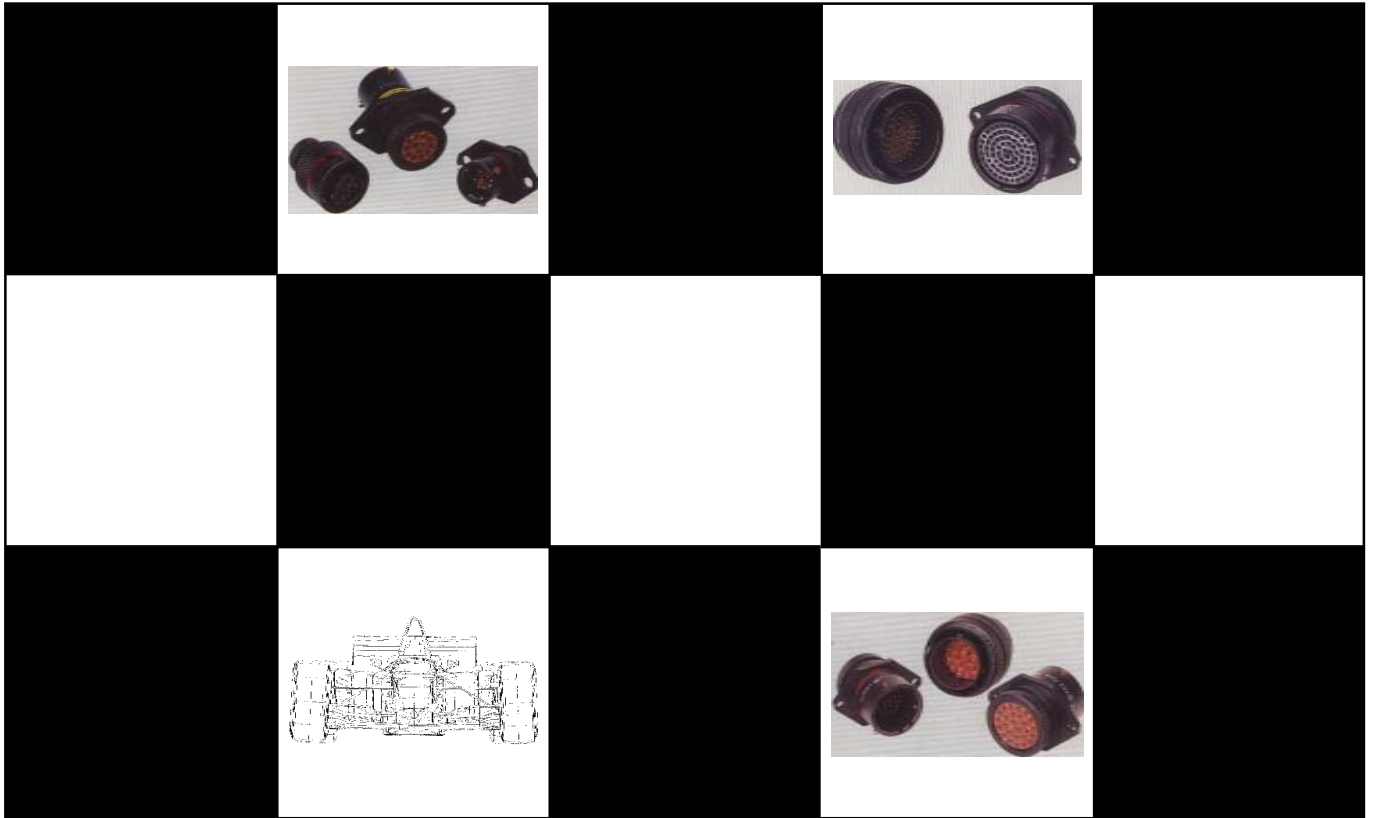


Amphenol



The Winning Connection

Amphenol Fast Connector

For all your Autosport connector requirements

Fast Connector Series

For Autosport Applications

Amphenol have developed the FAST connector range specifically for Autosport applications. Whilst retaining proven high performance characteristics, these connectors offer an environmentally friendly product which has weight and size advantages over the aerospace connector currently used.

