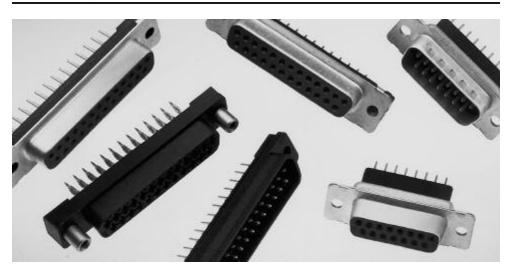
# **HD-20 Straight Posted Connectors**



**Product Selection Guide** 

**Straight Posted Connectors** 

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]	i ligit
			Front Metal-Shell	9	<b>.120</b> [.318] Dia. Holes	Duplex (.000030 [0.00076]	<b>.125</b> [3.18]	
	Plugs and		With and Without Grounding Indents (pgs. 80 and 81)	15 25 37	Threaded Inserts Retention Inserts	5 Duplex	<b>.170</b> [4.32]	Medium
	Receptacles		(pge: ee a e .)	0.	Female Screwlocks	(Gold Flash/ Tin)	<b>.250</b> [6.35]	
				9	<b>.120</b> [3.05] Dia. Holes	Duplex (.000030 [0.00076]	<b>.125</b> [3.18]	Medium
			All-Plastic (pgs. 82-85)	15 25 37	Threaded Inserts	Gold/Tin)	<b>.170</b> [4.32]	
				50	Female Screwlocks	(Gold Flash/ Tin)	<b>.250</b> [6.35]	
ACTION PIN				9	<b>.120</b> [3.05] Dia. Holes	Duplex (.00030 [0.00076]		Medium
	Plugs and Receptacles		Front Metal-Shell Tin Plated (pgs. 87 and 88)	15 25 37	Threaded Inserts	Gold/Tin)	<b>.228</b> [5.79]	
					Female Screwlocks	Duplex (Gold/Tin)		
				9	<b>.120</b> [3.05] Dia. Holes	Duplex (.000030 [0.00076]		
	Receptacles		All-Plastic (pg. 89)	15 25 37	Threaded Inserts	Gold Flash/Tin)	<b>.228</b> [5.79]	Low/High
			50	Female Screwlocks	(.000010 [0.000254] Gold Flash/Tin)			
HD-22	Front Metal-Shell			15	<b>.120</b> [3.05] Dia. Holes	Duplex (.000030 [0.00076] Gold/Tin)		
	Plugs and Receptacles	nd Straight C	With Grounding Indents, Nickel Plated	26 44 62 78	Threaded Inserts	Duplex (.000015 [0.00038] Gold/Tin)	<b>.125</b> [3.18]	Medium
			(pg. 86)	10	Female Screwlocks	Duplex (Gold Flash/Tin)		

76

Catalog 82068 Revised 4-12

www.te.com

Dimensions are shown for reference purposes only. Specifications subject to change. Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



# 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**

Straight Posted Connectors HD-20 Full Metal-Shell	
Straight Posted Connectors	78, 79
HD-20 Front Metal-Shell	,
Straight Posted Connectors	80, 81
HD-20 All-Plastic Straight Posted Connectors	
HD-22 Subminiature D Connectors	86
HD-20 Front Metal-Shell Straight Posted	
Connectors with ACTION PIN Contacts	87, 88
HD-20 All-Plastic Straight Posted Connectors	
with ACTION PIN Contacts	

Catalog 82068 Revised 4-12

Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999



# 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

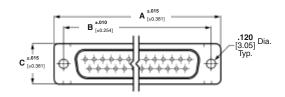
# Pin Contacts (Posted)—Brass, plated as follows:

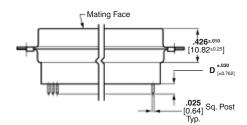
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

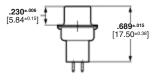
**B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

#### **Technical Documents:**

Product Specification—108-40025







See customer drawings for pcb layouts.

Shell No. of Dimensions						Contact	Plug	g Part Numbe	rs		
Shell Size	Contact Positions	A	Dimen B	c C	D*	Finish (Plating Code)	Without Grounding Indents	With Grounding Indents	With Clinch Nuts		
					.125	А	_	5745410-1	5749014-1		
1	9	1.213	.984	.494 <sup>3.18</sup>	3.18	В	5745182-2	_	_		
I	9	30.81 24.99 12.55 <b>.188</b> 4.78			А	—	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	А	_	5745412-1	5745959-1		
3	25	2.088	1.852	.494			3.18	В	5745186-2	—	_
5	23	53.04	47.04	12.55	<b>.188</b> 4.78	А	—	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	А	—	5745413-1	_		
5	50	50 <b>2.635</b>		.605	<b>.125</b> 3.18	А	_	5745414-1	_		
5	50	66.93	61.11	15.37	<b>.188</b> 4.78	А	_	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 TE.

