

HD-20 Straight Posted Connectors



Straight Posted Connectors



Product Selection Guide

| Connector Density | Type | Post Style | Style and Shell Finish | No. of Contact Positions | Mating Hardware | Contact Plating (Mating Area/Solder Tails) | Post Length | Profile |
|-------------------|--------------------------|--|--|------------------------------------|---|--|------------------|---------|
| HD-20 | Plugs and Receptacles | Straight | Full Metal-Shell With and Without Grounding Indents, Tin Plated (pgs. 78 and 79) | 9 | .120 [3.05] Dia. Holes | Duplex (.000030 [0.00076] Gold/Tin) | .125 [3.18] | High |
| | | | | 15 | Cinch Nuts | Duplex (Gold Flash/Tin) | .188 [4.78] | |
| | | | | 25 | | | | |
| | | | | 37 | | | | |
| | | | | 50 | | | | |
| | | | | 9 | | | | |
| | | | 15 | Threaded Inserts Retention Inserts | Duplex (Gold Flash/Tin) | .170 [4.32] | | |
| | | | 25 | | | | | |
| | | | 37 | | | | | |
| | | | 9 | Female Screwlocks | Duplex (Gold Flash/Tin) | .250 [6.35] | | |
| | | | 15 | | | | | |
| | | | 25 | | | | | |
| 37 | All-Plastic (pgs. 82-85) | Duplex (.000030 [0.00076] Gold/Tin) | .125 [3.18] | | | | | |
| 15 | | | | Threaded Inserts | Duplex (Gold Flash/Tin) | .170 [4.32] | | |
| 25 | | | | | | | | |
| 37 | Female Screwlocks | Duplex (Gold Flash/Tin) | .250 [6.35] | | | | | |
| 50 | | | | | | | | |
| ACTION PIN | Plugs and Receptacles | Straight | Front Metal-Shell Tin Plated (pgs. 87 and 88) | 9 | .120 [3.05] Dia. Holes | Duplex (.000030 [0.00076] Gold/Tin) | .228 [5.79] | Medium |
| | | | | 15 | Threaded Inserts | Duplex (Gold/Tin) | | |
| | | | | 25 | | | | |
| | 37 | Female Screwlocks | Duplex (Gold/Tin) | | | | | |
| | 9 | | | All-Plastic (pg. 89) | Duplex (.000030 [0.00076] Gold Flash/Tin) | .228 [5.79] | | |
| | 15 | | | | | | Threaded Inserts | |
| 25 | | | | | | | | |
| 37 | Female Screwlocks | Duplex (.000010 [0.000254] Gold Flash/Tin) | | | | | | |
| 50 | | | | | | | | |
| HD-22 | Plugs and Receptacles | Straight | Front Metal-Shell With Grounding Indents, Nickel Plated (pg. 86) | 15 | .120 [3.05] Dia. Holes | Duplex (.000030 [0.00076] Gold/Tin) | .125 [3.18] | Medium |
| | | | | 26 | Threaded Inserts | Duplex (.000015 [0.00038] Gold/Tin) | | |
| | | | | 44 | | | | |
| | | | | 62 | | | | |
| | | | | 78 | | | | |
| | | | | 9 | | | | |
| 15 | | | | | | | | |
| 26 | | | | | | | | |

HD-20 Straight Posted Connectors (Continued)

Product Facts

- Flame retardant thermo-plastic housing material, UL 94V-0 rated
- HD-20 straight posted connectors are available in 9, 15, 25, 37 and 50 positions (Shell Sizes 1 thru 5)
- HD-20 straight posted connectors in Full Metal-Shell, Front Metal-Shell and All-Plastic versions
- HD-20 connectors with ACTION PIN contacts are available in low, medium and high profiles with integral standoffs
- ACTION PIN contact connectors for both .093 [2.36] and .062 [1.58] min. thick pc board application

- Various straight posted connectors offer a choice of through-holes, 4-40 threaded inserts or 4-40 fixed female screwlocks
- Choice of contact platings
- Integral boardlock feature secures connector to pc board prior to soldering
- Connectors are intermateable with any size 20 or 22 subminiature D connectors dimensionally complying with MIL-C-24308
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476 
- CSA Certified, File No. LR 16455 HD-20 Products 

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HD-20 Full Metal-Shell Straight Posted Connectors

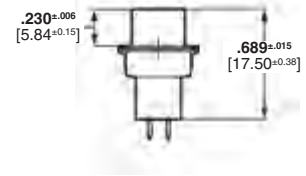
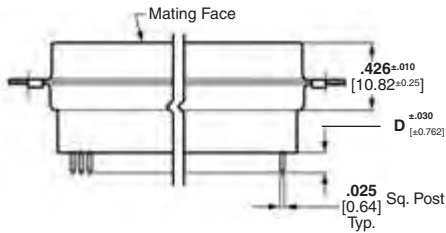
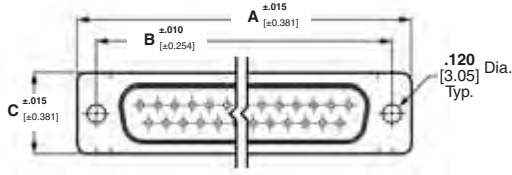
Plug



Without Grounding Indents



With Grounding Indents



See customer drawings for pcb layouts.