Design Features

- Black conductive environmentally friendly zinc-cobalt finish.
- Cadmium free.
- Small overall diameter.
- MIL-STD-1560 Insert Arrangements.
- Contact arrangements sizes 16, 20, 22, 24, from 3 to 79 way, in shell sizes 6 to 20. [Larger sizes available upon request](#)
- Available with 6 size 22D (5.0 Amps) or 3 size 20 (7.5 Amps).
- Bayonet coupling.
- Fully scoop-proof interface to avoid contact damage.
- Integral provision for screening & heatshrink boots.
- Alternative keying to avoid cross-connection.
- Two hole mounted flange.
- Uses standard, gold plated, crimp, Mil-Spec contacts with PCB, Fibre Optic, Coaxial and Twinaxial options available.
- Colour coded to identify 6 possible keyway orientations.

General Specifications

Shell

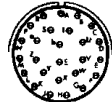
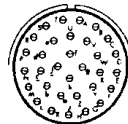
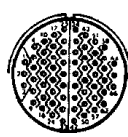
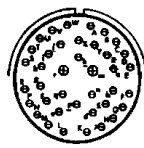
Manufactured from high strength aluminium alloy with black conductive zinc cobalt finish, thus avoiding the use of environmentally damaging cadmium plate. All sizes have five keyway polarisation with bayonet lock coupling to aid and assure positive mating.

Available in sizes:							
6	8	10	12	14	16	18	20

Service Rating

In excess of 400VRMS dependant on the chosen platform.

Contact Arrangement

			
Insert Arrangement 06-05	Insert Arrangement 07/08-35	Insert Arrangement 07/08-98	Insert Arrangement 10-35
No. of Contacts 5	No. of Contacts 6	No. of Contacts 3	No. of Contacts 13
Contact Size 5 size 22D	Contact Size 6 size 22D	Contact Size 3 size 20	Contact Size 13 size 22D
			
Insert Arrangement 10-98	Insert Arrangement 12-08	Insert Arrangement 12-35	Insert Arrangement 14-15
No. of Contacts 6	No. of Contacts 8	No. of Contacts 22	No. of Contacts 15
Contact Size 6 size 20	Contact Size 8 size 20	Contact Size 22 size 22D	Contact Size 14 size 20
Contact Size	Contact Size	Contact Size	Contact Size 1 size 16
			
Insert Arrangement 14-18	Insert Arrangement 14-19	Insert Arrangement 14-35	Insert Arrangement 14-97
No. of Contacts 18	No. of Contacts 19	No. of Contacts 37	No. of Contacts 12
Contact Size 18 size 20	Contact Size 19 size 20	Contact Size 37 size 22D	Contact Size 8 size 20
Contact Size	Contact Size	Contact Size	Contact Size 4 size 16
			
Insert Arrangement 16-26	Insert Arrangement 16-35	Insert Arrangement 18-32	
No. of Contacts 26	No. of Contacts 55	No. of Contacts 32	
Contact Size 26 size 20	Contact Size 55 size 22D	Contact Size 32 size 20	
Contact Size	Contact Size	Contact Size	
			
Insert Arrangement 18-35	Insert Arrangement 20-35	Insert Arrangement 20-39	
No. of Contacts 66	No. of Contacts 79	No. of Contacts 39	
Contact Size 66 size 22D	Contact Size 79 size 22D	Contact Size 37 size 20	
Contact Size	Contact Size	Contact Size 2 size 16	

Contacts

Contacts are rear insert/rear release with probe-proof socket contacts. Contact plating is 50 microns minimum gold over nickel.

Both power and PCB contacts are available in sizes:				
6	8	12	16	20

Coaxial contacts are available in sizes 8, 12 and 16, to accommodate a wide range of coaxial cables. Please consult factory.

Contact Rating			
Contact Size	22	20	16
Max Current (Amps)	5	7.5	13
Max Wire Size (mm)	0.4	0.6	1.2
Max Wire Size (Awg)	22-28	20-24	16-20

