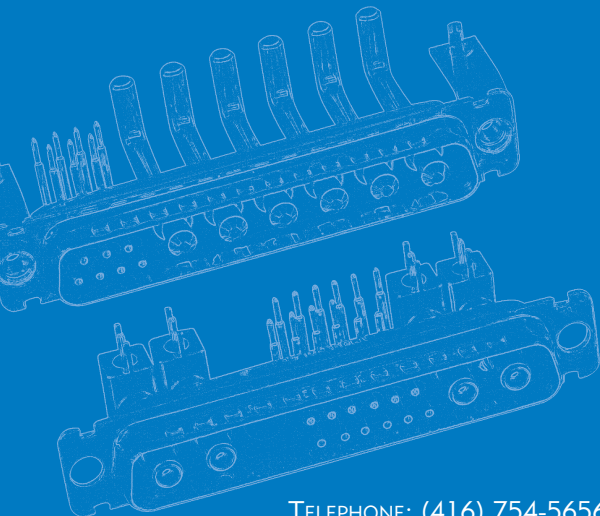


Amphenol's 17TW series hybrid D-Subminiature connectors are available with power, coax, high voltage and signal contacts assembled in the same connector body. These connectors are supplied with screw-machined contacts which are fixed in the insulator.

The board-mount product offering includes straight and right-angle terminations. The cable connectors are available in crimp and solder terminations. These connectors are compatible with the infra-red reflow soldering process. The 17TW series offers eighteen housing configurations in five shell sizes.

- Industrial
- Telecom
- Any industry standard I / O connections



## SPECIFICATIONS:

### MATERIALS AND PLATINGS

<b>Shells</b>	Steel with tin plating or yellow chromate with or without grounding dimples High temperature black thermoplastic
<b>Insulators</b>	
<b>Signal Contacts</b>	
Female	Machined bronze
Male	Machined brass
Plating	16 $\mu$ "(.40 $\mu$ m) or 30 $\mu$ "(.76 $\mu$ m) gold over 79 $\mu$ "(1.97 $\mu$ m) nickel
<b>Coax Contacts</b>	
Female	Machined bronze
Male	Machined brass
Plating	Inner conductor: 16 $\mu$ "(.40 $\mu$ m) gold or 30 $\mu$ "(.76 $\mu$ m) gold over 79 $\mu$ "(1.97 $\mu$ m) nickel Outer ring: 10 $\mu$ "(.25 $\mu$ m) gold over 79 $\mu$ "(1.97 $\mu$ m) nickel Tinned. (Solder cup and crimp terminations are gold flash.)
<b>Terminations</b>	Tinned. (Solder cup and crimp terminations are gold flash.)
<b>Power Contacts</b>	
Female	Machined bronze
Male	Machined brass
Plating	Contacts: 16 $\mu$ "(.40 $\mu$ m) gold or 30 $\mu$ "(.76 $\mu$ m) gold over 79 $\mu$ "(1.97 $\mu$ m) nickel
<b>Terminations</b>	Tinned. (Solder cup and crimp terminations are gold flash.)
<b>Brackets</b>	Steel with tin plating
<b>Front Jackscrews</b>	Brass with tin plating or yellow chromate
<b>Rear Clinch Nuts</b>	Brass with tin plating or yellow chromate
<b>Boardlocks:</b>	Bronze with tin plating
<b>Stand-offs</b>	Brass with tin plating

### ELECTRICAL DATA

<b>Current Rating:</b> Signal Contacts	7.5 amps with 10 amp peaks
Power Contacts: PCB, Solder-Cup, Crimp	10 to 40 amps
	0.5 amps
<b>Current Rating:</b> Signal & Power Contacts	300 VRMS at 50 Hz
Coax Contacts	150 VRMS at 50 Hz
<b>Coax Contacts</b> Frequency range:	0 -1 GHz
Attenuation:	0.2 dB
V.S.W.R.:	1.4 (+0.04/GHz)
<b>Characteristic Impedance</b>	50 Ohms
<b>Dielectric Withstanding Voltage</b>	$\geq$ 1000V R.M.S. at 50Hz
<b>Insulation Resistance</b>	$\geq$ 5000 megaohms at 500 V D.C.
<b>Contact Resistance</b>	$\leq$ 5 milliohms
<b>Shell Resistance (electrical grounding)</b>	$\leq$ 1 milliohm

### CLIMATIC DATA

<b>Shell Resistance (electrical grounding)</b>	$\leq$ 1 milliohm
<b>Operating Temperature</b>	67°F (-55°C) to 311°F (+155°C) with peaks up to 356°F (180°C)
<b>Damp Heat</b>	56 days 104°F (40°C) at 95% RH
<b>Salt Spray</b>	48 hours

### MECHANICAL DATA

<b>Contact Retention Force in Dielectric Material</b>	$>$ 40 N
<b>Maximum Mating and Unmating Force</b>	
with dimples	A size: 80 N B size: 100 N C size: 150 N D size: 180 N E size: 70 N
without dimples	A size: 50 N B size: 80 N C size: 120 N D size: 160 N E size: 30 N
<b>Process Compatibility</b>	IR - air convection: 500°F (260°C) for 20 seconds Soldering iron: 500°F (260°C) for 30 seconds
<b>Mating Cycles</b>	$\geq$ 200 (16 $\mu$ "(.41 $\mu$ m) gold) $\geq$ 500 (30 $\mu$ "(.76 $\mu$ m) gold) Blind Mating System Available upon request
<b>Polarization</b>	Available with locking accessories, consult factory
<b>Derating Curves for Power Contacts:</b>	see page 51
<b>Pull-out Force for Crimped Contacts:</b>	see page 51
<b>Approvals:</b>	UL - File number: E 64911 / CSA - File number: LR 57744
<b>Shell Dimensions:</b>	See page 64

**SHELLS AND CONTACT PLATING**

**CLASS I**

30µ" (0.76µm) Au contacts gold plating  
500 mating cycles

**CLASS II**

16µ" (0.4µm) Au contacts gold plating  
200 mating cycles

Types	Shells and plating
117 TW	Yellow chromated shell Male and female
177 TW	Tin plated shell Female
777 TW	Tin plated shell with dimples Male only NOTE: Tin plated shells standard

Types	Shells and plating
17 TW	Yellow chromated shell Male and female
77 TW	Tin plated shell Female
717 TW	Tin plated shell with dimples Male only NOTE: Tin plated shells standard

**HOUSING ARRANGEMENTS**

Male front view

Arrangement ..... Shell size .....	 5W1 E	 7W2 A	 11W1 A
Arrangement ..... Shell size .....	 3W3 A	 5W5 B	 9W4 B
Arrangement ..... Shell size .....	 13W3 B	 17W2 B	 21W1 B
Arrangement ..... Shell size .....	 27W2 C	 13W6 C	 17W5 C
Arrangement ..... Shell size .....	 21WA4 C	 8W8 C	 25W3 C
Arrangement ..... Shell size .....	 24W7 D	 36W4 D	 43W2 D

ORDERING INFORMATION

XXX - X - XWX - X - XXXX - XX - XXXX - X

Contact & Shell Plating Prefix

Contact Plating	Shell Plating		
	Yellow Chromate	Tinned	Tinned & Indents*
16µ(0.4µm) gold over nickel	17TW	77TW	717TW
30µ(0.76µm) gold over nickel	117TW	177TW	777TW

\*plug only

Special Deviations

- High voltage contacts
- Fiberoptic contacts
- Consult factory

Board Mounting Options

(see page 40.)

- blank** .122 (3.10) mounting hole
- RM53** Snap-in standoff boardlock, M3 threaded on panel-mount side
- RM54** Snap-in standoff boardlock, 4 40 UNC 2B threaded on panel mount side
- RM83** Snap-in standoff boardlock with non-removable M3 threaded female screwlock on panel-mount side
- RM84** Snap-in standoff boardlock with non-removable 4-40 UNC 2B threaded female screwlock on panel-mount side

Shell Size Configuration  
(see page 38.)

