

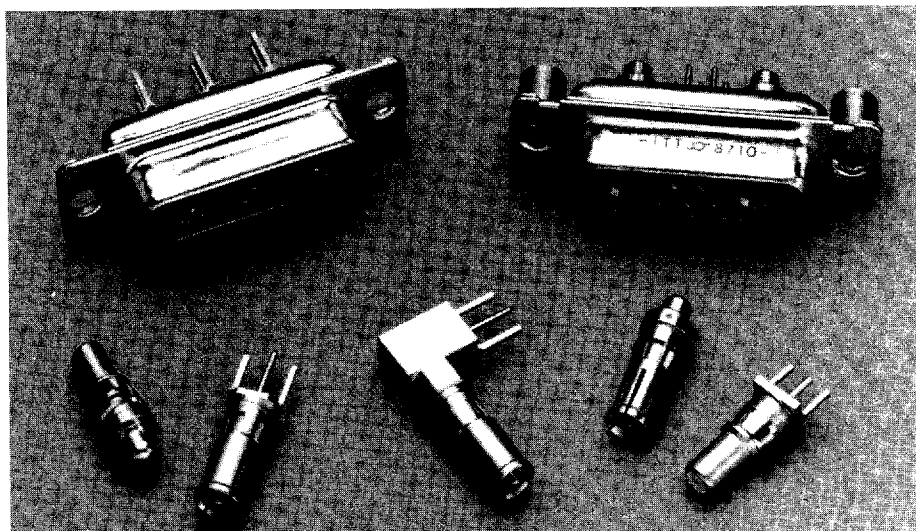
# Combo D®

Combination D Subminiature connectors are the fastest growing segment of the D Subminiature market. ITT Cannon engineering teams, in keeping pace with the demands of the industry, have developed the broadest selection of combination D Subminiatures available.

We offer the ability to integrate signal and coax, high power, and high voltage. You can mix red, green, and blue video lines with signal and up to 40 amps of power in the same package.

Design variations of the new Combo D connector, versus other packaging methods, include the proven ITT Cannon polarized "D" shape to prevent mis-mating; dense, space-saving packaging; and diverse mounting options. Choose from a variety of cable and printed wiring board selections. Printed wiring board combos come pre-assembled with fixed contacts eliminating the need to buy several components.

This new line of connectors offers you **unlimited design versatility**.



Straight and right angle printed wiring board contacts are available in both coax and high power versions.

## Performance and Material Specifications

### CONNECTOR ASSEMBLIES

Description	Material	Finish
Shell	Steel or Brass	Yellow Chromate over Cadmium or Gold over Nickel
Insulator	Thermoplastic or Diallyl Phthalate, UL 94V-0 rated.	None
Size 20 contacts when applicable	Copper alloy	50μ inches gold over copper or 100μ inches gold over copper.
Bracket	Steel	Yellow Chromate over Cadmium.
Rivnut	Steel or Copper alloy	

### COAXIAL ASSEMBLY

Contacts and shells	Copper alloy	Gold over nickel or 50μ inches gold over copper.
Ring, retaining	Copper alloy	Nickel or Gold
Insulator	Teflon	None

U.L. File Number: E8572

### DIELECTRIC WITHSTANDING VOLTAGE

Type of Contact		Altitude (feet/m)							
		Sea Level		20,000/6096		50,000/15240		70,000/1336	
		90°	Straight	90°	Straight	90°	Straight	90°	Straight
Center Conductor to Coaxial Shell	Average Flashover	1200	1500	900	1000	600	700	400	500
	Test	800	1000	600	650	400	475	275	325
Coaxial Shell to Nearest Standard Solder Pot Contact	Average Flashover	•	1500	•	1500	•	900	•	650
	Test	•	1000	•	1000	•	600	•	425
High Power contact and/or Coaxial Shell to Plug Shell	Average Flashover	1500	1500	1000	1000	500	500	500	500
	Test	1000	1000	650	650	325	325	325	325
#20 Signal	Average Flashover	1700		1000		650		500	
	Test	1250		750		475		375	
HV Contact to Nearest Contact or to Shell	Average Flashover	3800	3800	2300	2300	900	900	650	650
	Test	2800	2800	1700	1700	675	675	475	475

All voltage figures are rms AC 60 rms cps, measured at approximately +25°C, 50% rh.

Impedance: 50 ohm

### PERFORMANCE DATA

Signal Contact Current Rating	5 Amp
Temperature Rating	-65°C to +150°C
Signal Contact Resistance millivolt max.	55 @ 7.5 Amp test current
Coax Impedance	50 ohm
Coax VSWR	Less than 1.3-1.0 up to 500 megahertz
Coax Insertion Loss	.1 db loss at 500 megahertz.