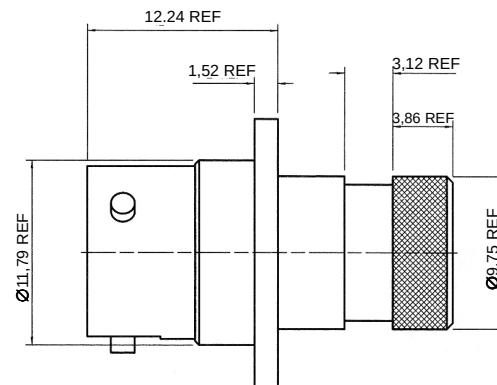
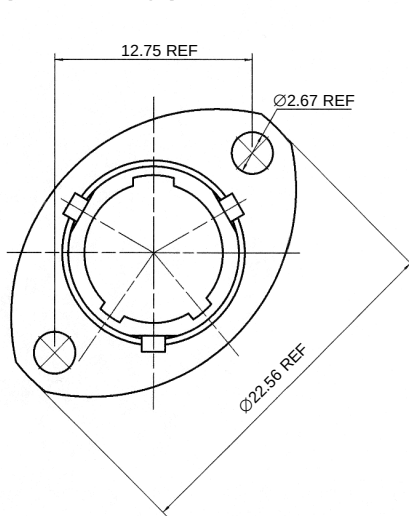
Temperature Rating
-55°C to +175°C

*All dimensions are in mm for reference only

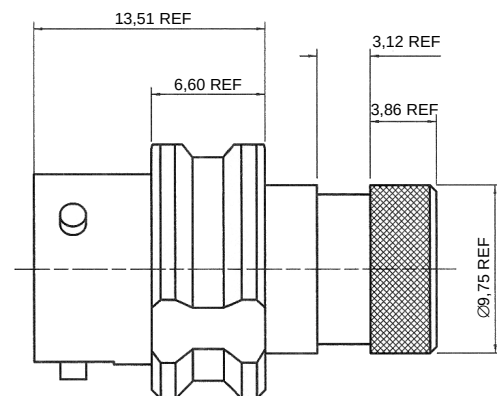
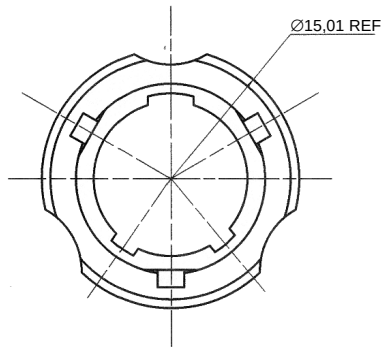
Fast Connector Series

Size Six 'FC' Autosport

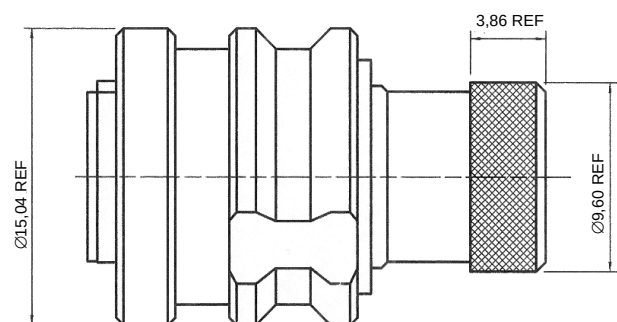
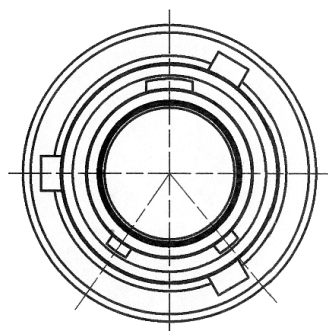
Receptacle Type FC0M



Receptacle Type FC1M



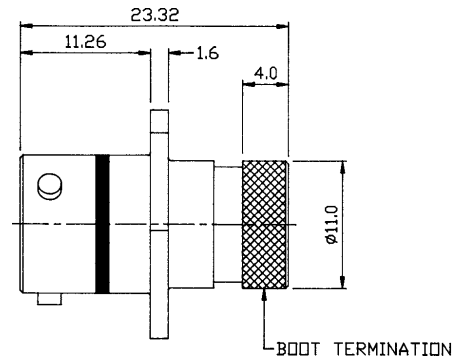
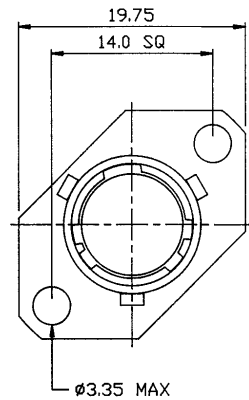
Plug Type FC6M