Material and Finish:

Shell—Steel, tin plated
Insert—94V-0 rated thermoplastic, black

Pin Contacts (Posted)—Brass, plated as follows:
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated
B—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

Technical Documents:

Product Specification—108-40025

| Shell Size | No. of Contact Positions | Dimensions | | | | Contact Finish (Plating Code) | Plug Part Numbers | | |
|------------|--------------------------|----------------|----------------|---------------|--------------|-------------------------------|---------------------------|------------------------|------------------|
| | | A | B | C | D* | | Without Grounding Indents | With Grounding Indents | With Clinch Nuts |
| 1 | 9 | 1.213 30.81 | .984 24.99 | .494 12.55 | .125 3.18 | A | — | 5745410-1 | 5749014-1 |
| | | | | | .188 4.78 | B | 5745182-2 | — | |
| 2 | 15 | 1.541 39.14 | 1.312 33.33 | .494 12.55 | .125 3.18 | A | — | 5745411-1 | — |
| | | | | | .188 4.78 | A | — | 5745412-1 | 5745959-1 |
| 3 | 25 | 2.088 53.04 | 1.852 47.04 | .494 12.55 | .125 3.18 | A | — | 5745186-2 | — |
| | | | | | .188 4.78 | A | — | 5745412-7 | — |
| 4 | 37 | 2.729 69.32 | 2.500 63.50 | .494 12.55 | .125 3.18 | A | — | 5745413-1 | — |
| | | | | | .188 4.78 | A | — | 5745414-1 | — |
| 5 | 50 | 2.635 66.93 | 2.406 61.11 | .605 15.37 | .125 3.18 | A | — | 5745414-1 | — |
| | | | | | .188 4.78 | A | — | 5745414-7 | — |

*.125 [3.18] post length is for recommended pc board thickness of .062-.093 [1.58-2.36] max.; .188 [4.78] post length is for recommended pc board thickness of .125 [3.18].

- Notes:**
1. All plugs are preloaded with size 20 DF posted pin contacts.
 2. Special loading of contacts can be arranged upon request.
 3. Longer post lengths available, consult Tyco Electronics.

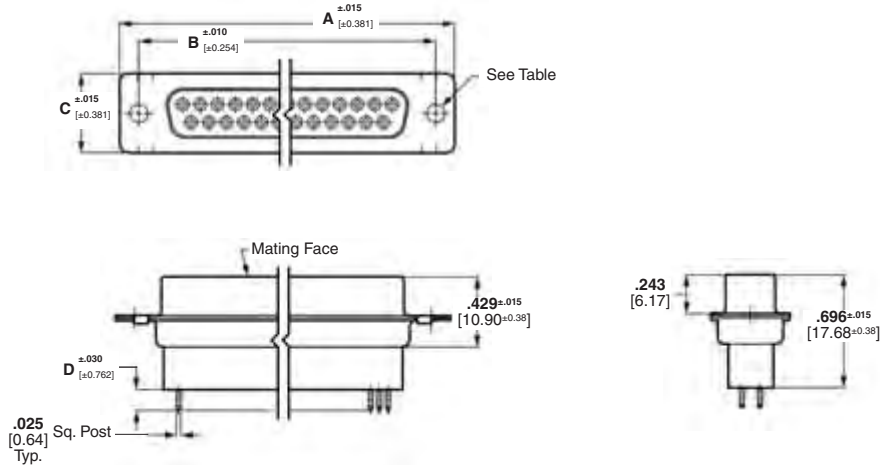
Note: All part numbers are RoHS compliant.

HD-20 Full Metal-Shell Straight Posted Connectors (Continued)

Receptacle



With Clinch Nuts



Material and Finish:

- Shell**—Steel, tin plated
- Insert**—94V-0 rated thermoplastic, black
- Clinch Nuts**—Steel, zinc plated
- Socket Contacts (Posted)**—Phosphor bronze, plated as follows:
 - A**—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated
 - B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

See customer drawings for pcb layouts.

Technical Documents:

Product Specification—108-40025

| Shell Size | No. of Contact Positions | Dimensions | | | | Contact Finish (Plating Code) | Receptacle Part Numbers | |
|------------|--------------------------|----------------|----------------|---------------|--------------|-------------------------------|---------------------------------|------------------|
| | | A | B | C | D* | | With .120 [3.05] Mounting Holes | With Clinch Nuts |
| 1 | 9 | 1.213 30.81 | .984 24.99 | .494 12.55 | .125 3.18 | A | 5745183-1 | 5747190-2 |
| | | | | | .188 4.78 | B | 5745183-2 | 5747190-1 |
| | | | | | .125 3.18 | A | 5745183-7 | 5747190-4 |
| | | | | | .188 4.78 | B | — | — |
| 2 | 15 | 1.541 39.14 | 1.312 33.33 | .494 12.55 | .125 3.18 | A | 5745185-1 | 5745820-1 |
| | | | | | .188 4.78 | B | — | 5745820-2 |
| | | | | | .125 3.18 | A | 5745185-7 | — |
| | | | | | .188 4.78 | B | — | — |
| 3 | 25 | 2.088 53.04 | 1.852 47.04 | .494 12.55 | .125 3.18 | A | 5745187-1 | 5745886-1 |
| | | | | | .188 4.78 | B | — | 5745886-2 |
| | | | | | .125 3.18 | A | 5745187-7 | — |
| | | | | | .188 4.78 | B | 5745187-8 | — |
| 4 | 37 | 2.729 69.32 | 2.500 63.50 | .494 12.55 | .125 3.18 | A | 5745189-1 | 5747315-1 |
| | | | | | .188 4.78 | A | 5745189-7 | — |
| | | | | | .125 3.18 | A | 5745191-1 | 5747302-1 |
| | | | | | .188 4.78 | A | 5745191-7 | — |

*.125 [3.18] post length is for recommended pc board thickness of .062-.093 [1.58-2.36] max.; .188 [4.78] post length is for recommended pc board thickness of .093-.125 [2.36-3.18].

- Notes:**
1. All receptacles are preloaded with size 20 DF posted socket contacts.
 2. Special loading of contacts can be arranged upon request.
 3. Longer post lengths available, consult Tyco Electronics.

Note: All part numbers are RoHS compliant.