- E 5W1
- A 3W3
- A 7W2
- A 11W1
- B 5W5
- B 9W4
- B 13W3
- B 17W2
- B 21W1
- C 8W8
- C 13W6
- C 17W5
- C 21WA4
- C 25W3
- C 27W2
- D 24W7
- D 36W4
- D 43W2

(Consult factory for size D availability)

Panel Mounting Options

(see page 40.)

- blank** .122 (3.10) mounting hole
- 4F** 4-40 Front female screwlock
- 4R** 4-40 Rear screwlock
- 3F** M3 Front female screwlock
- 3R** M3 Rear screwlock
- A514** Blind mating system

Loaded Contacts

**blank** Solder-cup signal contacts only - (order pwr/coax contacts separately) (See pages 45-47.)

- P3SY** 40 amp power and signal combination
- P2SY** 20 amp power and signal combination
- CSY** Coax and signal combination
- SY** Signal only
- P3Y** 40 amp power only (3W3, 5W5, 8W8)
- P2Y** 20 amp power only (3W3, 5W5, 8W8)
- CY** Coax only (3W3, 5W5, 8W8)

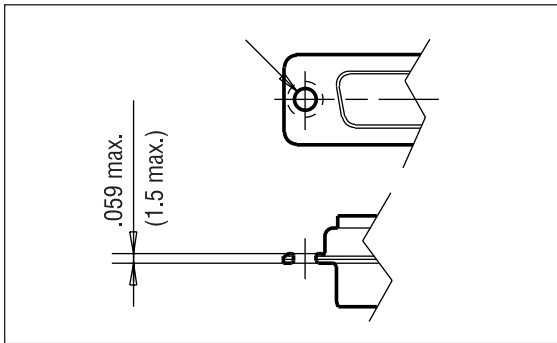
Board Mount Only

- | Code | Contact Type    |
|------|-----------------|
| P    | Pin (male)      |
| S    | Socket (female) |

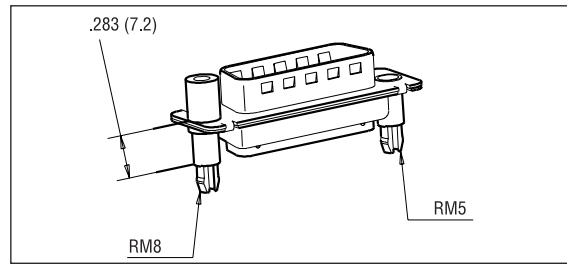
For Filtered Combo's, see page 56.

*Straight version*

Blank: .122 (3.10) dia. mounting hole

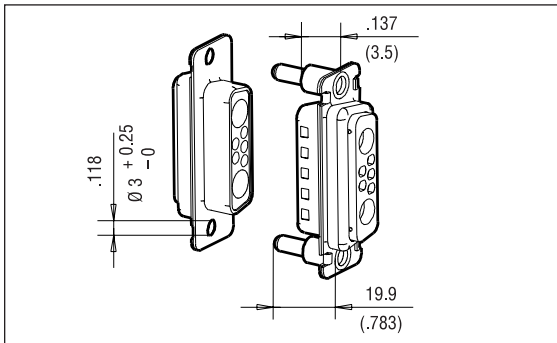


RM54: RM5 4.40 threaded  
 RM53: RM5 M3 threaded

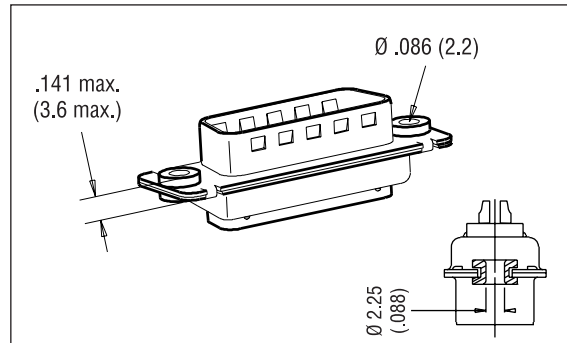


RM84: RM8 4.40 threaded  
 RM83: RM8 M3 threaded

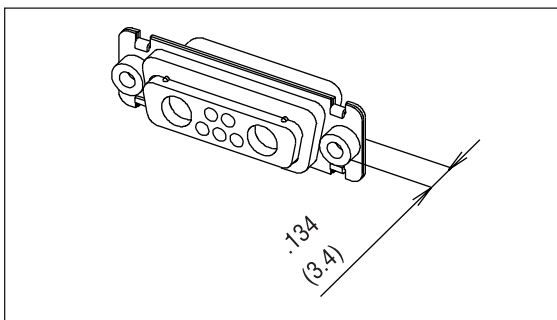
A514: blind mating system



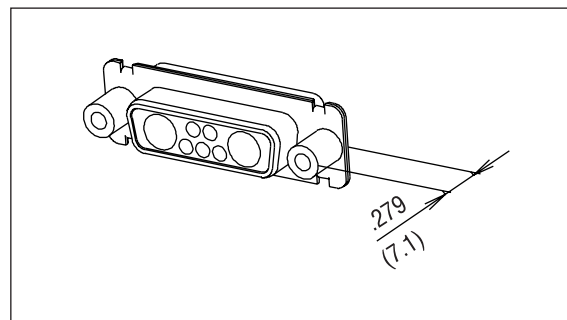
FM: float mounting system



4R: 4.40 rear nut  
 3R: M3 rear nut

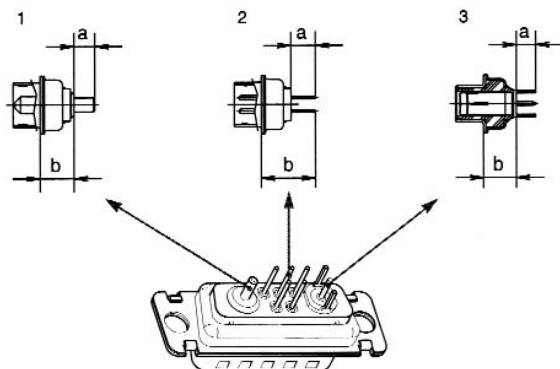


4F: 4.40 front female screwlock  
 3F: M3 front female screwlock



Signal tail .0236 (0.6) dia.  
 .063 (1.6) PCB  
 For other PCB thickness: consult factory.

Description		Dimensions	
		a	b
Power .126 (3.20) tail dia.	1	.177 (4.50)	.283 (7.2)
Power .0787 (2.0) tail dia.	1	.177 (4.50)	.283 (7.2)
Shielded	3	.157 (4.00)	.283 (7.2)
Signal	2	.196 (5.00)	.453 (11.50)



INCHES (MM)

RECOMMENDED BOARD LAYOUT (COMPONENT SIDE, MALE)