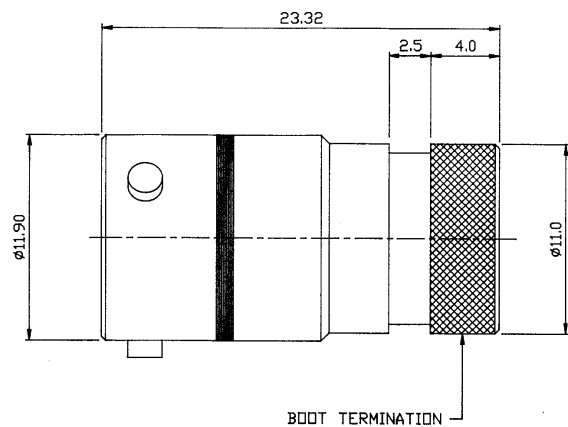
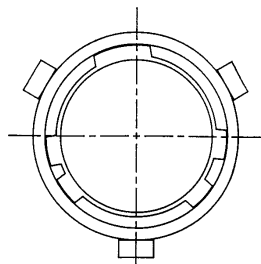
Fast Connector Series

Size Seven 'FR' Autosport

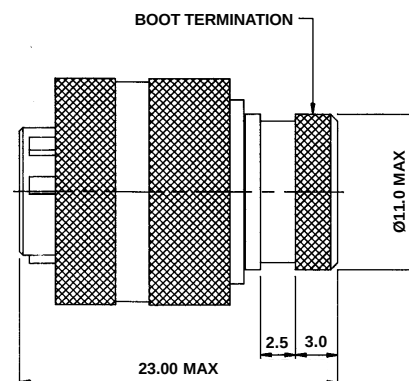
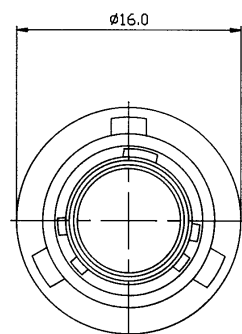
Receptacle Type FR0



