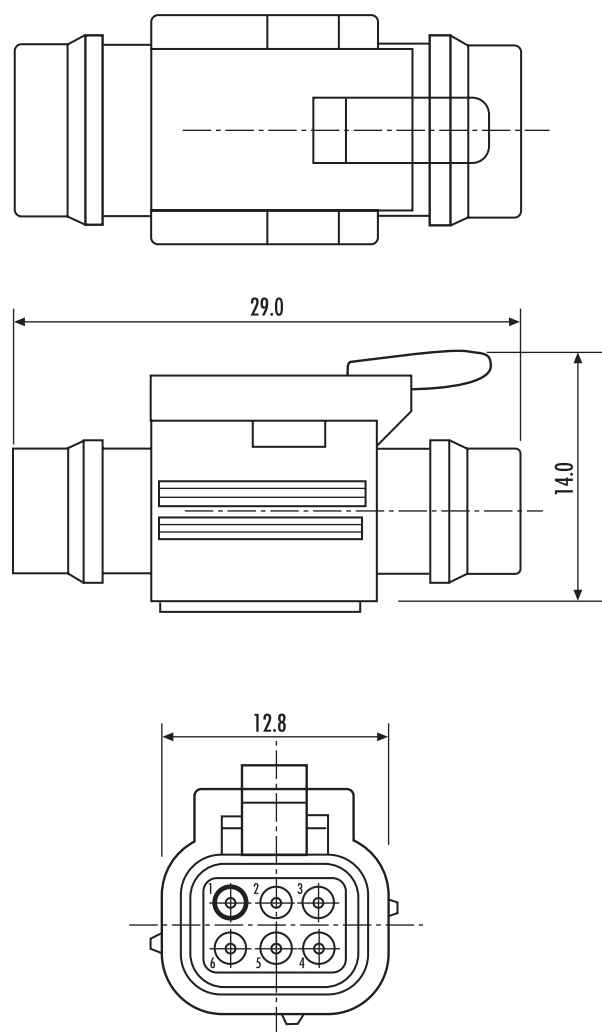
|           | Boot     |           | Pro Cap |
|-----------|----------|-----------|---------|
|           | Straight | 90 Degree |         |
| Raychem   | 202A111  | 222A111   | 604027  |
| Hellerman | 113-4-G  | 1108-4-G  |         |



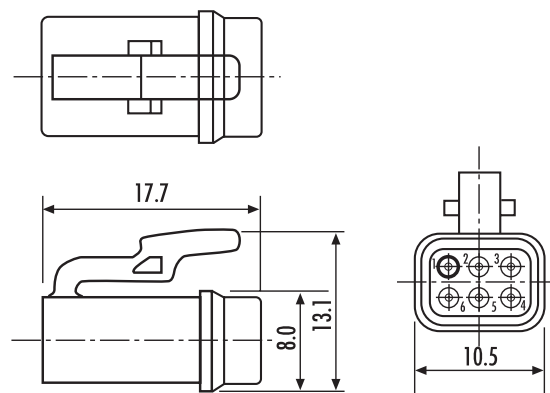
**KEY FEATURES**

- Extremely resistant to vibration
- Military approved rugged thermoplastic housing
- 5mm shorter than ASL (mated pair)
- Bondable with suitable adhesive in different configurations
- Cable-tie slot for security and mounting inline connections. Designed to fit Thomas & Betts part no. TY24 or equivalent
- Close stacking possible with locating sides & bottom.

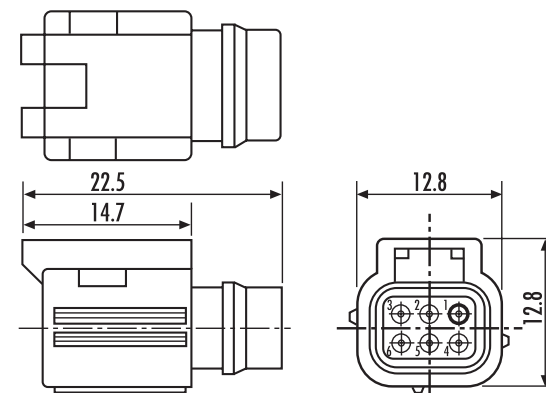
**MATED PAIR**



**PLUG - TYPE 6**



**RECEPTACLE - TYPE 1**



**GENERAL SPECIFICATION**

| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|--------------|------------|---------------------|---|---|----------------------------|-------------------|------|-------------------|------|
|              |            |                     |   |   |                            | Min               | Max  | Min               | Max  |
| 22           | 6          | 5                   | 300   | 1500                                    | 6                          | 0.60              | 1.37 | -55               | +175 |

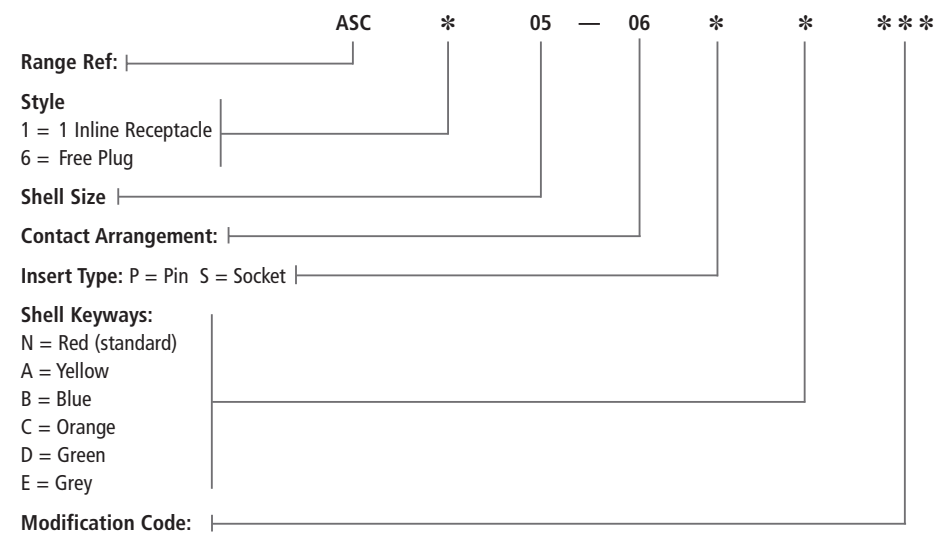
\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

\*\* Current leakage less than 2 milliamps at (VAC)

**CONTACTS & TOOLING PART NUMBERS**

| Socket | Pin       | Filler Plug | Ins/Ext Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------|-----------|-------------|--------------|-------------|----------------|-------------------|
| 604984 | 604946-31 | 600300-22   | M81969/14-01 | M22520/2-01 | 605463         | 605464            |

**ORDERING INFORMATION**



**Part Numbers:**  
 Receptacle: ASC105-06SN  
 Plug: ASC605-06PN

**Please note:**  
 Plug only available in pin arrangement,  
 Receptacle only available in socket arrangement.

**For more information on how to order see page 37.**

|           | Boot     |           |
|-----------|----------|-----------|
|           | Straight | 90 Degree |
| Raychem   | 204W221  | 224W221   |
| Hellerman | 1030-4-G | 1181-4-G  |

All dimensions are in mm unless otherwise stated.

**AS Micro Ultra<sup>Lite</sup> HE (3-Way)**



## KEY FEATURES

- Unique Deutsch designed product
- Cable accommodation 24-30 AWG (5 way), 22-28 AWG (3 way)
- 17% smaller coupling ring than ASL
- 30% lighter than ASL (mated pair).



**AS Ultra<sup>Lite</sup> HE (5-Way)**

## GENERAL SPECIFICATION

| No. of Ways | Contact Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|-------------|--------------|---------------------|---|---|----------------------------|-------------------|------|-------------------|------|
|             |              |                     |   |   |                            | Min               | Max  | Min               | Max  |
| 3           | 22           | 5                   | 500   | 1500                                    | 6                          | 0.76              | 1.37 | -55               | +170 |
| 5           | 24           | 3                   |   | 1000                                    |                            | 0.60              | 0.83 |                   |      |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

\*\* Current leakage less than 2 milliamps at (VAC)

## CONTACTS & TOOLING PART NUMBERS

| Contact Size | Socket | Pin       | PCB Socket | PCB Pin   | Filler Plug | Ins/Ext Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------------|--------|-----------|------------|-----------|-------------|--------------|-------------|----------------|-------------------|
| 22           | 604984 | 604946-31 | 605681     | 605679-31 | 600300-22   | M81969/14-01 | M22520/2-01 | 605463         | 605464            |
| 24           | 605704 | 605705-31 | 605902     | 605900-31 | 600300-24   | 605837       |             | 605839         | 605840            |

## ORDERING INFORMATION

ASU \* 03 — \*\* \* \* \*\*

Range Ref: \_\_\_\_\_

Style:  
 0 = 2 Hole Flange Receptacle  
 1 = Inline Receptacle  
 2 = 2 Hole Flange Receptacle with PCB contacts  
 6 = Free Plug

Shell Size: \_\_\_\_\_

Contact Arrangement: \_\_\_\_\_  
 03, 05

Insert Type:  
 P = Pin  
 S = Socket

Shell Keyways:  
 N = Red (standard)  
 A = Yellow  
 B = Blue  
 C = Orange  
 D = Green  
 E = Grey  
 U = Violet  
 (U = Universal for test harnesses)  
 (Plug type 6 only)

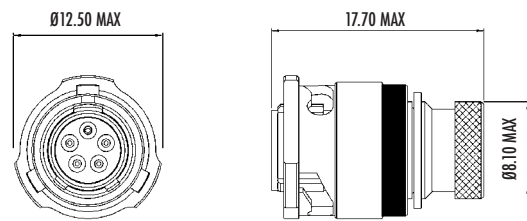
Modification Code: \_\_\_\_\_

For more information on how to order see page 37.

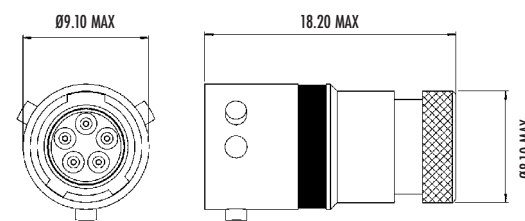
|           | Boot           |                |
|-----------|----------------|----------------|
|           | Straight       | 90 Degree      |
| Raychem   | 204W221-25-G03 | 224W221-25-G03 |
| Hellerman | 1037-4-G       | 1182-4-G       |

| Pro Cap    |        | Nut Plate | Gasket |
|------------|--------|-----------|--------|
| Receptacle | Plug   |           |        |
| 605684     | 605687 | ATM396-3  | GV-3   |

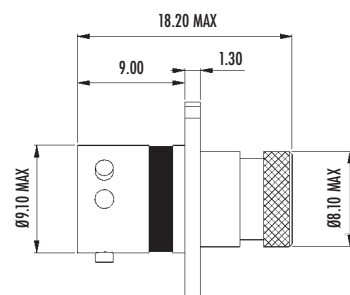
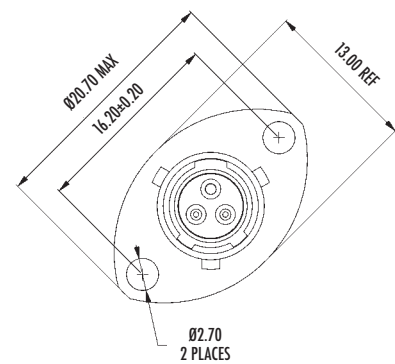
### PLUG – TYPE 6



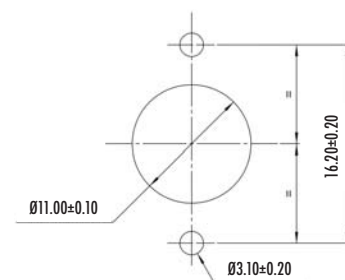
### INLINE RECEPTACLE - TYPE 1



### RECEPTACLE - TYPE 0



### PANEL CUT-OUT DETAIL







**KEY FEATURES**

- Size 7 shell
- 2 planform options
- Integral screen termination
- Cable accommodation 20, 22, 24 and 26 AWG
- Offers size 8 insert arrangement in smaller shell.

