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Autosport

Eighth Edition

Interconnection Solutions



DEUTSCH AUTOSPORT DISTRIBUTION NETWORK

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ASC 10769/01/08

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^{Lite} HE FUEL IMMERSIBLE

An evolution of the AS Micro^{Lite} connector, the AS Micro^{Lite} 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^{Lite} HE (ASL)

The Micro^{Lite} 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^{Lite} 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^{Lite} 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^{Lite} HE AND AS MICRO ULTRA^{Lite} HE

The AS Ultra^{Lite} HE is a 5-way connector offers teams the smallest, lightest package for five wires. The AS Micro Ultra^{Lite} 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.

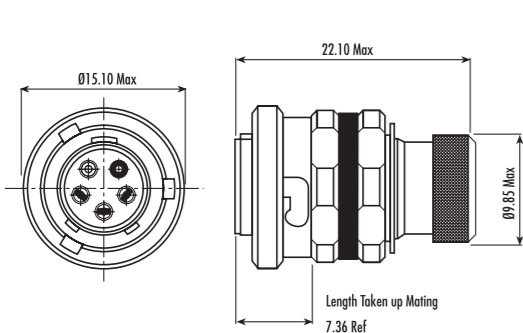




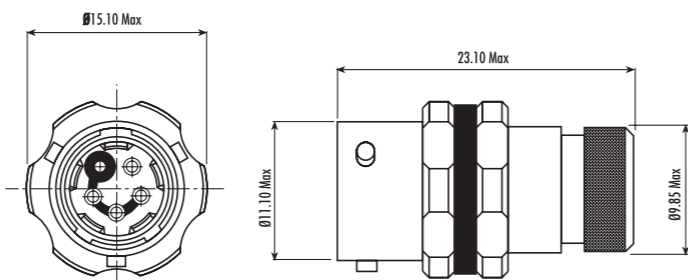
KEY FEATURES

- 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^{Lite} HE and Fuel Immersible connectors.

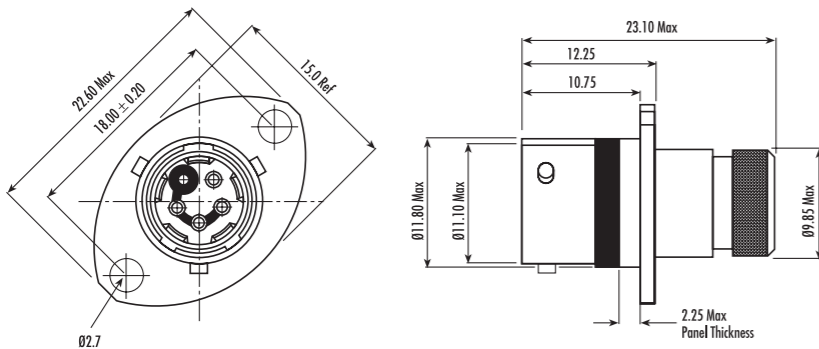
PLUG – TYPE 6



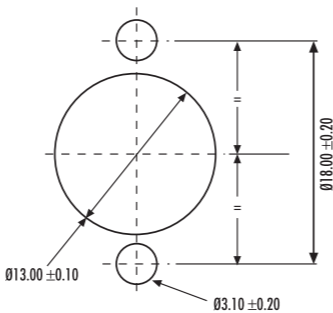
INLINE RECEPTACLE – TYPE 1



RECEPTACLE – TYPE 0



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
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

ORDERING INFORMATION

Range Ref: AS * 06 — 05 * * — HE — **

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

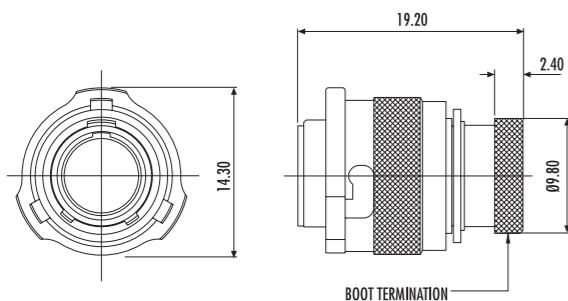
Pro Cap		Nut Plate	Gasket
Receptacle	Plug		
604029	604027	ATM396-6	GV-6



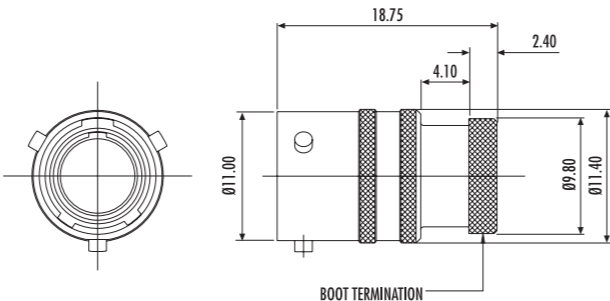
KEY FEATURES

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

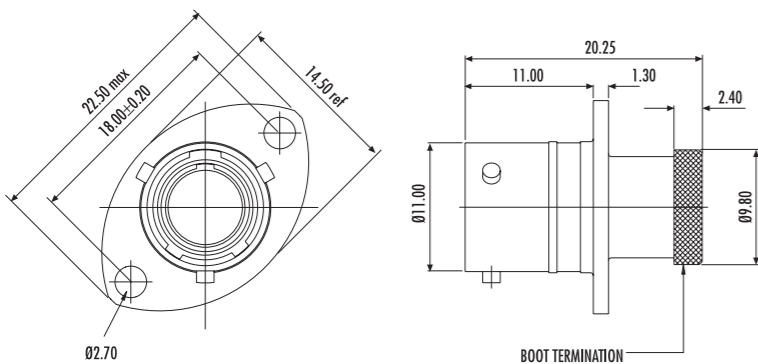
PLUG – TYPE 6



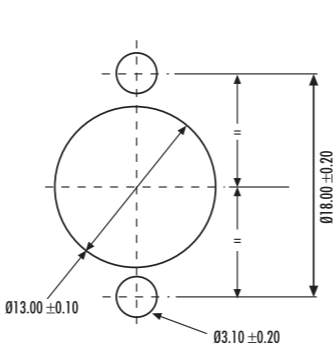
INLINE RECEPTACLE – TYPE 1



RECEPTACLE – TYPE 0



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
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

