

# **HD-20 Straight Posted Connectors**



#### **Product Selection Guide**

Connector Density	Туре	Post Style	Style and Shell Finish	No. of Contact Positions	Mating Hardware	Contact Plating (Mating Area/ Solder Tails)	Post Length	Profile
HD-20			Full Metal-Shell With and Without Grounding	9 15 25	<b>.120</b> [3.05] Dia. Holes	Duplex (.000030 [0.00076] Gold/Tin)	<b>.125</b> [3.18]	High
			Indents, Tin Plated (pgs. 78 and 79)	37 50	Clinch Nuts	Duplex (Gold Flash/ Tin)	<b>.188</b> [4.78]	
			Front Metal-Shell	9	<b>.120</b> [.318] Dia. Holes	Duplex (.000030 [0.00076]	<b>.125</b> [3.18]	
	Plugs and	Straight	With and Without Grounding Indents (pgs. 80 and 81)	15 25 37	Threaded Inserts Retention Inserts		<b>.170</b> [4.32]	Medium
	Receptacles				Female Screwlocks	Tin)	<b>.250</b> [6.35]	
				9 15	. <b>120</b> [3.05] Dia. Holes	Duplex (.000030 [0.00076]	<b>.125</b> [3.18]	
			All-Plastic (pgs. 82-85)	25 37 50	Threaded Inserts	Gold/Tin)  Duplex (Gold Flash/	<b>.170</b> [4.32]	Medium
					Female Screwlocks	Tin)	<b>.250</b> [6.35]	
ACTION PIN	Plugs		Front Metal-Shell	9 15	. <b>120</b> [3.05] Dia. Holes	Duplex (.00030 [0.00076] Gold/Tin)	000	
	and Receptacles		Tin Plated (pgs. 87 and 88)	25 37	Threaded Inserts	Duplex	<b>.228</b> [5.79]	Medium
					Female Screwlocks	(Gold/Tin)		
				9 15	. <b>120</b> [3.05] Dia. Holes	Duplex (.000030 [0.00076] Gold Flash/Tin)		
	Receptacles		All-Plastic (pg. 89)	25 37 50	Threaded Inserts	Duplex (.000010 [0.000254]	<b>.228</b> [5.79]	Low/High
					Female Screwlocks	Gold Flash/Tin)		
HD-22	Divers		Front Metal-Shell	15	<b>.120</b> [3.05] Dia. Holes	Duplex (.000030 [0.00076] Gold/Tin)		
	Plugs and Receptacles	Straight	With Grounding Indents, Nickel Plated (pg. 86)	26 44 62 78	Threaded Inserts	Duplex (.000015 [0.00038] Gold/Tin)	<b>.125</b> [3.18]	Medium
			(pg. 00)	70	Female Screwlocks	Duplex (Gold Flash/Tin)		

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### **HD-20 Straight Posted Connectors** (Continued)

#### **Product Facts**

- Flame retardant thermoplastic 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



#### **Section Contents**

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South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013

UK: 44-8706-080-208



# **HD-20 Full Metal-Shell Straight Posted Connectors**

#### Plug



Without Grounding Indents



With Grounding Indents

#### **Material and Finish:**

Shell—Steel, tin plated

**Insert**—94V-0 rated thermoplastic, black

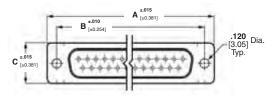
**Pin Contacts (Posted)**—Brass, plated as follows:

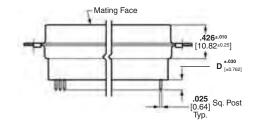
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

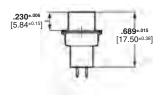
**B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

#### **Technical Documents:**

Product Specification—108-40025







See customer drawings for pcb layouts.

