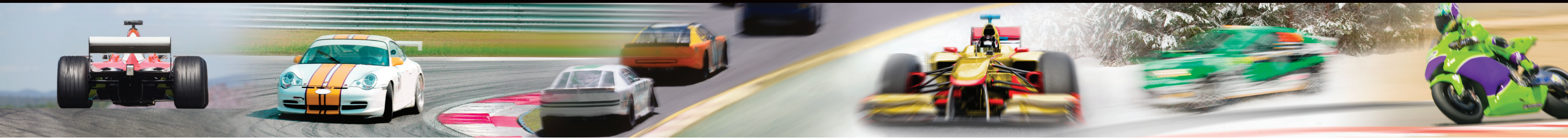




# DEUTSCH AUTOSPORT INTERCONNECTION SOLUTIONS

FOR PROFESSIONAL MOTOR SPORTS

High-Performance Connectors  
Designed for Harsh-Environment Motorsport



## DEDICATED INDUSTRIAL ENGINEERING & MANUFACTURING SITES

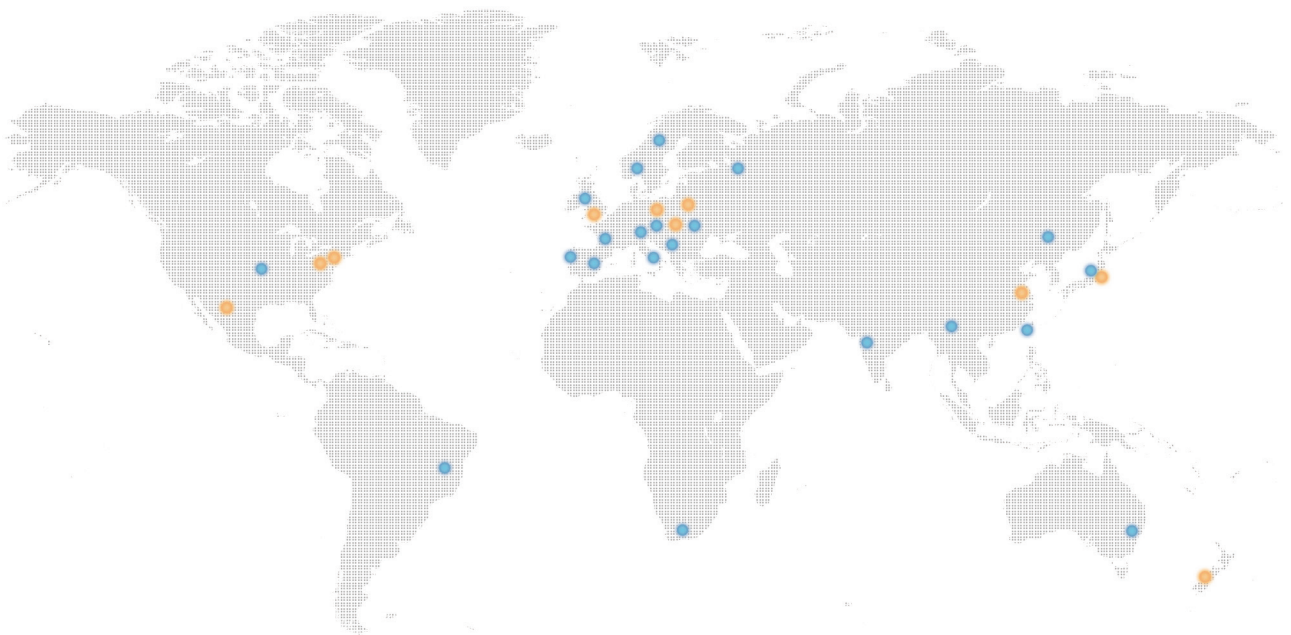
- Bydgoszcz, Poland
- Christchurch, New Zealand
- Hermosillo, Mexico
- Landisville, USA
- Trutnov, Czech Republic
- Tokyo, Japan
- Shanghai, China
- Darmstadt, Germany
- Harrisburg, USA

## PRODUCT INFORMATION CENTERS

- Austria
- Australia
- Belgium
- Brazil
- China
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- India
- Ireland
- Italy
- Japan
- Latvia
- Lithuania
- Luxembourg
- Netherlands
- Norway
- Poland
- Portugal
- Russia
- Slovakia
- Slovenia
- South Africa
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan
- Turkey
- United Kingdom
- United States

## FAST FACTS

<b>Annual Revenue:</b>	US \$14+ billion (2011)
<b>R&amp;D Investment:</b>	5% of sales per year (approx.)
<b>Patents Issued/Pending:</b>	20,000+
<b>Employees:</b>	100,000+
<b>Engineers:</b>	8,000+



# DEUTSCH AUTOSPORT INTERCONNECTION SOLUTIONS

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

TE Connectivity (TE) with its DEUTSCH Autosport connection systems offers unrivalled expertise in the design and manufacture of interconnection solutions for harsh environments. With over 40-years of international experience, Deutsch products are well proven in the Aerospace, Defence, Industrial Transportation and Autosport markets.

In the early 1990's DEUTSCH products 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 Autosport was established 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, DEUTSCH products 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.

### TE Components ... TE Technology ... TE Know-how ...

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Raychem | Rochester | DEUTSCH

Get your product to market faster with a smarter, better solution.

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

TE Connectivity (TE) with its DEUTSCH connectors continues 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 CONNECTORS

Developed by Deutsch from the MIL-C-38999 Series 1.5 (Eurofighter connector), the AS Series Connector was the first range of high specification connectors designed by Deutsch Autosport specifically for the autosport market. The AS Series Connector 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 22 for technical specifications.

## AS DOUBLE DENSITY (ASDD) SERIES CONNECTORS

Next generation connector technology developed by Deutsch Autosport, 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 Connectors. Refer to page 28 for technical specifications.

## AS MICRO HE HERMETIC SERIES CONNECTORS

A unique hermetic receptacle developed by DEUTSCH Autosport for transducers, sensors and instrumentation where space and performance is critical. The AS Micro HE Hermetic Series Connector 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 30 for technical specifications.

## AS MICRO HERMETIC (JAM-NUT) SERIES CONNECTORS

An evolution of the AS Micro HE Hermetic Connectors featuring a jam-nut, this connector is ideally suited to fuel tank applications. Refer to page 31 for technical specifications.

## AS HERMETIC FUEL TANK SERIES CONNECTORS

A range of hermetically sealed connectors designed specifically for autosport fuel tank applications. AS Hermetic Fuel Tank Connector 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 fuel immersible specification o-ring to provide a high standard of sealing between the connector and bulkhead. Refer to page 32 for technical specifications.

## AS MICRO<sup>LITE</sup> HE FUEL IMMERSIBLE SERIES CONNECTORS

An evolution of the AS Micro<sup>Lite</sup> connector, the AS Micro<sup>Lite</sup> Fuel Immersible Connector 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 34 for technical specifications.

## AS HEAVY DUTY (ASHD) SERIES CONNECTORS

A range of power connectors designed specifically for Autosport high current applications. The AS Heavy Duty Connectors are ideally suited to battery, alternator, starter motor and energy recovery system applications. Specially designed low insertion / extraction force contacts ensure maximum performance in extreme conditions. Refer to page 36 for technical specifications.

## AS FILTER / FIBRE OPTICS SERIES CONNECTORS

TE Deutsch Autosport Connectors also offer Fibre Optic and Filter solutions. Refer to page 43 at the back of this brochure for more information.

## AS MICRO XTRA<sup>LITE</sup> HE (ASX) SERIES CONNECTORS

The AS Micro Xtra<sup>Lite</sup> HE connectors offer teams the smallest, lightest package for three, five and six wires. The AS Micro Xtra<sup>Lite</sup> HE 6-way is the shortest, lightest AS connector for six wires, offering a solution where space is at its most restrictive. Refer to pages 6,8 and 10 for technical specifications.

## AS MICRO ULTRA<sup>LITE</sup> HE (ASU) SERIES CONNECTORS

The AS Micro Ultra<sup>Lite</sup> HE connectors offer the teams a small and lightweight connector for 3 and 5 wires. The AS Micro Ultra<sup>Lite</sup> HE connectors are a perfect solution where space and weight are restricted. Refer to page 12 for technical specifications.

## AS MICRO<sup>LITE</sup> HE (ASL) SERIES CONNECTORS

The Micro<sup>Lite</sup> HE Connector is in excess of 30% lighter than the original AS Micro HE Connector and approximately 8mm shorter, whilst still retaining all the critical features including the renowned Deutsch #23 contacts. The AS Micro<sup>Lite</sup> HE Connector is fully intermateable with the AS Micro HE Connector. Refer to page 14 for technical specifications.

## AS RALLY MICRO (ASR) SERIES CONNECTORS

An evolution of the AS Micro<sup>Lite</sup> HE Connector, the AS Rally Micro Connector 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 16 for technical specifications.

## AS COMPOSITE (ASC) SERIES CONNECTORS

Made as one unit, in a military approved, rugged thermoplastic housing, the AS Composite Connector is extremely resistant to vibration. Refer to page 18 for technical specifications.

## AS MINI SERIES CONNECTORS

Developed by Deutsch, the AS Mini Series Connector 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 20 for technical specifications.



# AS Micro Xtra<sup>LITE</sup> HE - 3 Way Connector

## Ultra Compact Design (Size 2 shell)

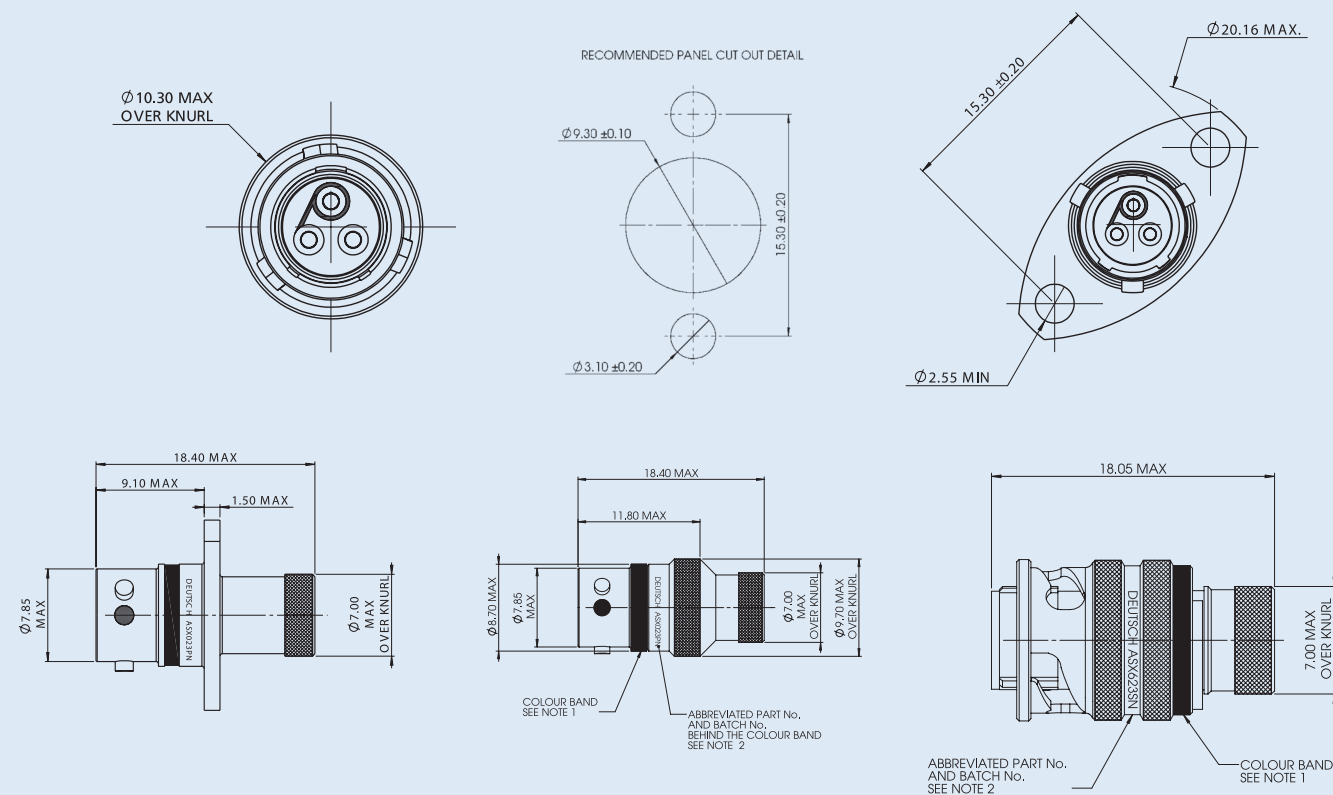
- Minimum space envelope
- 3 Size #22 contacts
- PCB option
- Smaller and lighter than AS Ultra<sup>LITE</sup> (ASU) series connectors