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

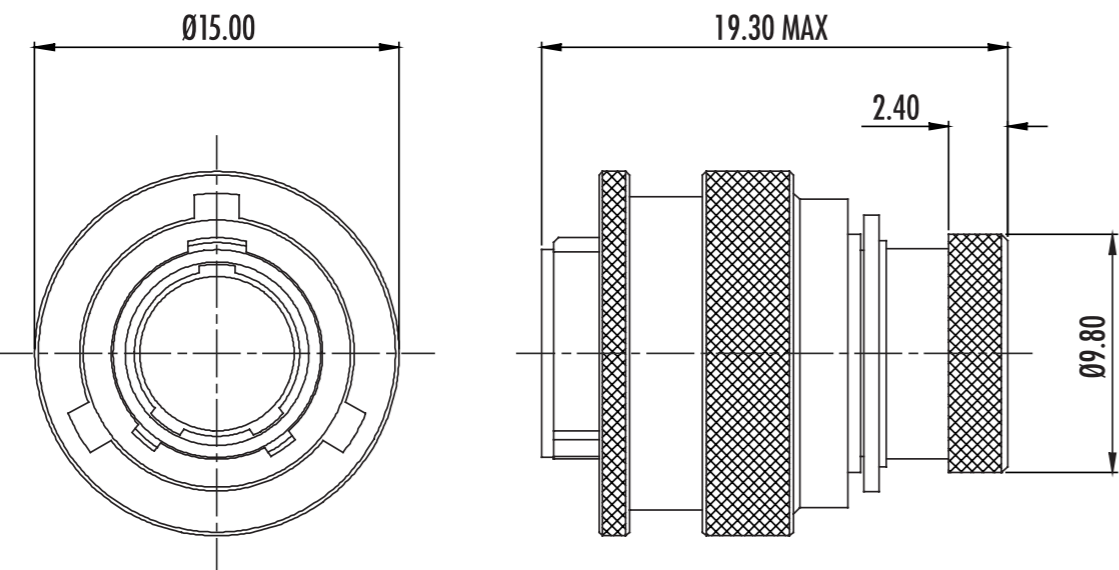
Pro Cap		Nut Plate	Gasket
Receptacle	Plug		
604029	604027	ATM396-6	GV-6



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.

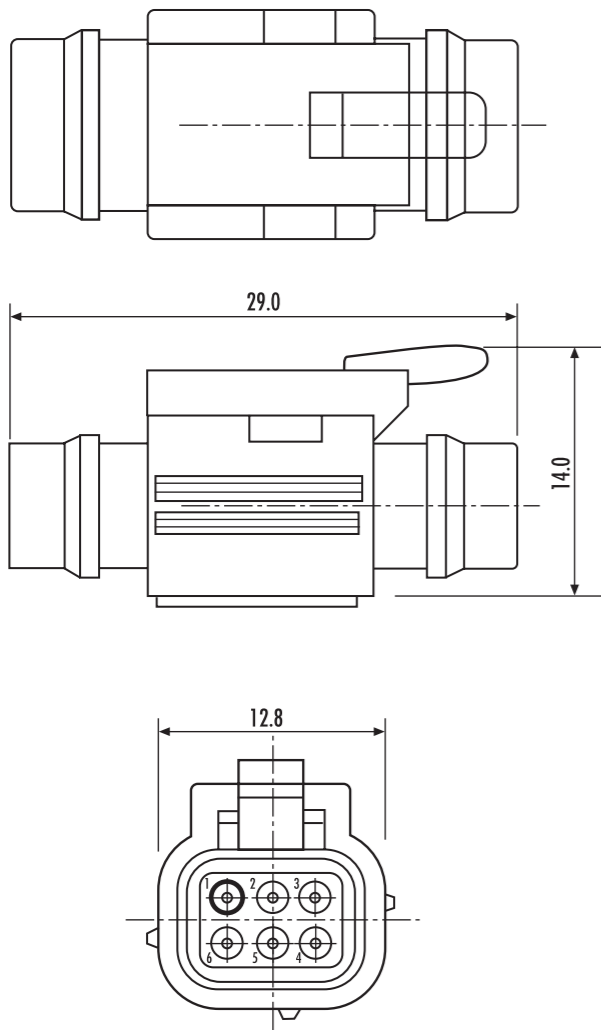
	Boot		Pro Cap
	Straight	90 Degree	
Raychem	202A111	222A111	604027
Hellerman	113-4-G	1108-4-G	



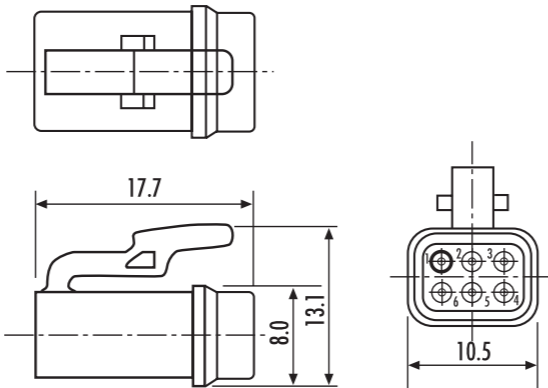
KEY FEATURES

- 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.

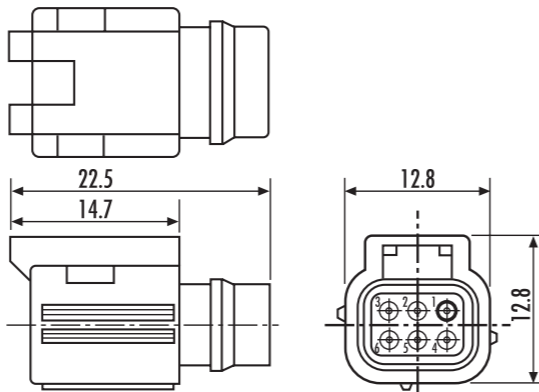
MATED PAIR



PLUG – TYPE 6



RECEPTACLE – TYPE 1



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	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

Range Ref: | _____ | ASC | * | 05 | — | 06 | * | * | * * *

Style
1 = 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
C = Orange
D = Green
E = Grey

Modification Code: | _____ |

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

AS Ultra^{Lite} HE and AS Micro Ultra^{Lite} HE (ASU)

AS Micro Ultra^{Lite} HE
(3-Way)



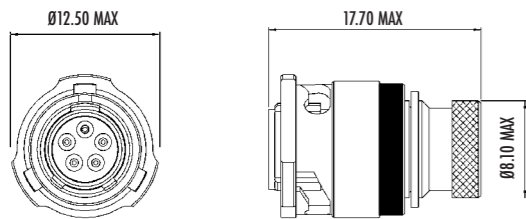
KEY FEATURES

- 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).