**GENERAL SPECIFICATION**

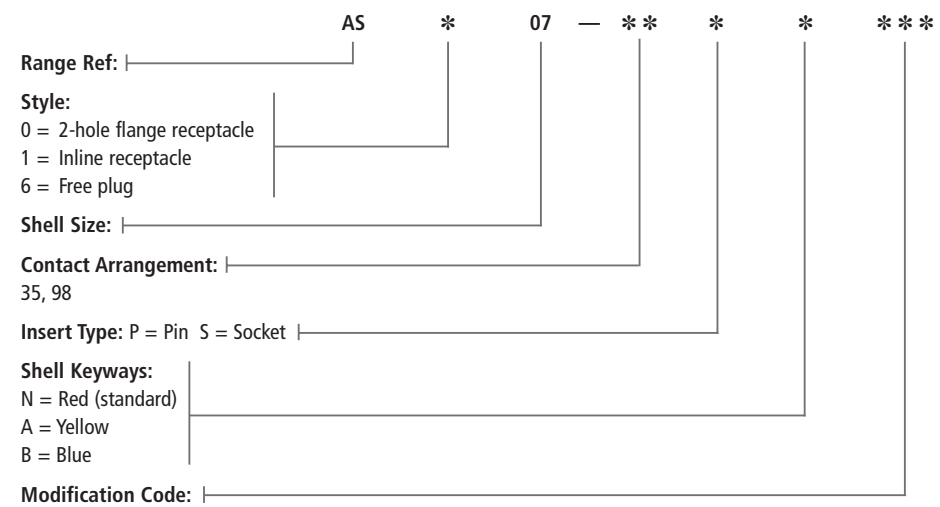
| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|--------------|------------|---------------------|---|---|----------------------------|-------------------|------|-------------------|------|
|              |            |                     |   |   |                            | Min               | Max  | Min               | Max  |
| 22           | 7          | 5                   | 500   | 1300                                    | 3                          | 0.76              | 1.37 | -55               | +175 |
| 20           |            | 7.5                 |   |   |                            | 1.02              | 2.11 |                   |      |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.  
 \*\* Current leakage less than 2 milliamps at (VAC)

**CONTACTS & TOOLING PART NUMBERS**

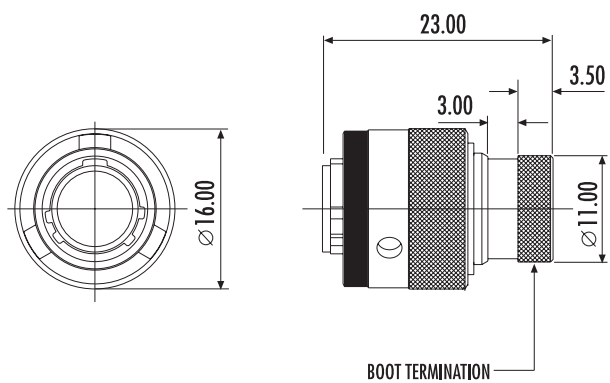
| Contact Size | Socket         | Pin      | PCB Socket | PCB Pin | Filler Plug | Ins/Ext Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------------|----------------|----------|------------|---------|-------------|--------------|-------------|----------------|-------------------|
| 22           | 604887         | 38941-22 | 603544     | 603542  | 600300-22   | M81969/14-01 | M22520/2-01 | M22520/2-09    | 605000            |
| 20           | 6862-201-20278 | 38941-20 | 603528     | 603526  | 600300-20   | M81969/14-10 |             | M22520/2-10    | M22520/2-10       |

**ORDERING INFORMATION**

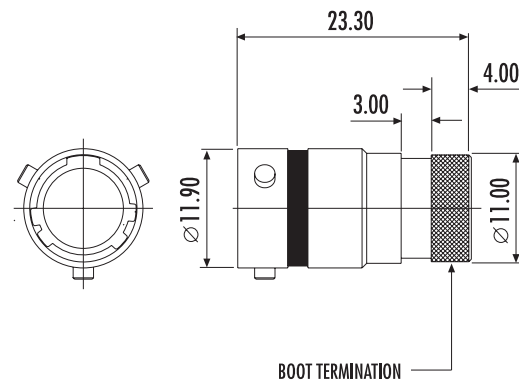


For more information on how to order see page 37.

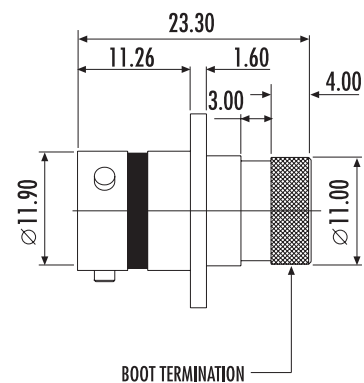
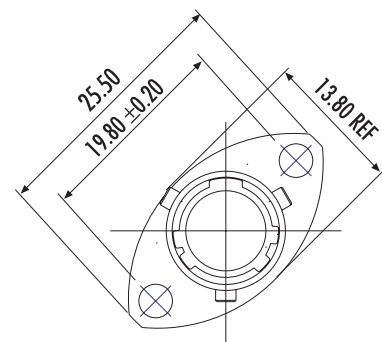
**PLUG - TYPE 6**



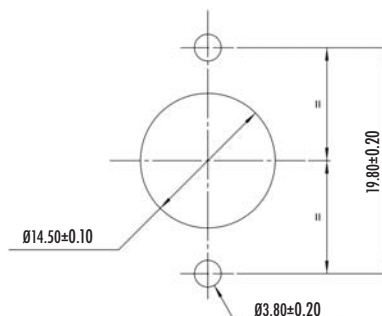
**INLINE RECEPTACLE - TYPE 1**



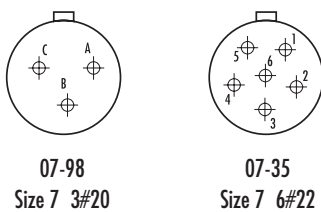
**RECEPTACLE - TYPE 0**



**PANEL CUT-OUT DETAIL**



**INSERT ARRANGEMENTS**



All dimensions are in mm unless otherwise stated.

|           | Boot     |           |
|-----------|----------|-----------|
|           | Straight | 90 Degree |
| Raychem   | 202K121  | 222K121   |
| Hellerman | 152-42-G | 1152-4-G  |

| Pro Cap    |        | Nut Plate | Gasket |
|------------|--------|-----------|--------|
| Receptacle | Plug   |           |        |
| AS9-07     | AS8-07 | ATM396-7  | GV-7   |



**KEY FEATURES**

- Filter, Hermetic & Fibre Optic options available
- Intermateable with existing LN29729 (Mil-C 38999 Series 11/2) and Pan 6433-2 style connectors
- High density arrangements up to 128 ways
- Integral screen
- Cable accommodation 16, 20 and 22 AWG.

**GENERAL SPECIFICATION**

| Contact Size | Shell Size        | Max. Current (amps) | Durability (cycles of engagement & disengagement) | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|--------------|-------------------|---------------------|---|----------------------------|-------------------|------|-------------------|------|
|              |                   |                     |   |                            | Min               | Max  | Min               | Max  |
| 22           | 8 to 24 see below | 5                   | 500   | 5                          | 0.76              | 1.37 | -55               | +175 |
| 20           |                   | 7.5                 |   |                            |                   |      |                   |      |
| 16           |                   | 20                  |   |                            |                   |      |                   |      |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

| SHELL SIZE | CONTACT ARRANGEMENT | NUMBER OF CONTACTS |         |         | RATING ** |   |
|------------|---------------------|--------------------|---------|---------|-----------|---|
|            |                     | SIZE 22 D          | SIZE 20 | SIZE 16 |           |   |
| 08         | -98                 |                    | 3       |         | I         |   |
| 08         | -35                 | 6                  |         |         | M         |   |
| 10         | -98                 | 13                 | 6       |         | I         |   |
| 10         | -35                 |                    |         | 2       |           | M |
| 10         | -02                 |                    |         | 3       |           | I |
| 10         | -03                 |                    |         |         | I         |   |
| 12         | -04                 | 22                 | 4       |         | I         |   |
| 12         | -98                 |                    | 10      |         | I         |   |
| 12         | -35                 |                    |         | 4       |           | M |
| 14         | -97                 |                    | 8       |         | I         |   |
| 14         | -19                 |                    | 19      |         | I         |   |
| 14         | -35                 | 37                 |         |         | M         |   |
| 16         | -08                 | 55                 |         | 8       | I         |   |
| 16         | -26                 |                    | 26      |         | I         |   |
| 16         | -35                 |                    |         |         | M         |   |

| SHELL SIZE | CONTACT ARRANGEMENT | NUMBER OF CONTACTS |         |         | RATING ** |
|------------|---------------------|--------------------|---------|---------|-----------|
|            |                     | SIZE 22 D          | SIZE 20 | SIZE 16 |           |
| 18         | -32                 |                    | 32      |         | I         |
| 18         | -35                 | 66                 |         |         | M         |
| 20         | -16                 |                    |         | 16      | I         |
| 20         | -39                 |                    | 37      | 2       | I         |
| 20         | -41                 |                    | 41      |         | I         |
| 20         | -35                 | 79                 |         |         | M         |
| 22         | -21                 |                    |         | 21      | I         |
| 22         | -55                 |                    | 55      |         | I         |
| 22         | -35                 | 100                |         |         | M         |
| 24         | -29                 |                    |         | 29      | I         |
| 24         | -61                 |                    | 61      |         | I         |
| 24         | -35                 | 128                |         |         | M         |

\*\*Ratings M&I define Dielectric Withstand Voltage ratings as follows:  
I = 1800 volts rms, M = 1300 volts rms, current leakage less than 2 milliamps.

Please note: The contact/insert arrangements shown above are standard layouts. Other combinations of shell sizes and insert arrangements may be available. For details contact the sales office.

| Contact Size | Socket   | Pin      | Filler Plug | Ins/Ext Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------------|----------|----------|-------------|--------------|-------------|----------------|-------------------|
| 22           | 38943-22 | 38941-22 | 600300-22   | M81969/14-01 | M22520/2-01 | M22520/2-09    | M22520/2-07       |
| 20           | 38943-20 | 38941-20 | 600300-20   | M81969/14-10 | M22520/2-01 | M22520/2-10    | M22520/2-10       |
| 16           | 38943-16 | 38941-16 | 600300-16   | M81969/14-03 | M22520/1-01 | M22520/1-04    | M22520/1-04       |

Please note: PCB versions are ordered with AS2 prefixes and come with contacts.