Note: All part numbers are RoHS compliant.

78

Catalog 82068 Revised 4-12 www.te.com

Dimensions are shown for reference purposes only. Specifications subject to change. Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015

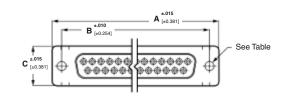
Straight Posted Connectors



# 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

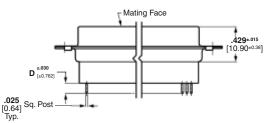
Clinch Nuts—Steel, zinc plated

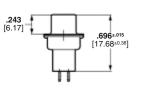
Socket Contacts (Posted)— Phosphor bronze, plated as follows: A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel

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 F	Part Numbers				
Shell Size	No. of Contact Positions	A	Dimen B	sions C	D*	Finish (Plating Code)	With .120 [3.05] Mounting Holes	With Clinch Nuts	
					.125	А	5745183-1	5747190-2	
		1.213	.984	.494	3.18	В	5745183-2	5747190-1	
1	9	30.81	24.99	12.55	.188	А	5745183-7	5747190-4	
					4.78	В	_	_	
				<b>.494</b> 12.55	.125	А	5745185-1	5745820-1	
2	15	1.541	1.312		3.18	В	_	5745820-2	
2	2 15	39.14	33.33		<b>.188</b> 4.78	А	5745185-7	_	
				<b>.494</b> 12.55	.125	А	5745187-1	5745886-1	
3	05	2.088	1.852		3.18	В	—	5745886-2	
3	25	53.04	47.04		.188	А	5745187-7	_	
					4.78	В	5745187-8	—	
4	37	2.729	2.500	.494	<b>.125</b> 3.18	А	5745189-1	5747315-1	
4	37	69.32	63.50	12.55	<b>.188</b> 4.78	А	5745189-7	_	
E	50	50	2.635	2.406	.605	<b>.125</b> 3.18	А	5745191-1	5747302-1
5		66.93	61.11	15.37	<b>.188</b> 4.78	А	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 TE.

Note: All part numbers are RoHS compliant.

Catalog 82068 Revised 4-12

www.te.com

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

millimeters unless otherwise specified. USA: +1 (800) 522-6752

Dimensions are in inches and

Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



# HD-20 Front Metal-Shell Straight Posted Connectors

### Plug

**Straight Posted Connectors** 



With Grounding Indents





With Retention

#### Material and Finish:

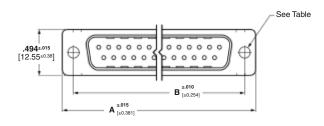
Shell-Steel, tin plated Housing-94V-0 rated thermoplastic, black

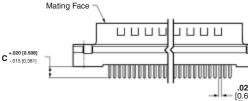
Threaded Inserts—Brass, unplated Female Screwlocks—Zinc

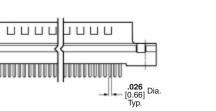
Pin Contacts (Posted)—Brass, plated as follows:

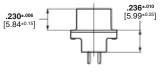
A—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated **B**—Gold flash on mating end, tin on

termination end, with entire contact .000050 [0.00127] (min.) nickel underplated









See customer drawings for pcb layouts.

### **Technical Documents:**

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

					Contact		Plug Part Numbers					
Shell	No. of		Dimensions		Finish	With		With		With		
Size	Contact Positions	Α	В	C*		Standard Mounting Holes	With 4-40 Threaded Inserts (1	Retention 4-40 Inserts for .062 [1.58] PCB)	With Fixed Female Screwlocks	Retention 4-40 Screwlocks (for .062 [1.58] PCB)		
				.125	А	5747871-2	5747871-8	2-5748003-0	1-5747871-4	—		
4	9	1.213	.984	3.18	В	—	_	—	1-5747871-3	—		
I	1 9 30.8	30.81	30.81 24.99	<b>.170</b> 4.32	А	5747871-4	—	—	1-5747871-6	_		
2	2 15 1	1.541		1.312	<b>.125</b> 3.18	А	_	5747872-8	_	_	5748026-1	
2	15	39.14	33.33	<b>.170</b> 4.32	А	5747872-4	—	—	1-5747872-6	_		
				.125	А	5745968-2	5745968-8	2-5747704-0	1-5745968-4	5748027-1		
3	25	2.090	1.852	3.18	В		5745968-7	—	1-5745968-3	—		
3	3 25	53.09	47.04	.170	А	5745968-4	—	—	1-5745968-6	—		
							4.32 B —	—	—	1-5745968-5	—	
4	37	<b>2.732</b> 69.39	<b>2.500</b> 63.50	<b>.125</b> 3.18	А	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.