## Easy Installation

- Positive locking coupling mechanism
- Suitable for blind mating
- Scoop proof interface
- Boot termination feature

## Built to Withstand Harsh Environments

- Conductive black zinc finish
- Interfacial wire sealing
- Bonded and sealed insert to prevent moisture ingress



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
22	2	5	500	1500	6	0.76	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. Contact TE DEUTSCH for more detail of specific products to meet your sealed electrical connection requirements.

## CONTACTS & TOOLING PART NUMBERS

Contact Size	Socket	Pin	PCB Socket	PCB Pin	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
22	604984	604946-31	611282	611254-31	600300-22	605837	M22520/2-01	605464	605463

## ORDERING INFORMATION

ASX \* 02 - 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:** \_\_\_\_\_

**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:** \_\_\_\_\_

## ACCESSORIES PART NUMBERS

Part Number	
Nut Plate	Gasket
ATM396-2	GV-2

	Boot Information	
	Straight	90 degree
Raychem	203W301	223W601
Hellermann	1037-4-G	1182-4-G



# AS Micro Xtra<sup>LITE</sup> HE - 5 Way Connector



## Ultra Compact Design (Size 2 shell)

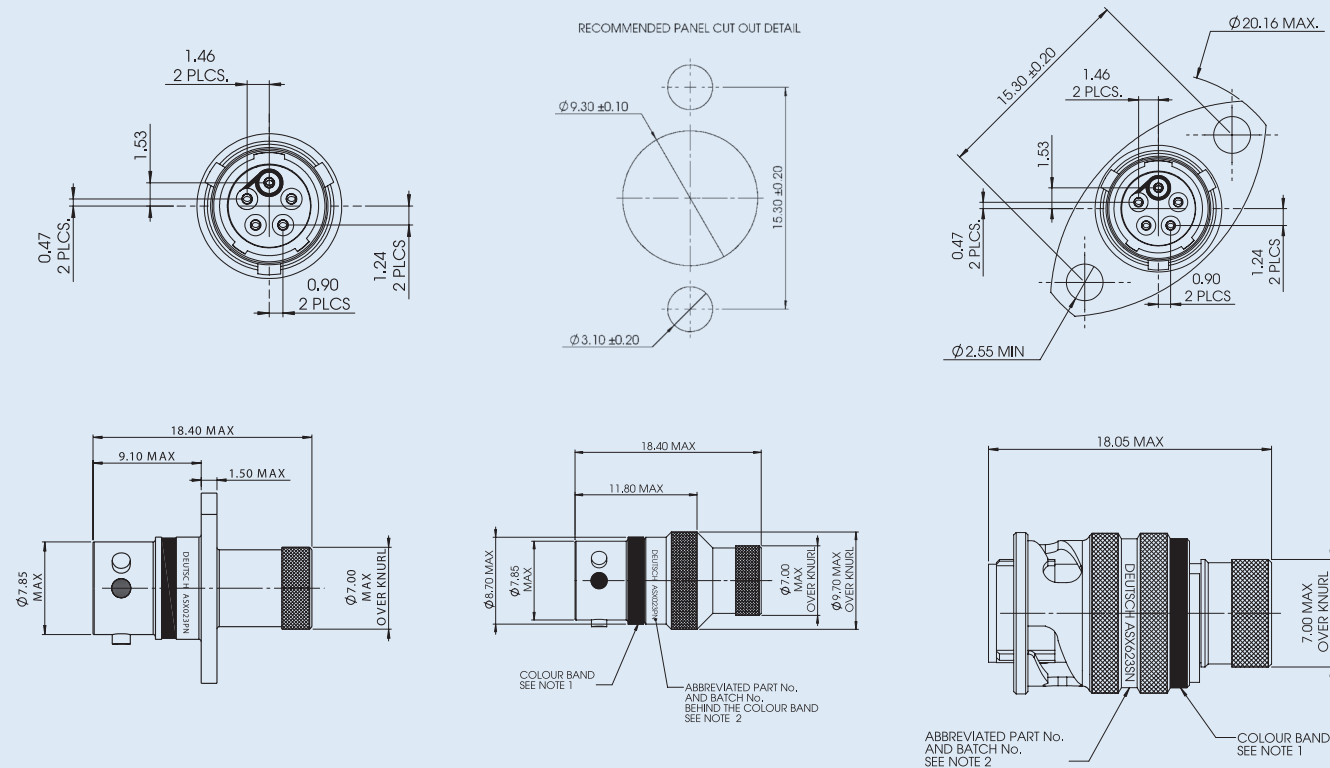
- Minimum space envelope
- 5 Size #24 contacts
- PCB option
- Smaller and lighter than AS Ultra<sup>LITE</sup> (ASU) series connectors

## Easy Installation

- Positive locking coupling mechanism
- Suitable for blind mating
- Scoop proof interface
- Boot termination feature

## Built to Withstand Harsh Environments

- Conductive black zinc finish
- Interfacial wire sealing
- Bonded and sealed insert to prevent moisture ingress



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
24	2	3	500	1000	6	0.56	1.02	-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. Contact TE DEUTSCH for more detail of specific products to meet your sealed electrical connection requirements.

## CONTACTS & TOOLING PART NUMBERS

Contact Size	Socket	Pin	PCB Socket	PCB Pin	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
24	605704	605705-31	611292	61161-31	600300-24	605837	M22520/2-01	605840	605839

## ORDERING INFORMATION

**Range Ref:** ASX \* 02 - 05 \* \* \* \*

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

**Shell Size:**

**Contact Arrangement:** 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:**

## ACCESSORIES PART NUMBERS

Part Number	
Nut Plate	Gasket
ATM396-2	GV-2

	Boot Information	
	Straight	90 degree
Raychem	203W301-25-G02	223W601
Hellermann	1037-4-G	1182-4-G

# AS Micro Xtra<sup>LITE</sup> HE - 6 Way Connector



## Ultra Compact Design (Size 2 shell)

- Minimum space envelope
- 6 Size #24 contacts
- PCB option
- Smaller and lighter than AS Ultra<sup>LITE</sup> (ASU) series connectors

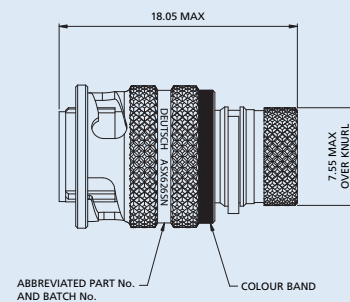
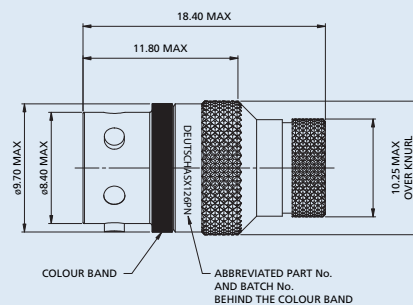
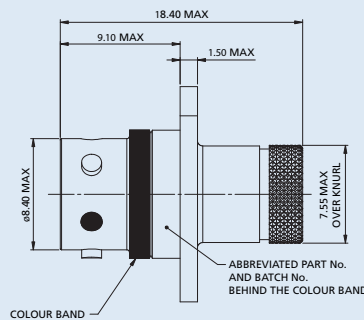
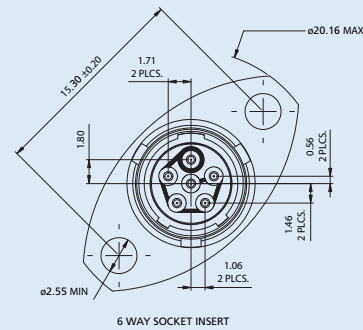
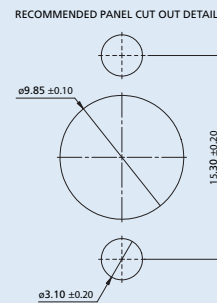
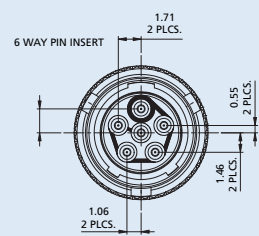


## Easy Installation

- Positive locking coupling mechanism
- Suitable for blind mating
- Scoop proof interface
- Boot termination feature

## Built to Withstand Harsh Environments

- Conductive black zinc finish
- Interfacial wire sealing
- Gold-plated crimp contacts
- Bonded and sealed insert to prevent moisture ingress



All dimensions are in mm unless otherwise stated.

## 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
6	24	3	500	1000	6	0.56	1.02	-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

Contact Size	Socket	Pin	PCB Socket	PCB Pin	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
24	605704	605705-31	611292	61161-31	600300-24	605837	M22520/2-01	605840	605839

## ORDERING INFORMATION

ASX \* 02 - 06 \* \* \* \* \*

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: \_\_\_\_\_  
 06

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: \_\_\_\_\_

## ACCESSORIES PART NUMBERS

Part Number	
Nut Plate	Gasket
ATM396-2	GV-2

	Boot Information	
	Straight	90 degree
Raychem	203W301-2S-G02	223W601
Hellermann	1037-4-G	1182-4-G



# AS Ultra<sup>LITE</sup> HE & AS Micro Ultra<sup>LITE</sup> HE (ASU) Series Connectors

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



## Unique DEUTSCH designed product

- Smaller alternative to ASL range
- Cable accommodation 24-30 AWG (5 way), 22-28 AWG (3 way)
- 17% smaller coupling ring than ASL
- 30% lighter than ASL (mated pair)

## 2 Different Contact Options

- 5x AWG24 contacts
- 3x AWG22 contacts

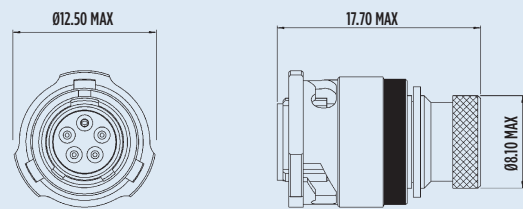
## Built to Withstand Harsh Environments

- Conductive black zinc finish
- Interfacial wire sealing
- Bonded and sealed insert to prevent moisture ingress