HD-20 Front Metal-Shell Straight Posted Connectors

Plug



With Grounding Indents



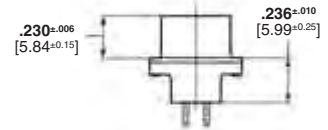
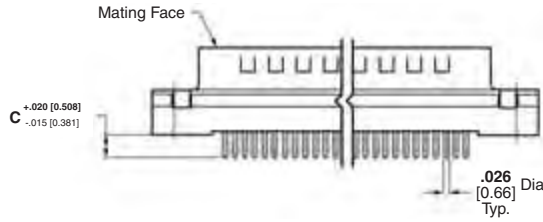
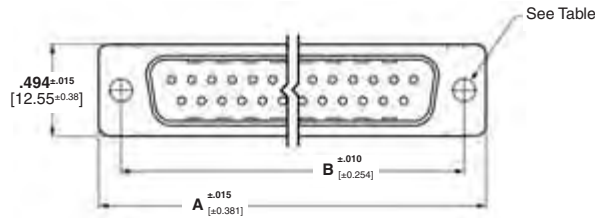
With Threaded Insert



With Fixed Female Screwlock



With Retention



See customer drawings for pcb layouts.

Straight Posted Connectors

Material and Finish:

- Shell**—Steel, tin plated
- Housing**—94V-0 rated thermoplastic, black
- Threaded Inserts**—Brass, unplated
- Female Screwlocks**—Zinc
- Pin Contacts (Posted)**—Brass, plated as follows:
 - A**—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated
 - B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

Technical Documents:

- Product Specification**—108-40025
- Application Specification**—114-40023

| Shell Size | No. of Contact Positions | Dimensions | | | Contact Finish (Plating Code) | Plug Part Numbers | | | | |
|------------|--------------------------|----------------|----------------|--------------|-------------------------------|------------------------------|----------------------------|---|------------------------------|--|
| | | A | B | C* | | With Standard Mounting Holes | With 4-40 Threaded Inserts | With Retention 4-40 Inserts (for .062 [1.58] PCB) | With Fixed Female Screwlocks | With Retention 4-40 Screwlocks (for .062 [1.58] PCB) |
| 1 | 9 | 1.213 30.81 | .984 24.99 | .125 3.18 | A | 5747871-2 | 5747871-8 | 2-5748003-0 | 1-5747871-4 | — |
| | | | | .170 4.32 | A | 5747871-4 | — | — | 1-5747871-3 | — |
| 2 | 15 | 1.541 39.14 | 1.312 33.33 | .125 3.18 | A | — | 5747872-8 | — | — | 5748026-1 |
| | | | | .170 4.32 | A | 5747872-4 | — | — | 1-5747872-6 | — |
| 3 | 25 | 2.090 53.09 | 1.852 47.04 | .125 3.18 | A | 5745968-2 | 5745968-8 | 2-5747704-0 | 1-5745968-4 | 5748027-1 |
| | | | | .170 4.32 | A | 5745968-4 | — | — | 1-5745968-3 | — |
| | | | | .170 4.32 | B | — | — | — | 1-5745968-5 | — |
| 4 | 37 | 2.732 69.39 | 2.500 63.50 | .125 3.18 | A | 5747375-2 | 5747375-8 | — | — | 5787686-1 |

*.125 [3.18] post length is recommended for pc board thickness of .062-.093 [1.58-2.36] max.; .170 [4.32] post length is recommended for pc board thickness of .093-.125 [2.36-3.18]; .250 [6.35] post length is for special applications

- Notes:**
1. All plugs are preloaded with size 20 DF posted pin contacts.
 2. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.
 3. PC board hole size is $.121 \pm .002$ [3.07 \pm 0.0508] for all retention inserts and screwlocks.

Note: All part numbers are RoHS compliant.

HD-20 Front Metal-Shell Straight Posted Connectors (Continued)

Receptacle



With Standard Mounting Holes



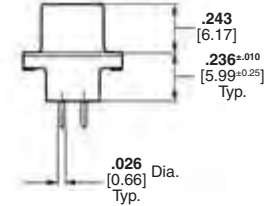
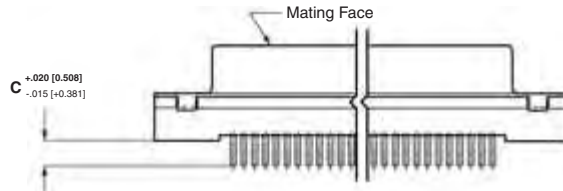
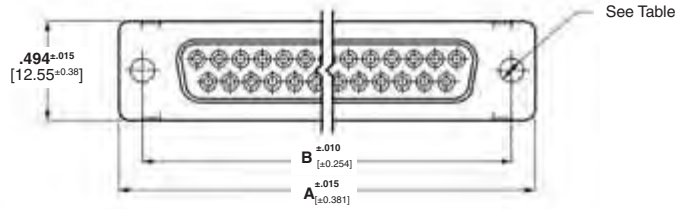
With Threaded Insert



With Fixed Female Screwlock



With Retention



See customer drawings for pcb layouts.

Material and Finish:

- Shell**—Steel, tin plated
- Housing**—94V-0 rated thermoplastic, black
- Threaded Inserts**—Brass, unplated
- Female Screwlocks**—Zinc

- Socket Contacts (Posted)**—Phosphor bronze, plated as follows:
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated
B—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

- Technical Documents:**
Product Specification—108-40025
Application Specification—114-40023