Receptacle Type FR1

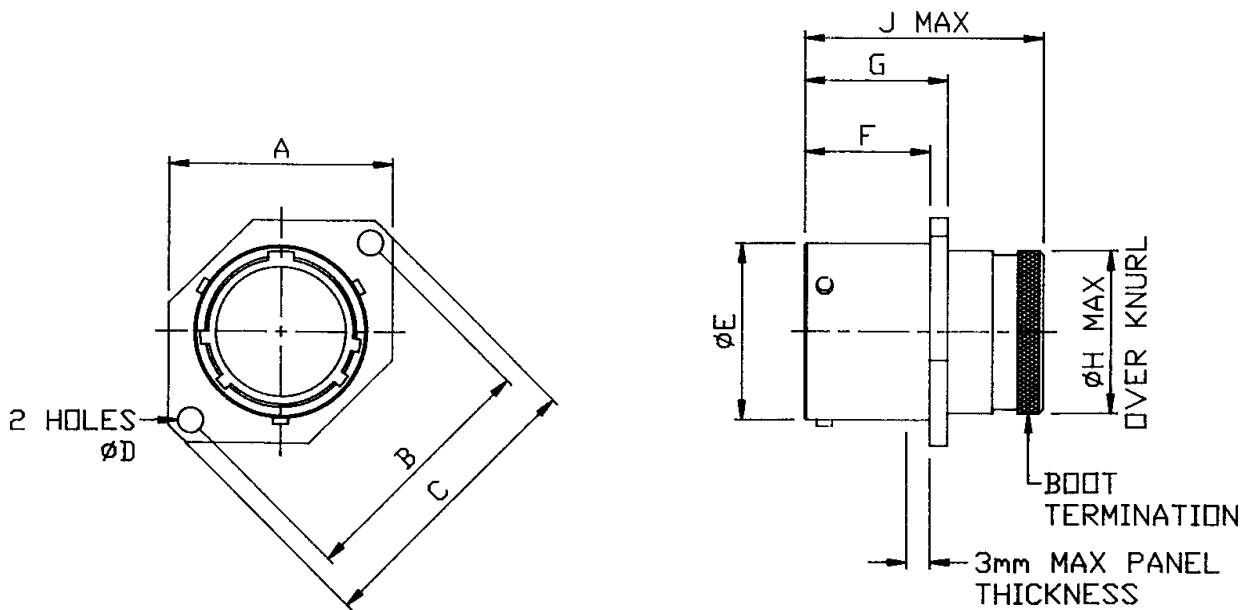


Plug Type FR6



Shell Styles

Receptacle Type FC0

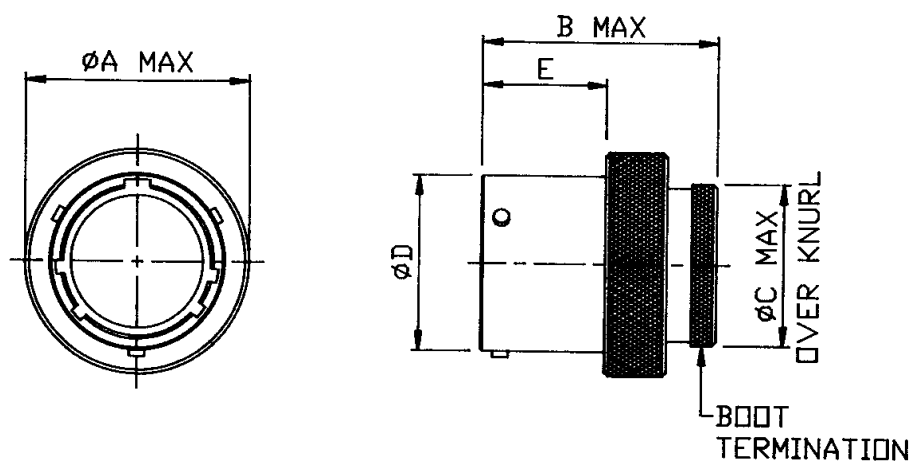


Shell Size	A	B + 0.20	C Max	D + 0.15 - 0.00	E + 0.00 - 0.13	F + 0.00 - 0.13	G + 0.15 - 0.00	H Max	J Max
8	20.62	21.40	27.20	3.20	12.00	16.05	18.21	13.89	30.91
10	23.83	25.90	32.00	3.20	15.00	16.05	18.21	16.97	30.91
12	26.19	29.10	35.20	3.20	19.05	16.05	18.21	20.14	30.91
14	28.58	32.50	38.40	3.20	22.22	16.05	18.21	23.29	30.91
16	30.96	34.80	41.00	3.20	25.40	16.05	18.21	26.48	30.91
18	33.32	38.20	44.70	3.20	28.57	16.05	18.21	29.65	30.91
20	36.53	41.50	48.30	3.20	31.78	15.29	18.21	33.08	30.91