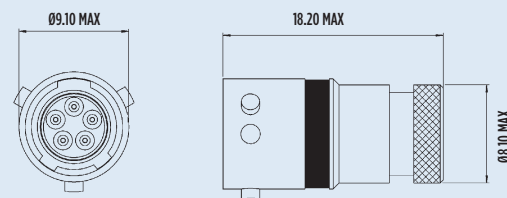


AS Ultra<sup>LITE</sup> HE (5-Way)

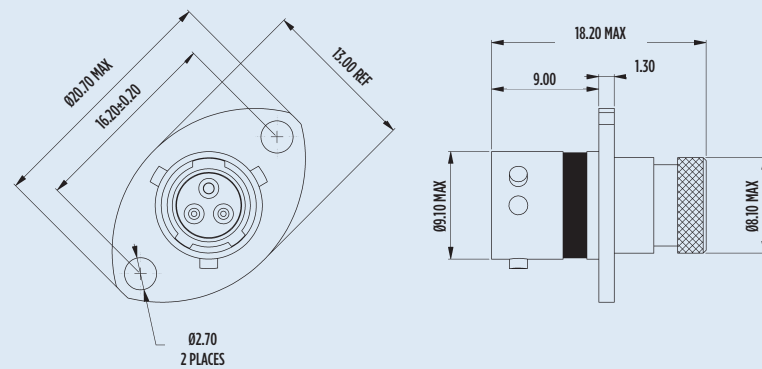
### PLUG - TYPE 6



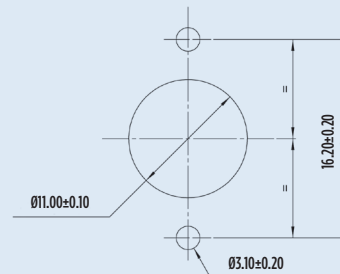
### INLINE RECEPTACLE - TYPE 1



### RECEPTACLE - TYPE 0



### PANEL CUT-OUT DETAIL



All dimensions are in mm unless otherwise stated.

## GENERAL SPECIFICATION

No. of Ways	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
3	22	3	5	500	1500	6	0.76	1.37	-55	+170
5	24	3	3		1000		0.56	1.02		

\* 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	Socket Positioner	Pin Positioner
22	604984	604946-31	605681	605679-31	600300-22	M81969/14-01	M22520/2-01	605464	605463
24	605704	605705-31	605902	605900-31	600300-24	605837		605840	605839

## 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:** \_\_\_\_\_

**Insert Type:**  
 P = Pin  
 S = Socket

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

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

## ACCESSORIES PART NUMBERS

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

	Boot Information	
	Straight	90 degree
Raychem	204W221-25-G03	224W221-25-G03
Hellermann	1037-4-G	1182-4-G



## Compact Design (Size 6 shell)

- Designed for sensor applications
- 5 Size #23 contacts
- PCB option

## Easy Installation

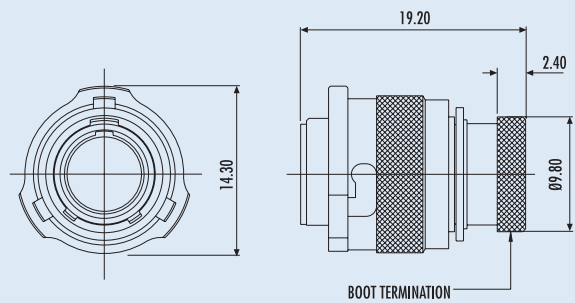
- Positive locking coupling mechanism
- Suitable for blind mating
- Scoop proof interface
- Boot termination feature

## Built to Withstand Harsh Environments

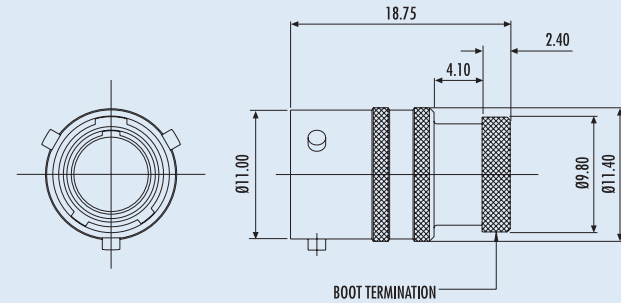
- Conductive black zinc finish
- Interfacial wire sealing
- Bonded and sealed insert to prevent moisture ingress



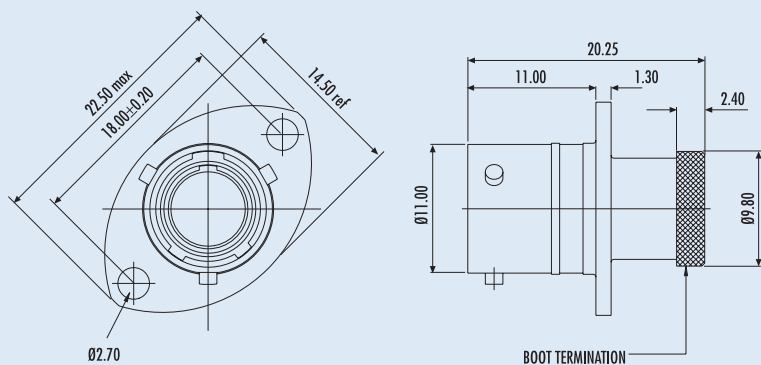
### PLUG - TYPE 6



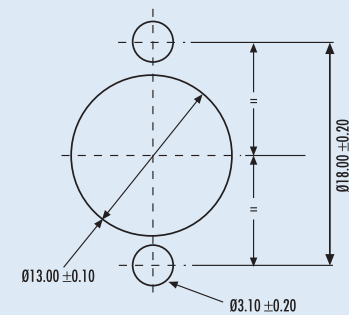
### INLINE RECEPTACLE - TYPE 1



### RECEPTACLE - TYPE 0



### PANEL CUT-OUT DETAIL



All dimensions are in mm unless otherwise stated.

## GENERAL SPECIFICATION

No. of Ways	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
5	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

Contact Size	Socket	Pin	PCB Socket	PCB Pin	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
23	604935	604927-31	604992-HE	604990-31	600300-22	M81969/14-01	M22520/2-01	604973	604972

## 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 = (U = Universal for test harnesses)  
 (Plug type 6 only)

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

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

## ACCESSORIES PART NUMBERS

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

	Boot Information	
	Straight	90 degree
Raychem	204W221	224W221
Hellermann	1030-4-G	1181-4-G





## Compact Design (Size 6 shell)

- Specialised Coupling ring for poor grip locations
- 5 Size #23 contacts

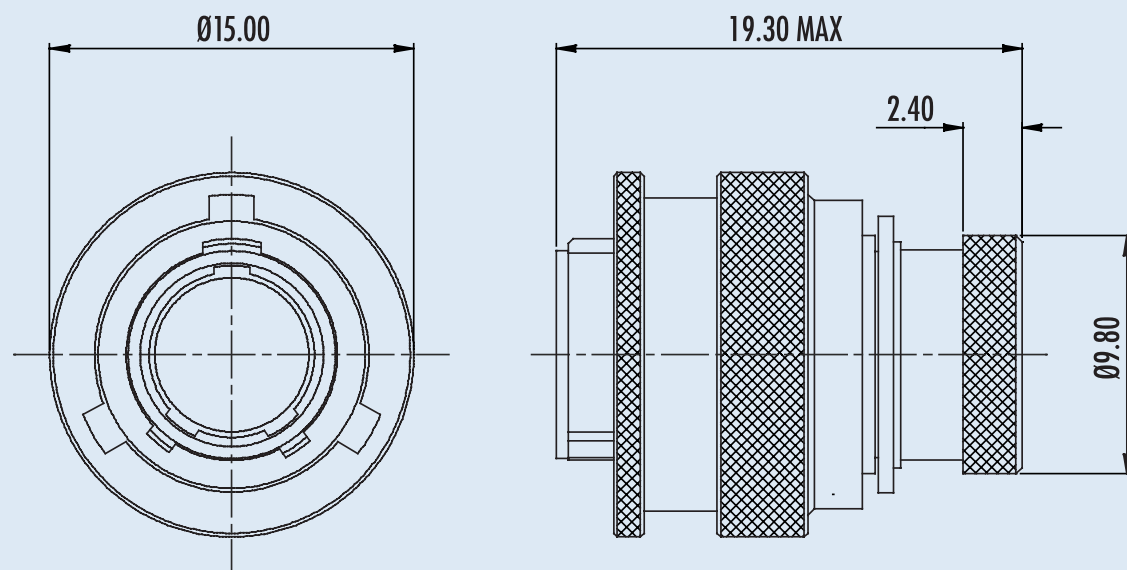
## Easy Installation

- Positive locking coupling mechanism
- Suitable for blind mating
- Scoop proof interface
- Boot termination feature

## Built to Withstand Harsh Environments

- Conductive black zinc finish
- Interfacial wire sealing
- Bonded and sealed insert to prevent moisture ingress

PLUG - TYPE 6



All dimensions are in mm unless otherwise stated.

## GENERAL SPECIFICATION

No. of Ways	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
5	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

Contact Size	Socket	Pin	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
23	604935	604927-31	600300-22	M81969/14-01	M22520/2-01	604973	604972

## ORDERING INFORMATION

ASR 6 06 - 05 \* \* - HE - \*\*\*

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

**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 15

## ACCESSORIES PART NUMBERS

Pro Cap
604027

	Boot Information	
	Straight	90 degree
Raychem	204W221	224W221
Hellermann	1030-4-G	1181-4-G

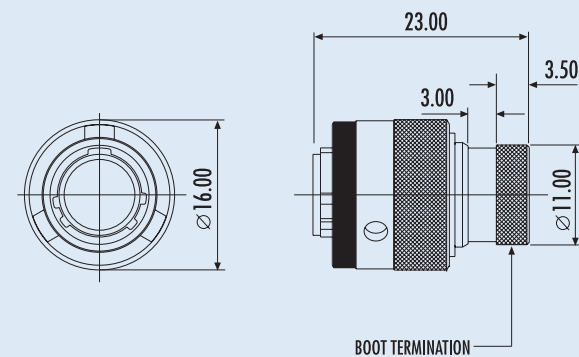




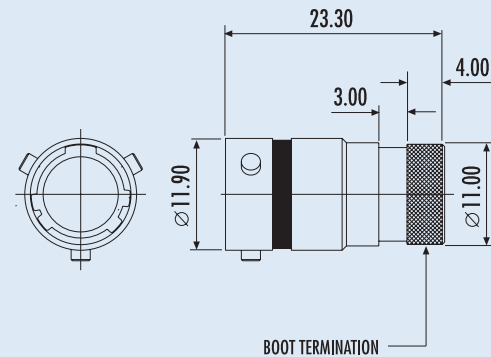
- Size 7 shell  
Smaller option to Mil size 8
- 2 planform options  
3 or 6 contact options
- Integral screen termination  
Ideal for braided cable installations
- Cable accommodation 20, 22, 24 and 26 AWG
- Offers size 8 insert arrangement in smaller shell