| Shell Size | No. of Contact Positions | Dimensions | | | Contact Finish (Plating Code) | Receptacle Part Numbers | | | | |
|------------|--------------------------|----------------|----------------|--------------|-------------------------------|------------------------------|----------------------------|---|------------------------------|--|
| | | A | B | C* | | With Standard Mounting Holes | With 4-40 Threaded Inserts | With Retention 4-40 Inserts (for .062 [1.58] PCB) | With Fixed Female Screwlocks | With Retention 4-40 Screwlocks (for .062 [1.58] PCB) |
| 1 | 9 | 1.216 30.89 | .984 24.99 | .125 3.18 | A | 5747150-2 | 5747150-8 | 2-5747706-0 | 1-5747150-4 | 5750678-1 |
| | | | | .170 4.32 | B | — | 5747150-7 | — | 1-5747150-3 | — |
| | | | | .125 3.18 | A | 5747150-4 | — | — | 1-5747150-6 | — |
| | | | | .170 4.32 | B | — | 5747150-9 | — | — | — |
| 2 | 15 | 1.541 39.14 | 1.312 33.33 | .125 3.18 | A | 5747299-2 | 5747299-8 | 2-5747707-0 | 1-5747299-4 | 5787683-1 |
| | | | | .170 4.32 | B | — | 5747299-7 | — | — | — |
| | | | | .125 3.18 | A | 5747299-4 | — | — | 1-5747299-6 | — |
| | | | | .170 4.32 | B | — | — | — | — | — |
| 3 | 25 | 2.090 53.09 | 1.852 47.04 | .125 3.18 | A | 5745967-2 | 5745967-8 | 2-5747708-0 | 1-5745967-4 | 5748612-1 |
| | | | | .170 4.32 | B | — | 5745967-7 | 1-5745967-0 | — | — |
| | | | | .125 3.18 | A | 5745967-4 | 1-5745967-0 | — | 1-5745967-6 | — |
| | | | | .170 4.32 | B | — | — | — | 1-5745967-5 | — |
| 4 | 37 | 2.732 69.39 | 2.500 63.50 | .125 3.18 | A | 5747301-2 | 5747301-8 | 2-5747709-0 | 1-5747301-4 | 5787685-1 |
| | | | | .170 4.32 | B | — | 5747301-7 | — | — | — |
| | | | | .125 3.18 | A | — | — | — | 1-5747301-6 | — |
| | | | | .170 4.32 | B | — | — | — | — | — |

*.125 [3.18] post length is recommended for pc board thickness of .062-.093 [1.58-2.36] max.; .170 [4.32] post length is recommended for pc board thickness of .093-.125 [2.36-3.18]; .250 [6.35] post length is for special applications

- Notes:**
- All receptacles are preloaded with size 20 DF posted socket contacts.
 - Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.
 - Pc board hole size is .121±.002 [3.07±0.0508] for all retention inserts and screwlocks.

Note: All part numbers are RoHS compliant.

HD-20 All-Plastic Straight Posted Connectors

Plug



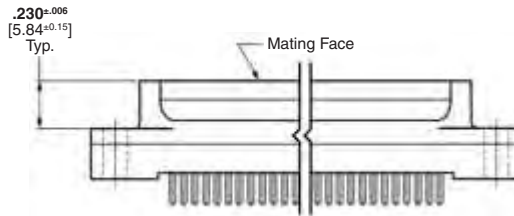
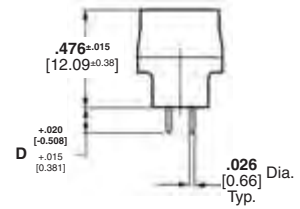
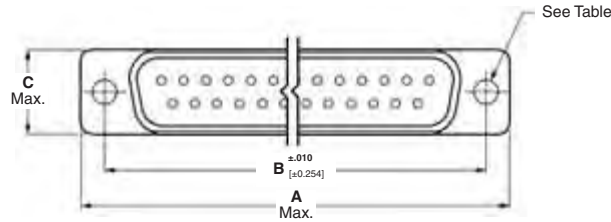
With Standard Mounting Hole



With Threaded Insert



With Fixed Female Screwlock



See customer drawings for pcb layouts.

Material and Finish:

Housing—94V-0 rated thermoplastic, black

Threaded Inserts—Brass, unplated

Female Screwlocks—Brass, nickel plated

Pin Contacts (Posted)—Brass, plated as follows:

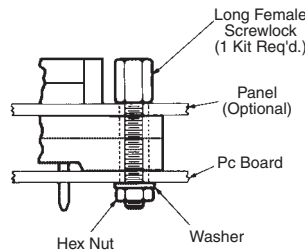
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

B—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

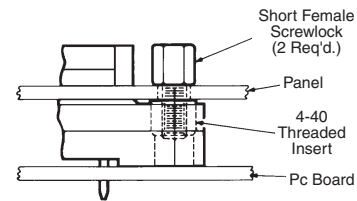
Technical Documents:

Product Specification—108-40025

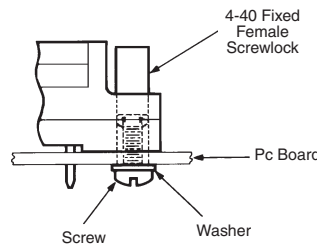
Typical Applications



Application of connector with standard mounting holes using Long Female Screwlock Kit No. 207719



Application of connector with 4-40 Threaded Inserts using Short Female Screwlocks included in Kit No. 207952



Application of connector with 4-40 Fixed Female Screwlocks. (See table on next page.)

Note: Hardware parts in illustrations above are not included with the connectors listed in the table on page 83. They are to be supplied by the Customer or, where applicable, purchased separately from Tyco Electronics using the part nos. specified.

Note: All part numbers are RoHS compliant.

Straight Posted Connectors

HD-20 All-Plastic Straight Posted Connectors (Continued)

Plug
(Continued)

| Shell Size | No. of Contact Positions | Dimensions | | | | Contact Finish (Plating Code) | Plug Part Numbers | | |
|------------|--------------------------|----------------|----------------|---------------|--------------|-------------------------------|---------------------------------|-----------------------|------------------------------|
| | | A | B | C | D* | | With .120 [3.05] Mounting Holes | With Threaded Inserts | With Fixed Female Screwlocks |
| 1 | 9 | 1.228 32.72 | .984 24.99 | .420 10.67 | .125 3.18 | A | 5208006-2 | 5745051-2 | 5745071-2 |
| | | | | | .170 4.32 | B | 5208006-1 | 5745051-1 | 5745071-1 |
| | | | | | .170 4.32 | A | — | — | 5745071-4 |
| 2 | 15 | 1.546 39.27 | 1.312 33.33 | .420 10.67 | .125 3.18 | A | 5208007-2 | 5745052-2 | 5745072-2 |
| | | | | | .170 4.32 | B | — | 5745052-1 | — |
| | | | | | .170 4.32 | A | — | — | 5745072-4 |
| 3 | 25 | 2.095 53.21 | 1.852 47.04 | .420 10.67 | .125 3.18 | A | 5208008-2 | 5745053-2 | 5745073-2 |
| | | | | | .170 4.32 | B | 5208008-1 | — | 5745073-1 |
| | | | | | .170 4.32 | B | — | — | 5745073-3 |
| 4 | 37 | 2.737 69.52 | 2.500 63.50 | .420 10.67 | .125 3.18 | A | — | — | 5745074-2 |
| | | | | | .170 4.32 | B | 5208009-1 | — | 5745074-1 |
| | | | | | .170 4.32 | A | — | 5745054-4 | 5745074-4 |
| 5 | 50 | 2.643 67.13 | 2.406 61.11 | .527 13.39 | .125 3.18 | A | 5208010-2 | — | — |
| | | | | | | | | | |

