Combo-D with High Efficiency Power Contacts: Smaller. Lighter. More Current Capacity.

ITT Cannon's innovative Combo-D with High Efficiency Power (HEP) Contacts feature canted coil spring technology that increases electrical current carrying capacity, improves efficiency and reduces costs.

Combo-D with HEP Contacts is the latest addition to the ITT Cannon Combination D-Subminiature product line. Engineered for use in a variety of markets and applications—from ordnance and military transports to shipboard radar and satellite systems—these versatile interconnect solutions help transmit more power in an increasingly connected world.

The Cannon Difference

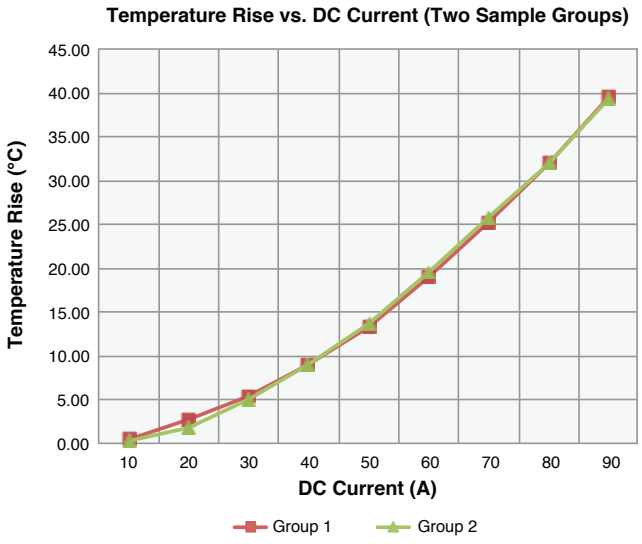
- One of the first high power contacts with canted coil spring technology
- Offers up to 75% increase in electrical current carrying capacity over conventional high-power contacts
- Among the smallest, high performance designs available
- Offers exceptional versatility and use in a wide range of markets & applications

HEP Contacts

Standard Contacts

Key Features

- Lower mating force enables easy, quick and convenient component connection and disconnection
- Innovative canted coil spring technology increases the 40A electrical current rating in a standard size 8 contact to a range of 65A to 70A, representing as much as a 75% increase
- Available in crimp, solder, PCB (straight, right angle) terminations
- HEP Contacts can be used in any Cannon brand or competitors' Combo-D connector
- Industry standard size 8 cavity can be retrofitted
- Must be used as a mated pair



Markets & Applications

Military Vehicles

Satellite Systems

Shipboard Systems

Shipboard Radar

Combo-D with HEP Contacts

How to Order | Part Number Configurator

Typical Part Number:

DBM	C	13E3	S	J	A197	

***Product Family Designator**

D*M = Solder Cup Industrial & Space/Non-Magnetic Version

D*MM = Military/Hi-Rel Solder Cup version (50 micro-inch gold contact plating)

D*A = Crimp Version

D*AM = Military/Hi-Rel Crimp version (50 micro-inch gold contact plating)

* = Shell Sizes are E, A, B, C, D

****Hardware Modifier**

blank = 0.120" (3,05mm) Through Hole
C = 90° Metal Bracket, 4-40 Fastener, & Boardlock
D = 90° Metal Bracket, 4-40 Fastener and 4-40 Screwlock
E = 4-40 Clinchnut
G = 90° Metal Bracket, 4-40 Fastener, 4-40 Screwlock, Boardlock
H = .300" (7.6mm) Standoff, 4-40 Screwlock
J = 90° Metal Bracket, Fastener, M-3 Fastener, Boardlock
K = 0.162" (4,11mm) Through Hole
L = 90° Metal Bracket, M-3 Fastener, Boardlock
N = .300" (7.6mm) Standoff, 4-40 Screwlock, Boardlock
O = 90° Metal Bracket, Fastener, M-3 Screwlock
P = 90° Metal Bracket, 4-40 Fastener
Q = .300" (7.6mm) M-3 Standoff, Boardlock
S = 90° Metal Bracket, M-3 Fastener
T = .300" (7.6mm) M-3 Standoff
U = .300" (7.6mm) Standoff, M-3 Screwlock, Boardlock
V = .300" (7.6mm) 4-40 Standoff
W = .300" (7.6mm) Standoff, M-3 Screwlock
X = M-3 Clinchnut
Y = Dual Float Mount
Z = .300" (7.6mm) 4-40 Standoff, Boardlock

** = For hardware modifiers D, G, N, O, U, and W, ITT Cannon uses a thread locking compound that makes removal of the screwlock difficult once installed. If this feature is required, please order options without the screwlock and purchase female screwlocks separately as shown in the D-Subminiature accessories catalog

Contact Modifier

F0 - Without Signal Contacts
Blank - Signal Contacts Included

Shell Modifier (Standard)

Blank = Carbon steel, yellow chromate over zinc
A197 = Carbon steel, tin-nickel plating (receptacles only) (RoHS)
K87 = Carbon steel, tin-nickel plating (plugs only) (RoHS)
F225 = Stainless steel shells
A101 = Carbon Steel, Cadmium plating

PC Tall Modifier (Standard)

Blank = Solder cup (D*M/D*MM; Crimp, D*A)
J = 90° Std. PCB signal contact (.170" lg by .030" ø.)
N = Straight Std. PCB signal contact (.178 lg by .030 ø.)
V = 90° Euro PCB signal contact (.157" lg by .024 ø.)
Y = Straight Euro PCB signal contact (.178" lg by .024" ø.)

Contact Gender

P = Male Plug, Pin
S = Female Receptacle, Socket

Layouts Combo-D (replace E = HEP Contacts, with desired contact designator)

Shell Size E- 5E1+, 2EK2
Shell Size A- 3E3, 3EK3+, 7E2, 11E1
Shell Size B- 5E5, 9E4, 13E3, 17E2, 21E1
Shell Size C- 8E8, 13E6+, 17E5+, 21EA4, 25E3, 27E2+
Shell Size D- 24E7+, 36E4+, 43E2+, 47E1+

Additional Size 8 Contact Designators Layouts

E = HEP contact installed or supplied loose
W = without Size 8 Contacts.
C = 75 Ohm Coax Contacts Installed
X = 50 Ohm Coax Contacts Installed
H = High Power Installed (US Standard)
P = High Power Installed (European)
V = High Voltage Installed (Cable and PCB only)
R = Mini Hi Power 90° installed
G = Guide pin or guide socket installed
Note- F0 Contact Modified means no signal contacts

+ Not available for D*A and D*MA Crimp Versions
K = Indicates keyed layout where one cavity is opposite gender

HEP Contact Part Numbers when Ordering without Contacts

HEP Contact Type	Pin Part Number	Socket Part Number
Straight Crimp	031-1434-000	031-1432-000
Straight Solder Cup	031-1444-000	031-1445-000
Straight PCB	031-1446-000	031-1447-000
Right Angle PCB	031-1442-000	031-1443-000

RoHS COMPLIANT PART NUMBERS

Why ITT

ITT is a focused multi-industrial company that designs and manufactures highly engineered critical components and customized technology solutions. ITT's Cannon brand is a leading global manufacturer of connector products serving international customers in aerospace, defense, medical, industrial and transportation end markets. ITT's Connector business, which also includes the Veam and BIW Connector Systems brand, manufactures and supplies a variety of connectors and interconnects that make it possible to transfer data, signal and power in an increasingly connected world.

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