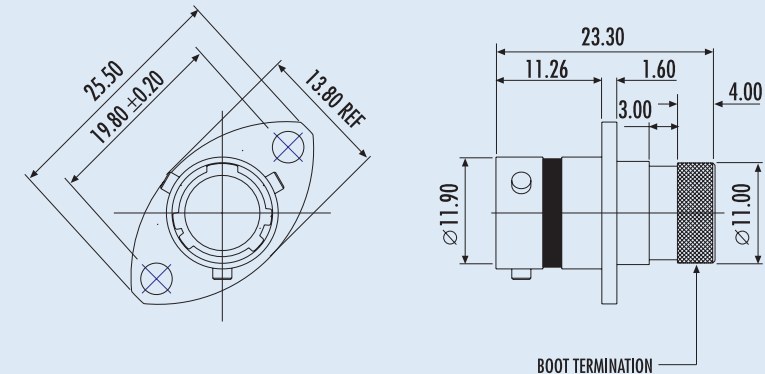
## PLUG - TYPE 6



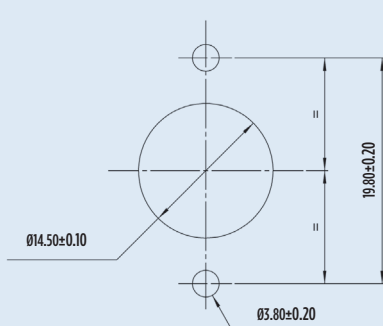
## INLINE RECEPTACLE - TYPE 1



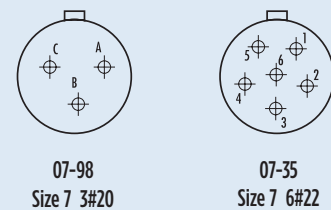
## RECEPTACLE - TYPE 0



## PANEL CUT-OUT DETAIL



## INSERT ARRANGEMENTS



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
22	7	5	500	1500	3	0.76	1.37	-55	+170
20		7.5		1800		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	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
22	604887	38941-22	600300-22	M81969/14-01	M22520/2-01	605000	M22520/2-09
20	6862-201-20278	38941-20	600300-20	M81969/14-10		M22520/2-10	M22520/2-10

## ORDERING INFORMATION

AS \* 07 - \*\* \* \* \*\*\*

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

**Style:**  
 0 = 2-hole Receptacle  
 1 = 1 Inline Receptacle  
 6 = Free plug

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

**Contact Arrangement:**  
 35, 98

**Insert Type:**  
 P = Pin  
 S = Socket

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

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

## ACCESSORIES PART NUMBERS

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

	Boot Information	
	Straight	90 degree
Raychem	202K121	222K121
Hellermann	152-42-G	1152-4-G



## Large application choices

- Filter, Hermetic & Fibre Optic options available  
Shell sizes 8 - 24
- Intermateable with existing LN29729 (Mil-C 38999 Series 1.5) and Pan 6433-2 style connectors
- High density arrangements

## Built to Withstand Harsh Environments

- Conductive black zinc finish
- Interfacial wire sealing
- Bonded and sealed insert to prevent moisture ingress

## 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		6		I
10	-35	13			M
10	-02			2	I
10	-03			3	I
12	-04			4	I
12	-98		10		I
12	-35	22			M
14	-97		8	4	I
14	-19		19		I
14	-35	37			M
16	-08			8	I
16	-26		26		I
16	-35	55			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.

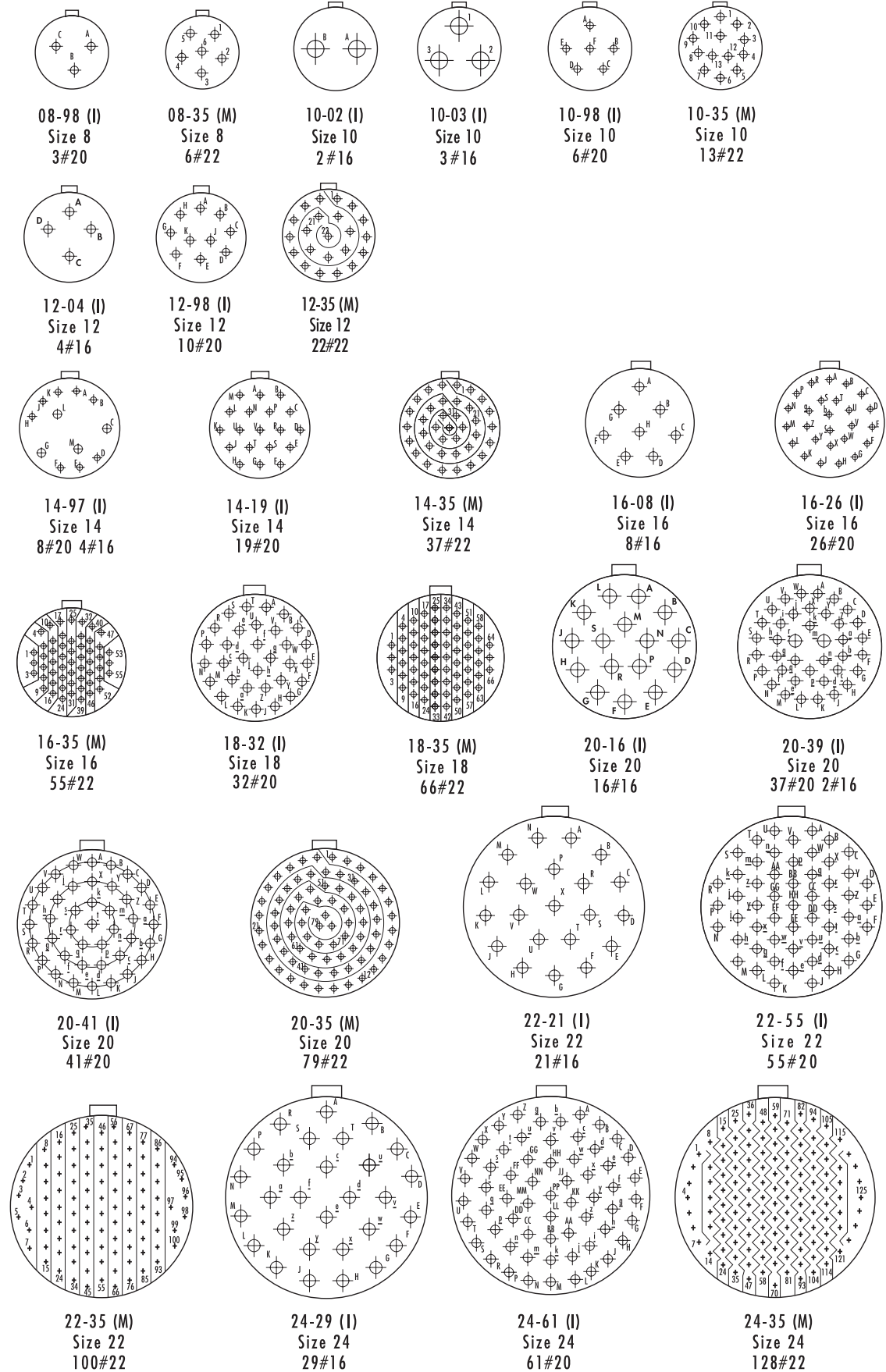
Please note: The contact/insert arrangements shown above are standard layouts. Other combinations of shell sizes and insert arrangements may be available. For details contact the sales office.

## CONTACTS & TOOLING PART NUMBERS

Contact Size	Socket	Pin	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
22	38943-22	38941-22	600300-22	M81969/14-01	M22520/2-01	M22520/2-07	M22520/2-09
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.

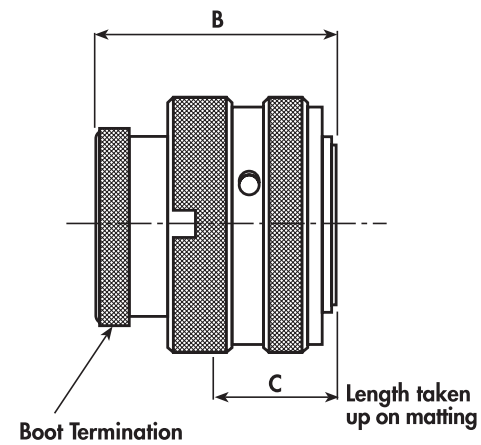
## AS CONTACT / INSERT ARRANGEMENTS



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

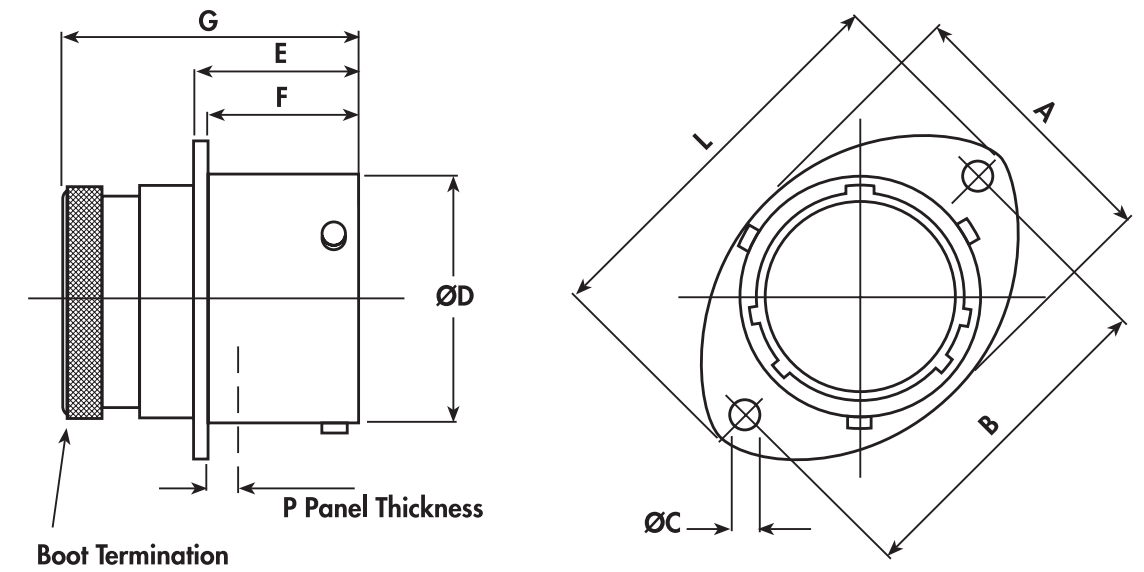


PLUG - TYPE 6

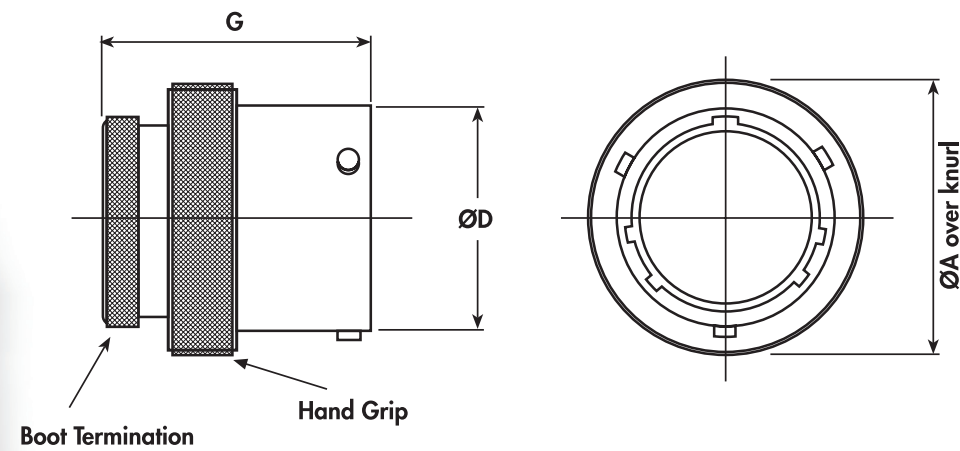


Shell Size	A MAX	B MAX	C MAX
08	17.70	33.50	15.00
10	20.80		
12	25.20		
14	28.40		
16	31.50		
18	34.80		
20	38.20		
22	41.30		
24	44.60		