*.125 [3.18] post length is recommended for pc board thickness of .062-.093 [1.58-2.36] max.; .170 [4.32] post length is recommended for pc board thickness of .093-.125 [2.36-3.18]; .250 [6.35] post length is for special applications.

- Notes:**
1. All plugs are preloaded with size 20 DF posted pin contacts.
 2. It is recommended that these connectors be secured with appropriate hardware to a pc board and/or panel.
 3. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

Note: All part numbers are RoHS compliant.

HD-20 All-Plastic Straight Posted Connectors (Continued)

Receptacle



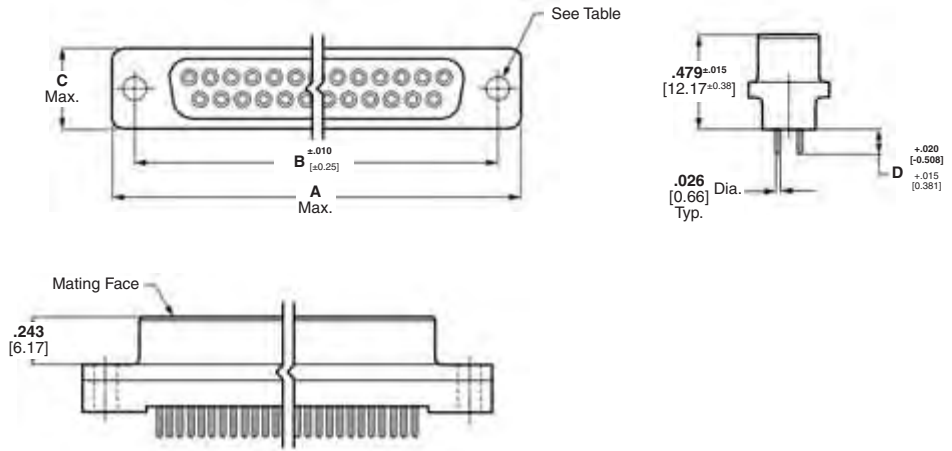
With Standard Mounting Hole



With Threaded Insert



With Fixed Female Screwlock



See customer drawings for pcb layouts.

Material and Finish:

Housing—94V-0 rated thermoplastic, black

Threaded Inserts—Brass, unplated

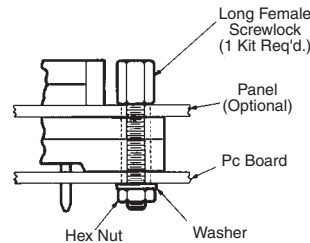
Female Screwlocks—Brass, nickel plated

Socket Contacts (Posted)—Phosphor bronze, plated as follows:
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated
B—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

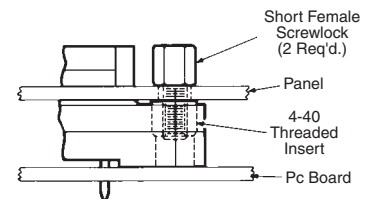
Technical Documents:

Product Specification—108-40025

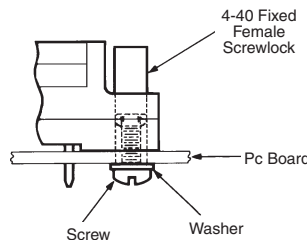
Typical Applications



Application of connector with standard mounting holes using Long Female Screwlock Kit No. 207719



Application of connector with 4-40 Threaded Inserts using Short Female Screwlocks included in Kit No. 207952



Application of connector with 4-40 Fixed Female Screwlocks. (See table on next page.)

Note: Hardware parts in illustrations above are not included with the connectors listed in the table on page 85. They are to be supplied by the Customer or, where applicable, purchased separately from Tyco Electronics using the part nos. specified.

Note: All part numbers are RoHS compliant.

Straight Posted Connectors

HD-20 All-Plastic Straight Posted Connectors (Continued)

Receptacle
(Continued)

| Shell Size | No. of Contact Positions | Dimensions | | | | Contact Finish (Plating Code) | Receptacle Part Numbers | | |
|------------|--------------------------|----------------|----------------|---------------|--------------|-------------------------------|---------------------------------|-----------------------|------------------------------|
| | | A | B | C | D* | | With .120 [3.05] Mounting Holes | With Threaded Inserts | With Fixed Female Screwlocks |
| 1 | 9 | 1.228 32.72 | .984 24.99 | .420 10.67 | .125 3.18 | A | 5207826-4 | 5207841-4 | 5745076-4 |
| | | | | | .170 4.32 | B | 5207826-3 | 5207841-3 | 5745076-3 |
| | | | | | .170 4.32 | A | — | — | 5745076-6 |
| 2 | 15 | 1.546 39.27 | 1.312 33.33 | .420 10.67 | .125 3.18 | A | 5207827-4 | 5745057-4 | 5745077-4 |
| | | | | | .170 4.32 | B | 5207827-3 | 5745057-3 | 5745077-3 |
| | | | | | .170 4.32 | A | — | — | 5745077-6 |
| 3 | 25 | 2.095 53.21 | 1.852 47.04 | .420 10.67 | .125 3.18 | A | 5207828-4 | 5745058-4 | 5745078-4 |
| | | | | | .170 4.32 | B | 5207828-3 | 5745058-3 | 5745078-3 |
| | | | | | .170 4.32 | A | — | — | 5745078-6 |
| 4 | 37 | 2.737 69.52 | 2.500 63.50 | .420 10.67 | .125 3.18 | A | 5207829-4 | 5745059-4 | 5745079-4 |
| | | | | | .170 4.32 | A | — | — | 5745079-6 |
| | | | | | .170 4.32 | A | — | — | 5745080-4 |
| 5 | 50 | 2.643 67.13 | 2.406 61.11 | .527 13.39 | .125 3.18 | A | — | — | 5745080-4 |
| | | | | | .170 4.32 | A | — | — | 5745080-6 |
| | | | | | .170 4.32 | A | — | — | 5745080-6 |