	No. of			_		Contact	Plug Part Numbers			
Shell Size	Contact Positions	Α	Dimen B	C D*		Finish (Plating Code)	Without Grounding Indents	With Grounding Indents	With Clinch Nuts	
					.125	Α	_	5745410-1	5749014-1	
4	9	1.213	.984	.494	3.18	В	5745182-2	_	_	
'	9	30.81	24.99	12.55	<b>.188</b> 4.78	Α	_	5745410-7	_	
2	15	<b>1.541</b> 39.14	<b>1.312</b> 33.33	<b>.494</b> 12.55	<b>.125</b> 3.18	А	_	5745411-1	_	
					.125	Α	_	5745412-1	5745959-1	
3	25	2.088	1.852	.494	3.18	В	5745186-2	_	_	
3	23	53.04	47.04	12.55	<b>.188</b> 4.78	Α	_	5745412-7	_	
4	37	<b>2.729</b> 69.32	<b>2.500</b> 63.50	<b>.494</b> 12.55	<b>.125</b> 3.18	Α	_	5745413-1	_	
5	50	2.635	2.406	.605	<b>.125</b> 3.18	Α	_	5745414-1	_	
5		66.93 61.11		15.37	<b>.188</b> 4.78	А	_	5745414-7	_	

<sup>\*.125 [3.18]</sup> 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.
  - Special loading of contacts can be arranged upon request.
  - 3. Longer post lengths available, consult Tyco Electronics.



# 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

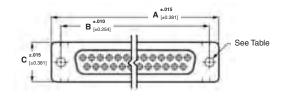
#### Socket Contacts (Posted)-

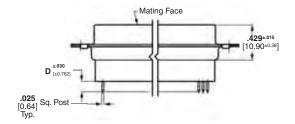
Phosphor bronze, plated as follows: **A**—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

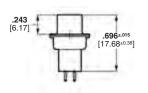
**B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

#### **Technical Documents:**

Product Specification—108-40025







See customer drawings for pcb layouts.

						Contact	Receptacle Part Numbers		
Shell	No. of Contact		Dimen			Finish	With .120 [3.05]	With	
Size	Positions	Α	В	С	D*	(Plating Code)	Mounting Holes	Clinch Nuts	
					.125	Α	5745183-1	5747190-2	
1	9	1.213	.984	<b>.494</b> 12.55	3.18	В	5745183-2	5747190-1	
1	9	30.81	24.99		.188	Α	5745183-7	5747190-4	
					4.78	В	_	_	
					.125	Α	5745185-1	5745820-1	
2	15	1.541	1.312	.494	3.18	В	_	5745820-2	
2		39.14	33.33	12.55	<b>.188</b> 4.78	Α	5745185-7	_	
					.125	Α	5745187-1	5745886-1	
3	25	2.088	1.852	.494	3.18	В	_	5745886-2	
3	25	53.04	47.04	12.55	.188	Α	5745187-7	_	
					4.78	В	5745187-8	_	
4	37	2.729	2.500	.494	<b>.125</b> 3.18	Α	5745189-1	5747315-1	
	37	69.32	63.50	12.55	<b>.188</b> 4.78	Α	5745189-7	_	
	50	2.635	2.406	.605	<b>.125</b> 3.18	А	5745191-1	5747302-1	
	5 50 <b>2.635 2.406</b> 66.93 61.11		15.37	<b>.188</b> 4.78	Α	5745191-7	_		

<sup>\*.125 [3.18]</sup> 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.



# **HD-20 Front Metal-Shell Straight Posted Connectors**

#### Plug



With Grounding Indents



With Threaded Insert



With Fixed Female Screwlock



With Retention

#### **Technical Documents:**

Product Specification—108-40025

Application Specification-114-40023

# **Material and Finish:**

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

Threaded Inserts—Brass, unplated

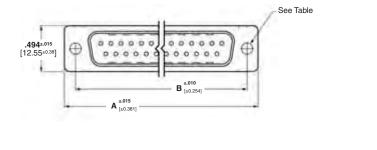
Female Screwlocks—Zinc

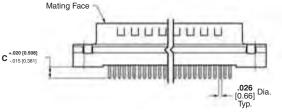
Pin Contacts (Posted)—Brass,

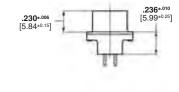
plated as follows: **A**—.000030 [0.00076] gold on mating

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







See customer drawings for pcb layouts.

