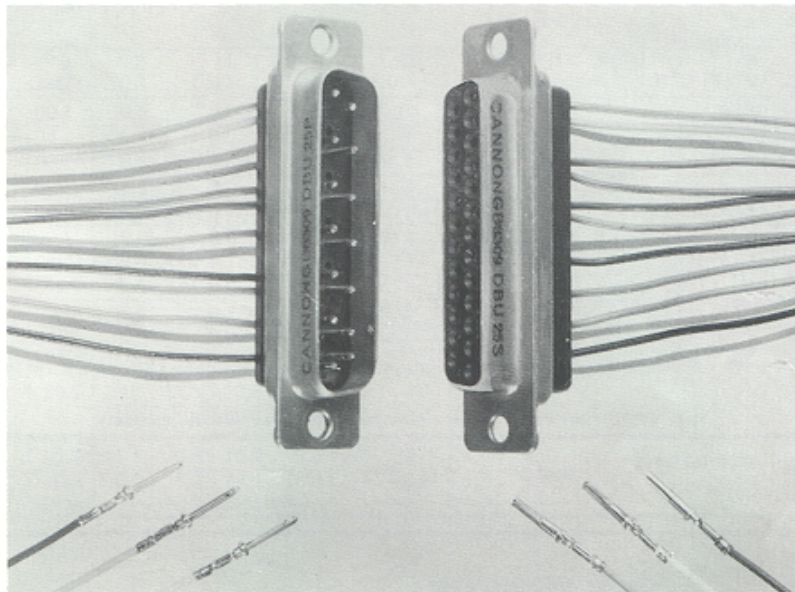


PRODUCT BULLETIN

D*U SUBMINIATURE CONNECTOR WITH CRIMP STYLE REMOVABLE CONTACTS



Features

- Stamped and formed contacts with insulation support
- Insulation support contacts fully recessed in insulation after assembly
- Flame retardant insulators (UL approved material)
- Fully intermateable with all Cannon D connectors
- Contacts only loaded into selected cavities
- Stamped and formed contacts supplied in reel form (7500 contacts per reel) or loose in bags of 100
- Choice of semi-automatic or manual tooling
- Option of machined contacts

The new D*U connector permits selective loading of crimp terminated pin and socket contacts providing lower installed costs

The contacts are quickly terminated using low cost hand, bench mounted or semi-automatic crimp tooling (see back page for details). Terminated contacts are inserted and extracted from the rear of the connector using an expendable plastic insertion/extraction tool.

D*U connectors operate in temperatures up to 120°C and are used in plug-in module applications, cable-to-cable and cable-to-panel installations, computer, business machines and many other commercial applications.

Standard Data

Standard materials and finishes

| | |
|-----------|--|
| Shell | Steel, plated zinc with yellow chromate |
| Insulator | Glass-filled black thermoplastic (UL94VO Grade) |
| Contacts | Machined: Copper alloy, gold over nickel plate Stamped: Phosphor-bronze, gold over nickel plate |

Mechanical Features

| | |
|--------------|-------------------------------|
| Coupling | Friction and lock accessories |
| Polarization | Keystone-shaped shells |
| Contact Type | Crimp snap-in |

Electrical Data

| | |
|---------------------|--|
| Contact Termination | Crimp style |
| Wire Size (stamped) | Size 20 contacts: 22 to 28AWG stranded wire; |
| (machined) | Size 20 contacts: 18 to 30AWG stranded wire. |
| Current Rating | Size 20 contacts: 5 amps |

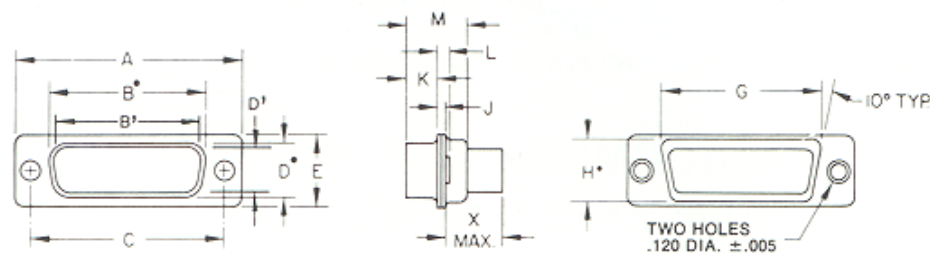
| Voltage Rating | Average Flashover | Test |
|----------------|-------------------|-----------|
| Sea level | 1,500 VAC | 1,000 VAC |
| 20,000 ft | 1,000 VAC | 650 VAC |
| 70,000 ft | 500 VAC | 325 VAC |
| 120,000 ft | 255 VAC | 175 VAC |