*.125 [3.18] post length is recommended for pc board thickness of .062-.093 [1.58-2.36] max.; .170 [4.32] post length is recommended for pc board thickness of .093-.125 [2.36-3.18]; .250 [6.35] post length is for special applications.

- Notes:**
1. All receptacles are preloaded with size 20 DF posted socket contacts.
 2. It is recommended that these connectors be secured with appropriate hardware to a pc board and/or panel.
 3. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

Straight Posted Connectors

Note: All part numbers are RoHS compliant.

HD-22 Straight Subminiature D Connectors

Material and Finish:

Housing—94V-0 rated thermoplastic, black

Shell—Steel, nickel plated

Contacts

Pins—Brass

Sockets—Phosphor bronze

Contact Plating—

Gold flash, .000015 [0.00038] or .000030 [0.00076] on mating end, tin on solder tails with overall nickel underplate

Boardlocks—Brass, tin plated

Female Screwlocks—Brass, nickel plated

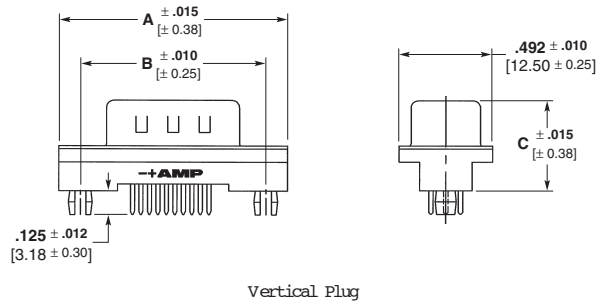
Threaded Inserts—Brass, tin plated

Technical Documents:

Product Specification—108-1092

Application Specification—114-13199

See customer drawings for printed circuit board layouts.



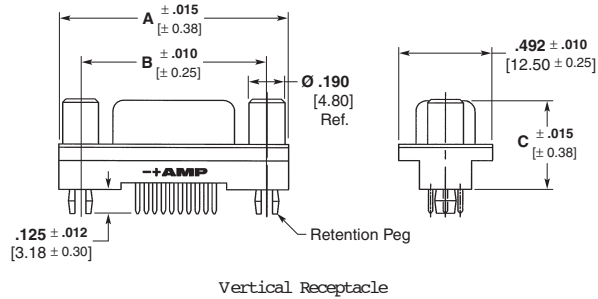
| No. of Contact Positions | Dimensions | | | Mounting Hardware | PCB Mounting Style | Part Numbers | | |
|--------------------------|------------|-------|-------|-------------------|--------------------|--------------|-----------|-----------|
| | A | B | C | | | Gold Flash | 15K" Gold | 30K" Gold |
| 15 | 1.212 | .984 | .476 | 4-40 inserts | retention pegs | 5750489-4 | 5750489-3 | 5750489-1 |
| | 30.80 | 25.00 | 12.10 | 4-40 inserts | — | 5749798-4 | 5749798-3 | 5749798-1 |
| 78 | 2.640 | 2.500 | .476 | 4-40 inserts | — | 5749019-6 | 5749019-5 | 5749019-1 |
| | 67.00 | 63.50 | 12.10 | | | | | |

Straight Posted Connectors

■ Recognized under the Component Program of Underwriters Laboratories, Inc., File No. E28476



■ Certified by Canadian Standards Association, File No. LR 7189



| No. of Contact Positions | Dimensions | | | Mounting Hardware | PCB Mounting Style | Part Numbers | | |
|--------------------------|------------|-------|-------|-------------------|--------------------|--------------|-----------|-----------|
| | A | B | C | | | Gold Flash | 15K" Gold | 30K" Gold |
| 15 | 1.212 | .984 | .465 | 4-40 inserts | — | — | 5749374-7 | 5749374-1 |
| | 30.80 | 25.00 | 11.80 | 4-40 screw locks | — | 5786356-4 | 5786356-3 | 5786356-1 |
| | 1.212 | .984 | .465 | 4-40 inserts | retention pegs | — | — | 5749374-3 |
| | 30.80 | 25.00 | 11.80 | 4-40 screw locks | retention pegs | — | 5786382-3 | 5786382-1 |
| 26 | 1.543 | 1.310 | .465 | 4-40 inserts | — | 5749030-4 | 5749030-3 | 5749030-1 |
| | 39.20 | 33.30 | 11.80 | 4-40 screw locks | retention pegs | 5788623-4 | 5788623-3 | — |
| 62 | 2.732 | 2.500 | .465 | 4-40 inserts | — | 3-5747786-4 | — | 5747786-6 |
| 78 | 2.638 | 2.400 | .476 | 4-40 inserts | — | 1-5748831-0 | 5748831-9 | 5748831-1 |
| | 67.00 | 61.00 | 12.10 | | | | | |

Note: All part numbers are RoHS compliant.