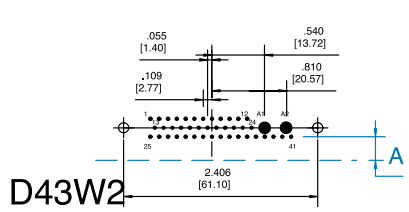
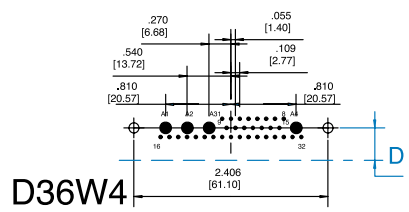
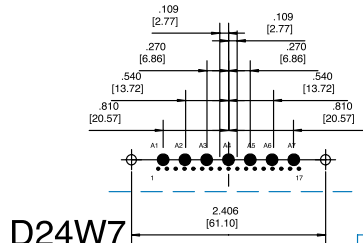
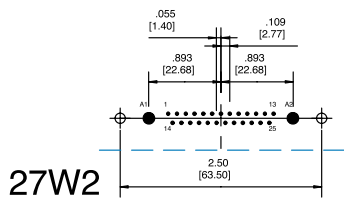
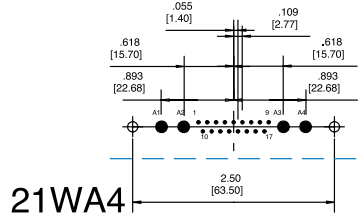
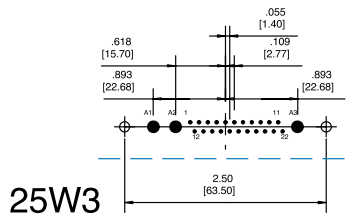
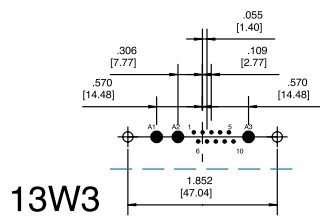
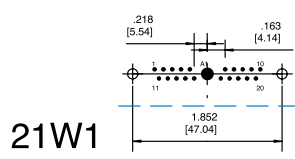
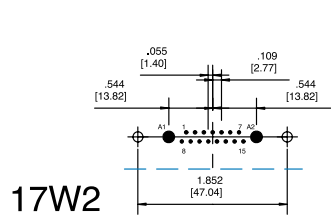
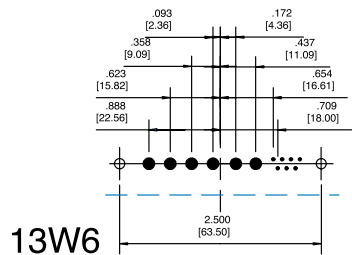
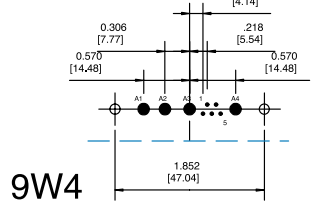
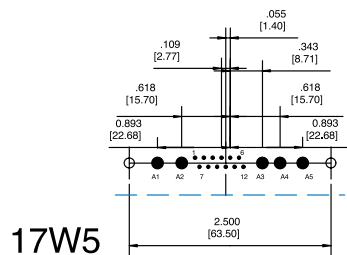
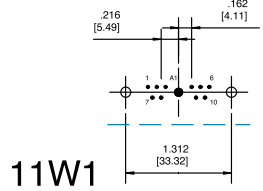
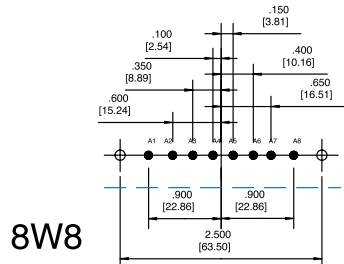
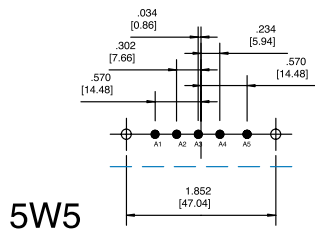
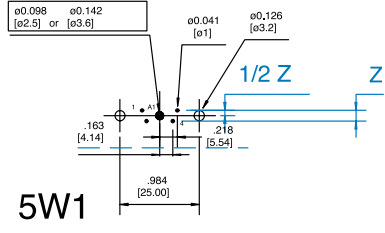
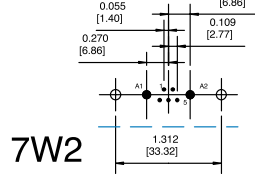
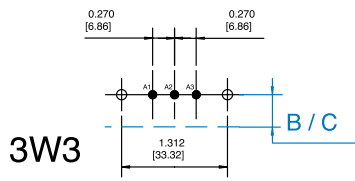
Straight .079 [2.00] and .126 [3.20] Power and Signal Contacts

P2Y P2SY  
P3Y P3SY

Right Angle .079 [2.00] Power and Signal Contacts

EP2V EP2SV (European Footprint)  
HP2V HP2SV (Mixed Footprint)  
MP2V MP2SV (US Footprint)

--- Denotes right angle dimensions



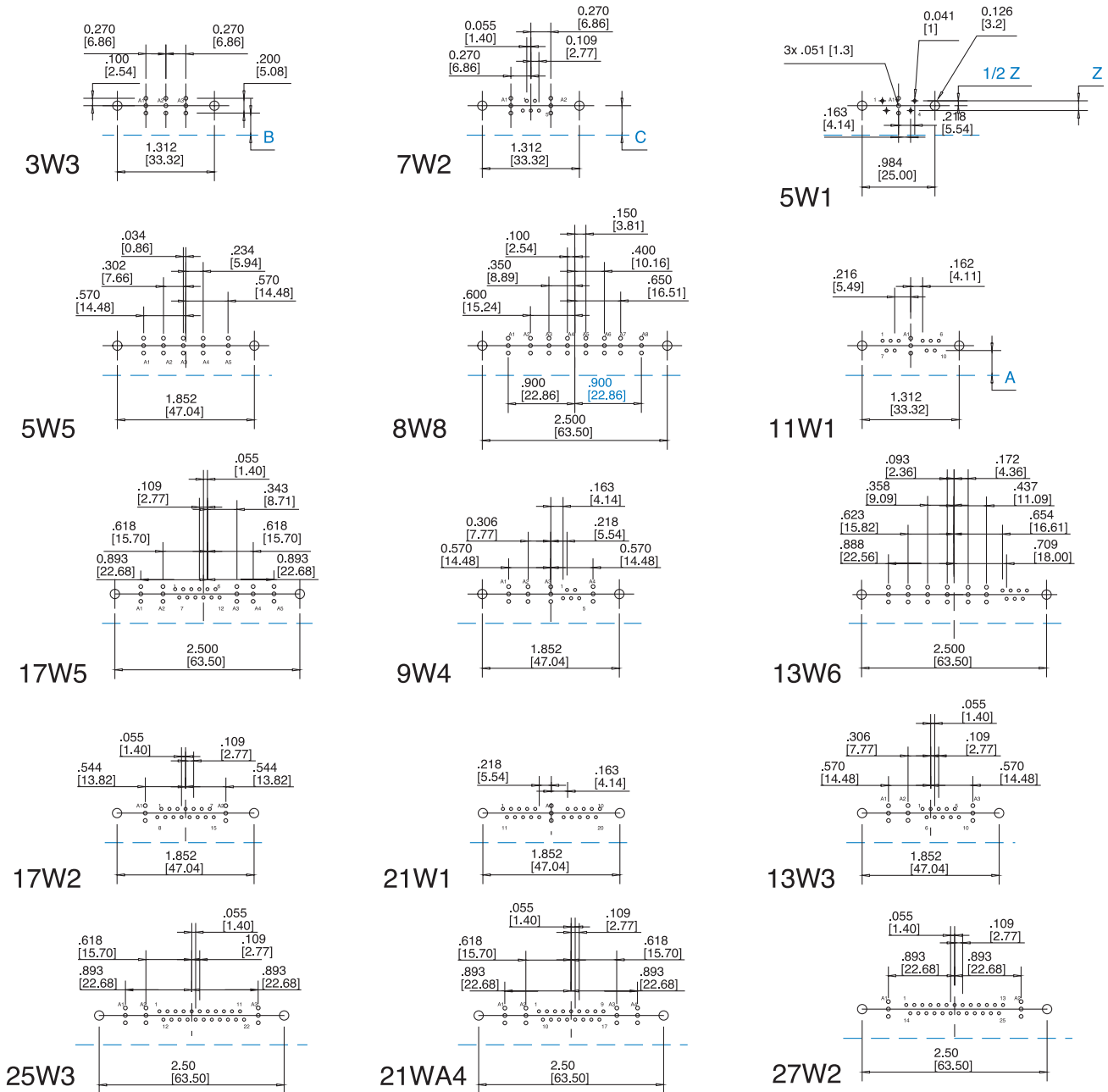
	A	B/C	D	Z
EURO FOOTPRINT	.370 [9.40]	.420 [10.67]	.470 [11.94]	.100 [2.54]
US FOOTPRINT	.283 [7.20]	.339 [8.62]	.395 [10.40]	.112 [2.84]
MIX FOOTPRINT	.370 [9.40]	.420 [10.67]	.470 [11.94]	.100 [2.54]