RECEPTACLE - TYPE O



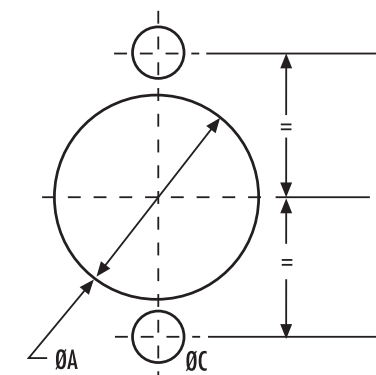
INLINE RECEPTACLE - TYPE 1



Shell Size	A MAX	D +0 -0.13	G MAX
08	17.70	12.00	33.50
10	20.80	15.00	
12	25.20	19.05	
14	28.40	22.22	
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	

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	L MAX	P MAX
08	16.50	21.35	3.20	12.00	17.21	16.05	33.50	27.20	3.00
10	19.50	25.90		15.00				32.00	
12	24.00	29.10		19.05				35.20	
14	27.00	32.50		22.22				38.40	
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		51.10			
24	43.30	49.35	3.70	38.10	15.29	55.80	2.26		

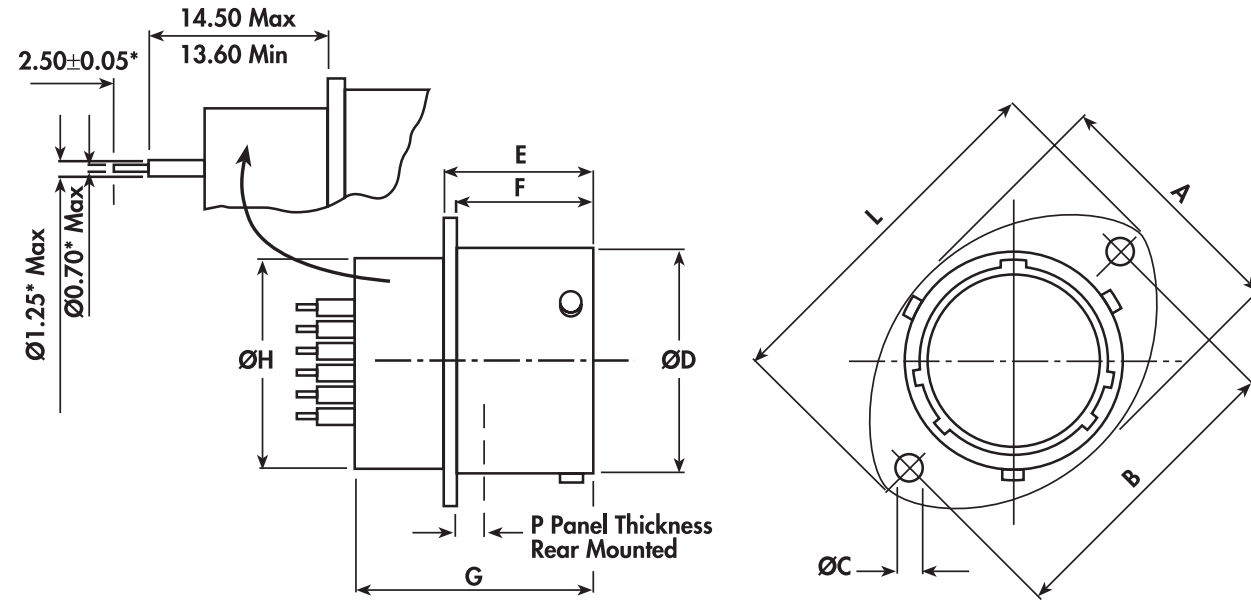
PANEL CUT-OUT DETAIL



Shell Size	A ±0.10	B ±0.20	C ±0.20
08	14.50	21.40	3.6
10	17.40	25.90	
12	21.90	29.10	
14	25.00	32.50	
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	
24	43.30	49.35	3.7	38.10	15.29	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)

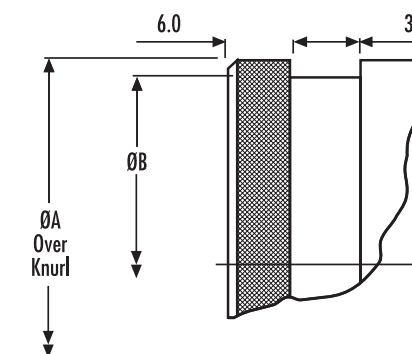
Modification Code: \_\_\_\_\_

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

## ACCESSORIES PART NUMBERS

Shell Size	Nut Plate	Gasket
08	ATM396-8	GV-08
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

## BOOT TERMINATION DETAIL



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

# AS Double Density (ASDD) Series Connectors



## Next Generation Connector - high density and high performance 5 shell sizes

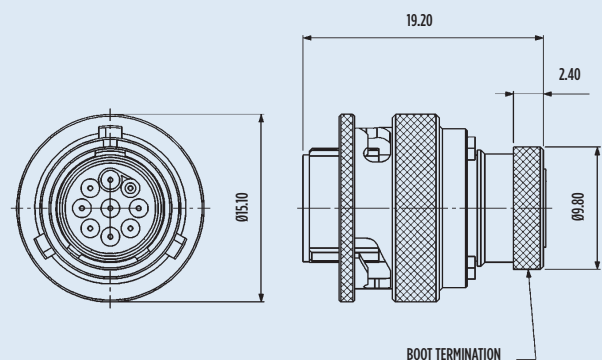
- Allows for a saving of 2 shell sizes relative to regular Autosport planforms
- Very lightweight
- Almost double the number of contacts compared with the regular Autosport range equivalent shell size
- Integral screen

## Built to Withstand Harsh Environments

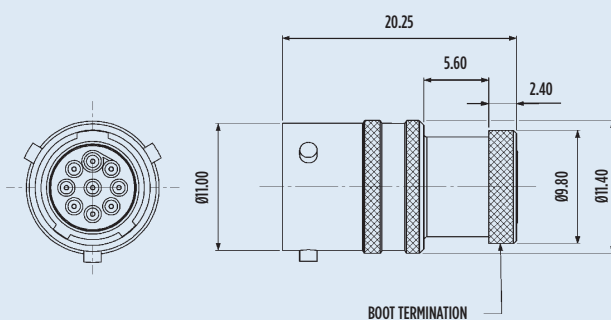
- Conductive black zinc finish
- Interfacial wire sealing
- Bonded and sealed insert to prevent moisture ingress

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 24 & 25.

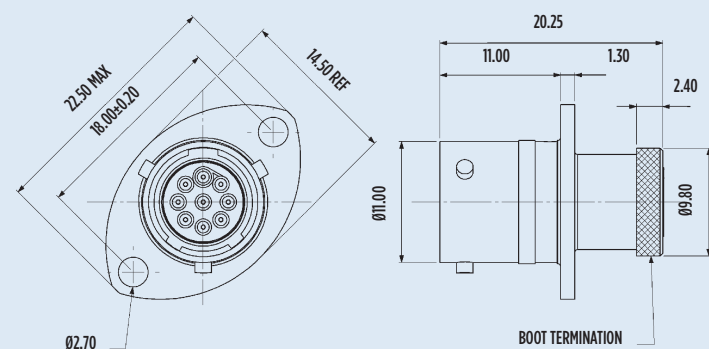
### 9-WAY ONLY PLUG - TYPE 6



### 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	750	6	0.56	1.02	-55	+170
8-11		8				3				
10-23		10				6				
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	Socket Positioner	Pin Positioner
9-Way	605704	605705-31	610008	610006-31	605837	605840	605839
8-11	605721	605719-31	PCB versions are ordered with AS2 prefixes and come with contacts.			610287	610286
10-23							
12-41							
14-64							

## ORDERING INFORMATION

ASDD \* \*\* - \*\* \* \* - \*\*\*

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

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

**Shell Size:** \_\_\_\_\_  
 06, 08, 10, 12, 14

**Contact Arrangement:** \_\_\_\_\_  
 09, 11, 23, 41, 64

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

**Shell Keyways:** \_\_\_\_\_  
 N = Red (standard)  
 A = Yellow  
 D = Green  
 B = Blue  
 C = Orange  
 E = Grey  
 U = Violet

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

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.

## ACCESSORIES PART NUMBERS

For information on boots and nut plates please refer to AS series on page 46-47 or contact the sales office for further information.





## Hermetic Weld mount connector Intermateable with AS Micro and ASL

- Filtered Hermetic option also available

## High Performance Materials

- 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



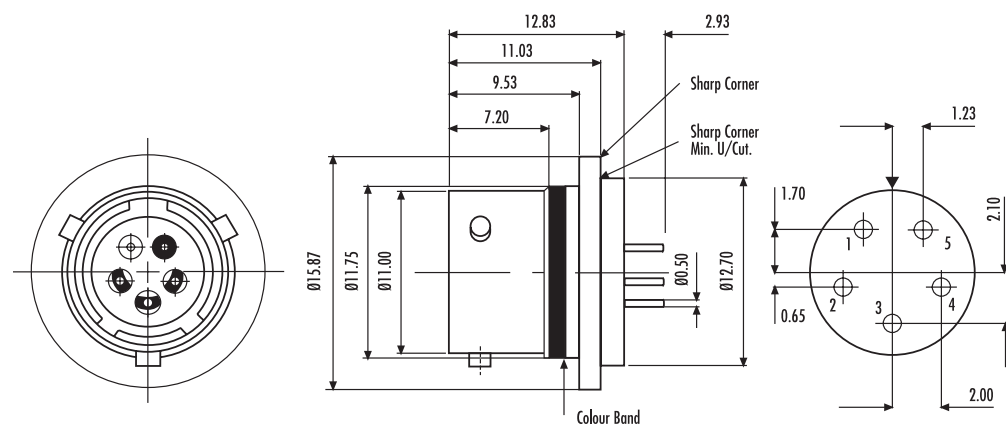
## Unique product for sensor and fuel cell use

- Jam-nut fixing
- Enlarged backshell for easier contact soldering
- Fuel immersible specification O-ring for enhanced fluid resistance

## High Performance Materials

- Glass seal can withstand pressure differentials of 1000 PSI without loss of electrical performance or fluid leakage

## Fully intermateable with AS Micro HE Connector and Micro<sup>LITE</sup> Connector



## GENERAL SPECIFICATION

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	+200	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

## ORDERING INFORMATION

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

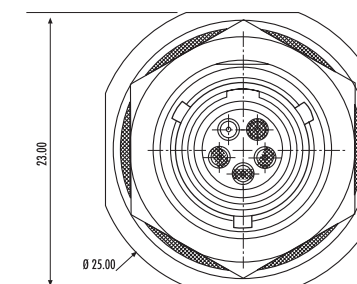
AS Micro HE Plug: **ASL 606 05S \* - HE**

Shell Orientation:

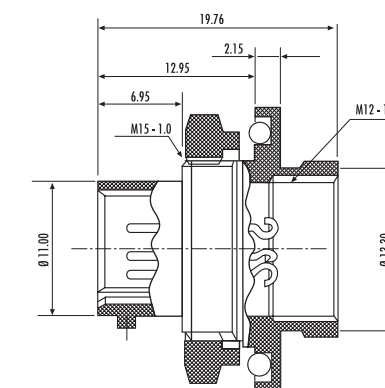
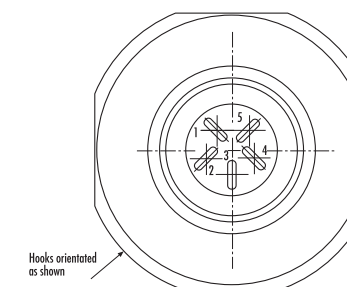
N = Red (standard)

All dimensions are in mm unless otherwise stated.