HD-20 Front Metal-Shell Straight Posted Connectors With ACTION PIN Contacts

Receptacle



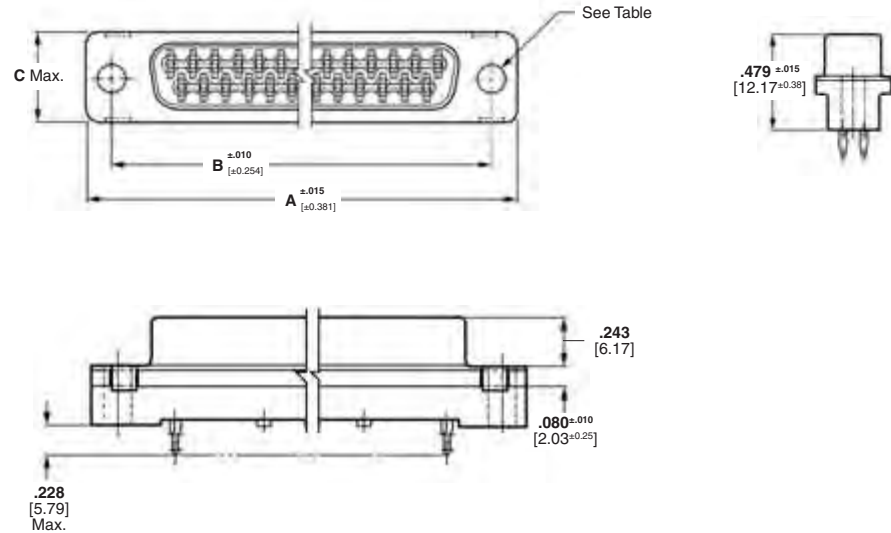
With Standard Mounting Holes



With Threaded Insert



With Fixed Female Screwlock



See customer drawings for pcb layouts.

Material and Finish:

Front Shell—Steel, tin plated

Housing—94V-0 rated thermoplastic, black

Threaded Inserts—Brass, unplated

Female Screwlocks—Zinc

ACTION PIN Contacts—Copper alloy, duplex plated as follows:

A—.000030 [0.00076] gold on mating end, tin on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated

B—Gold flash on mating end, tin on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated

Technical Documents:

Product Specification—108-40014

Application Specification—114-40026

For .062 [1.57] min. Thick Pc Boards

| Shell Size | No. of Contact Positions | Dimensions | | | Contact Finish (Plating Code) | Receptacle Part Numbers | | | Seating Tool Part No. |
|------------|--------------------------|----------------|----------------|---------------|-------------------------------|---------------------------------|-----------------------|------------------------------|-----------------------|
| | | A | B | C | | With .120 [3.05] Mounting Holes | With Threaded Inserts | With Fixed Female Screwlocks | |
| 1 | 9 | 1.213 30.81 | .984 24.99 | .509 12.93 | A | — | — | — | 91164-2 |
| 2 | 15 | 1.541 39.14 | 1.312 33.33 | .509 12.93 | A | — | — | — | 91165-2 |
| 3 | 25 | 2.088 53.04 | 1.852 47.04 | .509 12.93 | B | — | — | 5748688-1 | 91168-2 |
| 5 | 50 | 2.635 66.93 | 2.406 61.11 | .620 15.75 | A | — | 5748485-2 | — | 91167-2 |

For .093 [2.36] min. Thick Pc Boards

| Shell Size | No. of Contact Positions | Dimensions | | | Contact Finish (Plating Code) | Receptacle Part Numbers | | | Seating Tool Part No. |
|------------|--------------------------|----------------|----------------|---------------|-------------------------------|---------------------------------|-----------------------|------------------------------|-----------------------|
| | | A | B | C | | With .120 [3.05] Mounting Holes | With Threaded Inserts | With Fixed Female Screwlocks | |
| 1 | 9 | 1.213 30.81 | .984 24.99 | .509 12.93 | A | 5747089-2 | 5747090-2 | 5747091-2 | 91164-2 |
| 2 | 15 | 1.541 39.14 | 1.312 33.32 | .509 12.93 | A | 5747140-2 | 5747141-2 | 5747142-2 | 91165-2 |
| 3 | 25 | 2.088 53.04 | 1.852 47.04 | .509 12.93 | A | 5745922-2 | 5745925-2 | 5745928-2 | 91168-2 |
| 4 | 37 | 2.729 69.32 | 2.500 63.50 | .509 12.93 | A | 5747713-2 | 5747714-2 | 5747715-2 | 91166-2 |
| | | | | | B | — | 5747714-1 | — | |
| 5 | 50 | 2.635 66.93 | 2.406 61.11 | .620 15.75 | A | 5747143-2 | 5747144-2 | 5747145-2 | 91167-2 |

- Notes:**
1. All receptacles are preloaded with straight posted ACTION PIN socket contacts.
 2. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

Note: All part numbers are RoHS compliant.

**HD-20 Front Metal-Shell Straight Posted Connectors
With ACTION PIN Contacts (Continued)**

Plug



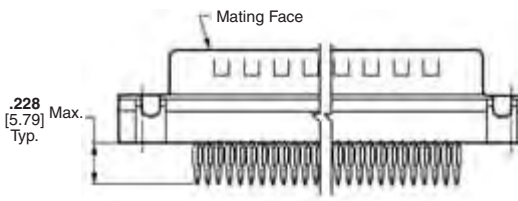
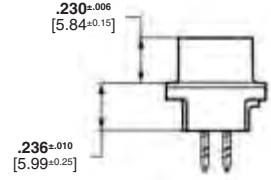
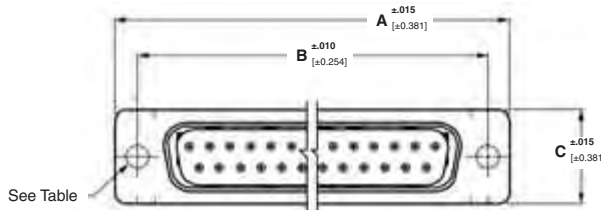
With Standard Mounting Holes



With Threaded Insert



With Fixed Female Screwlock



See customer drawings for pcb layouts.