A = SIGNAL B = POWER C = BOARD LOCKS D = D SHELL BOARD LOCKS Z = PITCH

**RECOMMENDED BOARD LAYOUT**

Straight Coax and Signal Contacts  
 CY CSY  
 Right Angle Coax and Signal Contacts  
 HCV HCSV (Mixed Footprint)  
 MCV MCSV (US Footprint)

— — — Denotes right angle dimensions



	A	B	C	Z
MIX FOOTPRINT	.370 [9.40]	.370 [9.40]	.420 [10.67]	.100 [2.54]
US FOOTPRINT	.283 [7.20]	.370 [9.40]	.339 [8.62]	.112 [2.84]

A = SIGNAL B = POWER C = BOARD LOCKS Z = PITCH

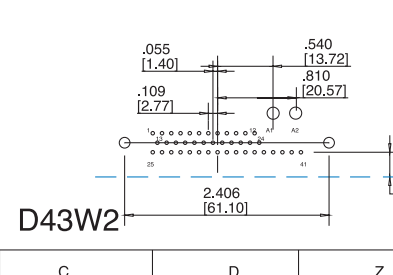
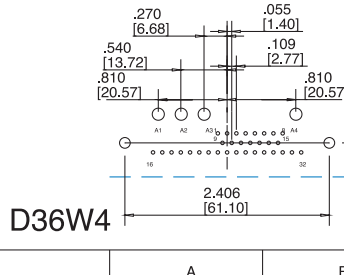
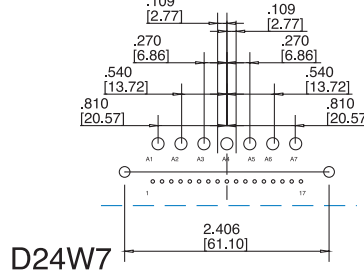
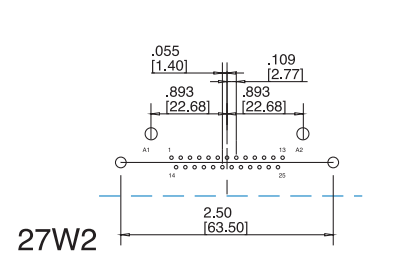
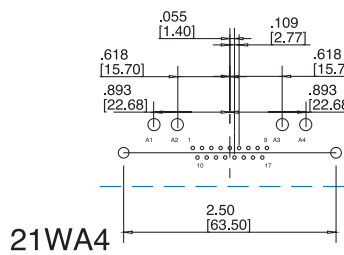
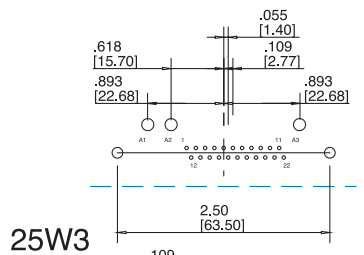
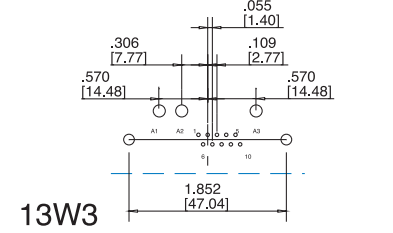
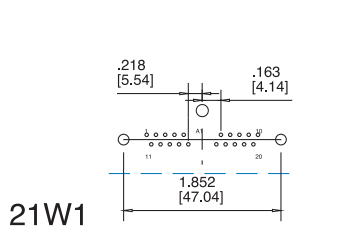
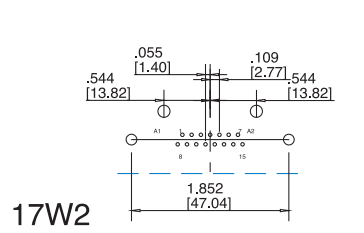
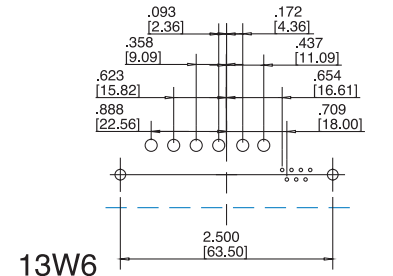
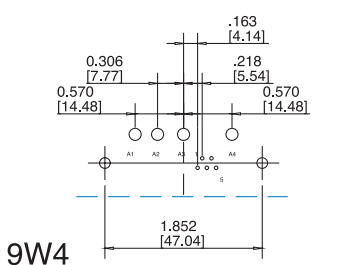
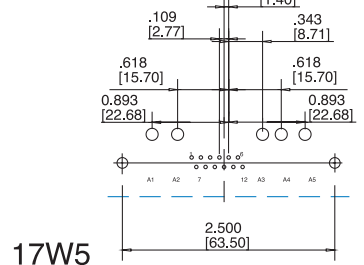
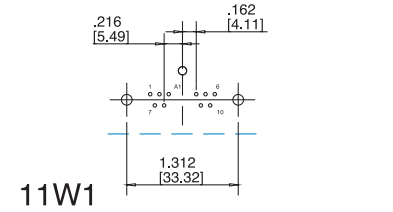
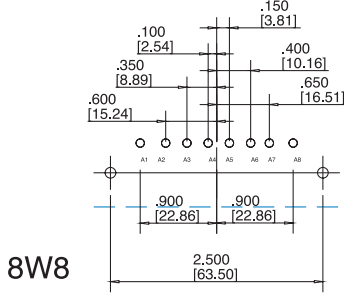
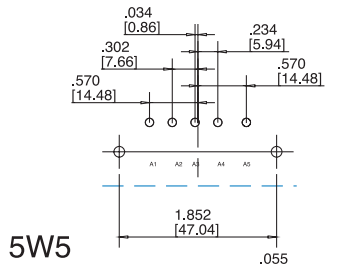
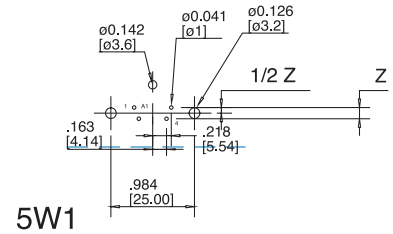
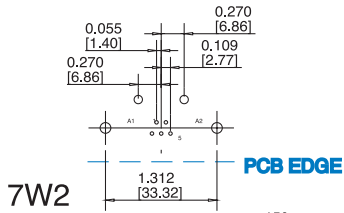
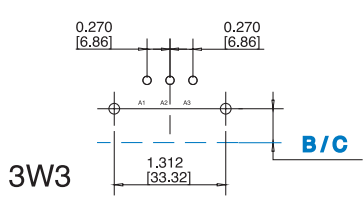
INCHES (MM)

RECOMMENDED BOARD LAYOUT

Right Angle .126 [3.20] Power and Signal Contacts

EP3V EP3SV (European Footprint)  
HP3V HP3SV (Mixed Footprint)  
MP3V MP3SV (US Footprint)

Denotes right angle dimensions



	A	B	C	D	Z
EURO FOOTPRINT	.370 [9.40]	.809 [20.56]	.420 [10.67]	.470 [11.94]	.100 [2.54]
US FOOTPRINT	.283 [7.20]	.809 [20.56]	.339 [8.62]	.395 [10.04]	.112 [2.84]
MIX FOOTPRINT	.370 [9.40]	.809 [20.56]	.420 [10.67]	.470 [11.94]	.100 [2.54]

A = SIGNAL B = POWER C = BOARD LOCKS D = D SHELL BOARD LOCKS Z = PITCH



**ORDERING INFORMATION**

XXX - X - XWX - X - XXXX - XX - XXXX - X

Contact & Shell Plating Prefix

Contact Plating	Shell Plating		
	Yellow Chromate	Tinned	Tinned & Indents*
16μ(0.4μm) gold over nickel	17TW	77TW	717TW
30μ(0.76μm) gold over nickel	117TW	177TW	777TW

\*plug only

Shell Size	Configuration (see page 38.)
E	5W1
A	3W3
A	7W2
A	11W1
B	5W5
B	9W4
B	13W3
B	17W2
B	21W1
C	8W8
C	13W6
C	17W5
C	21WA4
C	25W3
C	27W2
D	24W7
D	36W4
D	43W2

(Consult factory for size D availability)