All dimensions in mm for reference only

Shell Styles

Receptacle Type FC1

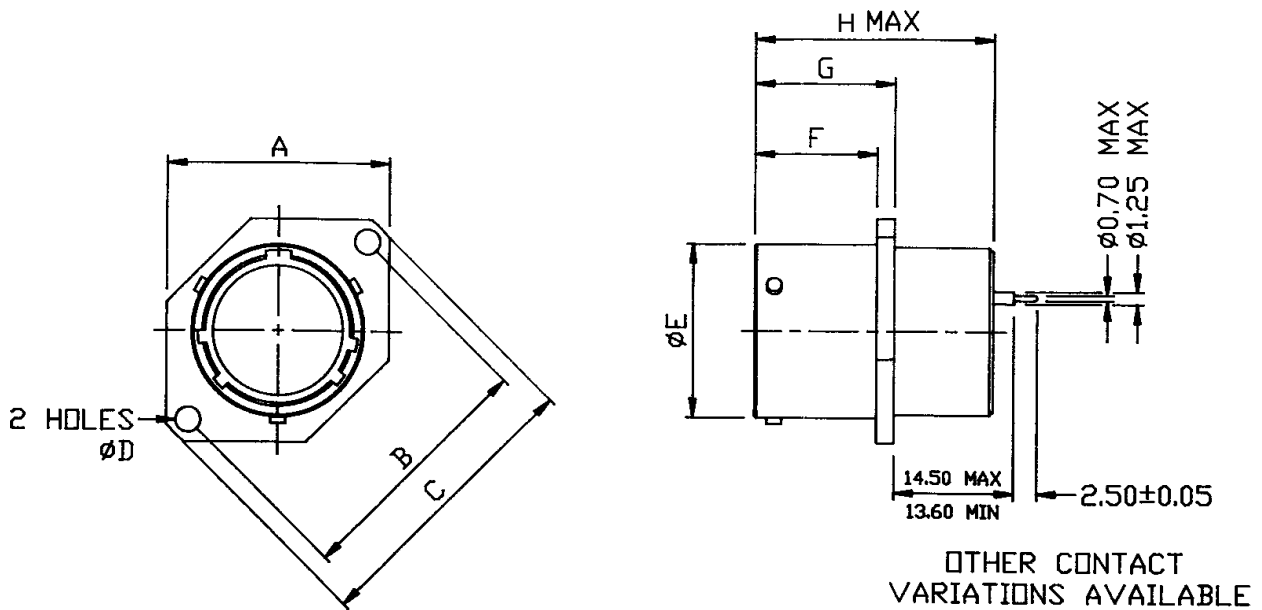


Shell Size	A Max	B Max	C Max	D + 0.00 - 0.13	E + 0.00 - 0.13
8	17.60	30.91	13.89	12.00	16.05
10	20.70	30.91	16.97	15.00	16.05
12	25.10	30.91	20.14	19.05	16.05
14	28.30	30.91	23.29	22.22	16.05
16	31.40	30.91	26.48	25.40	16.05
18	34.70	30.91	29.65	28.57	16.05
20	37.80	30.91	33.08	31.78	15.29

All dimensions in mm for reference only

Shell Styles

Receptacle Type FC2

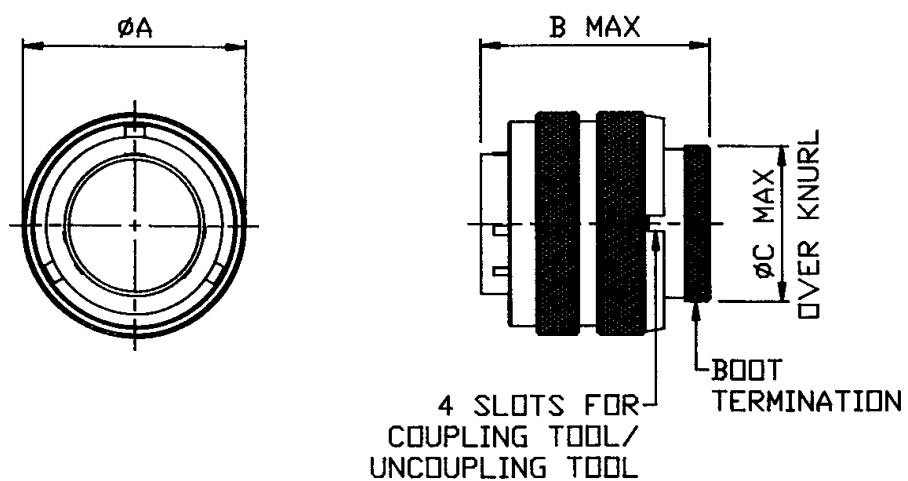


Shell Size	A	B + 0.20	C Max	D + 0.15 - 0.00	E + 0.00 - 0.13	F + 0.00 - 0.13	G + 0.15 - 0.00	H Max
8	20.62	21.40	27.20	3.20	12.00	16.05	18.21	27.05
10	23.83	25.90	32.00	3.20	15.00	16.05	18.21	27.05
12	26.19	29.10	35.20	3.20	19.05	16.05	18.21	27.05
14	28.58	32.50	38.40	3.20	22.22	16.05	18.21	27.05
16	30.96	34.80	41.00	3.20	25.40	16.05	18.21	27.05
18	33.32	38.20	44.70	3.20	28.57	16.05	18.21	27.05
20	36.53	41.50	48.30	3.20	31.78	15.29	18.21	27.05

All dimensions in mm for reference only

Shell Styles

Plug Type FC6

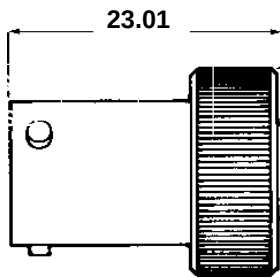


Shell Size	A Max	B Max	C Max
8	18.64	30.96	13.89
10	21.44	30.96	16.97
12	25.81	30.96	20.14
14	28.98	30.96	23.29
16	32.13	30.96	26.48
18	35.33	30.96	29.65
20	38.10	30.96	33.08