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.

O	<u>n</u>
n	U

0				
Catalog 82068 Revised 4-12	Dimensions are shown for reference purposes only.	Dimensions are in inches and millimeters unless otherwise	Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800	UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686
	Specifications subject	specified.	Latin/S. Am.: +54 (0) 11-4733-2200	Netherlands: +31 (0) 73-6246-999
www.te.com	to change.	USA: +1 (800) 522-6752	Germany: +49 (0) 6251-133-1999	China: +86 (0) 400-820-6015



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

### Receptacle







With Fixed Female Screwlock



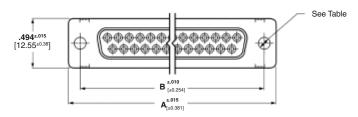
### With Retention

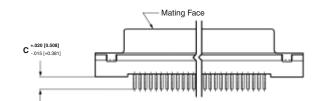
### Material and Finish:

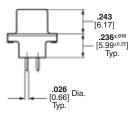
**Shell**—Steel, tin plated **Housing**—94V-0 rated thermoplastic,

black 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

					Ormitest		Re	eceptacle Part Numb	ers			
Shell Size	No. of Contact Positions	A	Dimensions A 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	А	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	_		
1	30.89	30.89	24.99	.170	А	5747150-4	_	—	1-5747150-6	_		
				4.32	В		5747150-9	_	_	_		
	0 45 1.541			.125	А	5747299-2	5747299-8	2-5747707-0	1-5747299-4	5787683-1		
2		1.541	1.312	3.18	В	_	5747299-7	—	_	_		
2	15	39.14	33.33	<b>.170</b> 4.32	А	5747299-4	_	—	1-5747299-6	_		
				.125	А	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	А	5745967-4	1-5745967-0	—	1-5745967-6	_		
				4.32	В	_	_		1-5745967-5	_		
		<b>2.732</b> 69.39				.125	А	5747301-2	5747301-8	2-5747709-0	1-5747301-4	5787685-1
4	4 37		2.500	3.18	В		5747301-7	_	—	_		
4 37			69.39		63.50	<b>.170</b> 4.32	А	_	_	_	1-5747301-6	_

\*.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. 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.

Note: All part numbers are RoHS compliant.

Catalog 82068 Revised 4-12	Dimensions are shown for reference purposes only. Specifications subject	Dimensions are in inches and millimeters unless otherwise specified.	Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200	UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999
www.te.com	to change.	USA: +1 (800) 522-6752	Germany: +49 (0) 6251-133-1999	China: +86 (0) 400-820-6015



# 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

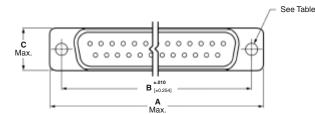
Pin Contacts (Posted)—Brass, plated as follows:

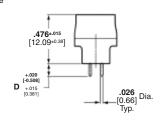
A-.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

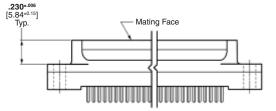
**B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

#### **Technical Documents:**

Product Specification—108-40025

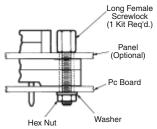


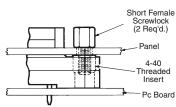




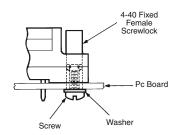
See customer drawings for pcb layouts.

**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 TE using the part nos. specified.

Note: All part numbers are RoHS compliant.

Catalog 82068 Revised 4-12

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

Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752

Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999

UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



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

www.te.com

Plug (Continued)

						Contact	PI	ug Part Numb	ers
Shell Size			Finish (Plating Code)	With .120 [3.05] Mounting Holes	With Threaded Inserts	With Fixed Female Screwlocks			
					.125	А	5208006-2	5745051-2	5745071-2
		.984	.420	3.18	В	5208006-1	5745051-1	5745071-1	
I		32.72	24.99	10.67	<b>.170</b> 4.32	А	_	_	5745071-4
					.125	А	5208007-2	5745052-2	5745072-2
0	0 45	<b>1.546</b> 39.27	<b>1.312</b> 33.33	<b>.420</b> 10.67	3.18	В		5745052-1	_
2	15				<b>.170</b> 4.32	А	_	_	5745072-4
					.125	А	5208008-2	5745053-2	5745073-2
3	25	2.095	1.852	.420	3.18	В	5208008-1	_	5745073-1
3	20	53.21	47.04	10.67	<b>.170</b> 4.32	В	_	_	5745073-3
					.125	А		_	5745074-2
4	27	2.737	2.500	.420	3.18	В	5208009-1	_	5745074-1
4	37	37 <b>2.737</b> 69.52	63.50	10.67	.170	А	_	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	А	5208010-2	_	

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

\*.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.