Code	Contact Type
P	Pin (male)
S	Socket (female)

**Special Deviations**  
High voltage contacts  
Fiber Optic contacts  
Consult factory

**Board Mounting Options**  
(see page 48.)

- blank** .122 (3.10) mounting holes  
in metal brackets
- RM6** Snap-in boardlocks mounted  
on metal brackets

**Panel Mounting Options**  
(see page 48.)

- blank** .122 (3.10) mounting hole
- 4F** 4-40 Front female screwlock
- 4R** 4-40 Rear screwlock
- 3F** M3 Front female screwlock
- 3R** M3 Rear screwlock
- A514** Blind mating system:

**Loaded Contacts**  
(see page 48.)

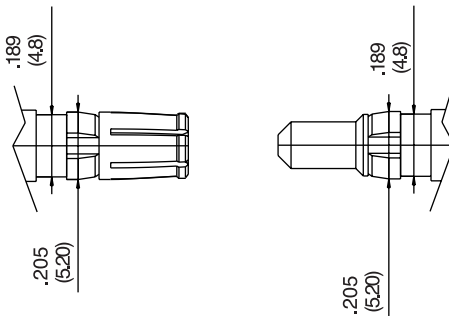
- MP3SV** US footprint, 40 amp power and signal combination
- MP2SV** US footprint, 20 amp power and signal combination
- MCSV** US footprint, coax and signal combination
- MSV** US footprint, signal only
- MP3V** US footprint, 40 amp power only (3W3, 5W5, 8W8)
- MP2V** US footprint, 20 amp power only (3W3, 5W5, 8W8)
- MCV** US footprint, coax only (3W3, 5W5, 8W8)
- EP3SV** European footprint, 40 amp power and signal combination
- EP2SV** European footprint, 20 amp power and signal combination
- ESV** European footprint, signal only
- EP3V** European footprint, 40 amp power only (3W3, 5W5, 8W8)
- EP2V** European footprint, 20 amp power only (3W3, 5W5, 8W8)
- HP3SV** Mixed footprint, 40 amp power and signal combination
- HP2SV** Mixed footprint, 20 amp power and signal combination
- HCSV** Mixed footprint, coax and signal combination
- HSV** Mixed footprint, signal only
- HP3V** Mixed footprint, 40 amp power only (3W3, 5W5, 8W8)
- HP2V** Mixed footprint, 20 amp power only (3W3, 5W5, 8W8)
- HCV** Mixed footprint, coax only (3W3, 5W5, 8W8)

For Filtered Combo's, see page 56.

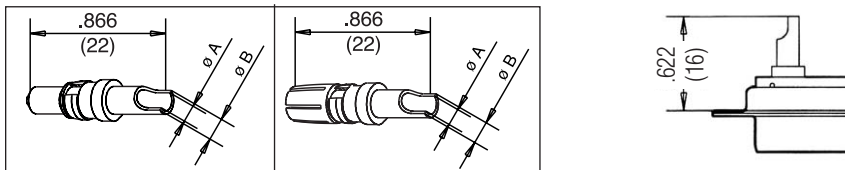
INCHES (MM)



High power contacts



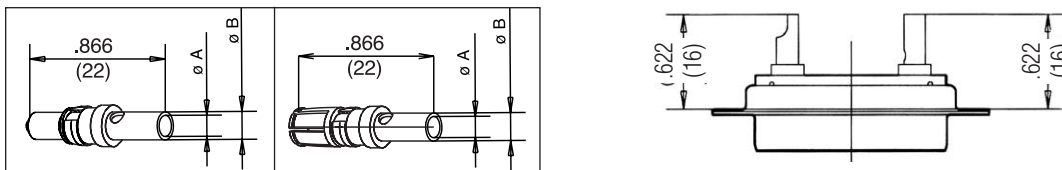
Solder cup version



Plug	P/N	Socket	Current	Dimensions	
				A	B
17DM 53745-8		17DM 53744-7	10 to 20 Amp.	.071 (1.80)	.100 (2.55)
17DM 53745-7		17DM 53744-6	20 to 30 Amp.	.110 (2.80)	.145 (3.70)
17DM 53745-1		17DM 53744-1	30 to 40 Amp.	.189 (4.80)	.220 (5.60)

Trim dimensions: .295 (7.5)

Crimp version

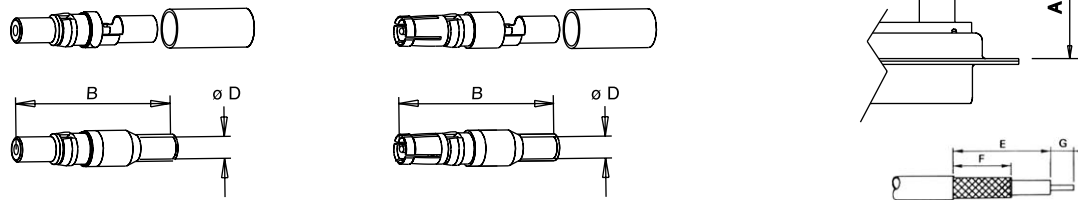


Plug	P/N	Socket	Current	Dimensions	
				A	B
17DM 53745-208		17DM 53744-207	10 to 20 Amp.	.071 (1.80)	.100 (2.55)
17DM 53745-207		17DM 53744-206	20 to 30 Amp.	.110 (2.80)	.145 (3.70)
17DM 53745-201		17DM 53744-201	30 to 40 Amp.	.189 (4.80)	.220 (5.60)

Trim dimensions: .295 (7.5)

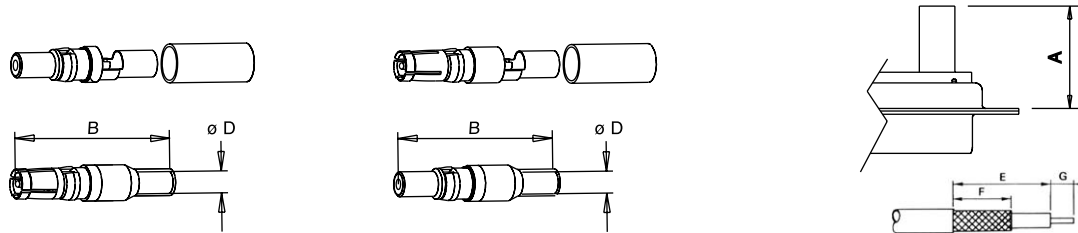
*Straight shielded contacts*

**Crimp ferrule/Inner solder**



Type	P/N	Dimensions			Cable - RG	Trim dimensions		
		A Max.	B	D		E	F	G
plug	17DM 53740	.740 (18.8)	.929 (23.6)	.039 (1.0)	178 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
plug	17DM 53740-1	.740 (18.8)	.929 (23.6)	.066 (1.7)	179 B/U 316 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
plug	17DM 53740-3	.846 (21.5)	.929 (23.6)	.110 (2.8)	180 B/U	.374 (9.5)	.311 (7.9)	.078 (2)
plug	17DM 53740-5	.846 (21.5)	.929 (23.6)	.126 (3.2)	58 C/U	.374 (9.5)	.311 (7.9)	.078 (2)
socket	17DM 53742	.740 (18.8)	.929 (23.6)	.039 (1.0)	178 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
socket	17DM 53742-1	.740 (18.8)	.929 (23.6)	.066 (1.7)	179 B/U 316 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
socket	17DM 53742-3	.846 (21.5)	.929 (23.6)	.110 (2.8)	180 B/U	.374 (9.5)	.311 (7.9)	.078 (2)
socket	17DM 53742-5	.846 (21.5)	.929 (23.6)	.126 (3.2)	58 C/U	.374 (9.5)	.311 (7.9)	.078 (2)

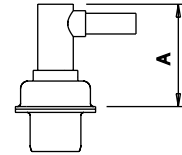
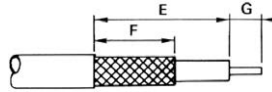
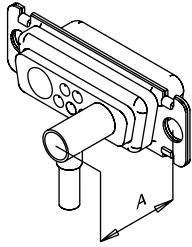
**Ferrule and inner solder**