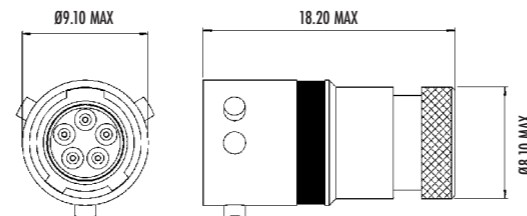


AS Ultra^{Lite} HE (5-Way)

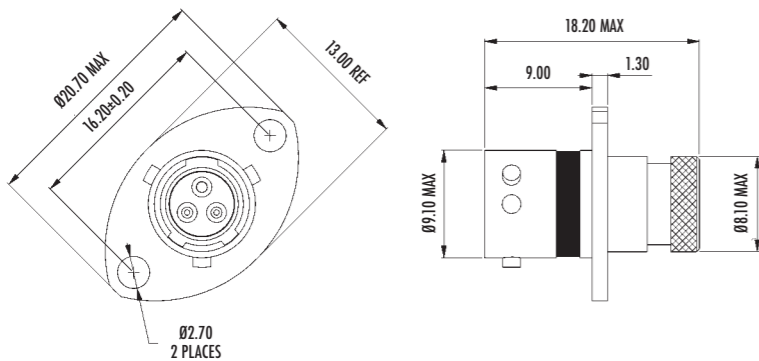
PLUG – TYPE 6



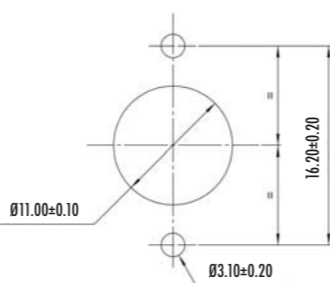
INLINE RECEPTACLE - TYPE 1



RECEPTACLE - TYPE 0



PANEL CUT-OUT DETAIL



All dimensions are in mm unless otherwise stated.

GENERAL SPECIFICATION

No. of Ways	Contact Size	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

Range Ref: | ASU | * | 03 | — | ** | * | * | * | * | *

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.

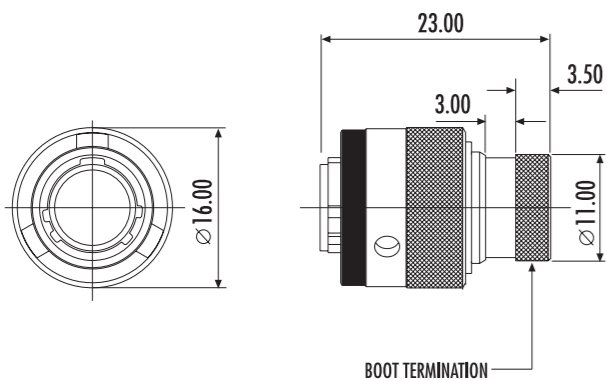
	Boot	
	Straight	90 Degree
Raychem	204W221-25-G03	224W221-25-G03
Hellerman	1037-4-G	1182-4-G

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

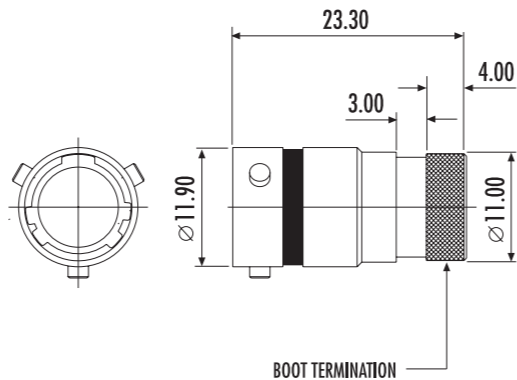


- KEY FEATURES**
- Size 7 shell
 - 2 planform options
 - Integral screen termination
 - Cable accommodation 20, 22, 24 and 26 AWG
 - Offers size 8 insert arrangement in smaller shell.

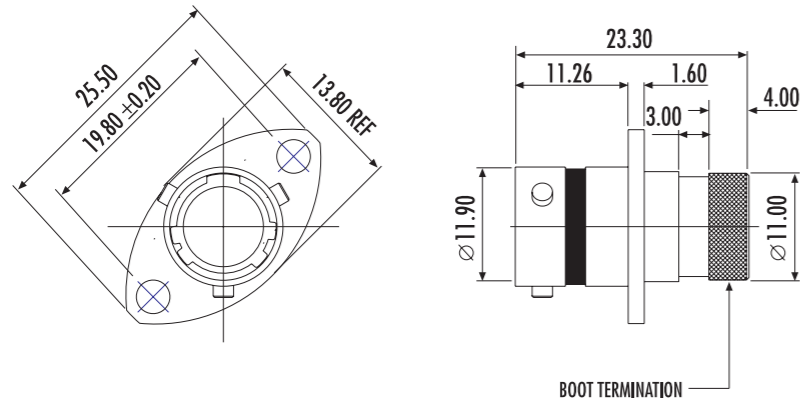
PLUG – TYPE 6



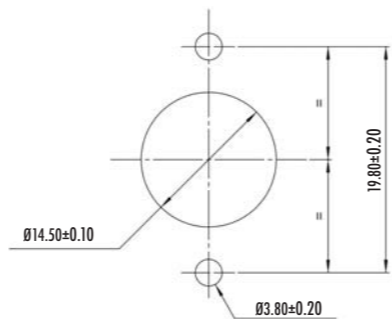
INLINE RECEPTACLE - TYPE 1



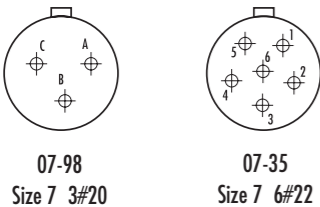
RECEPTACLE - TYPE 0



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	1300	3	0.76	1.37	-55	+175
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	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

Range Ref: AS * 07 — ** * * * *

Style:
0 = 2-hole flange receptacle
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: _____

For more information on how to order see page 37.