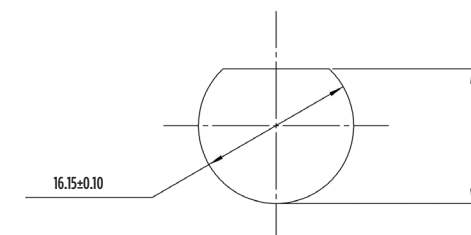
## FRONT FACE



## REAR FACE



## PANEL CUT-OUT DETAIL



## 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
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)

## ORDERING INFORMATION

Part No. AS7H06 - 05 PN-HE

All dimensions are in mm unless otherwise stated.

# AS Hermetic Fuel Tank Series Connectors



## Range of connectors designed for fuel cell walls

Selection of contact arrangements to accommodate pumps and sensors

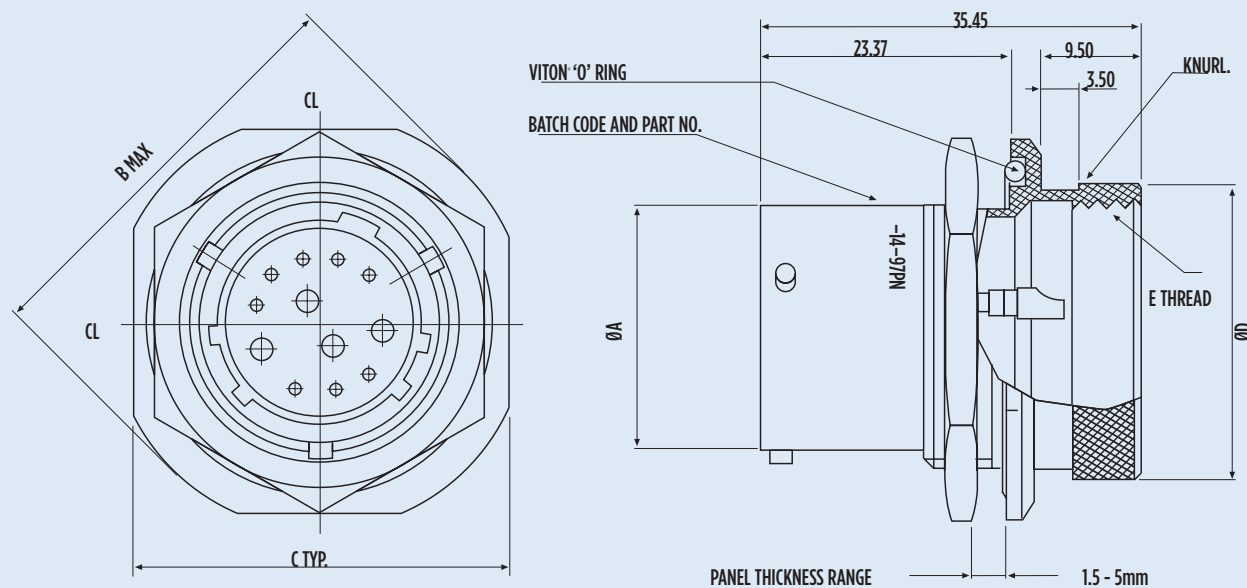
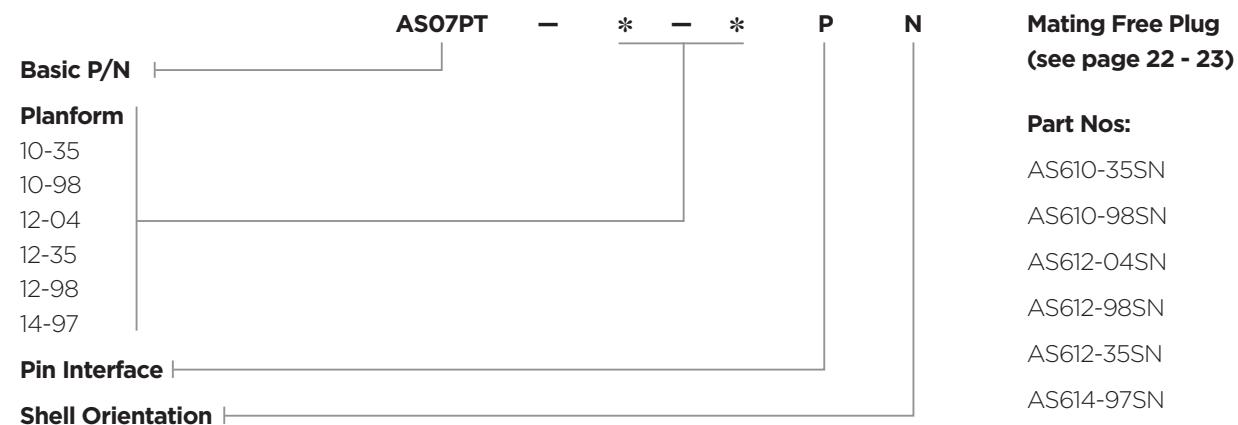
## High Performance Materials

- Fuel immersible specification 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

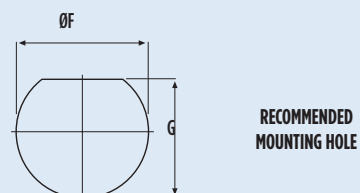
## GENERAL SPECIFICATION

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



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



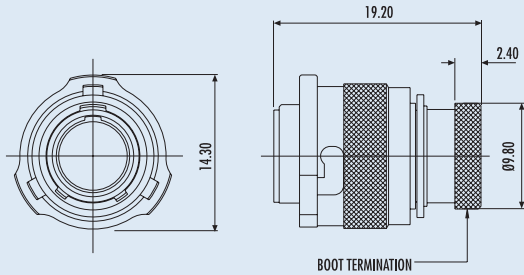
All dimensions are in mm unless otherwise stated.



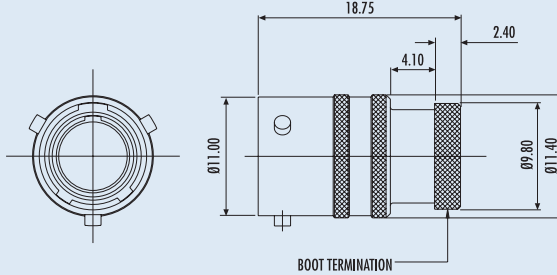
## For in-tank connection applications

- 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>

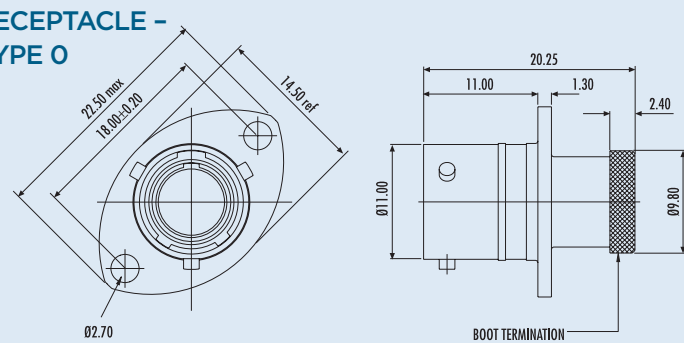
### PLUG - TYPE 6



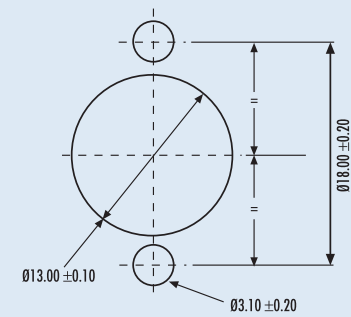
### INLINE RECEPTACLE - TYPE 1



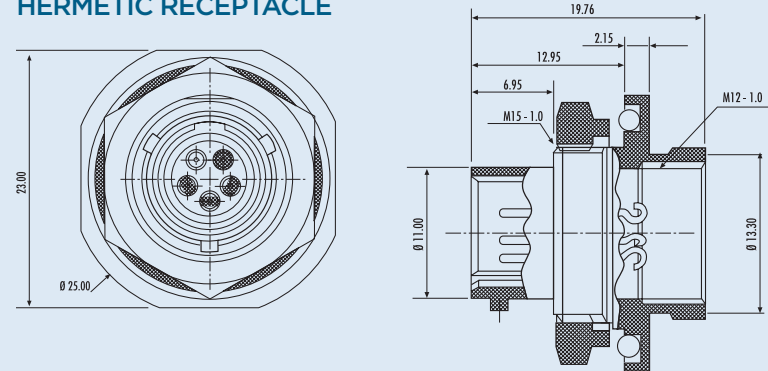
### RECEPTACLE - TYPE 0



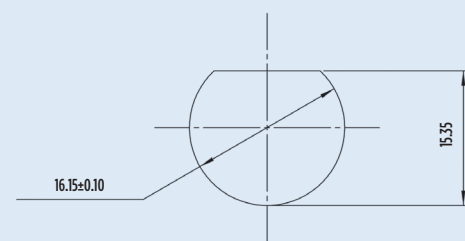
### PANEL CUT-OUT DETAIL



### HERMETIC RECEPTACLE



### PANEL CUT-OUT DETAIL



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
Z3	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@te.com**

## CONTACTS & TOOLING PART NUMBERS

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

## ORDERING INFORMATION

ASL \* 06 - 05 \* \* - HE - 952K

**Range Ref:** ASL (or AS for Hermetic)

**Style:**  
 0 = 2 hole flanged receptacle  
 1 = Inline Receptacle  
 7H = Hermetic Receptacle  
 6 = Free Plug

**Shell Size:**

**Contact Arrangement:**

**Insert Type:**  
 (AS7H pin insert only)  
 P = Pin  
 S = Socket

**Shell Keyways:**  
 (AS7H N only)  
 N  
 A  
 B

**Harsh Environment:**

**Modification Code:**

## ACCESSORIES PART NUMBERS

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

	Boot Information	
	Straight	90 degree
Raychem	202A111	222A111
Hellermann	113-4-G	1108-4-G



# AS Heavy Duty (ASHD) Series Connectors

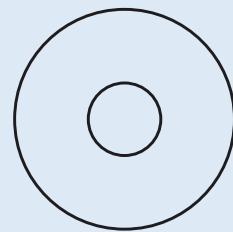


## Autosport design for high current motorsport applications

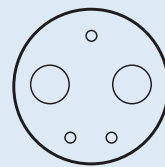
- Early Break / Late Mate on data contacts for safety
- Cable accommodation from 16mm<sup>2</sup> - 70mm<sup>2</sup>
- Positive locking coupling mechanism

## High Performance Materials

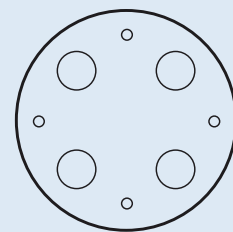
- Environmentally sealed
- Thermal cycle tested
- Heavy duty rated
- Crimp type solid and Gold plated copper contacts



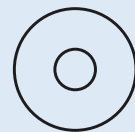
SuperASHD Single  
70mm<sup>2</sup> contact



AS 22-24320  
(2xAWG 4, 3xAWG 20)



AS 24-44420  
(4xAWG 4, 4xAWG 20)



ASHD14-1  
(1xAWG 4)