See *Commercial D Subminiature* catalog for additional Combo D options, including 75 ohm Coax.

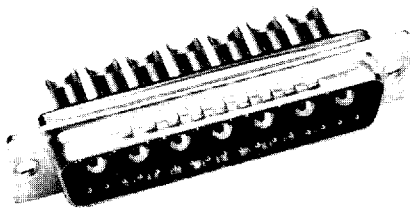
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For technical assistance, price or delivery information, call your local technical sales office or distributor.

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# Combo D® – High Power

## Power Housing With Solder Cup Signal Contacts



Contact Arrangements: Page 346 of Coax section  
Performance Specifications: Page 345 of Coax section.

Clinch Nut and Float Mount Options Available:

Add: E = 4-40 Clinch Nut

Y = Float Mounting

Example: DAMME3W3P

DAMMY3W3P

See page 334 for Mounting Method Detail.

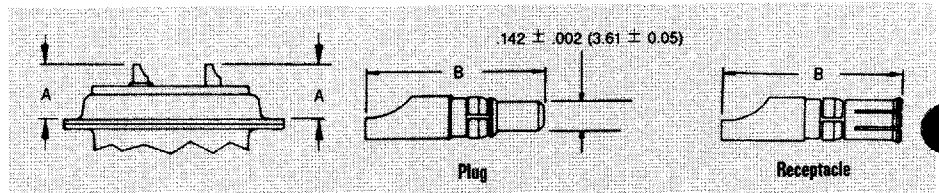
Cable Combinations supplied with preloaded solder signal contacts High Power Contacts supplied separately, see below.

Extraction Tool for High Power Contacts are the same as for 50 Ohm Coaxial Contacts. See page 348.

Layout	Military Socket	Military Pin	<i>NM</i> – Non-Magnetic Socket	<i>NM</i> – Non-Magnetic Pin
DE-5W1	DEM5W1S	DEM5W1P	DEM5W1S-NMB-K52	DEM5W1P-NMB-K52
DA-7W2	DAMM7W2S	DAMM7W2P	DAM7W2S-NMB-K52	DAM7W2P-NMB-K52
DA-11W1	DAMM11W1S	DAMM11W1P	DAM11W1S-NMB-K52	DAM11W1P-NMB-K52
DA-3W3	DAMM3W3S	DAMM3W3P	DAM3W3S-NMB-K47	DAM3W3P-NMB-K47
DB-5W5	DBMM5W5S	DBMM5W5P	DBM5W5S-NMB-K47	DBM5W5P-NMB-K47
DB-9W4	DBMM9W4S	DBMM9W4P	DBM9W4S-NMB-K52	DBM9W4P-NMB-K52
DB-13W3	DBMM13W3S	DBMM13W3P	DBM13W3S-NMB-K52	DBM13W3P-NMB-K52
DB-17W2	DBMM17W2S	DBMM17W2P	DBM17W2S-NMB-K52	DBM17W2P-NMB-K52
DB-21W1	DBMM21W1S	DBMM21W1P	DBM21W1S-NMB-K52	DBM21W1P-NMB-K52
DC-8W8	DCMM8W8S	DCMM8W8P	DCM8W8S-NMB-K47	DCM8W8P-NMB-K47
DC-13W6	DCMM13W6S	DCMM13W6P	DCM13W6S-NMB-K52	DCM13W6P-NMB-K52
DC-17W5	DCMM17W5S	DCMM17W5P	DCM17W5S-NMB-K52	DCM17W5P-NMB-K52
DC-21WA4	DCMM21WA4S	DCMM21WA4P	DCM21WA4S-NMB-K52	DCM21WA4P-NMB-K52
DC-25W3	DCMM25W3S	DCMM25W3P	DCM25W3S-NMB-K52	DCM25W3P-NMB-K52
DC-27W2	DCMM27W2S	DCMM27W2P	DCM27W2S-NMB-K52	DCM27W2P-NMB-K52
DD-24W7	DCMM24W7S	DCMM24W7P	DCM24W7S-NMB-K52	DCM24W7P-NMB-K52
DD-36W4	DCMM36W4S	DCMM36W4P	DCM36W4S-NMB-K52	DCM36W4P-NMB-K52
DD-43W2	DCMM43W2S	DCMM43W2P	DCM43W2S-NMB-K52	DCM43W2P-NMB-K52
DD-47W1	DCMM47W1S	DCMM47W1P	DCM47W1S-NMB-K52	DCM47W1P-NMB-K52