Straight Posted Connectors

Material and Finish:

- Front Shell**—Steel, tin plated
- Housing**—94V-0 rated thermoplastic, black
- Threaded Inserts**—Brass, unplated
- Female Screwlocks**—Zinc
- ACTION PIN Contacts**—Copper alloy, duplex plated as follows:
A—.000030 [0.00076] gold on mating end, tin on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated

For .093 [2.36] min. Thick Pc Board

| Shell Size | No. of Contact Positions | Dimensions | | | Contact Finish (Plating Code) | Plug Part Numbers | | | Seating Tool Part No. |
|------------|--------------------------|----------------|----------------|---------------|-------------------------------|---------------------------------|-----------------------|------------------------------|-----------------------|
| | | A | B | C | | With .120 [3.05] Mounting Holes | With Threaded Inserts | With Fixed Female Screwlocks | |
| 1 | 9 | 1.213 30.81 | .984 24.99 | .494 12.55 | A | — | 5786830-1 | 5787176-1 | 58274-3 |
| 2 | 15 | 1.541 39.14 | 1.312 33.32 | .494 12.55 | A | — | — | 5787177-1 | 58274-6 |
| 3 | 25 | 2.088 53.04 | 1.852 47.04 | .494 12.55 | A | 5748146-2 | 5748146-4 | 5748146-6 | 58274-1 |
| 4 | 37 | 2.732 69.39 | 2.500 63.50 | .494 12.55 | A | 5788458-1 | 5786534-1 | 5750060-1 | 58274-5 |
| 5 | 50 | 2.635 66.93 | 2.406 61.11 | .605 15.37 | A | — | 5749892-1 | — | 58273-1 |

- Notes:** 1. All plugs are preloaded with straight posted ACTION PIN pin contacts.
 2. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

Technical Documents:

- Product Specification**—108-40014
- Application Specification**—114-40026

Note: All part numbers are RoHS compliant.

HD-20 All-Plastic Straight Posted Connectors With ACTION PIN Contacts

Receptacles (Low and High Profile)



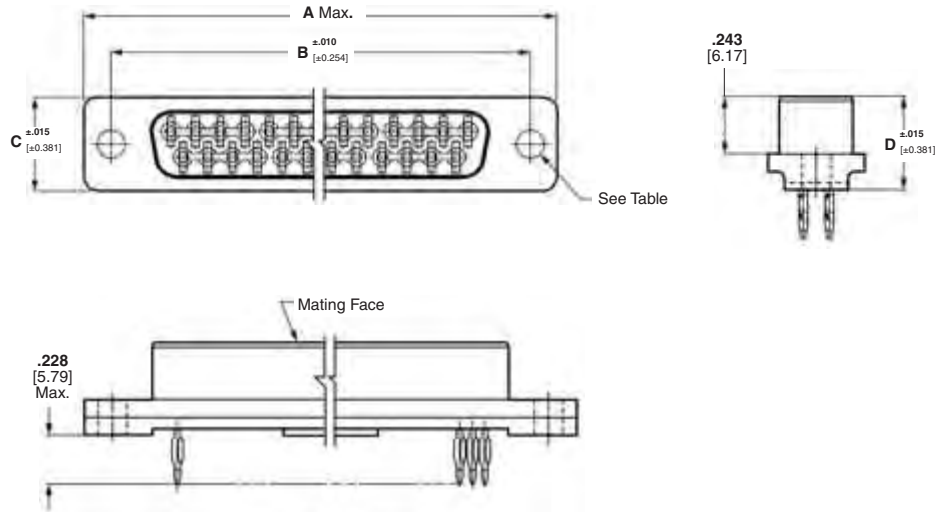
With Standard Mounting Holes



With Threaded Insert



With Fixed Female Screwlock



See customer drawings for pcb layouts.

Material and Finish:

Housing—94V-0 rated thermoplastic, black

Threaded Inserts—Brass, unplated

Female Screwlocks—Brass, nickel plated

ACTION PIN Contacts—Copper alloy, duplex plated as follows:

A—.000030 [0.00076] gold on mating end, tin on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated

B—Gold flash on mating end, tin on ACTION PIN post surface, with entire contact .000050 [0.00127] (min.) nickel underplated

Technical Documents:

Product Specification—108-40014

| Shell Size | No. of Contact Positions | Dimensions | | | | Profile | Contact Finish (Plating Code) | Receptacle Part Numbers | | | | | | Seating Tool Part No. |
|------------|--------------------------|----------------|----------------|---------------|---------------|---------|-------------------------------|--|-----------------------|------------------------------|--|-----------------------|------------------------------|-----------------------|
| | | A | B | C | D | | | For .093 [2.36] (min.) Thick Pc Boards | | | For .062 [1.57] (min.) Thick PC Boards | | | |
| | | | | | | | | With .120 [3.05] Mounting Holes | With Threaded Inserts | With Fixed Female Screwlocks | With .120 [3.05] Mounting Holes | With Threaded Inserts | With Fixed Female Screwlocks | |
| 1 | 9 | 1.221 31.01 | .984 24.99 | .410 10.41 | .395 10.03 | Low | A | — | — | 5745454-2 | — | — | — | 91164-1 |
| | | | | | | High | A | — | — | 5745455-2 | — | — | — | 91164-3 |
| 2 | 15 | 1.546 39.27 | 1.312 33.32 | .410 10.41 | .395 10.03 | Low | A | — | — | 5745456-2 | — | — | — | 91165-1 |
| | | | | | | High | A | — | — | — | — | 5745612-2 | — | — |
| 3 | 25 | 2.095 53.21 | 1.852 47.04 | .410 10.41 | .395 10.03 | Low | A | — | — | 5745458-2 | — | — | — | 91168-1 |
| | | | | | | High | A | — | — | 5745458-1 | — | — | — | — |
| 4 | 37 | 2.737 69.52 | 2.500 63.50 | .410 10.41 | .395 10.03 | Low | A | — | — | 5745459-2 | 5745589-2 | — | — | 91166-1 |
| | | | | | | High | A | — | — | 5745465-2 | — | — | — | — |
| 5 | 50 | 2.643 67.13 | 2.406 61.11 | .517 13.13 | .395 10.03 | Low | A | — | — | 5745461-2 | — | — | — | 91167-1 |

- Notes:** 1. All receptacles are preloaded with straight posted ACTION PIN socket contacts.
2. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

Note: All part numbers are RoHS compliant.