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Standard Shell



| Part Number be Shell Size | A | B [●] | B' | C | D [●] | D' | E | G | H | J | K | L | M | N | X |
|------------------------------|------|----------------|------|------|----------------|------|------|------|------|------|------|------|------|------|------|
| | ±0.4 | ±0.3 | ±0.3 | ±0.2 | ±0.3 | ±0.3 | ±0.4 | ±0.3 | ±0.3 | ±0.3 | ±0.3 | Max. | ±0.3 | ±0.3 | Max. |
| DEU-9P-FO | 30.8 | | 16.9 | 25.0 | | 8.4 | 12.5 | 19.3 | 10.7 | 0.8 | 6.0 | 1.90 | 10.7 | 3.0 | 9.5 |
| DEU-9S-FO | 30.8 | 16.3 | | 25.0 | 7.8 | | 12.5 | 19.3 | 10.7 | 0.8 | 6.2 | 1.90 | 10.9 | 3.0 | 9.5 |
| DAU-15P-FO | 39.1 | | 25.3 | 33.3 | | 8.4 | 12.5 | 27.5 | 10.7 | 0.8 | 6.0 | 1.90 | 10.7 | 3.0 | 9.5 |
| DAU-15S-FO | 39.1 | 24.6 | | 33.3 | 7.8 | | 12.5 | 27.5 | 10.7 | 0.8 | 6.2 | 1.90 | 10.9 | 3.0 | 9.5 |
| DBU-25P-FO | 53.0 | | 39.0 | 47.0 | | 8.4 | 12.5 | 41.3 | 10.7 | 1.0 | 5.9 | 1.90 | 10.8 | 3.3 | 9.5 |
| DBU-25S-FO | 53.0 | 38.3 | | 47.0 | 7.8 | | 12.5 | 41.3 | 10.7 | 0.8 | 6.2 | 1.90 | 10.9 | 3.0 | 9.5 |
| DCU-37P-FO | 69.3 | | 55.4 | 63.5 | | 8.4 | 12.5 | 57.7 | 10.7 | 1.0 | 5.9 | 1.90 | 10.8 | 3.3 | 9.5 |
| DCU-37S-FO | 69.3 | 54.8 | | 63.5 | 7.8 | | 12.5 | 57.7 | 10.7 | 0.8 | 6.2 | 1.90 | 10.9 | 3.0 | 9.5 |
| DDU-50P-FO | 66.9 | | 52.8 | 61.1 | | 11.1 | 15.4 | 55.3 | 13.6 | 1.0 | 5.9 | 1.90 | 10.8 | 3.3 | 9.5 |
| DDU-50S-FO | 66.9 | 52.4 | | 61.1 | 10.7 | | 15.4 | 55.3 | 13.6 | 0.8 | 6.2 | 1.90 | 10.9 | 3.0 | 9.5 |

NOTE: Dimensions B[●], D[●], G[●] and H[●] are measured as outside dimensions at the bottom of the draw. B[●] and D[●] are the O.D. dims. for socket side; B' and D' are the dims. for pin side.

Part Number suffix FO indicate connectors supplied without contacts.

Stamped Contacts

Insulation Support

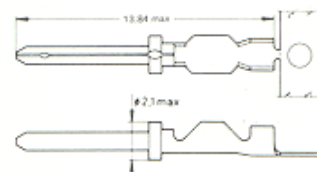
Stamped contacts are furnished on reels for use with the semi-automatic crimp and strip/crimp machines. These contacts will accommodate wire sizes 22 to 28AWG stranded wire.

For solid wire accommodation please consult the factory. Contacts are also available loose in bags of 100.