	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			1.02	2.11		
16		20			1.65	2.77		

* 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				M
10	-02		2		I
10	-03		3		I
12	-04		4		I
12	-98	22	10		I
12	-35				M
14	-97		8	4	I
14	-19		19		I
14	-35	37			M
16	-08		26	8	I
16	-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

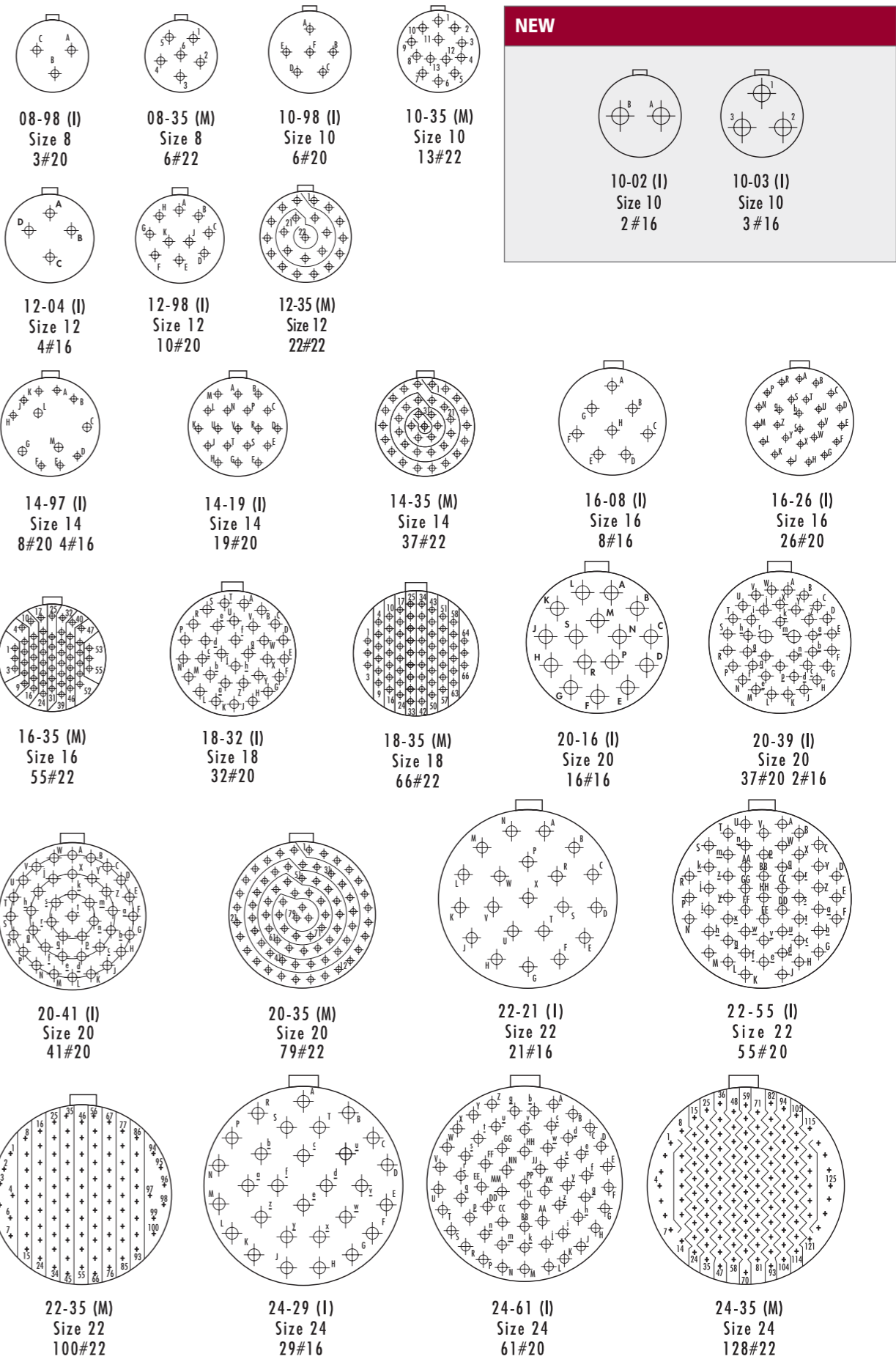
**Ratings M&I define Dielectric Withstand Voltage ratings as follows:
I = 1800 volts rms, M = 1300 volts rms, current leakage less than 2 milliamps.

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.

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

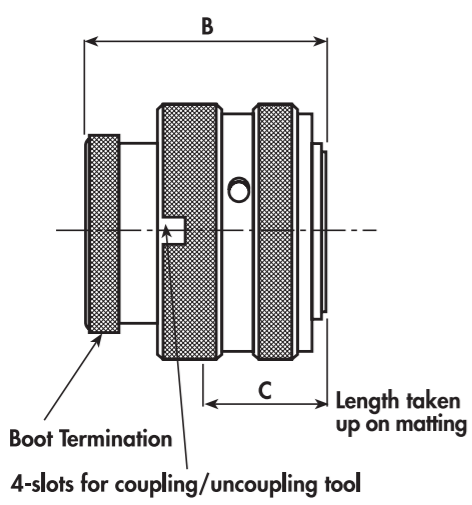
Please note: PCB versions are ordered with AS2 prefixes and come with contacts.

AS CONTACT / INSERT ARRANGEMENTS



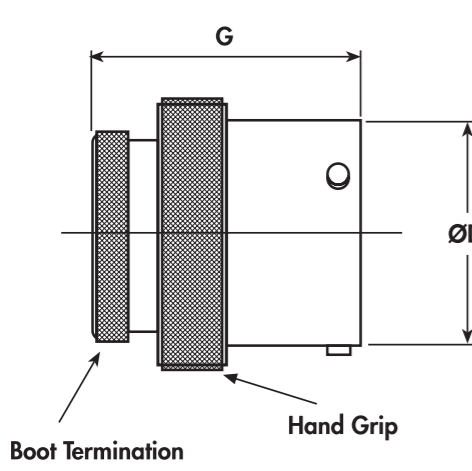
Ratings M&I define Dielectric Withstand Voltage ratings as follows:
I = 1800 volts rms, M = 1300 volts rms, current leakage less than 2 milliamps.

