

## HDP-22 Crimp Snap-In Contact Connectors





### Product Selection Guide

Connector				Contacts		
Type	Insert Material	Shell Type Material and Finish	Mounting	Type	Termination	Plating
Plug (pg. 105)	94V-0 Rated Thermoplastic, Black	Tin Plated Steel with Grounding Indents	.120 [3.05] Dia. Holes	Pin (pg. 109)	Crimp	Duplex (.000030 [0.00076] Gold and Tin)  Duplex (Gold Flash and Tin)
Receptacle (pg. 105)	94V-0 Rated Thermoplastic, Black	Tin Plated Steel	.120 [3.05] Dia. Holes	Socket (pg. 109)	Crimp	Duplex (.000030 [0.00076] Gold and Tin)  Duplex (Gold Flash and Tin)

## HDP-22 Crimp Snap-In Contact Connectors (Continued)

### Product Facts:

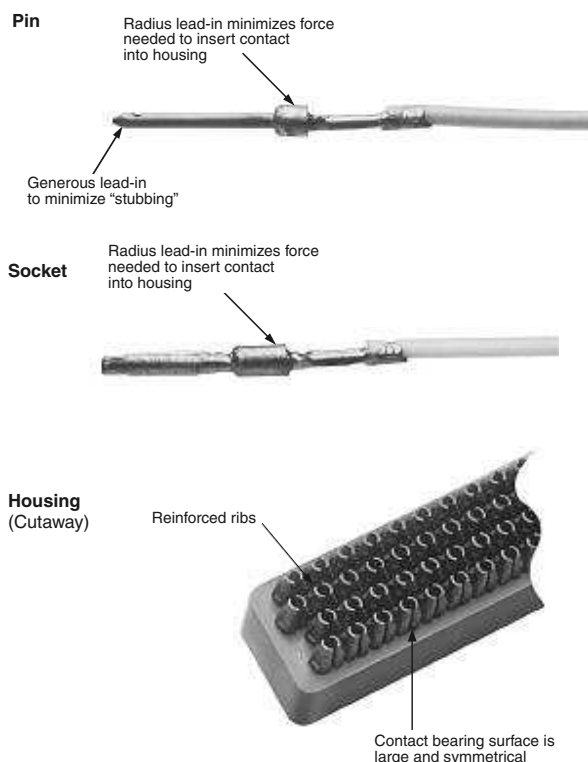
- Approximately 65% higher density than HD-20 connectors
- Lower cost, commercial version of the military approved Series 90 family
- Available with shielding overmold hardware and shielding enclosure kits
- Capable of using numerous standard HD-20 cable clamps and mating hardware
- Low cost, high performance, precision-formed crimp contacts
- Intermateable with any size 22 Subminiature D connector dimensionally complying with MIL-C-24308
- Recognized under the Component Program of Underwriters Laboratories Inc.,  File No. E28476
- Listed under Underwriters Laboratories Inc., Standard 1863, Communication Circuit Accessories,  File No. E81956
- Certified by Canadian Standards Association, File No. LR 1088108 (LR 7189-207) 

### Section Contents

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Unshielded Cable Clamps	Shielded Cable Clamps and Shielding Hardware and Enclosure Kits	Mounting and Mating Hardware
One-Piece All Plastic Cable Clamp 180°/120° (Quik-Snap) (pg. 133)	Straight Exit RFI/EMI Shields for Jacketed Cable (pg. 141)	Male Screw Retainers (pgs. 146, 147)
Box and Lid Straight/90° Exit (pg. 137)	90° Exit RFI/EMI Die Cast Shields For Jacketed Cable (pg. 142)	Female Screwlocks (pg. 148)
Box and Lid Straight/90° Exit with Male Screw Retainers (pg. 137)	Basic Shielding Hardware Kits (pg. 106)	Locking Posts and Slide Latches (pgs. 149, 151)
Clam Shell Straight/45° Exit (pg. 138)	Shielding Hardware Enclosure Kits (pg. 107)	Two-Piece Spring Latch (pg. 152)
Clam Shell Straight/45° Exit with Screw Retainers (pg. 138)	Crimp & Split Ring Ferrules (pgs. 143-145)	Latching Blocks (pgs. 153, 154)

### Contact Retention Features



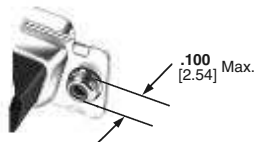
## HDP-22 Crimp Snap-In Contact Connectors (Continued)



**Plug**  
(With Grounding Indents)



**Receptacle**



**Clinch Nut**  
(Plug and Receptacle)

### Material and Finish:

**Shell**—Steel, tin plated

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

Contacts and ferrules must be purchased separately.