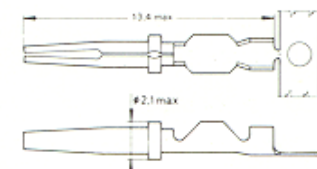


| | | |
|--------------------------------|--------------|--------------|
| Contact (Reeled 7500 per reel) | 20-22 | 20-26 |
| Pin | 077069-0200 | 077069-0202 |
| Socket | 077069-0201 | 077069-0203 |
| Contact (loose in bags of 100) | | |
| Pin | 330-7633-010 | 330-7635-010 |
| Socket | 330-7634-010 | 330-7636-010 |

PIN



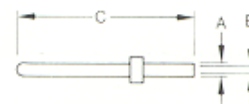
SOCKET



Machined Contacts

Machined contacts are furnished loose.

| Contact | Contact Part Number | A ±0,05 | B ±0,05 | C Max. |
|--------------|------------------------|------------|------------|-----------|
| Pin 20-20 | 030-1952-000 | 1,7 | 1,1 | 13,6 |
| Pin 20-18 | 030-1954-000 | 2,1 | 1,7 | 22,2 |
| Pin 20-26 | 030-1952-002 | 1,7 | 0,6 | 13,6 |
| Socket 20-20 | 030-1953-000 | 1,7 | 1,1 | 13,3 |
| Socket 20-18 | 030-1955-000 | 2,1 | 1,6 | 21,6 |
| Socket 20-26 | 030-1953-002 | 1,7 | 0,6 | 13,3 |



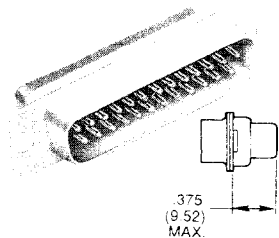
NOTE: for 20-18 contacts only:

Shrink sleeving is suggested on the crimp pot to prevent contacts from touching.

Machined or Stamped Contacts, Size 20

Part Numbers

Crimp Snap-In Contacts Supplied Separately



Tooling – Pages 232-234

Standard Shell Dimensions – Page 73

Mounting Method Detail – Page 6

Tin Shells

| Number of Contacts (Shell Size) | Part Numbers | |
|---------------------------------|--|---|
| | With Dimples (Pin Only) Without Contacts | Without Dimples (Socket) Without Contacts |
| 9(E) | DEU-9P-K87-F0 | DEU-9S-A197-F0 |
| 15(A) | DAU-15P-K87-F0 | DAU-15S-A197-F0 |
| 25(B) | DBU-25P-K87-F0 | DBU-25S-A197-F0 |
| 37(C) | DCU-37P-K87-F0 | DCU-37S-A197-F0 |
| 50(D) | DDU-50P-K87-F0 | DDU-50S-A197-F0 |

Clinch Nut and Float Mounting Options Available:

Add: E = 4-40 Clinch Nut

Y = Float Mounting

Example: DBUE25P-K87-F0

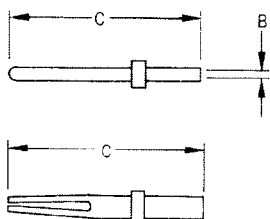
Yellow Chromate Over Cadmium Shells

| Number of Positions (Shell Size) | Part Numbers | |
|----------------------------------|-----------------------------|---|
| | Connectors Without Contacts | Connectors Packaged With Machined Contacts* |
| 9(E) | DEU9P or S-F0 | DEU9P or S |
| 15(A) | DAU15P or S-F0 | DAU15P or S |
| 25(B) | DBU25P or S-F0 | DBU25P or S |
| 37(C) | DCU37P or S-F0 | DCU37P or S |
| 50(D) | DDU50P or S-F0 | DDU50P or S |

*Pin contact is 030-1952-000 / Socket contact is 030-1953-000

Machined Crimp Contacts

Machined contacts are furnished loose piece for use with manual and semi-automatic machines.



| Description | Part Number | Wire Accommodation | B ±.002 (0.05) | C Max. | Hand Tool |
|--------------|--------------|--------------------|----------------|-------------|-----------|
| Pin 20 | 030-1952-000 | 20, 22, 24 | .045(1.14) | .541(13.74) | CCT-DCM-1 |
| Pin 20-18 | 030-1954-000 | (1) 18 or (2) #22 | .066(1.68) | .867(22.02) | CCT-DCM-1 |
| Pin 20-26 | 030-1952-002 | 26, 28, 30 | .025(0.63) | .541(13.74) | CCT-DCM-2 |
| Socket 20 | 030-1953-000 | 20, 22, 24 | .045(1.14) | .523(13.28) | CCT-DCM-1 |
| Socket 20-18 | 030-1955-000 | (1) 18 or (2) #22 | .066(1.68) | .844(21.56) | CCT-DCM-1 |
| Socket 20-26 | 030-1953-002 | 26, 28, 30 | .025(0.63) | .523(13.28) | CCT-DCM-2 |

NOTE for Size 20-18 contacts only: Shrink sleeving is suggested on the crimp pot to prevent contacts from touching.