PLUG – TYPE 6



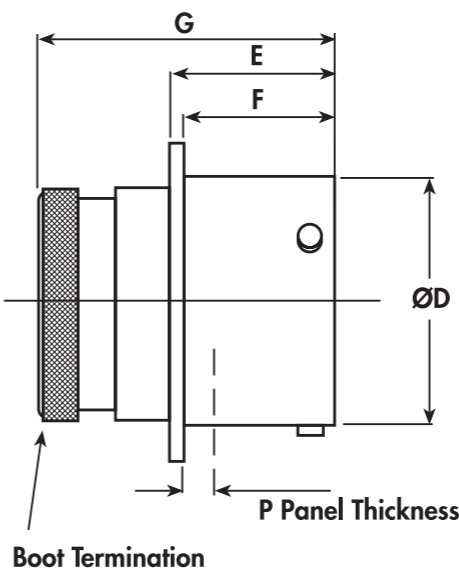
SHELL SIZE	A MAX	B MAX	C MAX
08	17.70	33.50	15.00
10	20.80		
12	25.20		
14	28.40		
16	31.50		
18	34.80		
20	38.20		
22	41.30		
24	44.60		

INLINE RECEPTACLE – TYPE 1

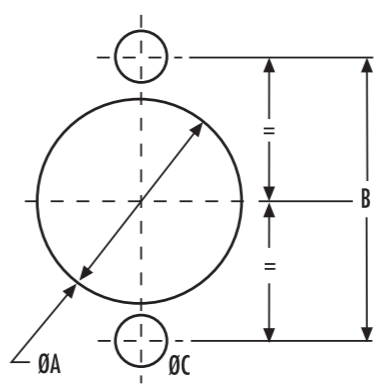


SHELL SIZE	A MAX	D + 0 - 0.13	G MAX
08	17.70	12.00	33.50
10	20.80	15.00	
12	25.20	19.05	
14	28.40	22.22	
16	31.50	25.40	
18	34.80	28.57	
20	38.20	31.75	
22	41.30	34.92	
24	44.60	38.10	

RECEPTACLE – TYPE 0



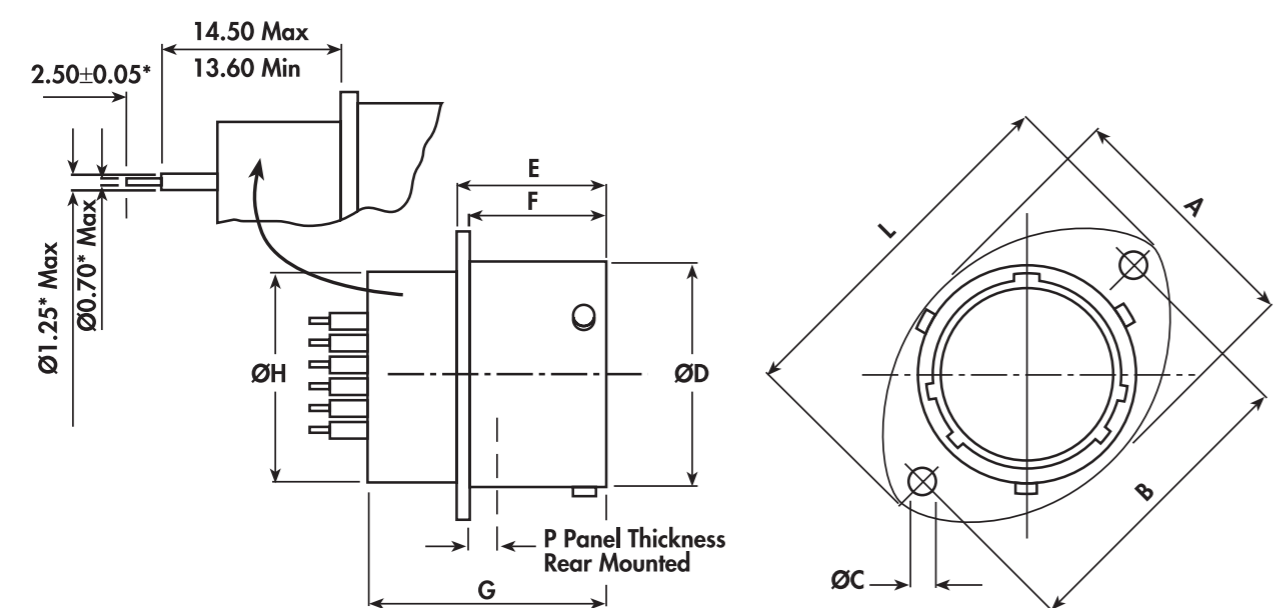
SHELL SIZE	A Ref	B ± 0.2	C + 0.1 - 0	D + 0 - 0.13	E + 0.15 - 0	F + 0 - 0.13	G MAX	L MAX	P MAX
08	16.50	21.35	3.20	12.00	17.21	16.05	33.50	27.20	3.00
10	19.50	25.90		15.00				32.00	
12	24.00	29.10		19.05				35.20	
14	27.00	32.50		22.22				38.40	
16	30.30	34.80		25.40				41.00	
18	33.70	38.20		28.57		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



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	4.10
24	41.00	49.30	

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	3.7	31.75	15.29	15.29	27.65	30.11	47.90	2.26
22	40.00	44.95		34.92				33.29	51.10	
24	43.30	49.35		38.10				36.46	55.80	

All dimensions are in mm unless otherwise stated.

ORDERING INFORMATION

AS * ** — ** * * — ***

Range Ref: |

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 |

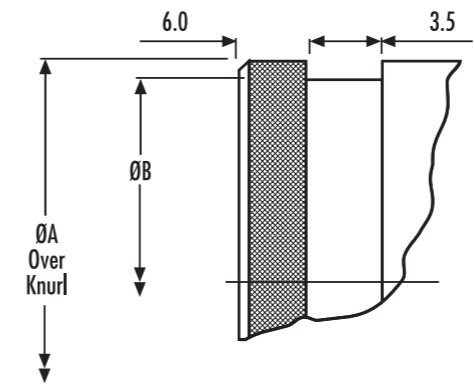
Shell Keyways:
N = Red (standard)
A = Yellow
D = Green
B = Blue
C = Orange
U = Violet
(U = Universal for test harnesses)

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

AS Double Density (ASDD)



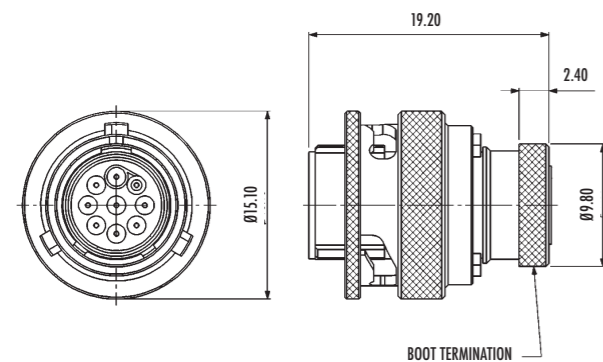
KEY FEATURES

- Next Generation Connector – high density and high performance
- 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.