**AS CONTACT / INSERT ARRANGEMENTS**

**NEW**

10-02 (I)  
Size 10  
2#16

10-03 (I)  
Size 10  
3#16

08-98 (I)  
Size 8  
3#20

08-35 (M)  
Size 8  
6#22

10-98 (I)  
Size 10  
6#20

10-35 (M)  
Size 10  
13#22

12-04 (I)  
Size 12  
4#16

12-98 (I)  
Size 12  
10#20

12-35 (M)  
Size 12  
22#22

14-97 (I)  
Size 14  
8#20 4#16

14-19 (I)  
Size 14  
19#20

14-35 (M)  
Size 14  
37#22

16-08 (I)  
Size 16  
8#16

16-26 (I)  
Size 16  
26#20

16-35 (M)  
Size 16  
55#22

18-32 (I)  
Size 18  
32#20

18-35 (M)  
Size 18  
66#22

20-16 (I)  
Size 20  
16#16

20-39 (I)  
Size 20  
37#20 2#16

20-41 (I)  
Size 20  
41#20

20-35 (M)  
Size 20  
79#22

22-21 (I)  
Size 22  
21#16

22-55 (I)  
Size 22  
55#20

22-35 (M)  
Size 22  
100#22

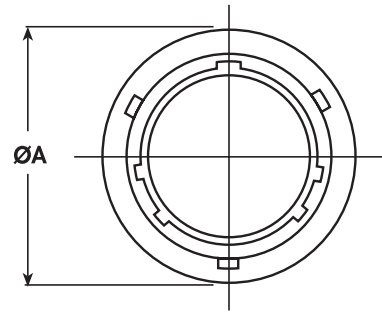
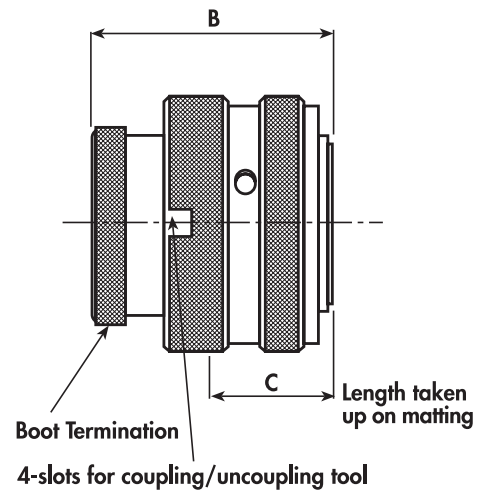
24-29 (I)  
Size 24  
29#16

24-61 (I)  
Size 24  
61#20

24-35 (M)  
Size 24  
128#22

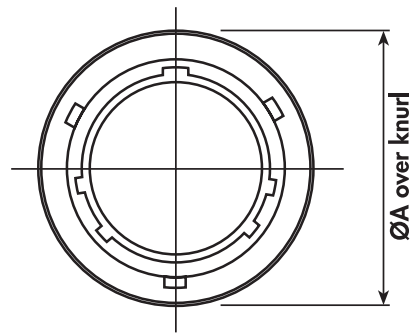
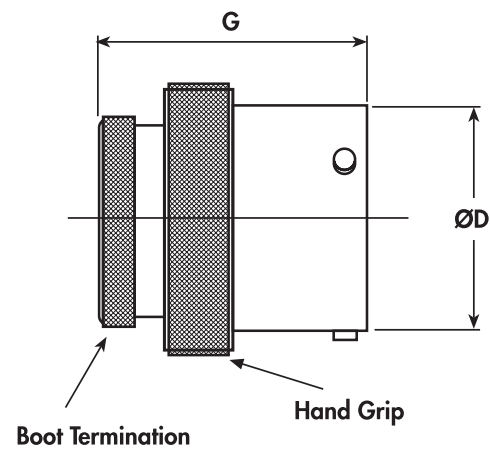
Ratings M&I define Dielectric Withstand Voltage ratings as follows:  
I = 1800 volts rms, M = 1300 volts rms, current leakage less than 2 milliamps.

**PLUG – TYPE 6**



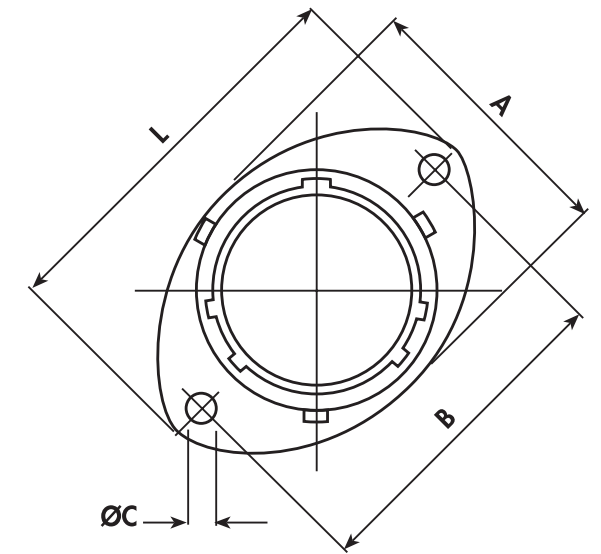
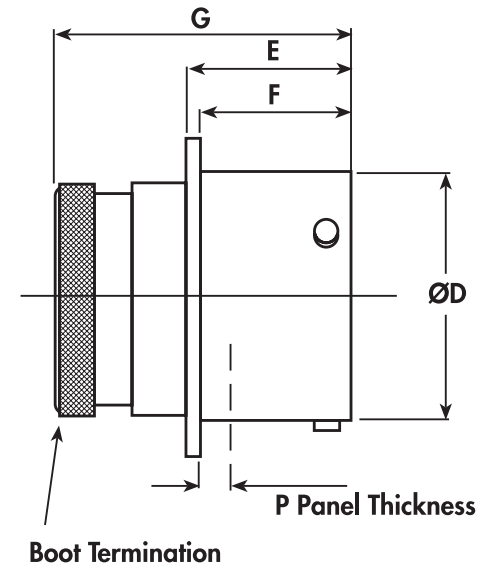
| SHELL SIZE | A<br>MAX | B<br>MAX | C<br>MAX |
|------------|----------|----------|----------|
| 08         | 17.70    |          |          |
| 10         | 20.80    |          |          |
| 12         | 25.20    |          |          |
| 14         | 28.40    |          |          |
| 16         | 31.50    | 33.50    | 15.00    |
| 18         | 34.80    |          |          |
| 20         | 38.20    |          |          |
| 22         | 41.30    |          |          |
| 24         | 44.60    |          |          |

**INLINE RECEPTACLE – TYPE 1**

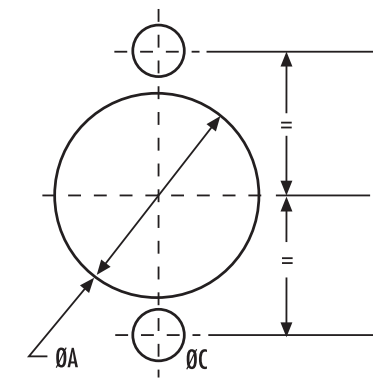


| SHELL SIZE | A<br>MAX | D<br>+0<br>-0.13 | G<br>MAX |
|------------|----------|------------------|----------|
| 08         | 17.70    | 12.00            |          |
| 10         | 20.80    | 15.00            |          |
| 12         | 25.20    | 19.05            |          |
| 14         | 28.40    | 22.22            | 33.50    |
| 16         | 31.50    | 25.40            |          |
| 18         | 34.80    | 28.57            |          |
| 20         | 38.20    | 31.75            |          |
| 22         | 41.30    | 34.92            |          |
| 24         | 44.60    | 38.10            |          |

**RECEPTACLE – TYPE 0**



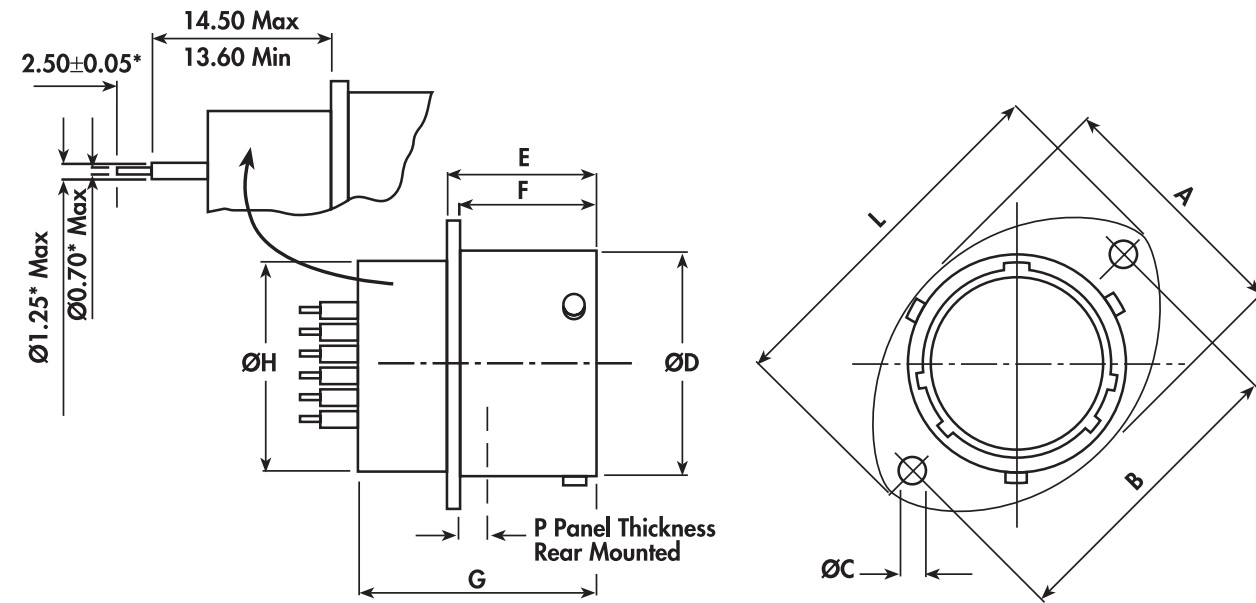
| SHELL SIZE | A<br>Ref | B<br>± 0.2 | C<br>+0.1<br>-0 | D<br>+0<br>-0.13 | E<br>+0.15<br>-0 | F<br>+0<br>-0.13 | G<br>MAX | L<br>MAX | P<br>MAX |
|------------|----------|------------|-----------------|------------------|------------------|------------------|----------|----------|----------|
| 08         | 16.50    | 21.35      |                 | 12.00            |                  |                  |          | 27.20    |          |
| 10         | 19.50    | 25.90      |                 | 15.00            |                  |                  |          | 32.00    |          |
| 12         | 24.00    | 29.10      |                 | 19.05            |                  |                  |          | 35.20    |          |
| 14         | 27.00    | 32.50      | 3.20            | 22.22            | 17.21            | 16.05            | 33.50    | 38.40    | 3.00     |
| 16         | 30.30    | 34.80      |                 | 25.40            |                  |                  |          | 41.00    |          |
| 18         | 33.70    | 38.20      |                 | 28.57            |                  |                  |          | 44.70    |          |
| 20         | 37.00    | 41.60      |                 | 31.75            |                  |                  |          | 47.90    |          |
| 22         | 40.00    | 44.95      |                 | 34.92            |                  | 15.29            |          | 51.10    |          |
| 24         | 43.30    | 49.35      | 3.70            | 38.10            |                  |                  |          | 55.80    | 2.26     |



| SHELL SIZE | A<br>± 0.10 | B<br>± 0.20 | C<br>± 0.20 |
|------------|-------------|-------------|-------------|
| 08         | 14.50       | 21.40       |             |
| 10         | 17.40       | 25.90       |             |
| 12         | 21.90       | 29.10       |             |
| 14         | 25.00       | 32.50       | 3.6         |
| 16         | 28.20       | 34.80       |             |
| 18         | 31.40       | 38.20       |             |
| 20         | 34.60       | 41.60       |             |
| 22         | 37.80       | 44.90       |             |
| 24         | 41.00       | 49.30       | 4.10        |

All dimensions are in mm unless otherwise stated.