Plastic Insertion/Extraction Tool – CIET-20HD

Metal Extraction Tool – CET-20D

Stamped Crimp Contacts / Reeled

Non-Insulation Support

| Contact Size | Wire Accommodation | Contact Part Number | | Contacts Per Reel | Hand Tool |
|--------------|--|---------------------|-------------|-------------------|-----------|
| | | Pin | Socket | | |
| 20-18 | AWG #18 thru 22 (For AWG #24 consult factory) | D110238-165 | D110238-166 | 7,500 | CCT-D*C-4 |
| 20 | AWG #20 thru 28 (For AWG #30 consult factory) | D110238-34 | D110238-35 | 10,000 | CCT-D*C-4 |

Insulation Support

| Wire Accommodation | Contact Part Number | | Contact Per Reel | Hand Tool |
|--------------------|---------------------|-------------|------------------|-------------|
| | Pin | Socket | | |
| AWG #22-#26 | D110238-428 | D110238-434 | 7,500 | CCTP-D*C-10 |
| AWG #28 thru #32 | D110238-431 | D110238-436 | 7,500 | CCTP-D*C-8 |

Plastic Insertion/Extraction Tool – CIET-20HD

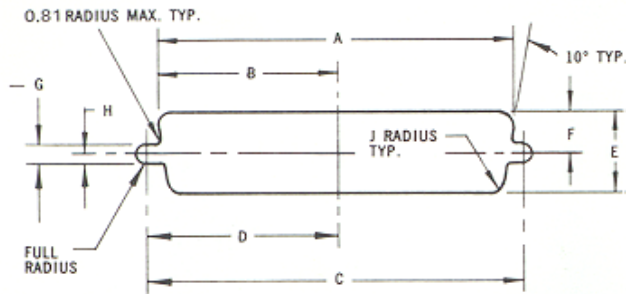
Metal Extraction Tool – CET-20D

Semi-Automatic Tooling – Pages 223-225

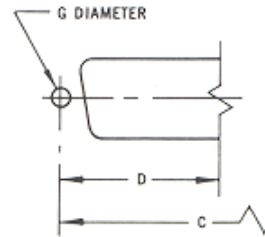
Highlighted part numbers indicate standard product, usually available with shorter lead times.

Panel Cutouts

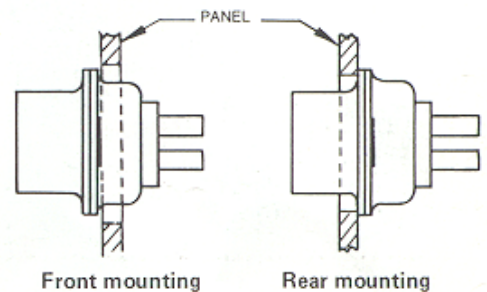
Standard Cutout



Optional Cutout (For rear mounting)



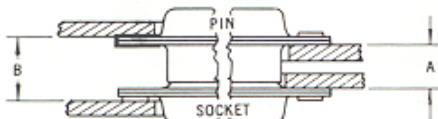
| Connector Size | Mounting Method | A ±0.2 | B ±0.2 | C ±0.2 | D ±0.2 | E ±0.2 | F ±0.2 | G ±0.1 | H ±0.1 | K ±0.2 |
|----------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| DAU | Front Mounting | 30.5 | 15.3 | 33.3 | 16.7 | 13.0 | 6.5 | 3.0 | 1.5 | 2.1 |
| | Rear Mounting | 28.8 | 14.4 | 33.3 | 16.7 | 11.4 | 5.7 | 3.0 | 1.5 | 3.4 |
| DBU | Front Mounting | 44.3 | 22.1 | 47.0 | 23.5 | 13.0 | 6.5 | 3.0 | 1.5 | 2.1 |
| | Rear Mounting | 42.5 | 21.3 | 47.0 | 23.5 | 11.4 | 5.7 | 3.0 | 1.5 | 3.4 |
| DCU | Front Mounting | 60.7 | 30.4 | 63.5 | 31.7 | 13.0 | 6.5 | 3.0 | 1.5 | 2.1 |
| | Rear Mounting | 59.1 | 29.5 | 63.5 | 31.7 | 11.4 | 5.7 | 3.0 | 1.5 | 3.4 |
| DDU | Front Mounting | 58.3 | 29.2 | 61.1 | 30.6 | 15.8 | 7.9 | 3.0 | 1.5 | 2.1 |
| | Rear Mounting | 56.3 | 28.2 | 61.1 | 30.6 | 14.1 | 7.1 | 3.0 | 1.5 | 3.4 |
| DEU | Front Mounting | 22.2 | 11.1 | 25.0 | 12.5 | 13.0 | 6.5 | 3.0 | 1.5 | 2.1 |
| | Rear Mounting | 20.5 | 10.2 | 25.0 | 12.5 | 11.4 | 5.7 | 3.0 | 1.5 | 3.4 |