## CONTACTS & TOOLING PART NUMBERS

Contact Size	Socket	Pin	Filler Plug	Ins/Ext Tool	Crimp Tool	Socket Positioner	Pin Positioner
20	38943-20	38941-20	600300-20	M81969/14-10	M22520/2-01	M22520/2-10	M22520/2-10

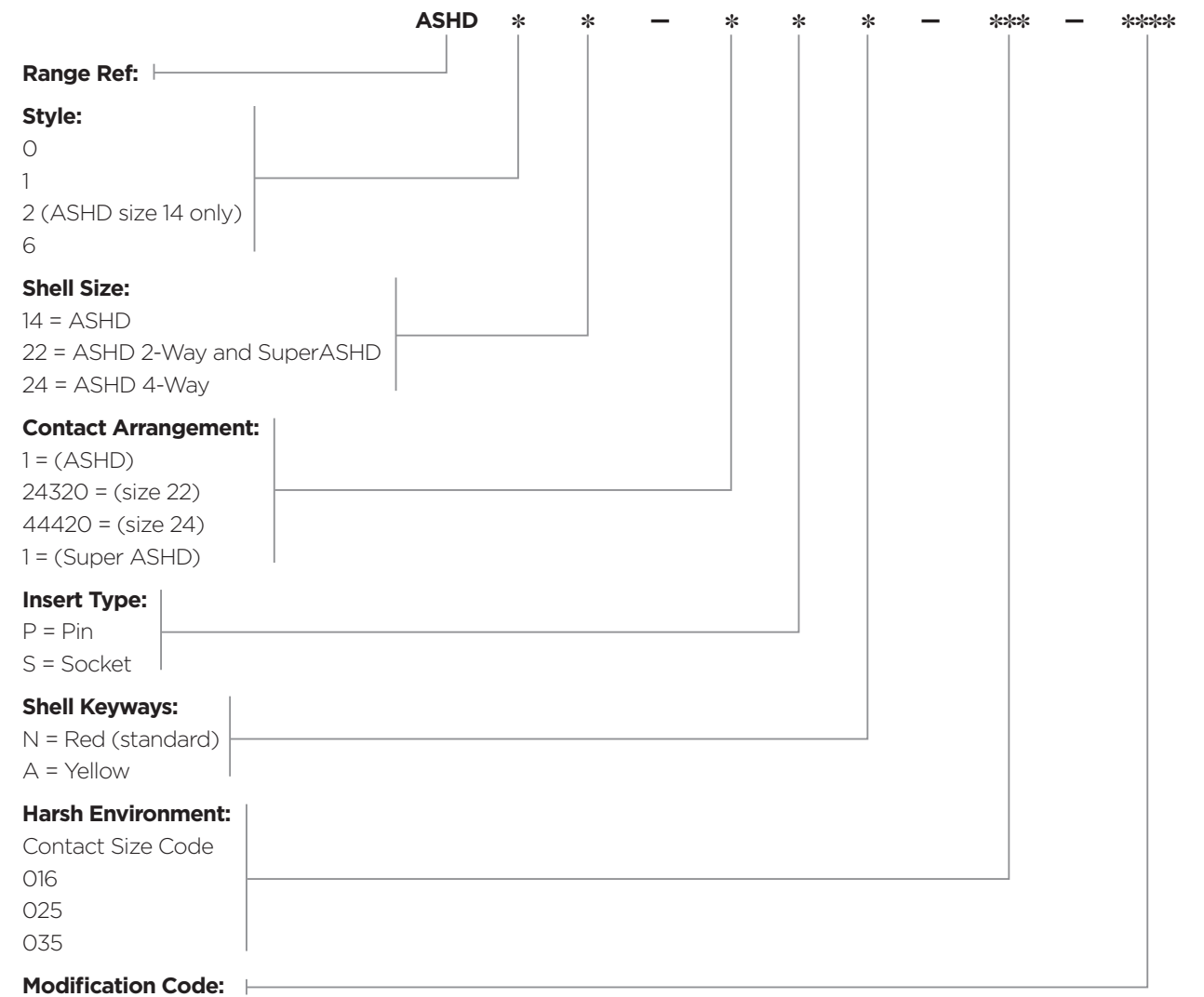
Please note: PCB versions are ordered with AS2 prefixes and come with contacts.

Wire Size	Socket	Pin	Ext Tool	Crimp Tool	Jaws	Contact	Max. Current
16mm	61103-016	605734	610136-Tool	605773	605774	20	7.5
25mm	61103-025	605660			605775	4	200
35mm	61103-035	605735			605776	0	300

\*For use with part numbers ASHD022-24320SN-S04 and ASHD622-24320PN-004

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

## ORDERING INFORMATION



# AS Co-ax Series Connectors



## Autosport designed co-axial cable solution

- Ultra compact and light weight design (Size 3 shell)
- Single co-axial contact and Gold-plated crimp contacts
- Positive locking coupling mechanism with 2 keyway orientations and Boot termination feature
- Designed for RG316 cable

### 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
-	3	-	500	1000	2	-	-	-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)

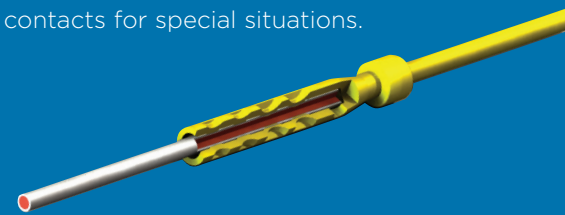
All dimensions are in mm unless otherwise stated.

### CONTACTS & TOOLING PART NUMBERS

Connector Type	Part Number
Plug	ASCX603-1SN-050
Inline - receptacle	ASCX103-1PN-050
Flanged - receptacle	ASCX003-1PN-050

# ASDD System 30 contact

To complement our market leading range of harsh environment connectors, TE DEUTSCH Autosport team is able to offer special contacts for special situations.



## New contact for ASDD & ASU 5 way connectors

- New "double crimp" fixing solution and unique crimping tool
- Only available for Gore® AWG30 wire (Performed better than industry standard AWG26 in comparable vibration conditions)
- No requirement to strip insulation
- Weight saving potential for data looms

### 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
24	-	1	500	1000	-	-	-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.

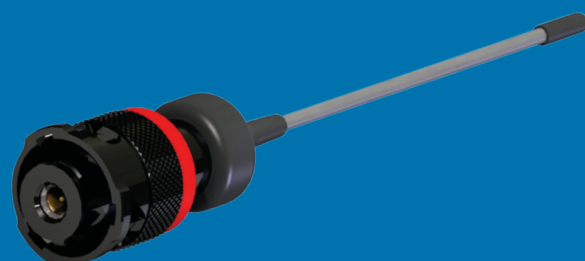
\*\*Current leakage less than 2 milliamps at (VAC)

All dimensions are in mm unless otherwise stated.

### CONTACTS & TOOLING PART NUMBERS

Contact Size	Socket	Pin	Gore Wire	Ins/Ext Tool	Crimp Tool
24 ASDD	610795	610577-31	610904	605837	610903
24 ASU	610798	610796-31			

# Portable Antenna



## Portable Antenna

- Ultra compact and light weight design (Size 3 shell)
- Single co-axial contact
- Conductive black zinc finish
- Can be cut to length for optimised frequency (supplied with cut chart)

### 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
-	3	-	-	-	2	-	-	-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)

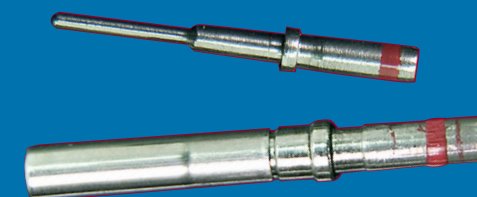
**Contact TE DEUTSCH for more detail of specific products to meet your sealed electrical connection requirements**

All dimensions are in mm unless otherwise stated.

### CONTACTS & TOOLING PART NUMBERS

Connector Type	Part Number
Plug (standard)	ASCX603-1SN-050
Inline - receptacle	ASCX103-1PN-050
Flanged - receptacle	ASCX003-1PN-050
Portable antenna plug	ASCX603-1SN-ANT

# Special Contacts



## Thermocouple Contacts

- Available in #22 for Autosport Range
- Available in #23 for MicroLite Series Connectors
- Engineered in Chromel and Alumel
- Designed exclusively for Deutsch connectors

### THERMOCOUPLE #22 FOR AUTOSPORT RANGE

Description	Socket
Chromel pin	605346
Chromel socket	605347
Alumel pin	605348
Alumel socket	605349

### THERMOCOUPLE #23 FOR MICRO<sup>LITE</sup>

Description	Socket
Chromel pin	605378-CR
Chromel socket	605380-CR
Alumel pin	605378-AL
Alumel socket	605380-AL

### CUSTOM MADE CONTACTS

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 857088** or email **autosport@te.com**



## ALUMINIUM WIRE

- Available for use with ASHD Series Connectors
- For aluminium wire AWG 4
- Aluminium wire and contact solution has been certified for flight use
- Other smaller contact sizes and wire options available

# Autosport Specialist Solutions

## ALUMINIUM WIRE 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
4	-	150	500	1500	-	-	-	-55	+175

Pin	610905
Socket	610906



## CLINCHNUT AS SERIES

- A replacement for nutplates
- Available for PCB and flange mounted versions
- Time-saving option
- Available across the range of AS connectors

## CLINCHNUT AS SERIES 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
-	-	-	500	-	-	-	-	-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)

Mod Code	978M
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# AS Flangeless Option



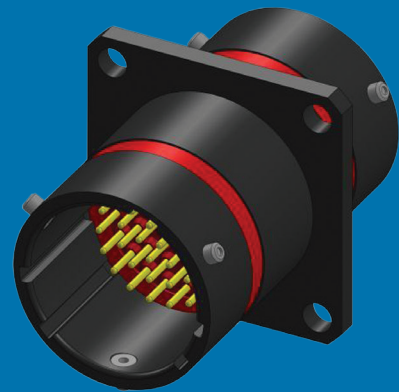
## AS FLANGELESS

- Weight-saving alternative to AS1 receptacle
- Available on AS shells 8 - 24
- Added knurl for easier coupling
- Factory modified change to save team's time
  - Available on shell sizes 8 - 24
  - Sample part number: AS410-35PN
  - (AS4 shell type denotes flangeless option)

For more information and ordering details please call our sales office on **+44 (0) 1424 857088** or email [autosport@te.com](mailto:autosport@te.com)