PCB BOX MOUNTING RECEPTACLE – TYPE 2



\*Dimensions for 20 and 22 contacts shown are for standard parts. Other PCB contacts are available.

| SHELL SIZE | A Ref | B ± 0.2 | C +0.1 -0 | D +0 -0.13 | E +0.15 -0 | F +0 -0.13 | G MAX | H MAX | L MAX | P MAX |
|------------|-------|---------|-----------|------------|------------|------------|-------|-------|-------|-------|
| 08         | 16.50 | 21.40   | 3.2       | 12.00      | 17.21      | 16.05      | 27.65 | 11.10 | 27.20 | 3.00  |
| 10         | 19.50 | 25.90   |           | 15.00      |            |            |       | 14.27 | 32.00 |       |
| 12         | 24.00 | 29.10   |           | 19.05      |            |            |       | 17.44 | 35.20 |       |
| 14         | 27.00 | 32.50   |           | 22.22      |            |            |       | 20.60 | 38.40 |       |
| 16         | 30.30 | 34.80   |           | 25.40      |            |            |       | 23.77 | 41.00 |       |
| 18         | 33.70 | 38.20   |           | 28.57      |            |            |       | 26.94 | 44.70 |       |
| 20         | 37.00 | 41.60   |           | 31.75      |            |            |       | 30.11 | 47.90 |       |
| 22         | 40.00 | 44.95   | 34.92     | 33.29      | 51.10      | 15.29      |       |       |       |       |
| 24         | 43.30 | 49.35   | 3.7       | 38.10      | 36.46      |            | 55.80 | 2.26  |       |       |

ORDERING INFORMATION

Range Ref: | AS \* \*\* - \*\* \* \* - \*\*\*

Style  
 0 = 2-hole flange receptacle (front fixing)  
 1 = Inline receptacle  
 2 = 2-hole flange box mount PCB receptacle (front fixing or rear fixing)  
 6 = Free plug  
 8 = Cap for plug  
 9 = Cap for receptacle

Shell Size: |

Contact Arrangement: |

Insert Type: P = Pin S = Socket |

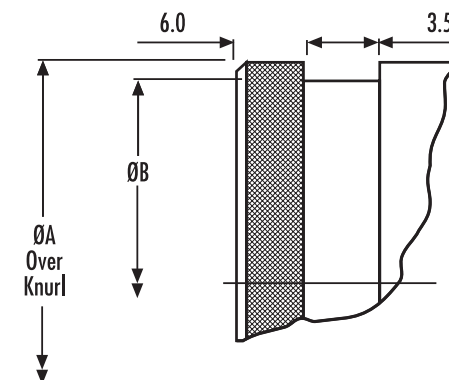
Shell Keyways:  
 N = Red (standard)  
 A = Yellow  
 D = Green  
 B = Blue  
 C = Orange  
 U = Violet  
 (U = Universal for test harnesses)

Modification Code: |

Please note:  
The size 8 shell is only available in keyways A, D and N.

For more information on how to order see page 37.

| SHELL SIZE | NUT PLATE  | GASKET |
|------------|------------|--------|
| 08         | ATM396 -8  | GV-8   |
| 10         | ATM396 -10 | GV-10  |
| 12         | ATM396 -12 | GV-12  |
| 14         | ATM396 -14 | GV-14  |
| 16         | ATM396 -16 | GV-16  |
| 18         | ATM396 -18 | GV-18  |
| 20         | ATM396 -20 | GV-20  |
| 22         | ATM396 -22 | GV-22  |
| 24         | ATM396 -24 | GV-24  |



| SHELL SIZE | A ± 0.10 | B ± 0.05 |
|------------|----------|----------|
| 08         | 11.20    | 10.00    |
| 10         | 14.22    | 12.95    |
| 12         | 17.39    | 16.15    |
| 14         | 20.55    | 19.15    |
| 16         | 23.72    | 23.35    |
| 18         | 26.89    | 25.35    |
| 20         | 30.06    | 28.50    |
| 22         | 33.24    | 31.70    |
| 24         | 36.41    | 34.85    |

All dimensions are in mm unless otherwise stated.



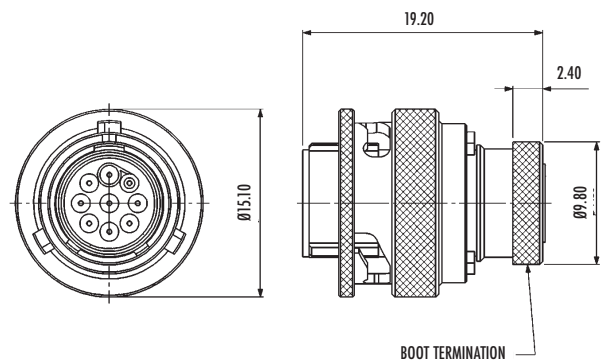
## KEY FEATURES

- Next Generation Connector – high density and high performance
- Allows for a saving of 2 shell sizes relative to regular Autosport platforms
- Very lightweight
- Almost double the number of contacts compared with the regular Autosport range equivalent shell size.

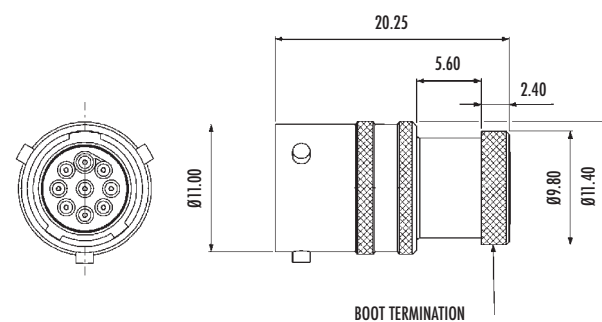
With the exception of the 9-Way, the ASDD range of connectors uses standard AS metalwork, for the individual dimensions please refer to AS Series section on page 20.

## 9-WAY ONLY

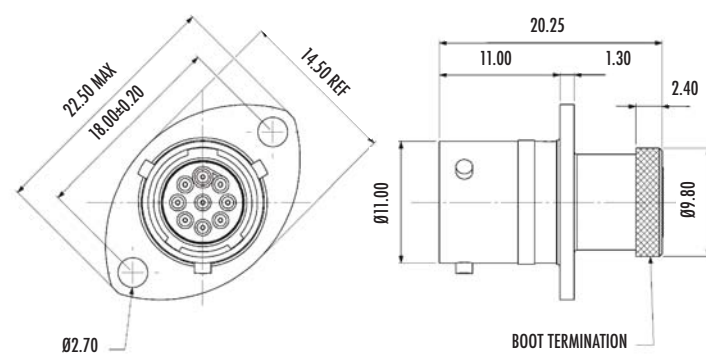
### PLUG – TYPE 6



### INLINE RECEPTACLE - TYPE 1



### RECEPTACLE - TYPE 0



All dimensions are in mm unless otherwise stated.

## GENERAL SPECIFICATION

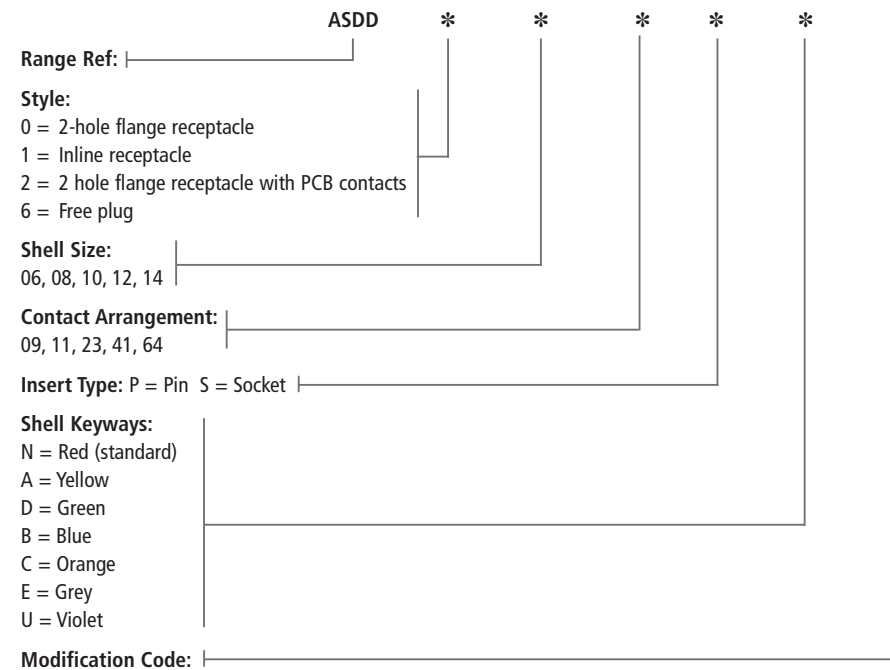
| Connector | Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|-----------|--------------|------------|---------------------|---|---|----------------------------|-------------------|------|-------------------|------|
|           |              |            |                     |   |   |                            | Min               | Max  | Min               | Max  |
| 9-Way     | 24           | 6          | 3                   | 500   | 1000                                    | 6                          | 0.60              | 0.83 | -55               | +170 |
| 8-11      | 24           | 8          | 3                   | 500   | 1000                                    | 5                          | 0.60              | 0.83 | -55               | +175 |
| 10-23     |              | 10         |                     |   |   |                            |                   |      |                   |      |
| 12-41     |              | 12         |                     |   |   |                            |                   |      |                   |      |
| 14-64     | 14           |            |                     |   |   |                            |                   |      |                   |      |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

\*\* Current leakage less than 2 milliamps at (VAC)

## CONTACTS & TOOLING PART NUMBERS

| Connector | Socket | Pin       | PCB Socket   | PCB Pin   | Ins/Ext Tool | Pin Positioner | Socket Positioner |
|-----------|--------|-----------|--|-----------|--------------|----------------|-------------------|
| 9-Way     | 605704 | 605705-31 | 610008   | 610006-31 |              | 605839         | 605840            |
| 8-11      | 605721 | 605719-31 | PCB versions are ordered with AS2 prefixes and come with contacts. |           | 605837       | 610286         | 610287            |
| 10-23     |        |           |  |           |              |                |                   |
| 12-41     |        |           |  |           |              |                |                   |
| 14-64     |        |           |  |           |              |                |                   |



**Please note:**  
 The size 8 shell is only available in keyways A, D and N and only the 9 way is available as Keyway E.

For more information on how to order see page 37.

For information on boots and nut plates please refer to AS series on page 23 or contact the sales office for further information.