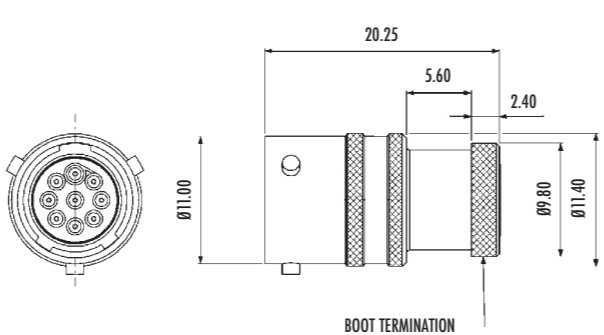
With the exception of the 9-Way, the ASDD range of connectors uses standard AS metalwork, for the individual dimensions please refer to AS Series section on page 20.

9-WAY ONLY

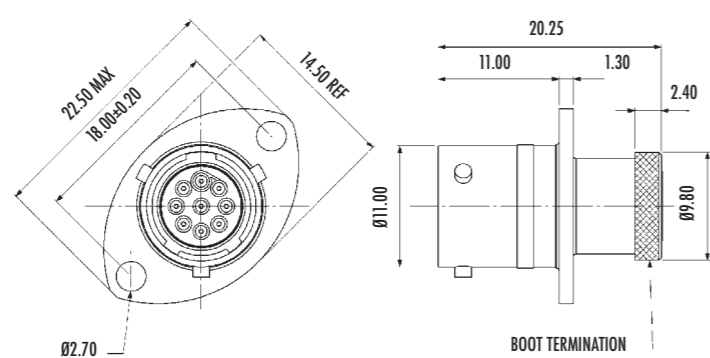
PLUG – TYPE 6



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		8			1000					
10-23		10			1000					
12-41	24	12	3	500	1000	5	0.60	0.83	-55	+175
14-64		14			1000					

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

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.

For more information on how to order see page 37.

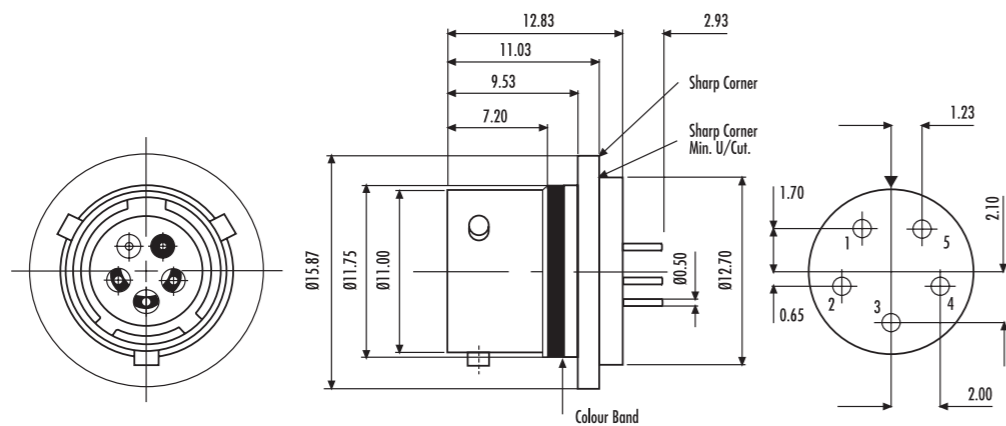
For information on boots and nut plates please refer to AS series on page 23 or contact the sales office for further information.

AS Micro HE Hermetic



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.



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.

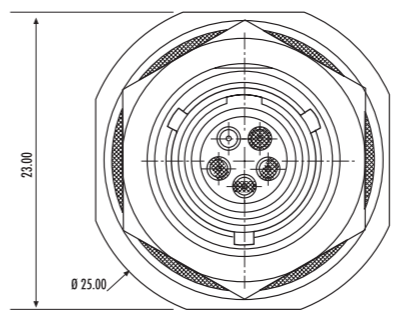
AS Micro Hermetic (Jam-Nut)



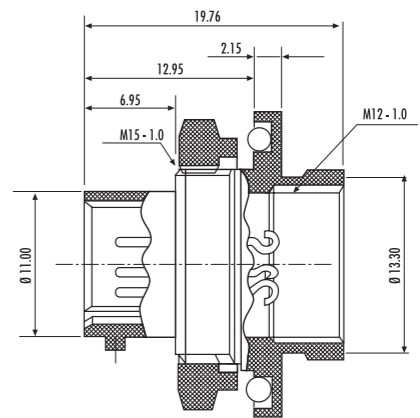
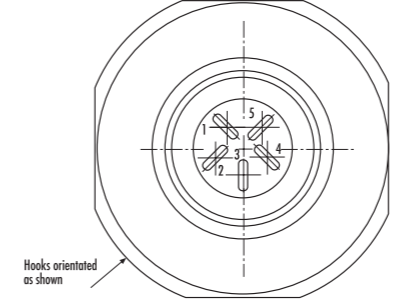
KEY FEATURES

- 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^{Lite}.

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	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 ⁻⁸ 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

Basic P/N

Planform

10-35

10-98

12-04

12-98

14-97

Pin Interface

Shell Orientation

AS07PT

—

*

—

*

P

N

Mating Free Plug (see page 18)

Part Nos:

AS610-35SN

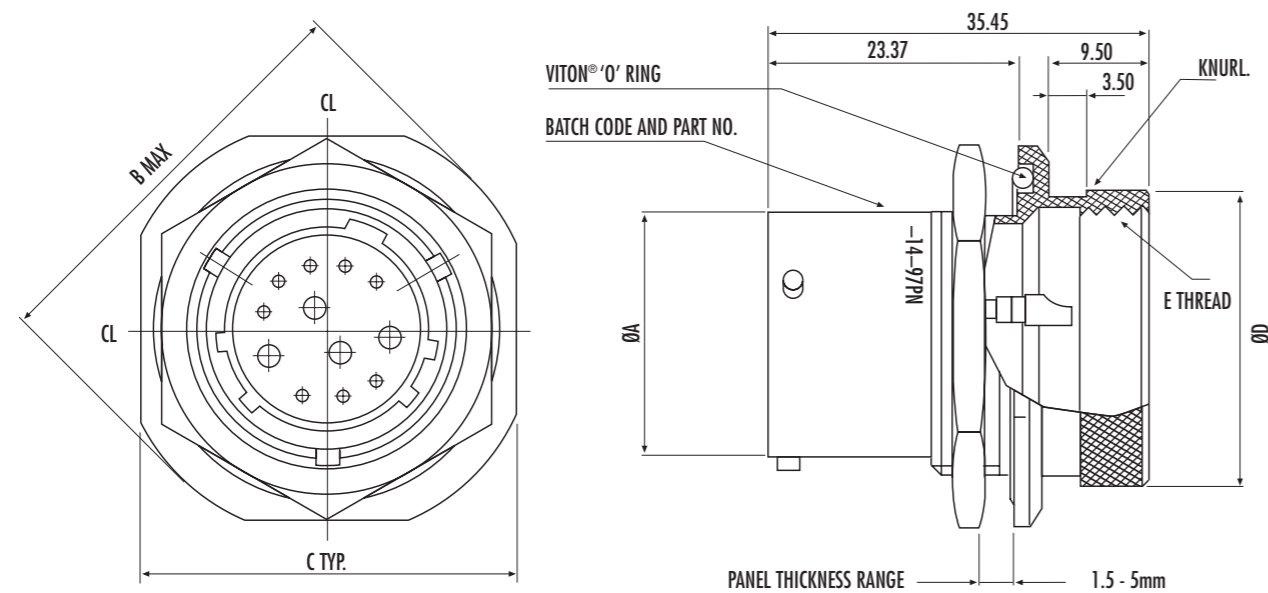
AS610-98SN

AS612-04SN

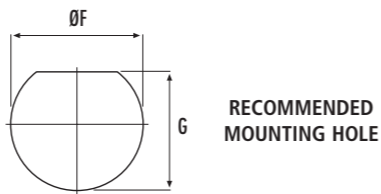
AS612-98SN

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



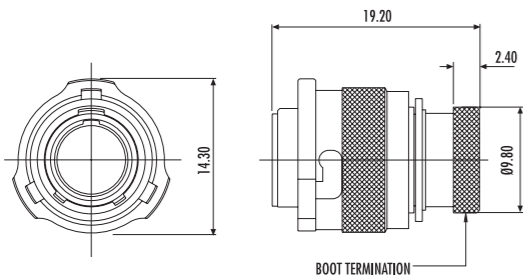
All dimensions are in mm unless otherwise stated.



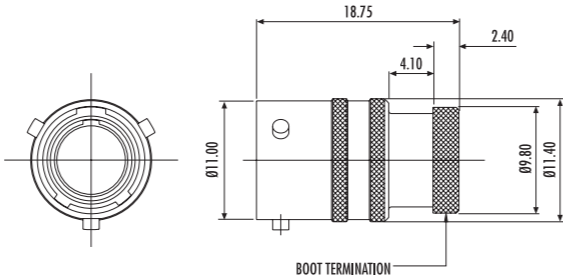
KEY FEATURES

- 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 MicroLite
- Universal orientation (Plug type 6 only) for testing.

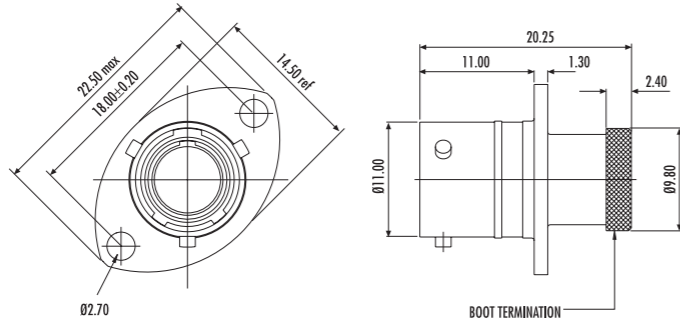
PLUG – TYPE 6



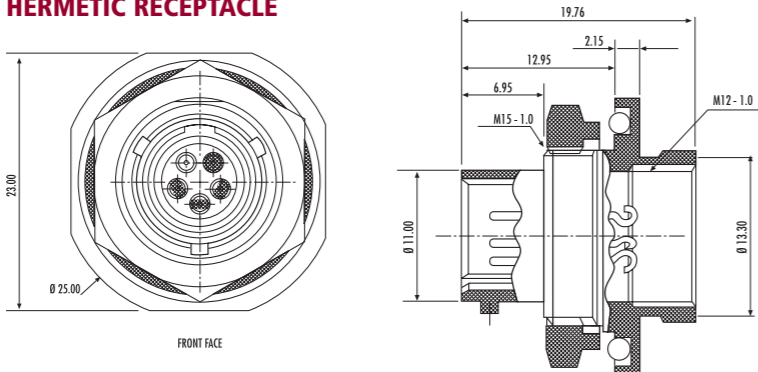
INLINE RECEPTACLE - TYPE 1



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

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

Range Ref: ASL (or AS for Hermetic) ASL * 06 — 05 * * — HE — 952K

Style: 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:

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

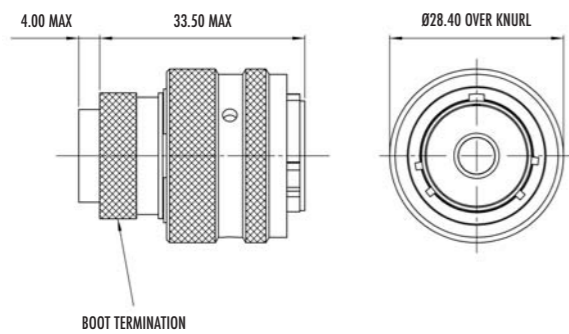
* A 200 Amp contact generating a connector hot spot temperature of approximately 100°C in an environmental ambient of 20°C. It is recommended that all high current conditions are tested by the end user to ensure the environmental application is suitable.
** The upper limit is the maximum internal hot-spot 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

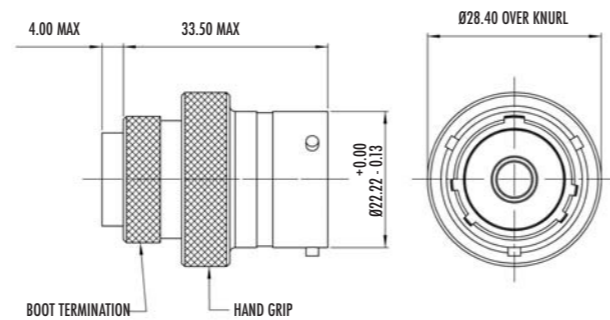
Wire Size	Socket	Pin	Ext Tool	Crimp Tool	Jaws
16mm	605739	605734	610136	605773	605774
25mm	605654	605660			605775
35mm	605740	605735			605776