All dimensions in mm for reference only

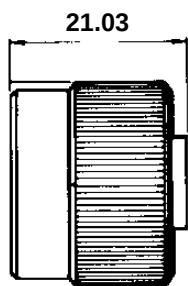
Protection Caps

Plug Cap Type FC8



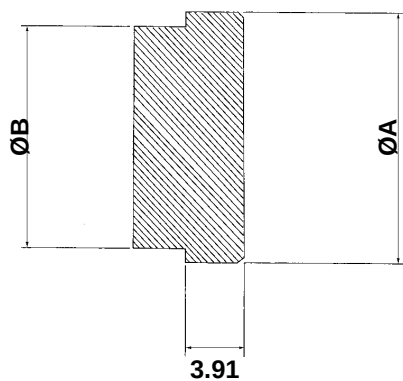
Part Number	Shell Size
FC8M-08	8
FC8M-10	10
FC8M-12	12
FC8M-14	14
FC8M-16	16
FC8M-18	18
FC8M-20	20

Receptacle Cap Type FC9



Part Number	Shell Size
FC9M-08	8
FC9M-10	10
FC9M-12	12
FC9M-14	14
FC9M-16	16
FC9M-18	18
FC9M-20	20

Boot Termination Detail



Shell Size	A + 0.10	B + 0.05
8	13.89	11.89
10	16.97	14.97
12	20.14	18.14
14	23.29	21.29
16	26.48	24.48
18	29.65	27.65
20	33.08	31.08

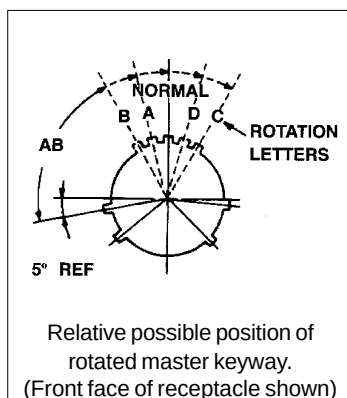
All dimensions in mm for reference only

Orientations

Standard Autosport Sizes 06 to 20

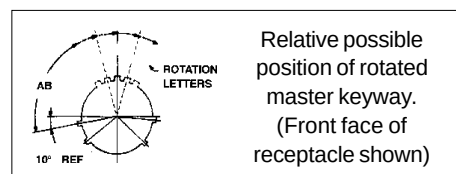
Master Key/Keyway Rotation

AB ANGLE OF ROTATION (Degrees)					
Shell Size	Norm	A	B	C	D
6	95	N/A	N/A	N/A	N/A
8	95	77	N/A	N/A	113
10	95	81	67	123	109
12	95	75	63	127	115
14	95	74	61	129	116
16	95	77	65	125	113
18	95	77	65	125	113
20	95	77	65	125	113



Special Size Seven 'FR'

Master Key/Keyway Rotation



AB ANGLE OF ROTATION (Degrees)						
Shell Size	1	2	3	4	5	6
7	100°	82°	118°	As before, insert rotated through 45°		

Contacts

Contact Size	Socket Contacts		Pin Contacts		Insert/Extract Tool
	MS Number	Amphenol Number	MS Number	Amphenol Number	Amphenol Number
22	M39029/56-348	10-407035-725	M39029/58-360	10-251415-725	10-538988-22
20	M39029/56-351	10-497403-205	M39029/58-363	10-251415-205	10-538988-20
16	M39029/56-352	10-407035-165	M39029/58-364	10-251415-165	10-538988-16

Filler Plugs

Size	MS Number	Amphenol Number	Colour
22	MS27488-22	10-405996 22	Black
20	MS27488-20	10-405996 20	Red
16	MS27488-16	10-405996 16	Blue

How to Order

Part Number Breakdown

Range

F = Fast connector

Version

C = Standard

R = Reduced size (receptacle only)

R C = Reduced and closed coupling (plug only)

Style

0 = 2 hole flanged receptacle

1 = In-line receptacle

2 = 2 hole box mount PCB receptacle
(not available in shell size 7)

6 = Free plug

Finish

M = Black zinc cobalt

F C 6 M - 14 - 35 P N

Shell Size 6-20

Orientation

N = Red

A = Yellow

B = Blue

C = White

D = Green

Insert Style

P = Pin insert

S = Socket insert

Contact Arrangement

See table on page 2

Size 7 - 35 = 6 # 22D

Size 7 - 98 = 3 # 20

Shell Size

06 to 20

Shell Size 7

Orientation

1 = N keyway

2 = A keyway

3 = D keyway

4 = N + insert rotation

5 = A + insert rotation

6 = D + insert rotation

Amphenol

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