Panel Mounting

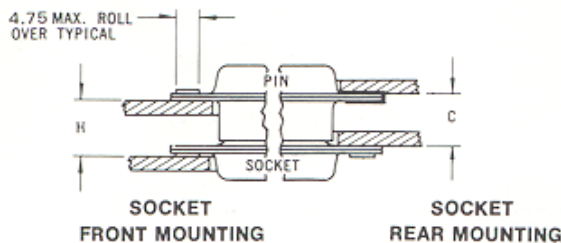
NOTE: A, B, C, and H are dimensions between panels and represent the recommended limit to be used in the design of the connector mounting method.

PIN FRONT MOUNTING PIN REAR MOUNTING



SOCKET FRONT MOUNTING SOCKET REAR MOUNTING

PIN REAR MOUNTING PIN FRONT MOUNTING

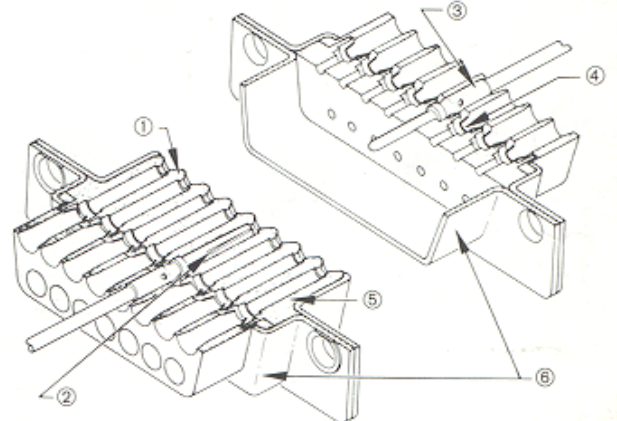


Combination of mated connectors

| Size | A +0.76 -0 | B +0.76 -0 | C +0.76 -0 | H +0.76 -0 |
|---------|---------------|---------------|---------------|---------------|
| A, E | 6.35 | 8.63 | 7.49 | 7.49 |
| B, C, D | 6.04 | 8.71 | 7.56 | 7.18 |

Standard pin assemblies contain 0.38 thick front shells on E and A sizes; 0.61 thick front shells on B, C and D sizes.

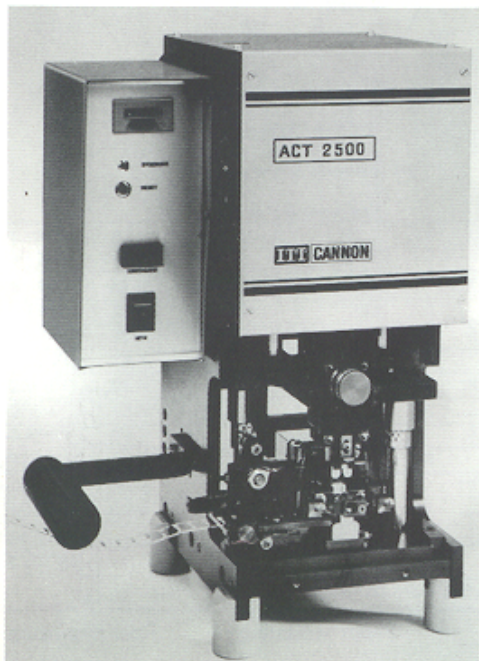
Rear Release Contact Retention System



- ① Closed-entry socket insulator
- ② Sleeveless spring finger contact
- ③ Contacts crimped with standard tools
- ④ Contact retaining tines
- ⑤ Flame retardant insulator
- ⑥ Standard D shells

