



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



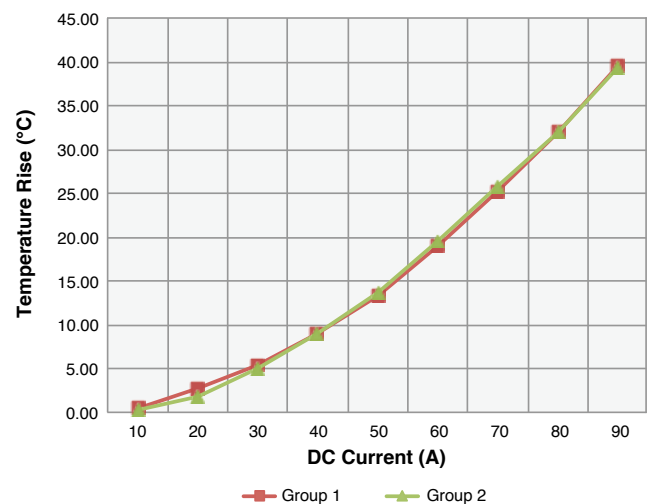
HEP Contacts

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

Temperature Rise vs. DC Current (Two Sample Groups)



Markets & Applications



Military Vehicles



Satellite Systems



Shipboard Systems




Shipboard Radar

Combo-D with HEP Contacts



How to Order | Part Number Configurator

DBM	E	9E4	P	J	K87
Product Family Designator D*M = Industrial & Space/Non-Magnetic Applications (Solder Cup, Straight & 90° PCB) Flash & 30 microinch gold over nickel contacts D*MM = Military/Hi-Rel, 50 microinch gold plating (Solder Cup, Straight & 90° PCB) D*A = Crimp Shell Sizes = E, A, B, C, D	Hardware Modifier blank = .120" (3.05mm) Through Hole C = 90° Metal Bracket, #4-40 Fastener and 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) #4-40 Standoff, #4-40 Screwlock J = 90° Metal Bracket, M3 Fastener, M3 Screwlock, Boardlock K = .162" (4.11mm) Through Hole L = 90° Metal Bracket, M3 Fastener, Boardlock N = .300" (7.6 mm) #4-40 Standoff, #4-40 Screwlock, Boardlock O = 90° Metal Bracket, M3 Fastener, M3 Screwlock P = 90° Metal Bracket, #4-40 Fastener Q = .300" (7.6 mm) M3 standoff, Boardlock S = 90° Metal Bracket, M3 Fastener T = .300" (7.6 mm) M3 standoff U = .300" (7.6 mm) M3 Standoff, M3 Screwlock and Boardlock V = .300" (7.6 mm) #4-40 Standoff W = .300" (7.6mm) M3 Standoff, M3 Screwlock X = M3 Clinchnut Y = Dual Float Mounts Z = .300" (7.6mm) #4-40 Standoff, Boardlock	Shell Material and Plating Modification Code blank = Carbon steel, Yellow chromate over zinc shells Flash gold over nickel contacts A101 = Carbon steel, Yellow chromate over cadmium A197 = Carbon steel, Pure Tin over Nickel (socket side only) RoHS K87 = Carbon steel, Pure Tin over Nickel (pin shell with grounding dimples) RoHS F225 = Stainless steel, Passivated RoHS NMBK52 = Brass, gold over copper (non-magnetic for space applications)	Contact Termination Code blank = Solder cup (D*M/D*MM) Crimp (D*A) J = 90° PCB signal contact, (ø.030" × .170" long) N = Straight PCB signal contact, (ø.030" × .178" long) V = 90° PCB signal contact, (ø.024" × .157" long) Y = Straight PCB signal contact, (ø.024" × .178" long)	Contact Gender P = Pin /Male (plug) S = Socket /Female (receptacle)	Layout (Example: 5W1- Total number of 5 contacts with 1 size 8 cavity) Shell Size E: 2W2, 2WK2,* 5W1 Shell Size A: 3W3, 3WK3,* 7W2, 11W1 Shell Size B: 5W5, 9W4, 13W3, 17W2, 21W1 Shell Size C: 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2 Shell Size D: 24W7, 36W4, 43W2, 47W1 *K = Indicates keyed layout where one cavity is opposite gender W = Empty size 8 cavities C = 75 Ohm Coax installed (straight or 90° PCB) X = 50 Ohm Coax installed (straight or 90° PCB) H = High power installed (straight or 90° PCB) P = High power installed (Euro, 90° PCB only) V = High voltage installed (available in straight PC only) G = Guide pin or guide socket installed R = Mini High Power 90° installed E = HEP contact installed or supplied loose



Why ITT

ITT is a focused, multi-industrial company that designs and manufactures highly engineered critical components and customized technology solutions. ITT Cannon is a leading global manufacturer of connector products serving international customers in the aerospace and defense, industrial and medical end markets. We design and engineer a variety of interconnect solutions that make it possible to transfer data, signal and power in an increasingly connected world.

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