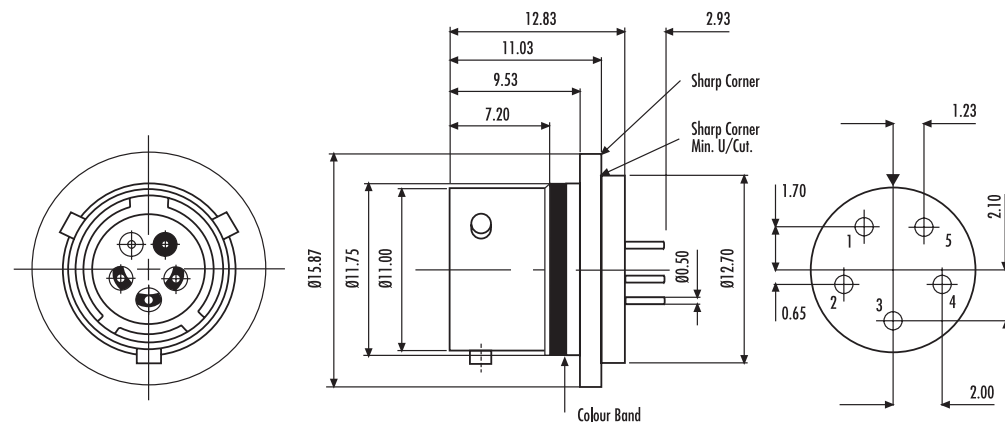
**KEY FEATURES**

- Weld mount connector
- Filtered Hermetic option also available
- Stainless Steel (316) for ease of mounting and corrosion performance
- Titanium versions for light weight applications also available
- Glass seal can withstand pressure differentials of 1000 PSI without loss of electrical performance or fluid leakage
- Intermateable with AS Micro and ASL.

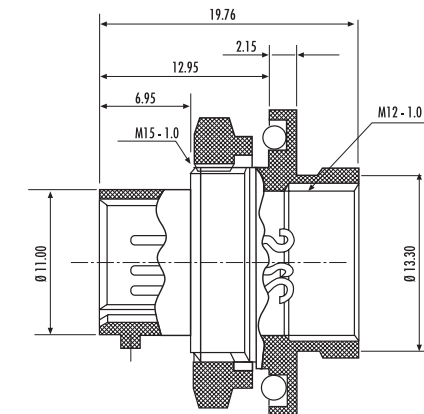
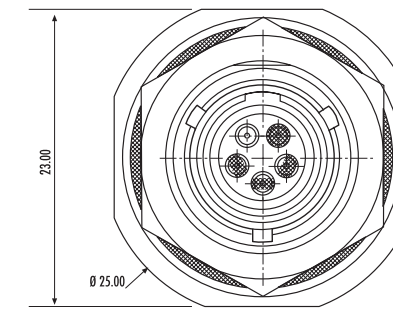


**KEY FEATURES**

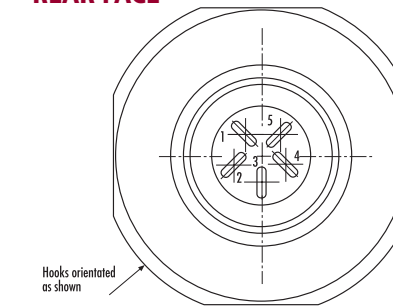
- Unique product for sensor & fuel cell use
- Enlarged backshell for easier contact soldering
- Viton® O-ring for enhanced fluid resistance
- Glass seal can withstand pressure differentials of 1000 PSI without loss of electrical performance or fluid leakage
- Fully intermateable with AS Micro HE and Micro<sup>Lite</sup>.



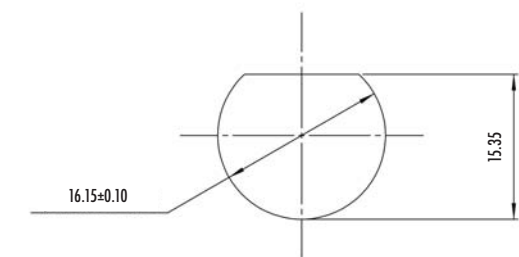
**FRONT FACE**



**REAR FACE**



**PANEL CUT-OUT DETAIL**



| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Temp (°C)* |     | Materials                |             | Finish           |             |
|--------------|------------|---------------------|---|---|----------------------------|------------|-----|--------------------------|-------------|------------------|-------------|
|              |            |                     |   |   |                            | Min        | Max | Shell                    | Contacts    | Shell            | Contacts    |
| 23           | 6          | 3                   | 500   | 1000                                    | 5                          | -65        | -65 | Stainless Steel (316)*** | Nickel Iron | Electro-polished | Gold Plated |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.  
 \*\* Current leakage less than 2 milliamps at (VAC)  
 \*\*\* Titanium Shell also available

AS Micro HE Hermetic Receptacle: AS 4H 06 — 05 P N — HE \*

T = Titanium Shell  
 F = Filtered

AS Micro HE Plug: AS 606 — 05S \* — HE  
 ASL 606 — 05S \* — HE

Shell Orientation:  
 N = Red (standard)

All dimensions are in mm unless otherwise stated.

For more information on how to order see page 37.

| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Temperature (°C)* |      |
|--------------|------------|---------------------|---|---|----------------------------|-------------------|------|
|              |            |                     |   |   |                            | Min               | Max  |
| 23           | 6          | 3                   | 500   | 1000                                    | 1                          | -65               | +200 |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.  
 \*\* Current leakage less than 2 milliamps at (VAC)

Part No. AS7H06 - 05 PN-HE

All dimensions are in mm unless otherwise stated.



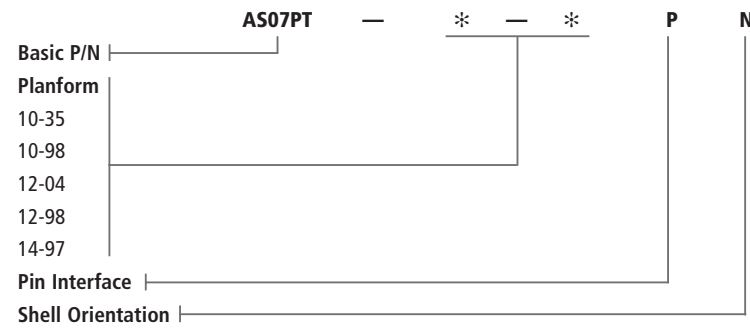
## KEY FEATURES

- Range of connectors designed for fuel cell walls
- Viton® O-ring for enhanced fluid resistance
- Integral potting cup, rear accessory thread and external boot termination feature
- Glass seal can withstand pressure differentials of 1000 PSI without loss of electrical performance or fluid leakage.

## GENERAL SPECIFICATION

| Contact Size | Max. Current (amps) | Sealing                              | Pressure       | Electrical                  | Materials             |             | Finish           |             |
|--------------|---------------------|--------------------------------------|----------------|-----------------------------|-----------------------|-------------|------------------|-------------|
|              |                     |                                      |                |                             | Shell                 | Contacts    | Shell            | Contacts    |
| 22           | 5                   | 1 x 10 <sup>-8</sup> cc/sec @ 15 PSI | 1,000 PSI typ. | IR 5000 Mohms @ 500 volt DC | Stainless Steel (303) | Nickel Iron | Electro-polished | Gold Plated |
| 20           | 7.5                 |                                      |                |                             |                       |             |                  |             |
| 16           | 20                  |                                      |                |                             |                       |             |                  |             |

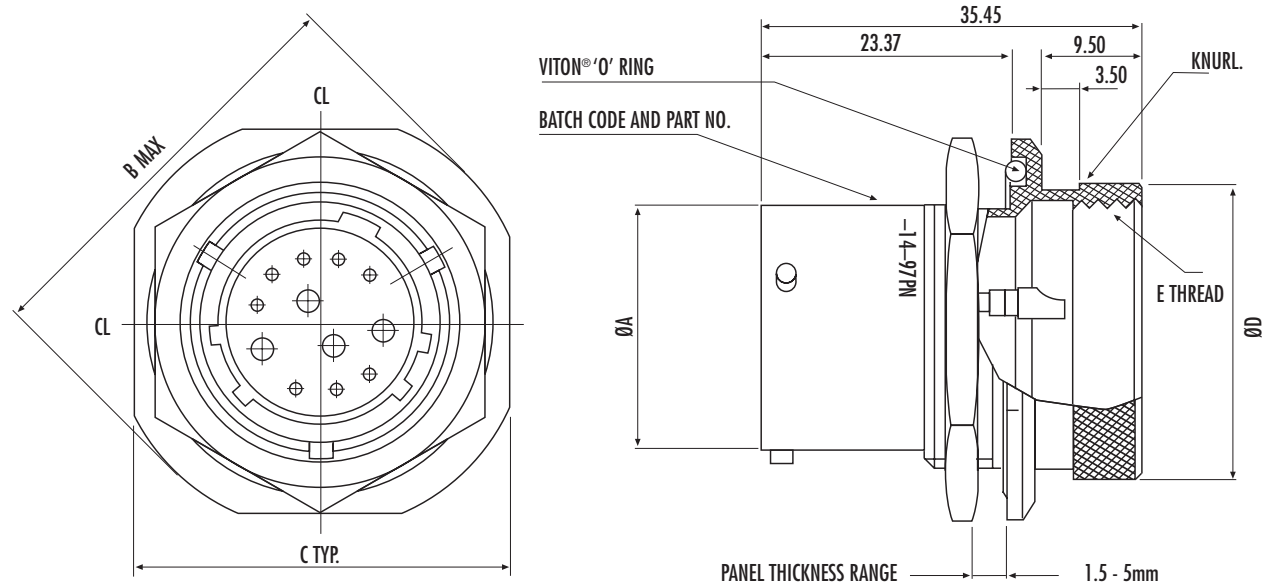
## ORDERING INFORMATION



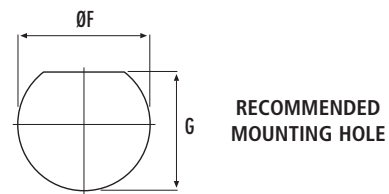
Mating Free Plug (see page 18)

Part Nos:  
 AS610-35SN  
 AS610-98SN  
 AS612-04SN  
 AS612-98SN  
 AS614-97SN

For more information on how to order see page 37.



| Shell Size | Part No.          | ØA Max | B Max | C Typ. | ØD Typ. | E Thread | ØF MIN. | G MAX. |
|------------|-------------------|--------|-------|--------|---------|----------|---------|--------|
| 10         | AS07PT-10-**-**PN | 15.04  | 28.40 | 25.95  | 20.50   | M18x1.0  | 17.70   | 17.00  |
| 12         | AS07PT-12-**-**PN | 19.09  | 33.00 | 30.75  | 23.67   | M21x1.0  | 22.70   | 21.10  |
| 14         | AS07PT-14-**-**PN | 22.26  | 36.30 | 33.85  | 26.84   | M24x1.0  | 25.70   | 24.30  |

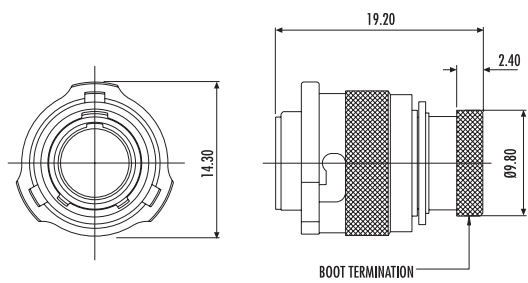




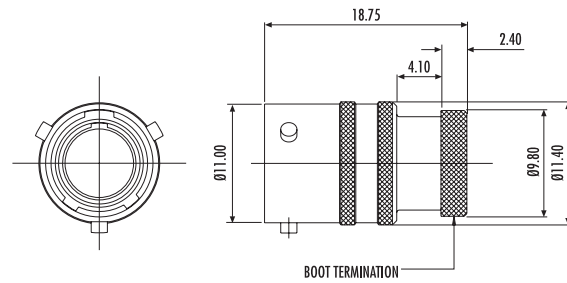
**KEY FEATURES**

- Unique Deutsch designed fuel resistant elastomer insert
- Hermetic option with enlarged backshell for easy contact soldering and integrated potting cup available
- Cable accommodation 22, 24, 26 and 28 AWG
- Fully intermateable with AS Micro HE and AS Micro<sup>Lite</sup>
- Universal orientation (Plug type 6 only) for testing.