					Contact			Plug Part Numbers					
Shell	No. of Contact		Dimensions		Finish	With	W:45 4 40	With	Wills Fired	With			
Size	Positions	Α	В	C*	(Plating Code)	Standard Mounting Holes	With 4-40 Threaded Inserts (	Retention 4-40 Inserts (for .062 [1.58] PCB)	With Fixed Female Screwlocks	Retention 4-40 Screwlocks (for .062 [1.58] PCB)			
				.125	Α	5747871-2	5747871-8	2-5748003-0	1-5747871-4	_			
4	9 1.213		.984	3.18	В	_	_	_	1-5747871-3	_			
'	9	30.81	24.99	<b>.170</b> 4.32	Α	5747871-4	_	_	1-5747871-6	_			
2		<b>1.541</b> 39.14	1.541			1.312	<b>.125</b> 3.18	Α	_	5747872-8	_	_	5748026-1
2	15		33.33	<b>.170</b> 4.32	Α	5747872-4	_	_	1-5747872-6	_			
				.125	Α	5745968-2	5745968-8	2-5747704-0	1-5745968-4	5748027-1			
3	25	<b>2.090</b> 53.09	1.852	3.18	В	_	5745968-7	_	1-5745968-3	_			
3	3 25		47.04	.170	Α	5745968-4	_	_	1-5745968-6	_			
				4.32	В	_	_	_	1-5745968-5	_			
4	37	<b>2.732</b> 69.39	<b>2.500</b> 63.50	<b>.125</b> 3.18	Α	5747375-2	5747375-8	_	_	5787686-1			

<sup>\*.125 [3.18]</sup> 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.

- Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.
   PC board hole size is .121<sup>±.002</sup> [3.07<sup>±0.0508</sup>] for all retention inserts and screwlocks.

Note: All part numbers are RoHS compliant.

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Catalog 82068 Revised 1-08

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Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803

South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080-208



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

#### Receptacle



With Standard Mounting Holes



With Threaded Insert



With Fixed Female Screwlock



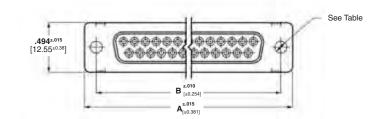
With Retention

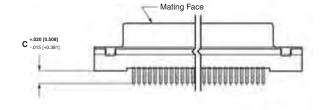
#### **Material and Finish:**

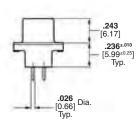
SheII --- Steel, tin plated

**Housing**—94V-0 rated thermoplastic,

Threaded Inserts—Brass, unplated Female Screwlocks—Zinc







See customer drawings for pcb layouts.

#### 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

					0		Re	eceptacle Part Numb	ers	
Shell Size	No. of Contact Positions	A	Dimensions B	C*	Contact Finish (Plating Code)	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)
				.125	Α	5747150-2	5747150-8	2-5747706-0	1-5747150-4	5750678-1
4	9	1.216	.984	3.18	В	_	5747150-7	_	1-5747150-3	_
'	9 30.89		24.99	.170	Α	5747150-4	_	_	1-5747150-6	_
				4.32	В	_	5747150-9	_	_	_
	0 45	<b>1.541</b> 39.14		.125	Α	5747299-2	5747299-8	2-5747707-0	1-5747299-4	5787683-1
2			1.312	3.18	В	_	5747299-7	_	_	_
2	15		33.33	<b>.170</b> 4.32	А	5747299-4	_	_	1-5747299-6	_
				.125	Α	5745967-2	5745967-8	2-5747708-0	1-5745967-4	5748612-1
3	25	2.090	1.852	3.18	В	_	5745967-7	1-5745967-0	_	
3	25	53.09	47.04	.170	Α	5745967-4	1-5745967-0	_	1-5745967-6	_
				4.32	В	_	_	_	1-5745967-5	_
				.125	Α	5747301-2	5747301-8	2-5747709-0	1-5747301-4	5787685-1
4	37	2.732	2.500	3.18	В	_	5747301-7	_	_	_
4	3/	69.39	63.50	<b>.170</b> 4.32	Α	_	_	_	1-5747301-6	_

<sup>\*.125 [3.18]</sup> 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. Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.
- 3. Pc board hole size is .121±.002 [3.07±0.0508] for all retention inserts and screwlocks.