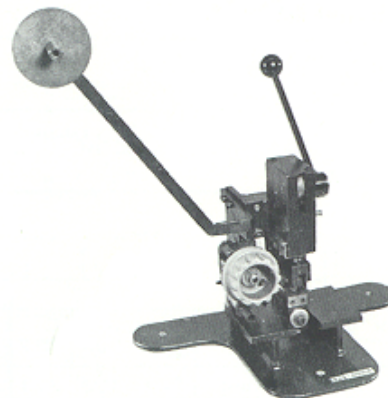
Tooling and Termination Data

Semi-automatic Strip/Crimp Machine ACT2500



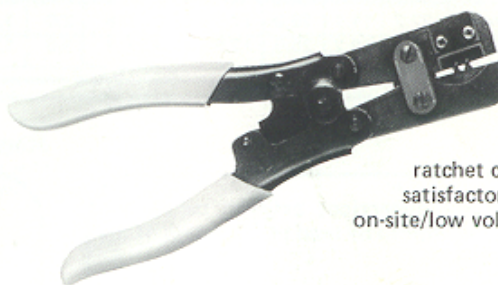
The ACT2500 quickly and reliably crimp terminates up to 1200 contacts per hour. The machine which only requires an electrical supply, is suitable for a wide variety of contacts and cable sizes. Crimp tools are easily changed. Time consuming adjustments are unnecessary, stripping and crimping is sensor released. This semi-automatic crimp machine is a practical and cost saving tool when using Cannon reeled contacts. Please ask for details of our leasing arrangements.

Hand operated Crimp Machine with automatic feed CBT9000

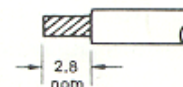


This low-cost bench-mounted hand-operated crimp machine terminates pre-stripped wire to stamped and formed reeled contacts. Its features include automatic contact feed and it is ideal for small volume requirements. Consult factory for specific ordering information.

Hand Crimp Tool CCT-D*U-5GB



With this tool each crimp cycle is ratchet controlled to ensure a satisfactory crimp; suitable for on-site/low volume applications.



Wire Stripping Detail

Contacts and Tools

| Contact Data | | | Tools | | | | | |
|----------------------------------|---------------------------------|--|-----------------|--------------|---------------------|---------------------|----------------------------|----------------------------|
| Size | Suitable for conductor AWG (mm) | Contact order no. | Hand Crimp tool | Locator | Semi-Automatic Tool | Bench Mould Mounted | Insertion/ Extraction Tool | Color Insertion Extraction |
| Stamped, with insulation support | | | | | | | | |
| 20-22 | 22-24 (0.4-0.23) | Pin: 077069-0200 7500 contacts on reel Socket: 077069-0201 | CCT-D*U-5GB | — | ACT2500 | CBT9000 | CIET-20HD | coloured/white |
| 20-26 | 26-28 (0.13-0.09) | Pin: 077069-0202 7500 contacts on reel Socket: 077069-0203 | CCT-D*U-5GB | — | ACT2500 | CBT9000 | CIET-20HD | coloured/white |
| 20-22 | 22-24 (0.4-0.23) | Pin: 330-7633-010 loose in bags of 100 Socket: 330-7634-010 | CCT-D*U-5GB | — | | | CIET-20HD | coloured/white |
| 20-26 | 26-28 (0.13-0.09) | Pin: 330-7635-010 loose in bags of 100 Socket: 330-7636-010 | CCT-D*U-5GB | — | | | CIET-20HD | coloured/white |
| machined | | | | | | | | |
| 20-20 | 20-24 (0.6-0.23) | Pin: 030-1952-000 Socket: 030-1953-000 | M22520/1-01 | TH 185 | — | | CIET-20HD | coloured/white |
| 20-18 | 18 (1.0) or (2x) 22 (0.4) | Pin: 030-1954-000 Socket: 030-1955-000 | M22520/1-01 | TH 185 | — | | CIET-2018HD* | coloured/white |
| 20-26 | 26-30 (0.13-0.06) | Pin: 030-1952-002 Socket: 030-1953-002 | M22520/2-01 | L3198-20 HDL | — | | CIET-20HD | coloured/white |

In line with a policy of continual product development, ITT Cannon reserve the right to change the specification of the components in this bulletin at any time and without prior notice.