Type	P/N	Dimensions			Cable - RG	Trim dimensions		
		A Max.	B	D		E	F	G
short plug	17DM 53740-5000	.669 (17.0)	.858 (21.8)	.039 (1.0)	178 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
plug	17DM 53740-5001	.740 (18.8)	.929 (23.6)	.066 (1.7)	179 B/U 316 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
plug	17DM 53740-5002	.846 (21.5)	1.035 (26.3)	.110 (2.8)	180 B/U	.374 (9.5)	.311 (7.9)	.078 (2)
plug	17DM 53740-5005	.846 (21.5)	1.035 (26.3)	.126 (3.2)	58 C/U	.374 (9.5)	.311 (7.9)	.078 (2)
plug	17DM 53740-5008	.740 (18.8)	.929 (23.6)	.039 (1.0)	178 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
short socket	17DM 53742-5000	.669 (17.0)	.858 (21.8)	.039 (1.0)	178 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
socket	17DM 53742-5001	.740 (18.8)	.929 (23.6)	.066 (1.7)	179 B/U 316 B/U	.311 (7.9)	.248 (6.3)	.078 (2)
socket	17DM 53742-5002	.846 (21.5)	1.035 (26.3)	.110 (2.8)	180 B/U	.374 (9.5)	.311 (7.9)	.078 (2)
socket	17DM 53742-5004	.846 (21.5)	1.035 (26.3)	.126 (3.2)	58 C/U	.374 (9.5)	.311 (7.9)	.078 (2)
socket	17DM 53742-5006	.740 (18.8)	.929 (23.6)	.039 (1.0)	178 B/U	.311 (7.9)	.248 (6.3)	.078 (2)

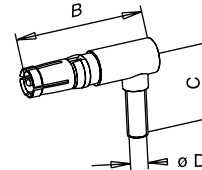
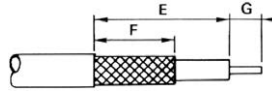
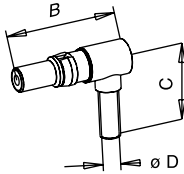
**Right angled shielded contact**

**Crimp ferrule/Inner solder**



Type	P/N	Dimensions				Cable - RG	Trim dimensions		
		A Max.	B	C	D		E	F	G
plug	<b>17DM 53741</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.039 (1.0)	178 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
plug	<b>17DM 53741-1</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.066 (1.7)	179 B/U 316 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
plug	<b>17DM 53741-3</b>	.531 (13.5)	.732 (18.6)	.602 (15.3)	.110 (2.8)	180 B/U	.421 (10.7)	.311 (7.9)	.094 (2.4)
plug	<b>17DM 53741-4</b>	.531 (13.5)	.732 (18.6)	.602 (15.3)	.126 (3.2)	58 C/U	.421 (10.7)	.311 (7.9)	.094 (2.4)
socket	<b>17DM 53743-2</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.039 (1.0)	178 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
socket	<b>17DM 53743-3</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.066 (1.7)	179 B/U 316 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
socket	<b>17DM 53743-5</b>	.531 (13.5)	.732 (18.6)	.602 (15.3)	.110 (2.8)	180 B/U	.421 (10.7)	.311 (7.9)	.094 (2.4)
socket	<b>17DM 53743-6</b>	.531 (13.5)	.732 (18.6)	.602 (15.3)	.126 (3.2)	58 C/U	.421 (10.7)	.311 (7.9)	.094 (2.4)

**Ferrule and inner solder**



Type	P/N	Dimensions				Cable - RG	Trim dimensions		
		A Max.	B	C	D		E	F	G
plug	<b>17DM 53741-5000</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.039 (1.0)	178 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
plug	<b>17DM 53741-5001</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.066 (1.7)	179 B/U 316 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
plug	<b>17DM 53741-5003</b>	.531 (13.5)	.732 (18.6)	13.9 (.547)	.110 (2.8)	180 B/U	.421 (10.7)	.311 (7.9)	.094 (2.4)
plug	<b>17DM 53741-5004</b>	.531 (13.5)	.732 (18.6)	13.9 (.547)	.126 (3.2)	58 C/U	.421 (10.7)	.311 (7.9)	.094 (2.4)
socket	<b>17DM 53743-5000</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.039 (1.0)	178 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
socket	<b>17DM 53743-5001</b>	.531 (13.5)	.732 (18.6)	.492 (12.5)	.066 (1.7)	179 B/U 316 B/U	.374 (9.5)	.232 (5.9)	.062 (1.6)
socket	<b>17DM 53743-5003</b>	.531 (13.5)	.732 (18.6)	13.9 (.547)	.110 (2.8)	180 B/U	.421 (10.7)	.311 (7.9)	.094 (2.4)
socket	<b>17DM 53743-5004</b>	.531 (13.5)	.732 (18.6)	13.9 (.547)	.126 (3.2)	58 C/U	.421 (10.7)	.311 (7.9)	.094 (2.4)

**Crimping tool**

**Hand crimp tool**

227-0944 (without dies) (M 22 520/5-01)



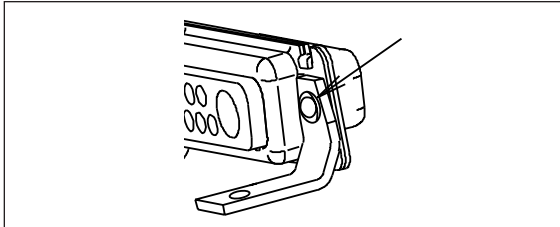
RG cables	MIL reference	Amphenol P/N	dim. between 2 flat surface cavity	
			A	B
RG 58 C/U	M 22 520/5-05	227 1221-05	.213 (5.41)	-
RG 178 B/U	M 22 520/5-03	227 1221-03	-	.105 (2.67)
RG 179 B/U	M 22 520/5-03	227 1221-03	.128 (3.25)	-
RG 180 B/U	M 22 520/5-05	227 1221-05	-	.178 (4.52)

**MOUNTING OPTIONS**

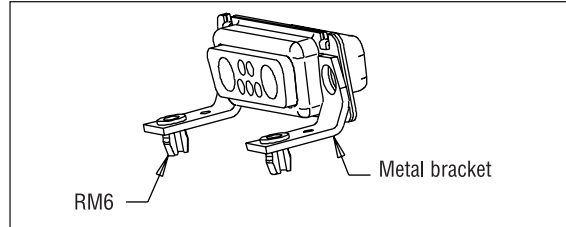
*Right angle version*

*Connectors come equipped with metal brackets*

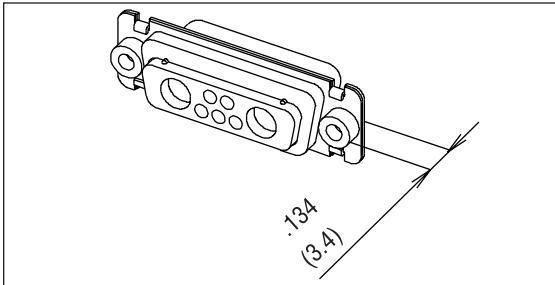
Blank: .122 (3.10) dia mounting hole



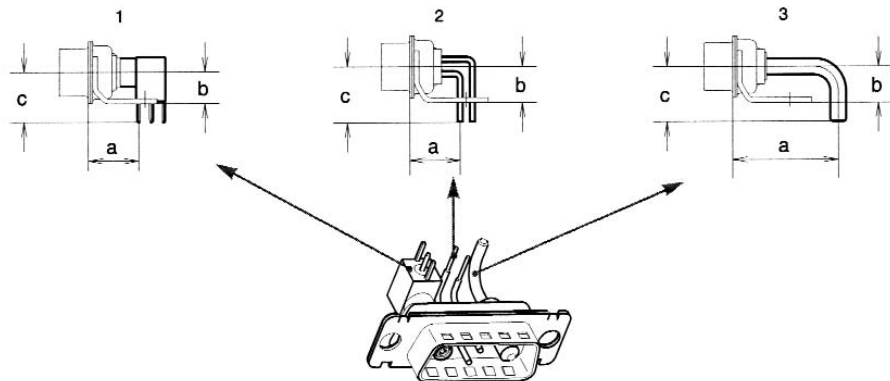
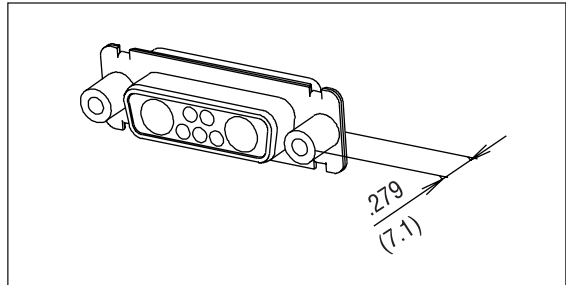
RM6: metal brackets + boardlock



4R: 4.40 rear nut  
3R: M3 rear nut



4F: 4.40 front female screwlock  
3F: M3 front female screwlock



**CONTACT DIMENSIONS**

Signal tail .0236 (0.6) dia.  
.063 (1.6) PCB  
For other PCB thickness: consult factory.