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

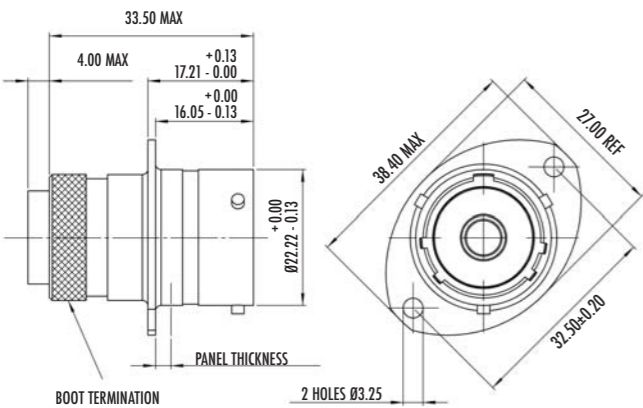
PLUG – TYPE 6



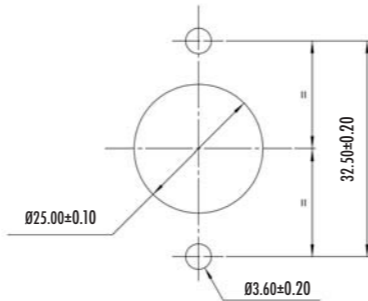
INLINE RECEPTACLE - TYPE 1



RECEPTACLE - TYPE 0



PANEL CUT-OUT DETAIL



All dimensions are in mm unless otherwise stated.

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.

	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

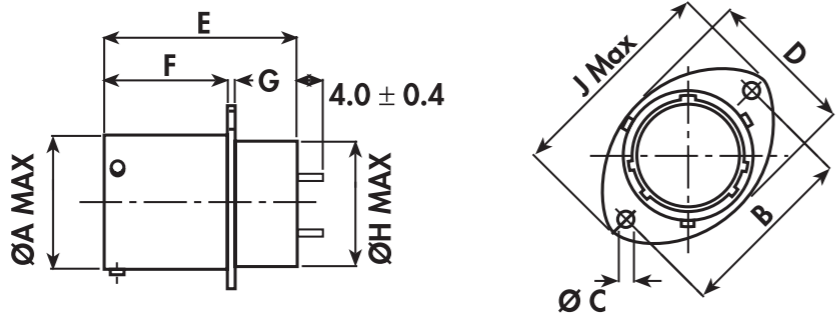


AS Filter Solutions

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.

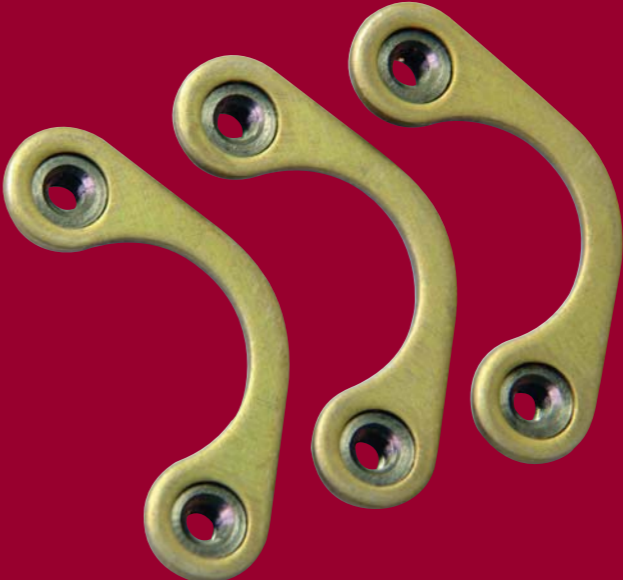


Gaskets

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^{Lite}
- 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

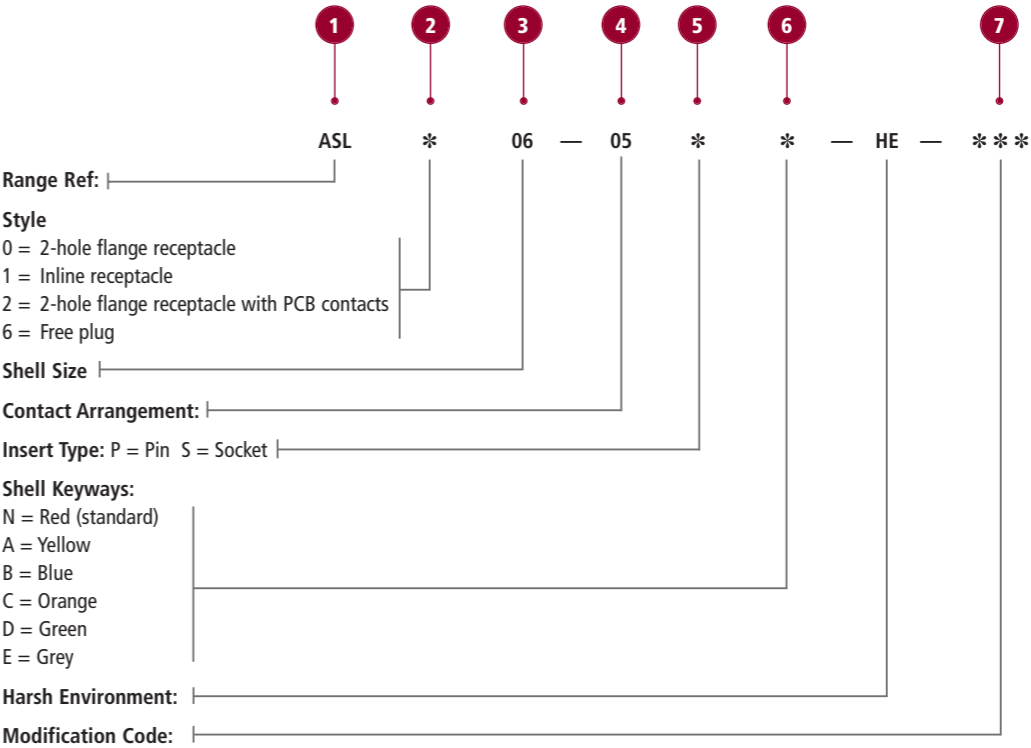
Description	Part No.
Chromel pin	605346
Chromel socket	605347
Alumel pin	605348
Alumel socket	605349

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

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^{Lite}, 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

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

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
	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/ 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 ^{line}	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

AUTOSPORT SIZE		FINISHED WIRE DIMENSIONS			
CONTACT SIZE	WIRE SIZE (AWG)	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