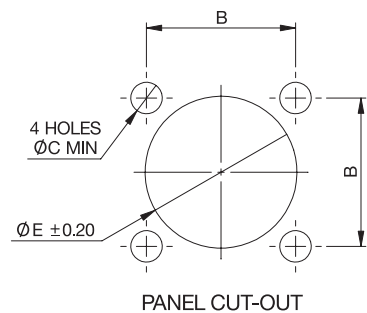
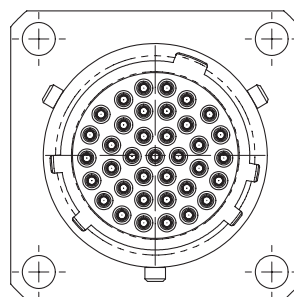
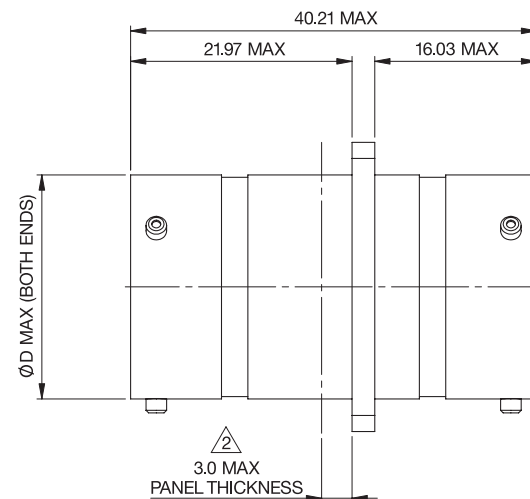
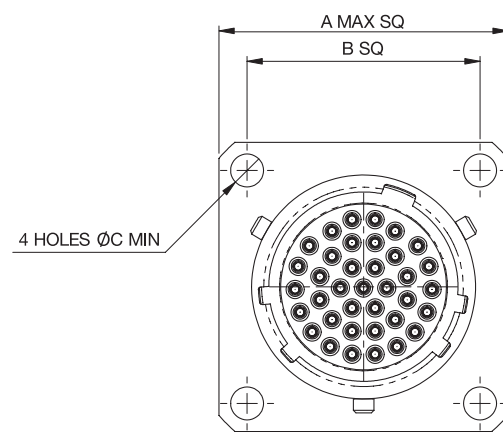






## AS THROUGH BULKHEAD

- Military proven design
- Scoop-proof interface with shell to shell grounding
- Positive locking coupling mechanism
- Environmentally sealed to IP67
- Thermal cycle tested
- Fully intermateable with AS range of products
- Gold plated crimp contacts
- 4 hole mounting style



PART NUMBERS	
AS310-35PPN	Further options available, please contact sales offices for details.
AS312-35PPN	
AS314-35PPN	

Contact Deutsch for more detail of specific products to meet your sealed electrical connection requirements.

For more information and ordering details please call our sales office on **+44 (0) 1424 857088** or email **autosport@te.com**

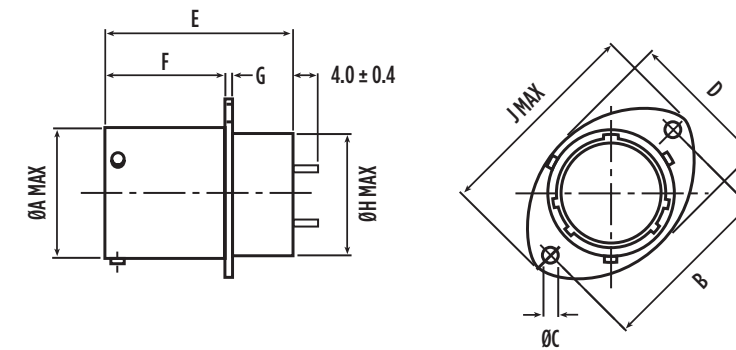


## AS Filter Solutions

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 platforms.



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 10-02, 10-03, for any AS Series connector platform 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 02 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 47.**



### 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.

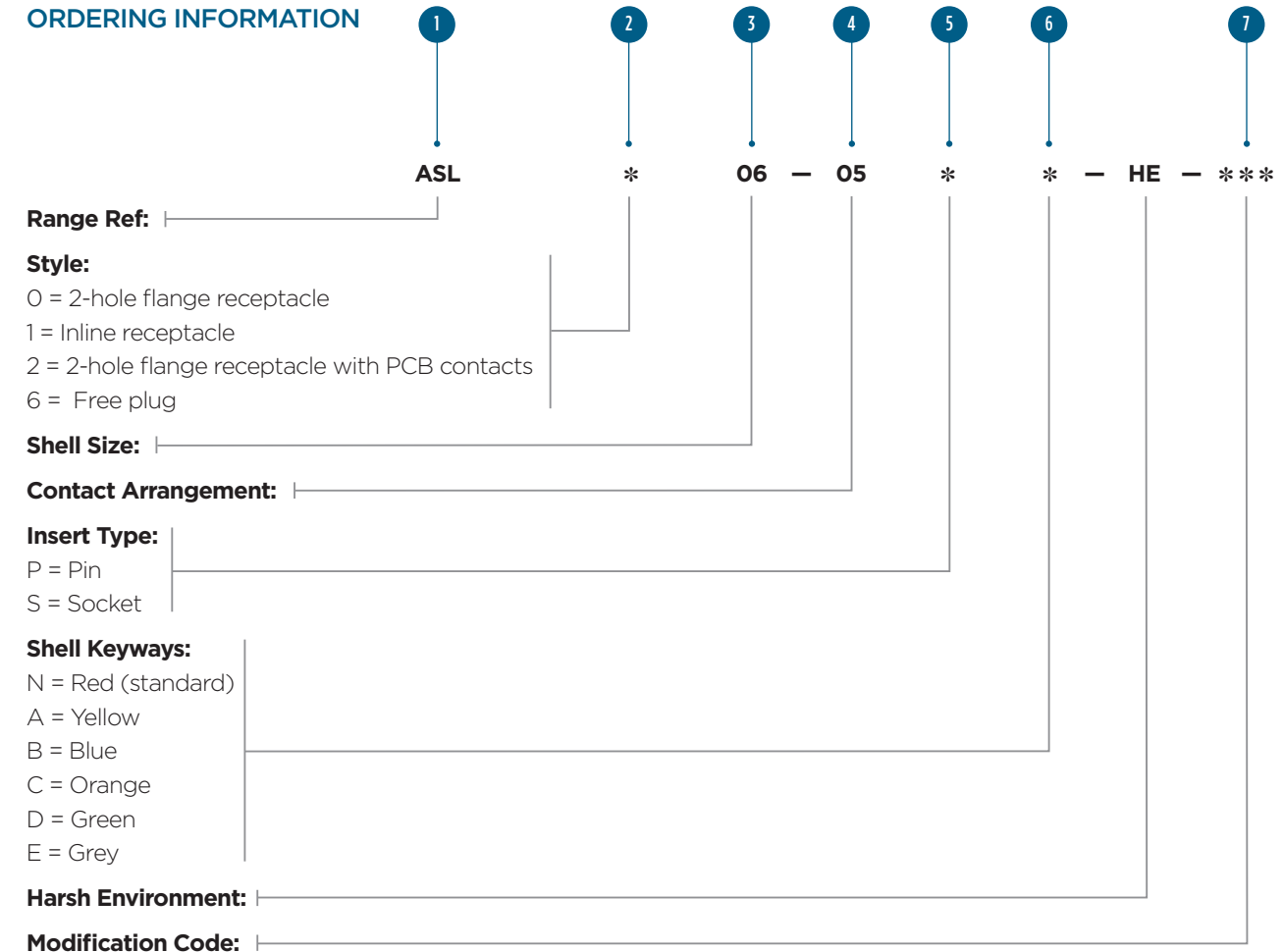
**For part numbers please refer to page 47.**

**BRAID TERMINATION SYSTEMS**

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

**ORDERING INFORMATION**



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

- '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>LTTE</sup>, ASDD = Double Density.
  - 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  
 3 = Through Bulkhead  
 4 = Weld mounting / Flangeless  
 7 = Jam-nut mounting  
 8 = Protective cap for plug  
 9 = Protective cap for receptacle
  - Relates to the required shell size. This will range from 02 (small) to 24 (large).
  - Is the planforms detail (number of contacts).
  - Indicates the gender of a plug or receptacle. 'P' for pin or 'S' for socket.
  - 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.
  - 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 857 088** or email **autosport@te.com**
- 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/autosport**

CONTACT TYPE

CONTACT SIZE	PART NO.	P/S	WIRE RANGE	COLOUR BAND	MAX CURRENT	CRIMP TOOL	POSITIONER		PLASTIC TOOLS INSERT/REMOVAL
Size 24 ASDD excluding 9-way	605719-31	P	24-30	None	3 AMPS	M22520/2-01	610286	P	605837 Orange/White
	605721	S					610287	S	
Size 24 ASDD 9 way, ASX 5/6, ASU 5 way	605705-31	P	24-30	None	3 AMPS	M22520/2-01	605839	P	605837 Orange/White
	605704	S					605840	S	
Size 23	604927-31	P	22-28	None	3 AMPS	M22520/2-01	604972	P	M81969/14-01 Green/White
	604935	S					604973	S	
Size 22	38941-22	P	22-26	Orange, Blue, Black	5 AMPS	M22520/2-01	M22520/2-09	P	M81969/14-01 Green/White
	38943-22	S		Orange, Yellow, Grey			M22520/2-07	S	
Size 20	38941-20	P	20-24	Orange, Blue, Orange	7.5 AMPS	M22520/2-01	M22520/2-10	P	M81969/14-10 Red/Orange
	38943-20	S		Orange, Green, Brown			M22520/2-10	S	
Size 16	38941-16	P	16-20	Orange, Blue, Yellow	20 AMPS	M22520/1-01	M22520/1-04	P	M81969/14-03 Blue/White
	38943-16	S		Orange, Green, Red			M22520/1-04	S	
AS Mini Size 22	38941-22	P	22-26	Orange, Blue, Black	5 AMPS	M22520/2-01	M22520/2-09	P	M81969/14-01 Green/White
	604887	S		None			605000	S	
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 Red/Orange
	6862-201-20278	S		None			M22520/2-10	S	
Size 22 AS Composite/ASU 3-Way, ASX 3-Way	604946-31	P	22-28	None	5 AMPS	M22520/2-01	605463	P	M81969/14-01 Green/White
	604984	S					605464	S	

BOOT INFORMATION

SHELL SIZE	STRAIGHT BOOT		90 DEGREE BOOT	
	RAYCHEM	HELLERMAN	RAYCHEM	HELLERMAN
ASX (Size 2)	203W301-25-G03	1037-4-G	223W601	1182-4-G
ASU (Size 3)	204W221-25-G03	1037-4-G	224W221-25-G03	1182-4-G
ASC	204W221	1030-4-G	224W221	1181-4-G
ASL	204W221	1030-4-G	224W221	1181-4-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
2 ( ASX 3/5 )	ATM396-2	GV-2	Plug	611546
			Receptacle	611545
2 ( ASX 6 only )	ATM396-2	GV-2	Plug	611637
			Receptacle	611636
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 DIMENSIONS

CONTACT SIZE	WIRE SIZE (AWG)	FINISHED WIRE DIMENSIONS			
		CONDUCTOR		INSULATION	
		MIN	MAX	MIN	MAX
24	30,28,26,24	0.254mm 0.010in	0.511mm 0.02in	0.56mm 0.22in	1.02mm 0.040in
23	28,26,24,22	0.321mm .012in	0.790mm .03in	0.60mm .023in	1.37mm .054in
22	26,24,22	0.405mm .015in	0.790mm .03in	0.76mm .030in	1.37mm .054in
20	24,22,20	0.511mm .02in	0.970mm .038in	1.02mm .040in	2.11mm .083in
16	20,18,16	0.812mm .03in	1.530mm .60in	1.65mm .65in	2.77mm .109in

FILLER PLUGS

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



## For More Information

Country	TE Technical Support Contact	DEUTSCH Autosport Distribution Network	Contact
Asia Pacific	+86 0 400 820 6015	GR Motorsport Electrics PTY Ltd	+61 398 004900
Austria	+43 1 905 601 228	contact TE Technical Support	/
Baltic Region	+46 8 5072 5000	contact TE Technical Support	/
Benelux	+31 73 6246 999	contact TE Technical Support	/
Czech Republic	+420 800 701 462	contact TE Technical Support	/
France	+33 1 34 20 86 86	Davum TMC	+33 1483 68401
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