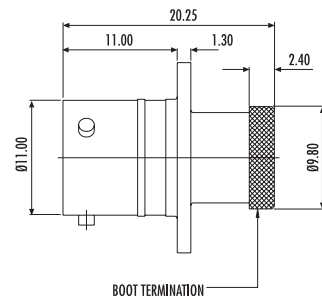
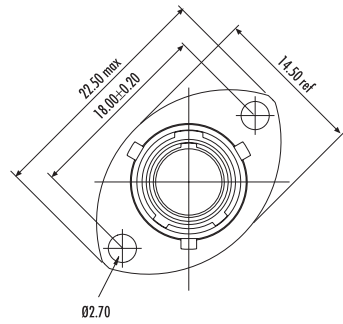
**PLUG – TYPE 6**



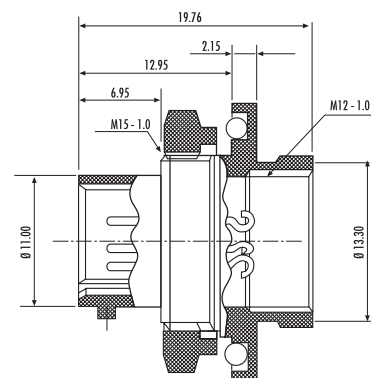
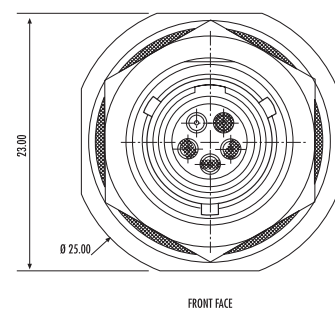
**INLINE RECEPTACLE - TYPE 1**



**RECEPTACLE – TYPE 0**



**HERMETIC RECEPTACLE**



All dimensions are in mm unless otherwise stated.

**GENERAL SPECIFICATION**

| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)** | No. of Keyway Orientations | Wire Sealing (mm) |      | Temperature (°C)* |      |
|--------------|------------|---------------------|---|---|----------------------------|-------------------|------|-------------------|------|
|              |            |                     |   |   |                            | Min               | Max  | Min               | Max  |
| 23           | 6          | 3                   | 500   | 1000                                    | 6                          | 0.60              | 1.37 | -55               | +170 |

\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

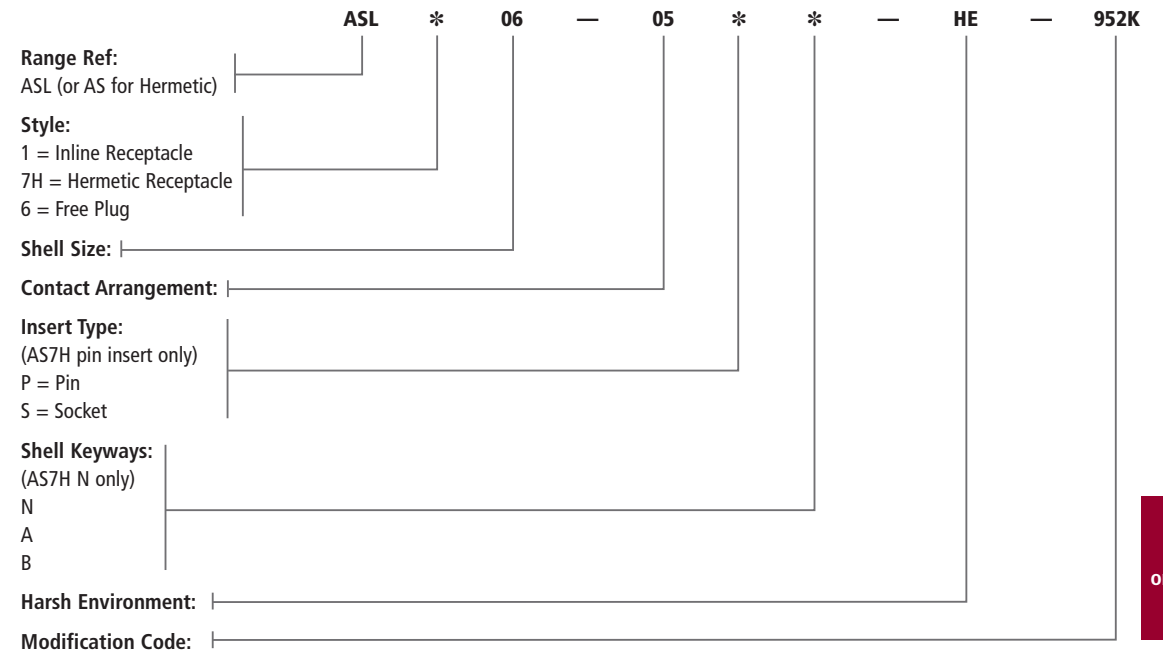
\*\* Current leakage less than 2 milliamps at (VAC)

For other sizes and arrangements, please call our sales office on +44 (0) 1424 852722 or email [autosport@deutsch.net](mailto:autosport@deutsch.net)

**CONTACTS & TOOLING PART NUMBERS**

| Socket | Pin       | Filler Plug | Ins/Ext Tool | Uncoupling Tool | Crimp Tool  | Pin Positioner | Socket Positioner |
|--------|-----------|-------------|--------------|-----------------|-------------|----------------|-------------------|
| 604935 | 604927-31 | 600300-22   | M81969/14-01 | AS6HE-UCT       | M22520/2-01 | 604972         | 604973            |

**ORDERING INFORMATION**



For more information on how to order see page 37.

|           | Boot     |           |
|-----------|----------|-----------|
|           | Straight | 90 Degree |
| Raychem   | 202A111  | 222A111   |
| Hellerman | 113-4-G  | 1108-4-G  |

| Pro Cap    |        | Nut Plate | Gasket |
|------------|--------|-----------|--------|
| Receptacle | Plug   |           |        |
| 604029     | 604027 | ATM396-6  | GV-6   |





## KEY FEATURES

- Benchmark high current connector for Autosport
- Suitable for alternator and battery solutions
- Cable accommodation 16mm, 25mm and 35mm
- Crimp type solid contacts.

## GENERAL SPECIFICATION

| Contact Size | Shell Size | Max. Current (amps) | Durability (cycles of engagement & disengagement) | Dielectric Withstanding Voltage (VAC)*** | No. of Keyway Orientations | Temperature (°C)** |      |
|--------------|------------|---------------------|---|--|----------------------------|--------------------|------|
|              |            |                     |   |  |                            | Min                | Max  |
| 4            | 14         | 200*                | 500   | 1500                                     | 3                          | -55                | +150 |

\* A 200 Amp contact generating a connector hot spot temperature of approximately 100°C in an environmental ambient of 20°C.

It is recommended that all high current conditions are tested by the end user to ensure the environmental application is suitable.

\*\* The upper limit is the maximum internal hot-spot temperature resulting from the combination of the ambient temperature and heating due to current.

\*\*\* Current leakage less than 2 milliamps at (VAC)

## CONTACTS & TOOLING PART NUMBERS

| Wire Size | Socket | Pin    | Ext Tool | Crimp Tool | Jaws   |
|-----------|--------|--------|----------|------------|--------|
| 16mm      | 605739 | 605734 | 610136   | 605773     | 605774 |
| 25mm      | 605654 | 605660 |          |            | 605775 |
| 35mm      | 605740 | 605735 |          |            | 605776 |

**Application Note:**  
Due to potential high current, we would recommend that the product be suitably insulated with the appropriate materials.

## ORDERING INFORMATION

Range Ref: ASHD \* 14 1 - \* - \* \*\*\*

Style:  
0 = 2 Hole Flange Receptacle  
1 = Inline Receptacle  
6 = Free Plug

Shell Size:

Contact Arrangement:

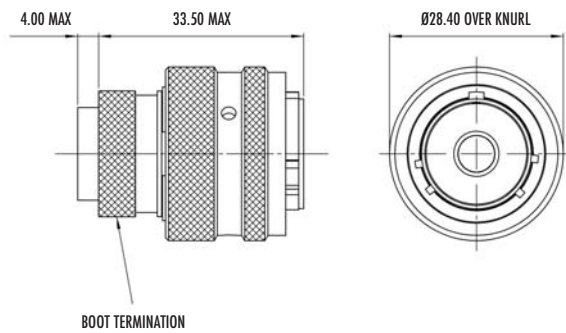
Insert Type:  
P = Pin  
S = Socket

Shell Keyways:  
N = Red (standard)  
A = Yellow  
B = Blue

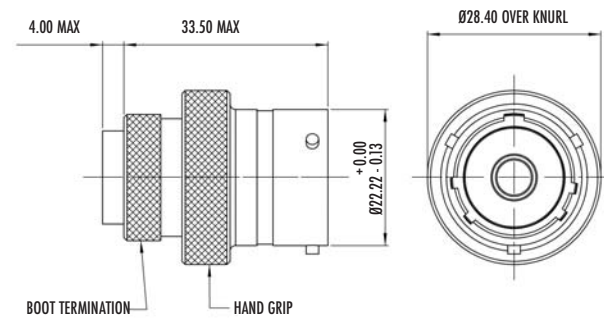
Contact Size Code:  
C16  
C25  
C35

For more information on how to order see page 37.

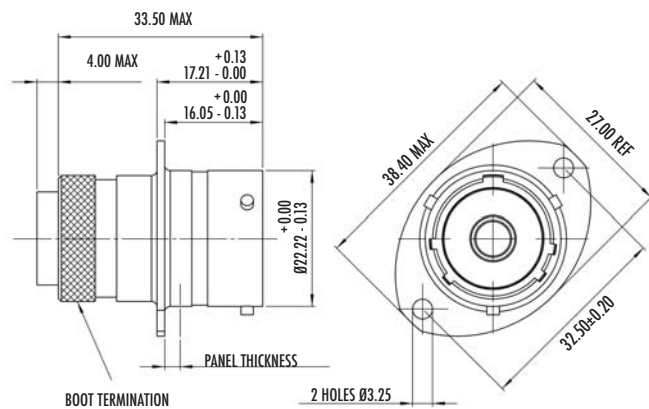
### PLUG - TYPE 6



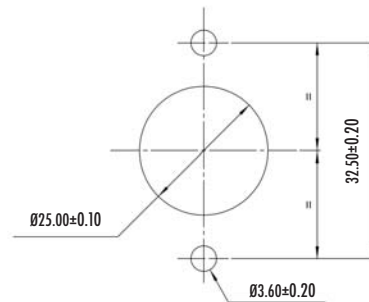
### INLINE RECEPTACLE - TYPE 1



### RECEPTACLE - TYPE 0



### PANEL CUT-OUT DETAIL



All dimensions are in mm unless otherwise stated.

|           | Boot     |           |
|-----------|----------|-----------|
|           | Straight | 90 Degree |
| Raychem   | 202K142  | 222K142   |
| Hellerman | 155-42-G | 1155-4-G  |

| Pro Cap    |        | Nut Plate | Gasket |
|------------|--------|-----------|--------|
| Receptacle | Plug   |           |        |
| AS9-14     | AS8-14 | ATM396-14 | GV-14  |

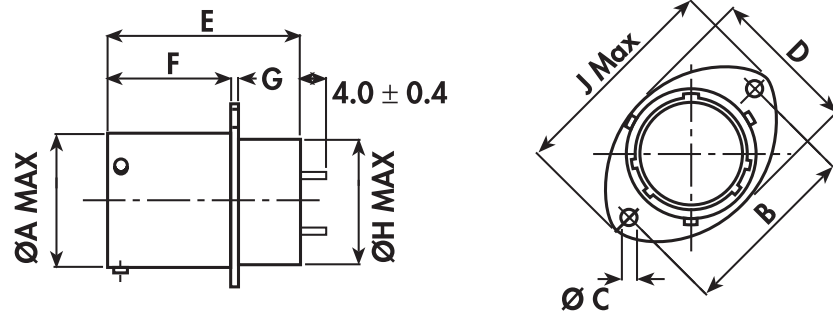


### AS Filter Solutions

With ever increasing systems and equipment sensitivity, unwanted noise created by ignition and communication systems on race cars can cause the 'Black Box' designer a real headache.