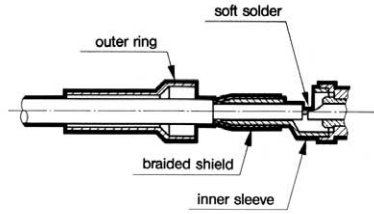
Description	Drawing	Europe HE 5 pattern = European height European footprint pitch between 2 rows: .100 (2.54)			Mix Mixed pattern = MIL height European footprint pitch between 2 rows: .100 (2.54)			MIL MIL height MIL footprint pitch between 2 rows: .112 (2.84)		
		a	b	c	a	b	c	a	b	c
Shielded	1	-	-	-	.406 (10.30)	.248 (6.30)	.394 (10.00)	.406 (10.30)	.248 (6.30)	.394 (10.00)
Signal	2	.406 (10.30)	.283 (7.20)	.441 (11.20)	.406 (10.30)	.248 (6.30)	.374 (9.50)	.319 (8.10)	.248 (6.30)	.374 (9.50)
Power .0787 (2.0) tail dia.	3	.456 (11.57)	.283 (7.20)	.413 (10.50)	.456 (11.57)	.248 (6.30)	.374 (9.50)	.375 (9.52)	.248 (6.30)	.374 (9.50)
Power .126 (3.2) tail dia.	3	.845 (21.46)	.283 (7.20)	.413 (10.50)	.845 (21.46)	.248 (6.30)	.374 (9.50)	.845 (21.46)	.248 (6.30)	.374 (9.50)

NOTE: Dimensions above correspond to sizes E to C. Consult factory for size D connectors. Connector comes equipped with contacts and brackets.

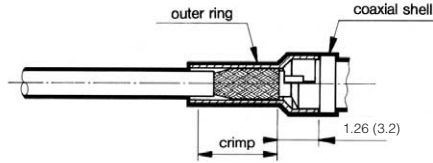
INCHES (MM)

**Cabling instructions for shielded contacts**

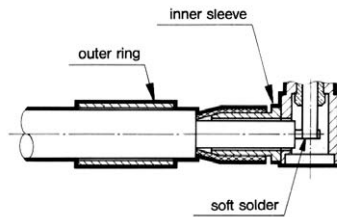
**Straight crimp shielded contacts:**



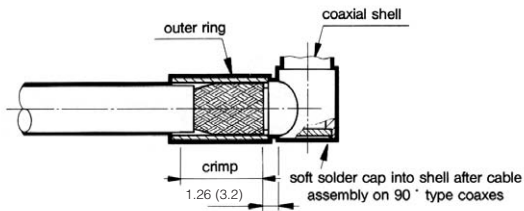
**inner solder contact  
outer crimp contact**



**Right angle crimp shielded contacts:**



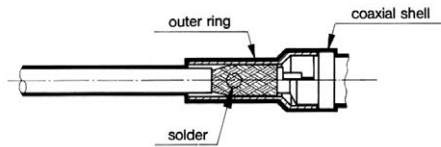
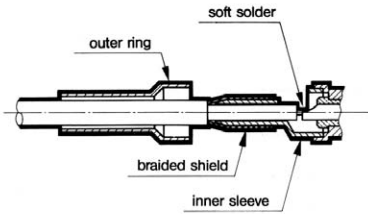
**inner solder contact  
outer crimp contact**



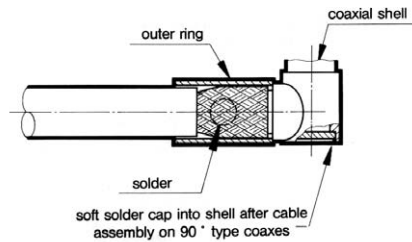
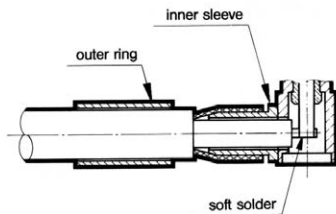
**ASSEMBLY METHOD**

1. Slide the outer ring over the cable jacket.  
Trim the cable according to the recommended dimensions.
2. Insert the cable dielectric and the center conductor inside the inner sleeve.
3. Solder the central conductor to the shielded center contacts.
4. Slide the outer ring towards the inner sleeve and recover the braid.
5. Using crimp hand tool equipped with the appropriate dies, crimp in the area defined.

**Solder straight shielded contacts**

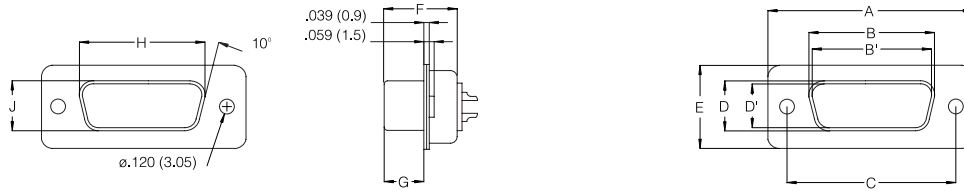


**Solder right angle shielded contacts**



**ASSEMBLY METHOD**

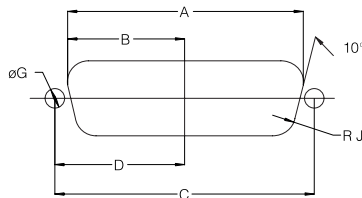
1. Slide the outer ring over the cable jacket.  
Trim the cable according to the recommended dimensions.
2. Insert the cable dielectric and the center conductor inside the inner sleeve.
3. Solder the central conductor to the shielded center contacts.
4. Slide the outer ring towards the inner sleeve and recover the braid.
5. Solder by introducing metal through the outer ring hole.



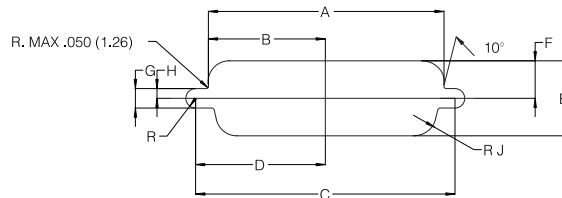
Shell Size	Contact P: Pin S: Socket	A ±.010 (±0.25)	B 0/- .008 (0/-0.20)	B' +.008/0 (+0.20/0)	C ±.004 (±0.10)	D 0/- .010 (0/-0.25)	D' +.010/0 (+0.25/0)	E ±.008 (±0.20)	F +.002/- .008 (+0.05/-0.20)	F' +.004/- .008 (+0.10/-0.20)	G +.004/.008 (+0.10/0.20)	G' ±.004 (±0.10)	H +.004/- .016 (+0.10/-0.40)	J 0/- .020 (0/-0.50)
E	P	1.209 (30.7)		.661 (16.8)	.984 (25.0)		.323 (8.2)	.488 (12.4)		.429 (10.9)		.232 (5.9)	.764 (19.4)	.433 (11.0)
	S		.646 (16.4)			.315 (8.0)			.437 (11.1)		.244 (6.2)			
A	P	1.535 (39.0)		.988 (25.1)	1.311 (33.3)		.323 (8.2)	.488 (12.4)		.429 (10.9)		.232 (5.9)	1.091 (27.7)	.433 (11.0)
	S		.976 (24.8)			.315 (8.0)			.437 (11.1)		.244 (6.2)			
B	P	2.083 (52.9)		1.528 (38.8)	1.850 (47.0)		.323 (8.2)	.488 (12.4)		.433 (11.0)		.228 (5.8)	1.630 (41.4)	.433 (11.0)
	S		1.513 (38.5)			.315 (8.0)			.437 (11.1)		.244 (6.2)			
C	P	2.724 (69.2)		2.177 (55.3)	2.500 (63.5)		.323 (8.2)	.488 (12.4)		.433 (11.0)		.228 (5.8)	2.280 (57.9)	.433 (11.0)
	S		2.161 (54.9)			.315 (8.0)			.437 (11.1)		.244 (6.2)			
D	P	2.630 (66.8)		2.075 (52.7)	2.406 (61.1)		.433 (11.0)	.598 (15.2)		.433 (11.0)		.228 (5.8)	2.185 (55.5)	.543 (13.8)
	S		2.067 (52.5)			.429 (10.9)			.437 (11.1)		.244 (6.2)			