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.

Catalog 82068 Revised 4-12

www.te.com

Dimensions are shown for reference purposes only. Specifications subject to change. Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999



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

#### Receptacle



With Standard Mounting Hole



With Threaded Insert



With Fixed Female Screwlock

#### Material and Finish:

**Straight Posted Connectors** 

Housing—94V-0 rated thermoplastic, black

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

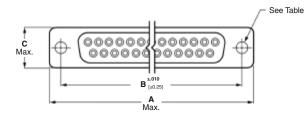
#### Socket Contacts (Posted)-

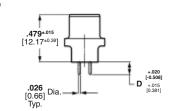
Phosphor bronze, plated as follows: **A**—.000030 [0.00076] gold on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

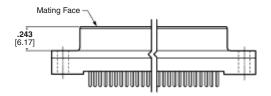
**B**—Gold flash on mating end, tin on termination end, with entire contact .000050 [0.00127] (min.) nickel underplated

#### **Technical Documents:**

Product Specification—108-40025

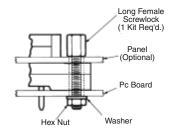




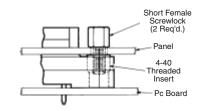


See customer drawings for pcb layouts.

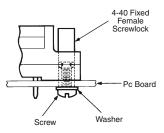
**Typical Applications** 



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



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 TE using the part nos. specified.

Note: All part numbers are RoHS compliant.

Catalog 82068 Revised 4-12

84

www.te.com

reference | Specificati to change.

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

Dimensions are in inches and millimeters unless otherwise specified. La USA: +1 (800) 522-6752 G

Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



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

#### Receptacle

(Continued)

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

It is recommended that these connectors be secured with appropriate hardware to a pc board and/or panel.
 Male screw retainers are used as mating hardware for connectors with 4-40 female screwlocks.

Note: All part numbers are RoHS compliant.

Catalog 82068 Revised 4-12

www.te.com

Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999



# HD-22 Straight Subminiature D Connectors

#### Material and Finish:

Housing—94V-0 rated thermoplastic, black

 VESA Std. 15-position Receptacle Housing Material—Thermoplastic 94V-0 blue per VESA Std. Shell—Steel, nickel plated

# Contacts

**Straight Posted Connectors** 

Pins—Brass Sockets—Phosphor bronze

# Contact Plating—

Gold flash, .000010 [0.00025] 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

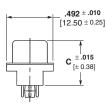
#### **Technical Documents:**

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

See customer drawings for printed circuit board layouts.

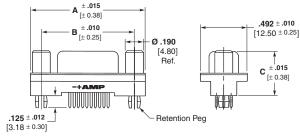
- Recognized under the Component Program of Underwriters Laboratories, Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

-	$A_{[\pm 0.38]}^{\pm .015}$ $B_{[\pm 0.25]}^{\pm .010}$
. <b>125</b> ± .0 [3.18 ± 0.	



Vertical Plug

No. of	D	imensio	าร	Mounting	PCB	Part Numbers				
Contact Positions	A	В	C	Hardware	Mounting Style	Gold Flash	15µ" Gold	30µ" Gold		
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

30µ" Gold
49374-1
86356-1
49374-3
86382-1
49030-1
_
47786-6
48831-1

Note: All part numbers are RoHS compliant.

Catalog 82068 Revised 4-12 Dimensions are shown for reference purposes only. Specifications subject to change. Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



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

### Receptacle



With Standard Mounting Holes



With Threaded Insert



With Fixed Female Screwlock

#### Material and Finish:

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

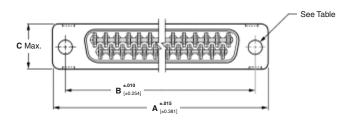
Threaded Inserts—Brass, unplated

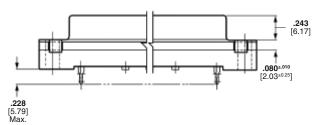
Female Screwlocks—Zinc

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





See customer drawings for pcb layouts.