The Deutsch AS Filter connector range provides a high performance and space saving solution. By placing the filter elements in the 'skin' of the equipment, the RF window is minimised and RFI / EMI conducted interference is adequately attenuated.

In conjunction with the Autosport industry, two values have been determined for optimum performance, namely 5nF 'LC' and 10nF Pi configuration. They are available in #10 thru #18 shell sizes incorporating the -35 high-density planforms.



| PART NUMBER       | SHELL SIZE | NO. OF WAYS | FILTER CONFIG | Ø A   | B     | Ø C ±0.15 | D     | E     | F     | G    | H     | J     |
|-------------------|------------|-------------|---------------|-------|-------|-----------|-------|-------|-------|------|-------|-------|
| ASLDD210-35PN9767 | 10         | 13          | 5nf LC        | 14.99 | 25.90 | 3.25      | 18.00 | 34.20 | 19.45 | 1.62 | 14.24 | 32.00 |
| ASLDD212-35PN9767 | 12         | 22          | 5nf LC        | 19.04 | 29.10 | 3.25      | 22.50 | 34.20 | 19.45 | 1.62 | 17.41 | 35.20 |
| ASLDD214-35PN9767 | 14         | 37          | 5nf LC        | 22.21 | 32.50 | 3.25      | 25.60 | 34.20 | 19.45 | 1.62 | 20.57 | 38.40 |
| ASLDD216-35PN9767 | 16         | 55          | 5nf LC        | 25.39 | 34.80 | 3.25      | 28.80 | 34.20 | 19.45 | 1.62 | 23.74 | 41.00 |
| ASLDD218-35PN9767 | 18         | 66          | 5nf LC        | 28.56 | 38.20 | 3.25      | 32.00 | 34.20 | 19.45 | 1.62 | 26.91 | 44.70 |
| ASDPE210-35PN9767 | 10         | 13          | 10nF Pi       | 14.99 | 25.90 | 3.25      | 18.00 | 34.20 | 19.45 | 1.62 | 14.24 | 32.00 |
| ASDPE212-35PN9767 | 12         | 22          | 10nF Pi       | 19.04 | 29.10 | 3.25      | 22.50 | 34.20 | 19.45 | 1.62 | 17.41 | 35.20 |
| ASDPE214-35PN9767 | 14         | 37          | 10nF Pi       | 22.21 | 32.50 | 3.25      | 25.60 | 34.20 | 19.45 | 1.62 | 20.57 | 38.40 |
| ASDPE216-35PN9767 | 16         | 55          | 10nF Pi       | 25.39 | 34.80 | 3.25      | 28.80 | 34.20 | 19.45 | 1.62 | 23.74 | 41.00 |
| ASDPE218-35PN9767 | 18         | 66          | 10nF Pi       | 28.56 | 38.20 | 3.25      | 32.00 | 34.20 | 19.45 | 1.62 | 26.91 | 44.70 |

All dimensions are in mm unless otherwise stated.



### AS Fibre Optic Solutions

High quality fibre optic contacts are available for any AS Series connector planform having size 16 contact locations, e.g. 12-04, 14-97, 16-08, 20-16, 20-39, 22-21 and 24-29.

The precision ceramic ferruled fibre optic contacts are available for high quality (Aerospace type specification) optic cables and silica glass fibres, enabling high speed, EMI / RFI immune data transmission. The optical contacts are designed to meet MIL-T-29504/5.

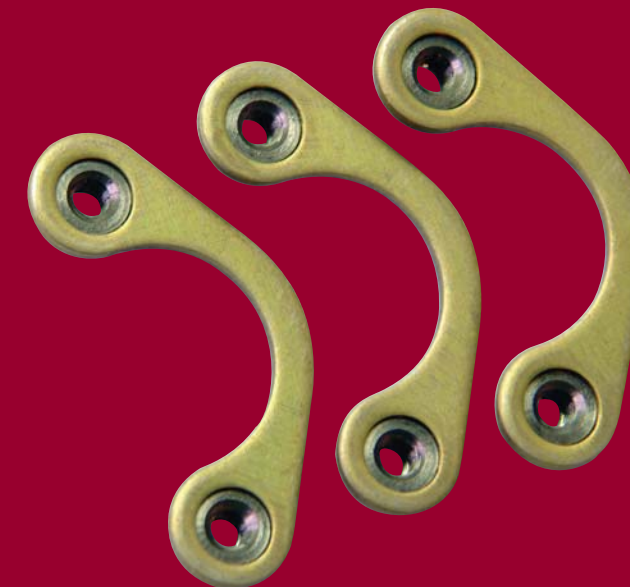


### Gaskets

Designed specifically for the Deutsch Autosport flanged connectors, these gaskets are available from size 3 through to 24 shells.

Constructed from viton® rubber they assist in sealing the connectors to the mounting point and have been manufactured to withstand the temperatures, vibration and fluids found in the modern racing environment.

For part numbers please refer to page 39.



### Nut Plates

Nut Plates are available for all AS two-hole flange mounted connector receptacles.

They are designed to simplify connector-to-bulkhead assembly, particularly in confined spaces, by eliminating the need to position loose nuts and washers. Nut plates are also anti-vibration and make assembly quicker and easier.

For part numbers please refer to page 39.

The Micro Band System from Glenair is ideal for termination of screen braid. We recommend Hand Micro Banding Tool No: 600-061 for all Micro Bands. Micro Bands and the Banding Tool are available through our distributors.

| Shell Size | Micro Band Product Code |
|------------|-------------------------|
| Up to #16. | 600-057                 |
| Over #16.  | 600-083                 |

For more information on how to order see page 37.



To complement our market leading range of harsh environment connectors, Deutsch's Autosport team are able to offer special contacts for special situations.

### THERMOCOUPLE CONTACTS

- Available in #22 for Autosport Range
- Available in #23 for Micro<sup>Lite</sup>
- Engineered in Chromel and Alumel
- Extensively tested and approved
- Thermal cycle tested
- Vibration tested
- Crimp type solid contacts
- Designed exclusively for Deutsch connectors.

### THERMOCOUPLE #22 FOR AUTOSPORT RANGE

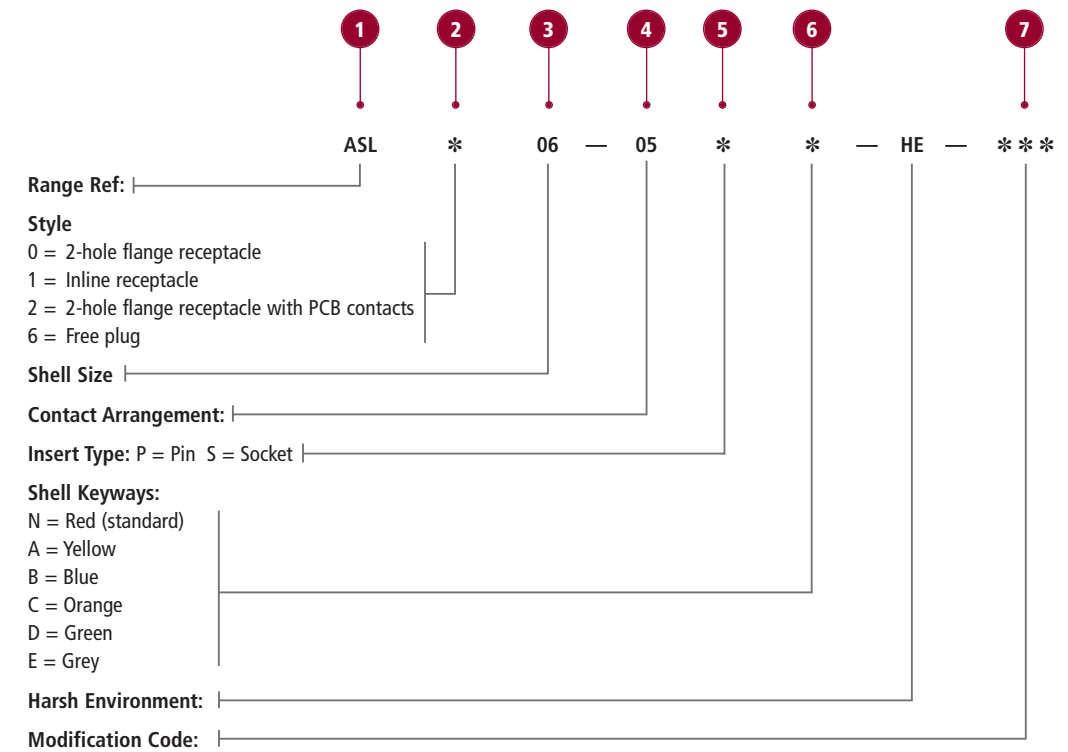
| Description    | Part No. |
|----------------|----------|
| Chromel pin    | 605346   |
| Chromel socket | 605347   |
| Alumel pin     | 605348   |
| Alumel socket  | 605349   |

| Description    | Part No.  |
|----------------|-----------|
| Chromel pin    | 605378-CR |
| Chromel socket | 605380-CR |
| Alumel pin     | 605378-AL |
| Alumel socket  | 605380-AL |

In addition to Thermocouple contacts, we are able to engineer special solutions for different wire sizes on our regular contact range.