Panel Cutouts

Optimal cutout for rear mounting



Standard cutout

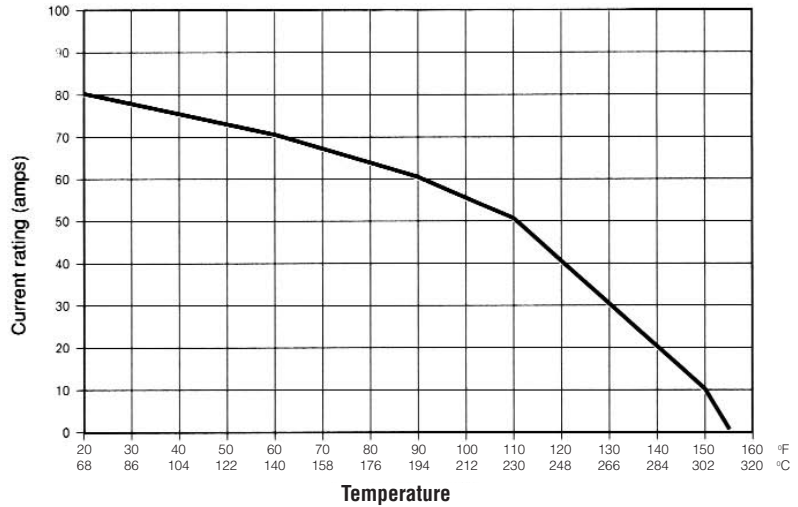


Shell Size	Mounting Method	A ±.008 (±0.20)	B ±.008 (±0.20)	C ±.008 (±0.20)	D ±.008 (±0.20)	E ±.008 (±0.20)	F ±.008 (±0.20)	G ±.008 (±0.20)	H ±.008 (±0.20)	J ±.008 (±0.20)
E	Front	.874 (22.2)	.437 (11.1)	.984 (25.0)	.492 (12.5)	.512 (13.0)	.256 (6.5)	.118 (3.0)	.059 (1.5)	.083 (2.1)
	Rear	.807 (20.5)	.402 (10.2)			.449 (11.4)	.224 (5.7)			.134 (3.4)
A	Front	1.201 (30.5)	.602 (15.3)	1.311 (33.3)	.657 (16.7)	.512 (13.0)	.256 (6.5)	.118 (3.0)	.059 (1.5)	.083 (2.1)
	Rear	1.134 (28.8)	.567 (14.4)			.449 (11.4)	.224 (5.7)			.134 (3.4)
B	Front	1.744 (44.3)	.870 (22.1)	1.850 (47.0)	.925 (23.5)	.512 (13.0)	.256 (6.5)	.118 (3.0)	.059 (1.5)	.083 (2.1)
	Rear	1.673 (42.5)	.839 (21.3)			.449 (11.4)	.224 (5.7)			.134 (3.4)
C	Front	2.390 (60.7)	1.197 (30.4)	2.500 (63.5)	1.248 (31.7)	.512 (13.0)	.256 (6.5)	.118 (3.0)	.059 (1.5)	.083 (2.1)
	Rear	2.327 (59.1)	1.161 (29.5)			.449 (11.4)	.224 (5.7)			.134 (3.4)
D	Front	2.295 (58.3)	1.150 (29.2)	2.406 (61.1)	1.205 (30.6)	.622 (15.8)	.311 (7.9)	.118 (3.0)	.059 (1.5)	.083 (2.1)
	Rear	2.217 (56.3)	1.110 (28.2)			.555 (14.1)	.280 (7.1)			.134 (3.4)

INCHES (MM)

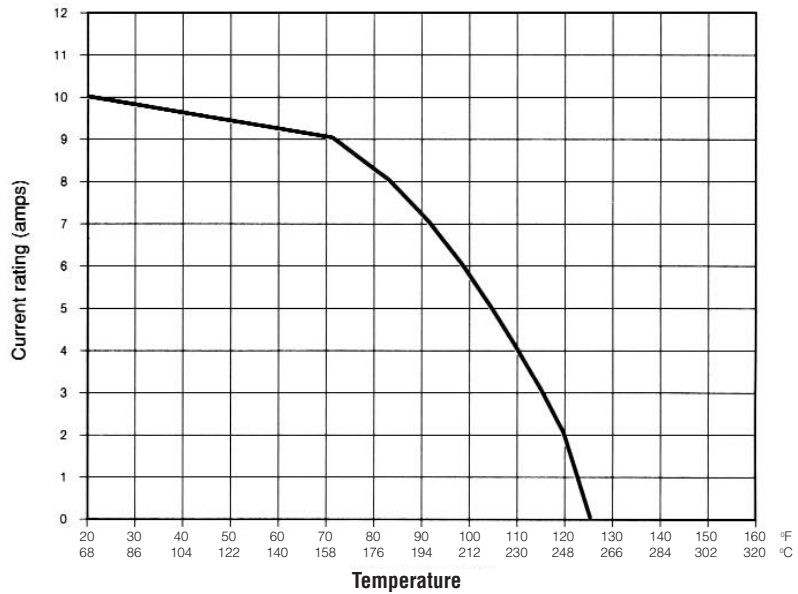
**DERATING CURVE FOR HIGH POWER CONTACTS (Size 8)  
CURRENT RATING AND OPERATING TEMPERATURE**

Tested according to C E I 512-3, test 5b

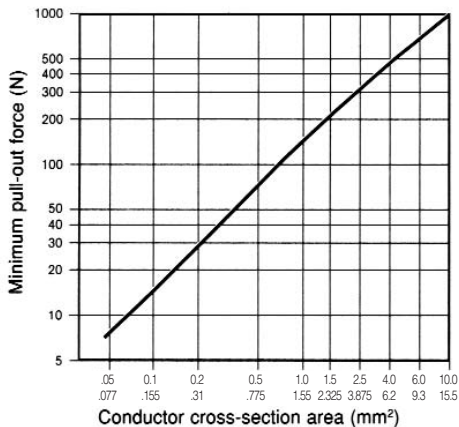


**DERATING CURVE FOR SIGNAL CONTACTS (Size 20)  
CURRENT RATING AND OPERATING TEMPERATURE**

Tested according to C E I 512-3, test 5b



**WIRE RETENTION FORCE ON CRIMP CONTACTS**



**BREAKDOWN VOLTAGE**

The following chart indicates the voltage rating (AC - Vrms - 50 Hz) and breakdown voltage for an operating temperature of 77°F (25°C) under 50% relative humidity.

Voltages are applied to male and female connectors mated or unmated.

Contact Types	Sea Level		19,685 (6,000 m)		68,898 (21,000 m)	
	Excitation	Test	Excitation	Test	Excitation	Test
Coax	1300 V	900 V	900 V	600 V	400 V	300 V
Power	1500 V	1000 V	1000 V	600 V	500 V	300 V
Voltage	3800 V	2800 V	2300 V	1700 V	650 V	450 V