# **HD-20 All-Plastic Straight Posted Connectors**

#### Plug



With Standard Mounting Hole



With Threaded Insert



With Fixed Female Screwlock

#### **Material and Finish:**

**Housing**—94V-0 rated thermoplastic, black

**Threaded Inserts**—Brass, unplated **Female Screwlocks**—Brass, nickel plated

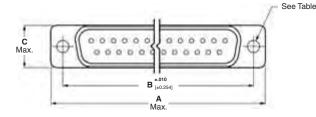
**Pin Contacts (Posted)**—Brass, plated as follows:

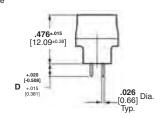
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

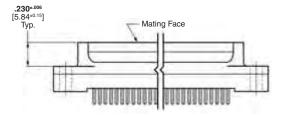
**B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

#### **Technical Documents:**

Product Specification—108-40025

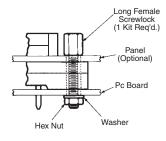


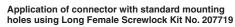


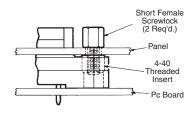


See customer drawings for pcb layouts.

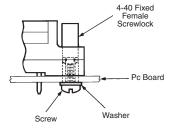
#### **Typical Applications**







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.



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

#### Plug (Continued)

						Contact	PI	ug Part Numb	ers
Shell Size	No. of Contact Positions	Α	Dimen B	sions C	D*	Finish (Plating Code)	With .120 [3.05] Mounting Holes	With Threaded Inserts	With Fixed Female Screwlocks
					.125	Α	5208006-2	5745051-2	5745071-2
	9	1.228	.984	.420	3.18	В	5208006-1	5745051-1	5745071-1
1 9		32.72	24.99	10.67	.170 4.32	Α	_	_	5745071-4
					.125	А	5208007-2	5745052-2	5745072-2
2	15	1.546		<b>.420</b> 10.67	3.18	В	_	5745052-1	_
2	15	39.27			.170 4.32	Α	_	_	5745072-4
					.125	Α	5208008-2	5745053-2	5745073-2
3	25	2.095	1.852	.420	3.18	В	5208008-1	_	5745073-1
3	25	53.21	47.04	10.67	.170 4.32	В	_	_	5745073-3
					.125	Α	_	_	5745074-2
4	37	2.737	2.500	.420	3.18	В	5208009-1	_	5745074-1
4	3/	69.52	63.50	10.67	.170	Α	_	5745054-4	5745074-4
					4.32	В	5208009-3	_	_
5	50	<b>2.643</b> 67.13	<b>2.406</b> 61.11	<b>.527</b> 13.39	<b>.125</b> 3.18	Α	5208010-2	_	_

<sup>\*.125 [3.18]</sup> 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.

South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080-208

Notes: 1. All plugs are preloaded with size 20 DF posted pin contacts.

<sup>2.</sup> It is recommended that these connectors be secured with appropriate hardware to a pc board and/or panel.

<sup>3.</sup> Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.



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

#### Receptacle



With Standard Mounting Hole



With Threaded Insert



With Fixed Female Screwlock

#### **Material and Finish:**

**Housing**—94V-0 rated thermoplastic, black

**Threaded Inserts**—Brass, unplated **Female Screwlocks**—Brass, nickel plated

#### Socket Contacts (Posted)-

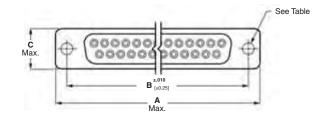
Phosphor bronze, plated as follows:

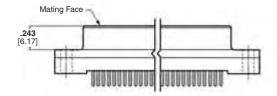
**A**—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

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

## **Technical Documents:**

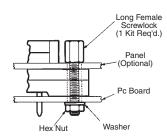
Product Specification—108-40025



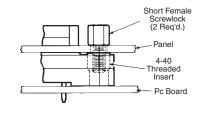


See customer drawings for pcb layouts.

#### **Typical Applications**



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

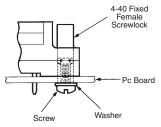


.479±.015 [12.17±0.38]

.026

[0.66] Typ.

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.



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

#### Receptacle

(Continued)