For more information and ordering details please call our sales office on +44 (0) 1424 852722 or email [autosport@deutsch.net](mailto:autosport@deutsch.net)

### ORDERING INFORMATION



All Deutsch Autosport part numbers work to the same principles. The part number is broken down into sections as follows:

1. 'AS' indicates that it is an Autosport Connector - all Deutsch Autosport connectors start like this. There may be another letter after the AS - this designates a particular series. For example ASL = Micro<sup>Lite</sup>, ASDD = Double Density.
2. The next major element is the connector style.  
 0 = 2 hole flanged receptacle  
 1 = Inline receptacle  
 2 = 2 hole flanged receptacle with fixed PCB contacts  
 4 = Weld mounting  
 7 = Jam-nut mounting  
 8 = Protective cap for plug  
 9 = Protective cap for receptacle  
**Please note:** not all of these options are available on all products; the relevant product pages will give you this information.
3. Relates to the required shell size. This will range from 03 (small) to 24 (large).
4. Is the planoforms detail (number of contacts).
5. Indicates the gender of a plug or receptacle. 'P' for pin or 'S' for socket.
6. Designates a keyway. Only connectors of the same keyway can mate. The options are: N, A, B, C, D, E or U for universal or no keyway option. The 'U' option should only be selected for test harnesses and not for racing applications.
7. After all these elements there may be a 4-character code, which designates a special modification. For instance this can be a special contact length or a non-standard plating finish. For more information on modification codes please contact the sales office on +44 (0) 1424 852722 or email [autosport@deutsch.net](mailto:autosport@deutsch.net)

For details of the ordering procedure for your area, please contact the relevant local distributor. A list of these can be found on the reverse of this brochure or on our website [www.deutsch.net](http://www.deutsch.net)

**CONTACT TYPE**

| CONTACT SIZE                      | PART NO.       | P/S | WIRE RANGE | COLOUR BAND          | MAX CURRENT | CRIMP TOOL  | POSITIONER  | PLASTIC TOOLS INSERT/REMOVAL |              |
|-----------------------------------|----------------|-----|------------|----------------------|-------------|-------------|-------------|------------------------------|--------------|
| Size 24<br>(ASDD excluding 9-Way) | 605719-31      | P   | 24-30      | None                 | 3 Amps      | M22520/2-01 | 610286      | P                            | 605837       |
|                                   | 605721         | S   |            |                      |             |             | 610287      | S                            | Orange/White |
| Size 24 (ASDD 9 Way & ASU 5-Way)  | 605705-31      | P   | 24-30      | None                 | 3 Amps      | M22520/2-01 | 605839      | P                            | 605837       |
|                                   | 605704         | S   |            |                      |             |             | 605840      | S                            | Orange/White |
| Size 23                           | 604927-31      | P   | 22-28      | None                 | 3 Amps      | M22520/2-01 | 604972      | P                            | M81969/14-01 |
|                                   | 604935         | S   |            |                      |             |             | 604973      | S                            | Green/White  |
| Size 22                           | 38941-22       | P   | 22-26      | Orange, Blue, Black  | 5 Amps      | M22520/2-01 | M22520/2-09 | P                            | M81969/14-01 |
|                                   | 38943-22       | S   |            | Orange, Yellow, Grey |             |             | M22520/2-07 | S                            | Green/White  |
| Size 20                           | 38941-20       | P   | 20-24      | Orange, Blue, Orange | 7.5 Amps    | M22520/2-01 | M22520/2-10 | P                            | M81969/14-10 |
|                                   | 38943-20       | S   |            | Orange, Green, Brown |             |             | M22520/2-10 | S                            | Red/Orange   |
| Size 16                           | 38941-16       | P   | 16-20      | Orange, Blue, Yellow | 20 Amps     | M22520/1-01 | M22520/1-04 | P                            | M81969/14-03 |
|                                   | 38943-16       | S   |            | Orange, Green, Red   |             |             | M22520/1-04 | S                            | Blue/White   |
| AS Mini Size 22                   | 38941-22       | P   | 22-26      | Orange, Blue, Black  | 5 Amps      | M22520/2-01 | M22520/2-09 | P                            | M81969/14-01 |
|                                   | 604887         | S   |            | None                 |             |             | 605000      | S                            | Green/White  |
| AS Mini Size 20                   | 38941-20       | P   | 20-24      | Orange, Blue, Orange | 7.5 Amps    | M22520/2-01 | M22520/2-10 | P                            | M81969/14-10 |
|                                   | 6862-201-20278 | S   |            | None                 |             |             | M22520/2-10 | S                            | Red/Orange   |
| AS Composite/<br>ASU 3-Way        | 604946-31      | P   | 22-28      | None                 | 5 Amps      | M22520/2-01 | 605463      | P                            | M81969/14-01 |
|                                   | 604984         | S   |            |                      |             |             | 605464      | S                            | Green/White  |

**BOOT INFORMATION**

| SHELL SIZE            | STRAIGHT BOOT  |           | 90 DEGREE BOOT |           |
|-----------------------|----------------|-----------|----------------|-----------|
|                       | RAYCHEM        | HELLERMAN | RAYCHEM        | HELLERMAN |
| ASU (Size 3)          | 204W221-25-G03 | 1037-4-G  | 224W221-25-G03 | 1182-4-G  |
| AS Composite          | 204W221        | 1030-4-G  | 224W221        | 1181-4-G  |
| AS Micro <sup>®</sup> | 204W221        | 1030-4-G  | 224W221        | 1181-4-G  |
| AS Micro              | 202A111        | 113-4-G   | 222A111        | 1108-4-G  |
| AS Mini               | 202K121        | 152-42-G  | 222K121        | 1152-4-G  |
| 08                    | 202K121        | 152-42-G  | 222K121        | 1152-4-G  |
| 10                    | 202K132        | 152-42-G  | 222K121        | 1152-4-G  |
| 12                    | 202K142        | 154-42-G  | 222K132        | 1154-4-G  |
| 14                    | 202K142        | 155-42-G  | 222K142        | 1155-4-G  |
| 16                    | 202K153        | 156-42-G  | 222K152        | 1156-4-G  |
| 18                    | 202K153        | 156-42-G  | 222K152        | 1156-4-G  |
| 20                    | 202K163        | 157-43-G  | 222K163        | 1157-4-G  |
| 22                    | 202K163        | 157-43-G  | 222K163        | 1157-4-G  |
| 24                    | 202K174        | 157-43-G  | 222K174        | 1157-4-G  |

**ACCESSORIES**

| SHELL SIZE | NUTPLATE  | GASKET | PLUG / RECEPTACLE | PROTECTIVE CAP |
|------------|-----------|--------|-------------------|----------------|
| 3/5 (ASU)  | ATM396-3  | GV-3   | Plug              | 605687         |
|            |           |        | Receptacle        | 605684         |
| 6 (ASL)    | ATM396-6  | GV-6   | Plug              | 604027         |
|            |           |        | Receptacle        | 604029         |
| 7 (Mini)   | ATM396-7  | GV-7   | Plug              | AS8-07         |
|            |           |        | Receptacle        | AS9-07         |
| 08         | ATM396-8  | GV-8   | Plug              | AS8-08         |
|            |           |        | Receptacle        | AS9-08         |
| 10         | ATM396-10 | GV-10  | Plug              | AS8-10         |
|            |           |        | Receptacle        | AS9-10         |
| 12         | ATM396-12 | GV-12  | Plug              | AS8-12         |
|            |           |        | Receptacle        | AS9-12         |
| 14         | ATM396-14 | GV-14  | Plug              | AS8-14         |
|            |           |        | Receptacle        | AS9-14         |
| 16         | ATM396-16 | GV-16  | Plug              | AS8-16         |
|            |           |        | Receptacle        | AS9-16         |
| 18         | ATM396-18 | GV-18  | Plug              | AS8-18         |
|            |           |        | Receptacle        | AS9-18         |
| 20         | ATM396-20 | GV-20  | Plug              | AS8-20         |
|            |           |        | Receptacle        | AS9-20         |
| 22         | ATM396-22 | GV-22  | Plug              | AS8-22         |
|            |           |        | Receptacle        | AS9-22         |
| 24         | ATM396-24 | GV-24  | Plug              | AS8-24         |
|            |           |        | Receptacle        | AS9-24         |

**WIRE SIZES AND DIAMETERS**

| CONTACT SIZE | WIRE SIZE (AWG) | FINISHED WIRE DIMENSIONS |         |            |         |
|--------------|-----------------|--------------------------|---------|------------|---------|
|              |                 | CONDUCTOR                |         | INSULATION |         |
|              |                 | MIN                      | MAX     | MIN        | MAX     |
| 24           | 30,28,26,24     | 0.254mm                  | 0.511mm | 0.56mm     | 1.02mm  |
|              |                 | 0.010in                  | 0.02in  | 0.22in     | 0.040in |
| 23           | 28,26,24,22     | 0.321mm                  | 0.790mm | 0.60mm     | 1.37mm  |
|              |                 | .012in                   | .031in  | .023in     | .054in  |
| 22           | 26,24,22        | 0.405mm                  | 0.790mm | 0.76mm     | 1.37mm  |
|              |                 | .015in                   | .031in  | .030in     | .054in  |
| 20           | 24,22,20        | 0.511mm                  | 0.970mm | 1.02mm     | 2.11mm  |
|              |                 | .02in                    | .038in  | .040in     | .083in  |
| 16           | 20,18,16        | 0.812mm                  | 1.530mm | 1.65mm     | 2.77mm  |
|              |                 | .031in                   | .60in   | .65in      | .109in  |

**FILLER PLUGS**

| CONTACT SIZE | PART NUMBER |
|--------------|-------------|
| 24           | 600300-24   |
| 23           | 600300-22   |
| 22           | 600300-22   |
| 20           | 600300-20   |
| 16           | 600300-16   |

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[www.deutsch.net](http://www.deutsch.net)



## DEUTSCH AUTOSPORT DISTRIBUTION NETWORK

Contact your local distribution outlet for sales and further information.



**AUSTRALIA**  
 EP&DE  
 401a Lal Lal Street  
 Ballarat, Victoria 3350  
 AUSTRALIA  
 Tel: +61 353 314700  
 Fax: +61 353 314705  
 Email: epde@ncable.net.au



**FRANCE**  
 Compagnie Deutsch (CDD)  
 8 Rue Paul Héroult  
 ZAC Sainte Geneviève  
 92563 Rueil Malmaison Cedex  
 FRANCE  
 Tel: +33 1554 72567  
 Fax: +33 147 083538  
 Email: sdesrousseaux@compagnie-deutsch.com



**GERMANY**  
 Compagnie Deutsch GmbH  
 Fraunhoferstrasse 11b  
 82152 Martinsried  
 GERMANY  
 Tel: +49 89 8991570  
 Fax: +49 89 8574684  
 Email: info.eu@deutsch.net



**ITALY**  
 Deutsch Italia  
 9 Piazzale Lugano  
 20158 Milano  
 ITALY  
 Tel: +39 02 393 22240  
 Fax: +39 02 376 1744  
 Email: info@deutsch.italia.it



DEUTSCH

AUTOSPORT



**JAPAN**  
 Global Active Technology  
 4-11-11, Higashitokorozawa  
 Tokorozawa-shi  
 Saitama 359-0021  
 JAPAN  
 Tel: +81 42 945 1515  
 Fax: +81 42 945 1555  
 Email: sales@gat.ne.jp



**UNITED KINGDOM**  
 Servo Interconnect Ltd  
 The Old Brewery  
 24 High Street  
 Lydd, Kent  
 TN29 9AJ  
 UK  
 Tel: +44 (0) 1797 322530  
 Fax: +44 (0) 1797 329381  
 Email: sales@servo-il.co.uk



**USA**  
 PI Research (USA) Inc.  
 8250 Haverstick Road  
 Suite 2725  
 Indianapolis  
 IN 46240  
 USA  
 Tel: +1 317 259 8900  
 Fax: +1 317 259 0137  
 Email: deutschsales@piusa.com



**USA**  
 IS Motorsport  
 286a Gasoline Alley  
 Indianapolis  
 IN 46222  
 USA  
 Tel: +1 317 244 6643  
 Fax: +1 317 244 6693  
 Email: sales@ismotorsport.com

Stanier Road, St Leonards on Sea  
 East Sussex TN38 9RF UK  
 Tel: +44 (0) 1424 852722  
 Fax: +44 (0) 1424 855979  
 Email: autosport@deutsch.net  
[www.deutsch.net](http://www.deutsch.net)

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