[12

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

	NI				Contact	Rece			
Shell Size	No. of Contact Positions	D 	imensior B	C	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	А	_	_	_	91164-2
2	15	<b>1.541</b> 39.14	<b>1.312</b> 33.33	<b>.509</b> 12.93	А	_	_	_	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	А	_	5748485-2	_	91167-2

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

		Conta				Recep				
Shell	No. of Contact	Dimensions			Finish	With	With	With Fixed	Seating Tool	
Size	Positions	Α	В	С	(Plating Code)	.120 [3.05] Mounting Holes	Threaded Inserts			
1	9	<b>1.213</b> 30.81	<b>.984</b> 24.99	<b>.509</b> 12.93	А	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	А	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	А	5745922-2	5745925-2	5745928-2	91168-2	
4	37	2.729	2.500	.509	А	5747713-2	5747714-2	5747715-2	91166-2	
4	57	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	А	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.

Straight Posted Connectors

Catalog 82068 Revised 4-12 Dimensions are shown for reference purposes only. Specifications subject to change. Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 87

UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015

www.te.com



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

### Plug

**Straight Posted Connectors** 



With Standard Mounting Holes



With Threaded Insert



With Fixed Female Screwlock

#### Material and Finish:

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

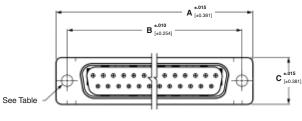
Threaded Inserts—Brass, unplated Female Screwlocks—Zinc

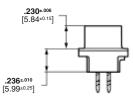
ACTION PIN Contacts—Copper alloy, duplex plated as follows: A—.000030 [0.00076] gold on mating end, tin on ACTION PIN post surface,

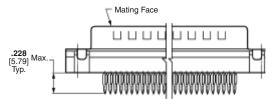
with entire contact .000050 [0.00127] (min.) nickel underplated

#### **Technical Documents:**

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







See customer drawings for pcb layouts.

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

						PI			
Shell Size	No. of Contact Positions	Dimensions A B		C C	Contact Finish (Plating Code)	.120 [3.05] Threaded Femal		With Fixed Female Screwlocks	Seating Tool Part No.
1	9	<b>1.213</b> 30.81	<b>.984</b> 24.99	<b>.494</b> 12.55	А	_	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	А	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	А	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	А	_	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.

Note: All part numbers are RoHS compliant.

Catalog 82068 Revised 4-12 Dimensions are shown for reference purposes only. Specifications subject to change. Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015



# 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

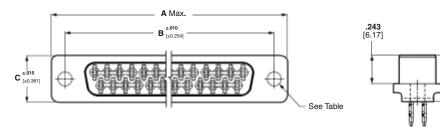
#### Material and Finish:

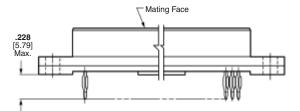
Housing—94V-0 rated thermoplastic, black

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

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

A—.00030 [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

								Receptacle Part Numbers																
Shell Size	No. of		Dimo	nsions			Contact	For .093 [2.	36] (min.) Thio	k Pc Boards	For .062 [1.57] (min.) Thick PC Boards			Seating										
	Contact Positions	Α	B	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	1.221	1.221	1.221	1.221	1.221	1.221	1.221	.984	.410	<b>.395</b> 10.03	Low	А	_	_	5745454-2	_	_	_	91164-1				
I	1 <sup>9</sup> 31	31.01	24.99	10.41	<b>.695</b> 17.65	High	А	_	_	5745455-2	_	_	_	91164-3										
	15	1.546	<b>1.312</b> 33.32	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312	<b>.410</b> 10.41	<b>.395</b> 10.03	Low	А	_	_	5745456-2	—	—	—	91165-
2	15	39.27			10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41	10.41		10.41	<b>.695</b> 17.65	High	А	_	_	_	_	5745612-2	_
		<b>2.095</b> 53.21	1.852		<b>.395</b> 10.03	Low	Α	_	_	5745458-2	_	_	_	01100										
3	25			.410			В	_	—	5745458-1	_	_	_	91168-										
5	25		53.21				53.21	53.21					10.41	<b>.695</b> 17.65	High	А	—	5745465-2	—	—	—	—	91168-	
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-										
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-										

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.



015

Catalog 82068 Revised 4-12

Dimensions are shown for reference purposes only. Specifications subject to change. Dimensions are in inches and millimeters unless otherwise specified. USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999 UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015 89

www.te.com

# **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity: 5745967-7