						Contact	Rece	ptacle Part Nu	ımbers
Shell Size	No. of Contact Positions	Α	Dimen B	C D*		Finish (Plating Code)	With .120 [3.05] Mounting	With Threaded Inserts	With Fixed Female Screwlocks
							Holes		
					.125	A	5207826-4	5207841-4	5745076-4
	0	1.228	.984	.420	3.18	В	5207826-3	5207841-3	5745076-3
1	9	32.72	24.99	10.67	<b>.170</b> 4.32	Α	_	_	5745076-6
			<b>1.312</b> 33.33	<b>.420</b> 10.67	.125	Α	5207827-4	5745057-4	5745077-4
	2 15	1.546			3.18	В	5207827-3	5745057-3	5745077-3
2	15	39.27			.170 4.32	Α	_	_	5745077-6
					.125	Α	5207828-4	5745058-4	5745078-4
0	0.5	2.095	1.852	.420	3.18	В	5207828-3	5745058-3	5745078-3
3	25	53.21	47.04	10.67	.170	Α	_	_	5745078-6
					4.32	В	_	_	5745078-5
4	37	2.737	2.500	.420	<b>.125</b> 3.18	Α	5207829-4	5745059-4	5745079-4
4	3/	69.52	63.50	10.67	<b>.170</b> 4.32	Α	_	_	5745079-6
5	50	2.643	2.643 2.406	.527	<b>.125</b> 3.18	Α	_	_	5745080-4
5		50 <b>2.643</b> 67.13		13.39	<b>.170</b> 4.32	Α	_	_	5745080-6

<sup>\*.125 [3.18]</sup> 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.

South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080-208

Notes: 1. All receptacles are preloaded with size 20 DF posted socket contacts.

<sup>2.</sup> It is recommended that these connectors be secured with appropriate hardware to a pc board and/or panel.

<sup>3.</sup> Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.



# **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

Threaded Inserts—Brass, tin plated

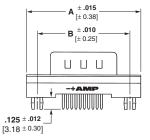
#### **Technical Documents:**

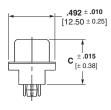
**Product Specification**—108-1092 **Application Specification**— 114-13199

See customer drawings for printed circuit board layouts.

- Recognized under the Component Program of Underwriters Laboratories, Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

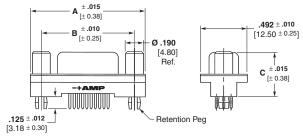






Vertical Plug

No. of	D.	imensio	ns	Mounting	PCB Mounting Style	1	Part Numbers			
Contact Positions	A	В	C	Hardware		Gold Flash	15K" Goĺd	30K" Goĺd		
15	<b>1.212</b> 30.80	<b>.984</b> 25.00	<b>.476</b> 12.10	4-40 inserts	retention pegs	5750489-4	5750489-3	5750489-1		
15	<b>1.212</b> 30.80	<b>.984</b> 25.00	<b>.476</b> 12.10	4-40 inserts	_	5749798-4	5749798-3	5749798-1		
78	<b>2.640</b> 67.00	<b>2.500</b> 63.50	<b>.476</b> 12.10	4-40 inserts	_	5749019-6	5749019-5	5749019-1		



Vertical Receptacle

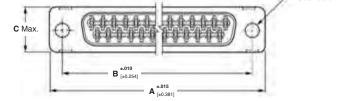
No. of	Di	imensio	ns	Mounting	PCB		art Numbers	
Contact Positions	A	В	С	Hardware	Mounting Style	Gold Flash	15K" Goĺd	30K" Goĺd
	<b>1.212</b> 30.80	<b>.984</b> 25.00	<b>.465</b> 11.80	4-40 inserts	_	_	5749374-7	5749374-1
45	<b>1.212</b> 30.80	<b>.984</b> 25.00	<b>.465</b> 11.80	4-40 screw locks	_	5786356-4	5786356-3	5786356-1
15	<b>1.212</b> 30.80	<b>.984</b> 25.00	<b>.465</b> 11.80	4-40 inserts	retention pegs	_	_	5749374-3
	<b>1.212</b> 30.80	<b>.984</b> 25.00	<b>.465</b> 11.80	4-40 screw locks	retention pegs	_	5786382-3	5786382-1
06	<b>1.543</b> 39.20	<b>1.310</b> 33.30	<b>.465</b> 11.80	4-40 inserts	_	5749030-4	5749030-3	5749030-1
26	<b>1.543</b> 39.20	<b>1.310</b> 33.30	<b>.465</b> 11.80	4-40 screw locks	retention pegs	5788623-4	5788623-3	_
62	<b>2.732</b> 69.40	<b>2.500</b> 63.50	<b>.465</b> 11.80	4-40 inserts	_	3-5747786-4	_	5747786-6
78	<b>2.638</b> 67.00	<b>2.400</b> 61.00	<b>.476</b> 12.10	4-40 inserts	_	1-5748831-0	5748831-9	5748831-1



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

# Receptacle







With Standard Mounting Holes



With Threaded Insert



With Fixed Female Screwlock

# **.228** [5.79] Max.

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:

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

#### For .062 [1.57] min. Thick Pc Boards

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

#### **Technical Documents:**

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

#### For .093 [2.36] min. Thick Pc Boards

	No. of				Contact	Recep	umbers			
Shell	No. of Contact		imensior	าร	Finish	With	With	With Fixed	Seating Tool	
Size	Positions	Α	В	С	(Plating Code)	.120 [3.05] Mounting Holes	Threaded Inserts	Female Screwlocks	Part No.	
1	9	<b>1.213</b> 30.81	<b>.984</b> 24.99	<b>.509</b> 12.93	Α	5747089-2	5747090-2	5747091-2	91164-2	
2	15	<b>1.541</b> 39.14	<b>1.312</b> 33.32	<b>.509</b> 12.93	Α	5747140-2	5747141-2	5747142-2	91165-2	
3	25	<b>2.088</b> 53.04	<b>1.852</b> 47.04	<b>.509</b> 12.93	Α	5745922-2	5745925-2	5745928-2	91168-2	
4	37	2.729	2.500	.509	Α	5747713-2	5747714-2	5747715-2	91166-2	
4	37	69.32	63.50	12.93	В	_	5747714-1	_	91100-2	
5	50	<b>2.635</b> 66.93	<b>2.406</b> 61.11	<b>.620</b> 15.75	Α	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.

South America: 55-11-2103-6000

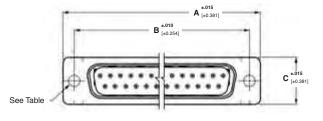


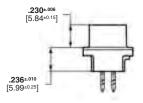
# HD-20 Front Metal-Shell Straight Posted Connectors With ACTION PIN Contacts (Continued)

#### Plug



With Standard Mounting Holes



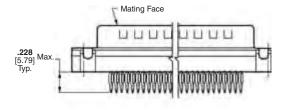




With Threaded Insert



With Fixed Female Screwlock



See customer drawings for pcb layouts.

#### **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

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

Notes: 1. All plugs are preloaded with straight posted ACTION PIN pin contacts.

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



# 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

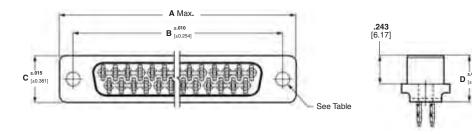
#### **Material and Finish:**

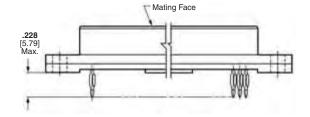
**Housing**—94V-0 rated thermoplastic, black

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





See customer drawings for pcb layouts.

**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

	No. of Contact Positions							Receptacle Part Numbers						
Shell Size		Dimensions					Contact	For .093 [2.36] (min.) Thick Pc Boards			For .062 [1.57] (min.) Thick PC Boards			Seating
		A	В	C	D	Profile	Finish (Plating Code)	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	Tool Part No.
1	9	<b>1.221</b> 31.01	<b>.984</b> 24.99	<b>.410</b> 10.41	<b>.395</b> 10.03	Low	Α	_	_	5745454-2	_	_	_	91164-1
					<b>.695</b> 17.65	High	Α	_	_	5745455-2	_	_	_	91164-3
2	15	<b>1.546</b> 39.27	<b>1.312</b> 33.32	<b>.410</b> 10.41	<b>.395</b> 10.03	Low	Α	_	_	5745456-2	_	_	_	91165-1
					<b>.695</b> 17.65	High	Α	_	_	_	_	5745612-2	_	91165-3
3	25	<b>2.095</b> 53.21	<b>1.852</b> 47.04	<b>.410</b> 10.41	<b>.395</b> 10.03	Low	Α	_	_	5745458-2	_	_	_	91168-1
							В	_	_	5745458-1	_	_	_	91100-1
					<b>.695</b> 17.65	High	Α	_	5745465-2	_	_	_	_	91168-3
4	37	<b>2.737</b> 69.52	<b>2.500</b> 63.50	<b>.410</b> 10.41	<b>.395</b> 10.03	Low	А	_	_	5745459-2	5745589-2	_	_	91166-1
5	50	<b>2.643</b> 67.13	<b>2.406</b> 61.11	<b>.517</b> 13.13	<b>.395</b> 10.03	Low	А	_	_	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.