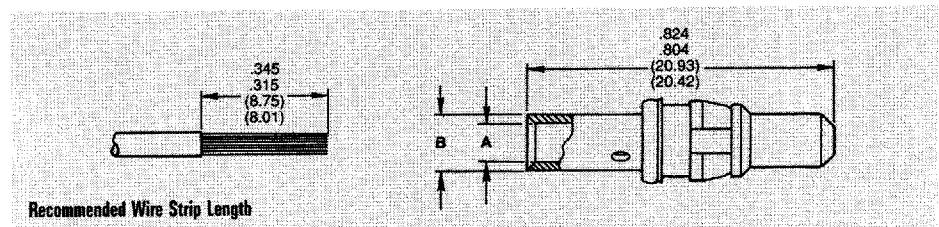
## High Power Contacts

Solder Type



	Gold over Nickel	50 $\mu$ in. Gold over Copper	<i>NM</i> – Non-Magnetic 50 $\mu$ in. Gold over Copper	A Max.	B Ref.	Current Rating (Amps)	Wire Size
Plug	DM53745-1	DM53745-28	DM53745-72	.666 (16.92)	.866 (22.00)	40	#8
Plug	DM53745-7	DM53745-27	DM53745-77	.666 (16.92)	.866 (22.00)	20	#12
Plug	DM53745-8	DM53745-25	DM53745-70	.666 (16.92)	.866 (22.00)	10	#16
Receptacle	DM53744-1	DM53744-21	DM53744-62	.666 (16.92)	.856 (21.74)	40	#8
Receptacle	DM53744-6	DM53744-25	DM53744-64	.666 (16.92)	.856 (21.74)	20	#12
Receptacle	DM53744-7	DM53744-24	DM53744-63	.666 (16.92)	.856 (21.74)	10	#16

Crimp Type



	Gold over Nickel	30 $\mu$ in. Gold over Nickel	A Dia. Max.	B Dia. Max.	Current Rating (Amps)	Wire Size
Plug	DM130338-4	DM130338	.181 (4.60)	.230 (5.84)	40	#8
Plug	DM130339-4	DM130339	.100 (2.54)	.218 (5.54)	20	#12
Plug	DM130340-4	DM130340	.067 (1.07)	.102 (2.59)	10	#16
Receptacle	DM130341-4	DM130341	.181 (4.60)	.230 (5.84)	40	#8
Receptacle	DM130342-4	DM130342	.100 (2.54)	.218 (5.54)	20	#12
Receptacle	DM130343-4	DM130343	.067 (1.07)	.102 (2.59)	10	#16

Crimp Tooling – Page 357.

See *Commercial D Subminiature* catalog for PCB High Power connectors.

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Dimensions are shown in inches (millimeters).  
Dimensions subject to change.

For technical assistance, price or delivery information, call your local technical sales office or distributor.

# Combo D<sup>®</sup> – High Power

## Crimp High Power Contact Tooling

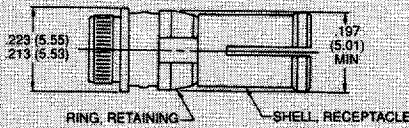
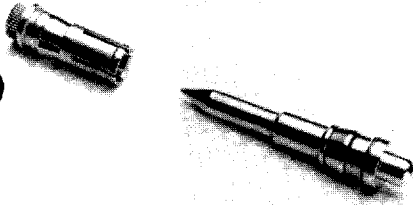
For use with Crimp High Power Contacts on Page 356)

AWG Wire Size	Daniels Crimp Tool	Crimp Tool/Locator	
		Tool Setting Number	Locator
8-10	M300-BT	AWG 8 = 6 AWG 10 = 5	TP968
12-14	M300-BT	AWG 12/14 = 1	TP968
16-18	FT-8	AWG 16 = 6 AWG 18 = 5	TH554

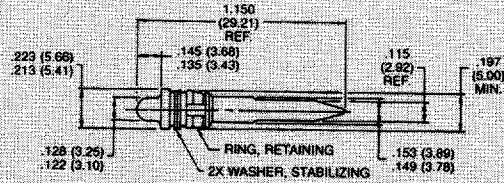
NOTE: Purchase tooling directly from Daniels.

## Combo D Guide Pin and Socket

Installs into any Combo D, size 8 Cavity. This patented guide pin and socket system is ideal for blind mate applications where space is limited.



**Press Fit Guide Socket**  
P/N DM53744-72



**PCB Guide Pin**  
P/N DM53745-82

Description	Material	Finish
Guide Pin	Brass	Gold over nickel
Guide Socket	Copper Alloy	Gold over nickel