### Related Product Data:

**Contact Arrangements**—page 40

**Performance Characteristics**—page 41

**Contacts**—page 109

**Ferrules**—page 108

**Mating/Panel Mounting**—page 42

**Cable Clamps**—pages 132, 133, 135-137, 140, 141, 144, 145

**Mating Hardware**—pages 146-150, 153, 155

### Technical Documents:

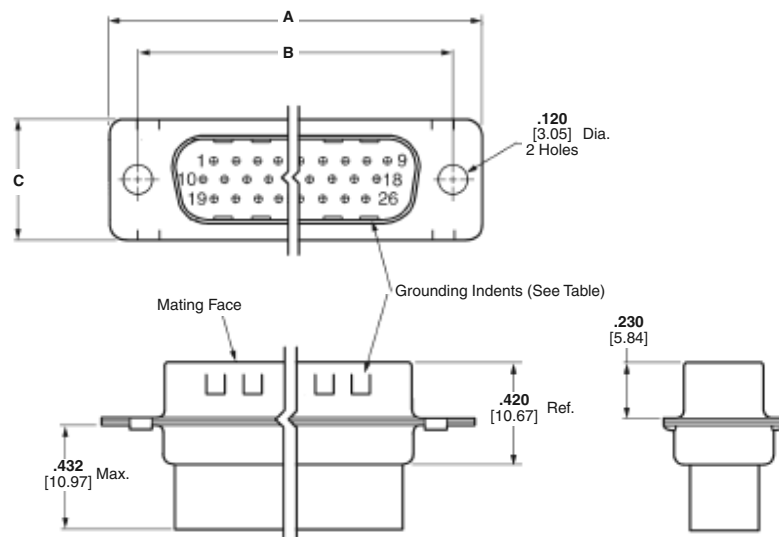
**Application Specification**—114-10001

**Product Specification**—108-1268

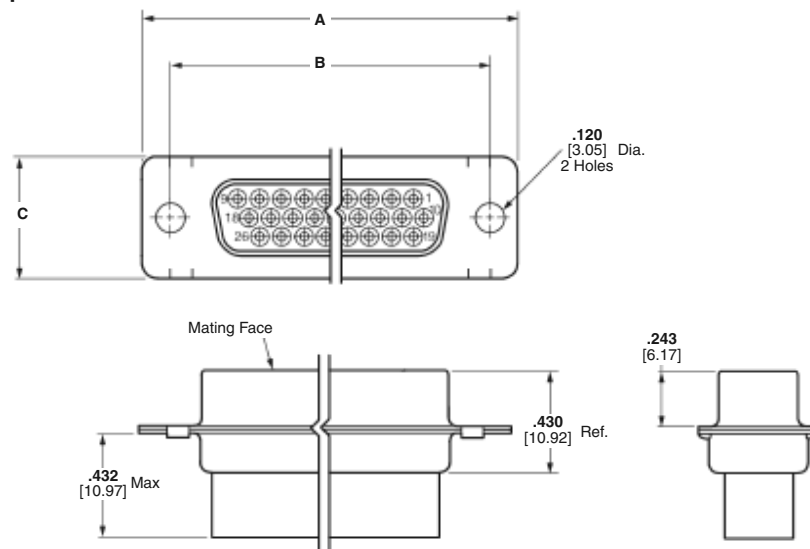
**Instruction Sheets**—408-9381

**Note:** Instruction Sheets for TE Tooling are packaged with the tooling. For additional information call the Tooling Assistance Center: **1-800-722-1111**.

### Plug



### Receptacle



Shell Size	No. of Contact Positions	Dimensions			Part Numbers			
		A	B	C	With Grounding Indents	With Clinch Nuts	With Clinch Nuts	With Clinch Nuts
					Plug	Plug	Receptacle	Receptacle
1	15	1.213 30.81	.984 24.99	.494 12.55	748364-1	1658691-1	1658681-1	1658690-1
2	26	1.541 39.14	1.312 33.33	.494 12.55	1658671-1	5749717-1	1658682-1	5788816-1
3	44	2.088 53.84	1.852 47.04	.494 12.55	1658672-1	—	1658683-1	5786583-1
4	62	2.729 69.32	2.500 63.50	.494 12.55	1658673-1	6658293-1	1658684-1	—
5	78	2.635 66.93	2.406 61.11	.605 15.37	1658674-1	—	1658685-1	5788817-1

**Note:** Plugs accept size 22 DF pin contacts and receptacles accept size 22 DF socket contacts.

**Note:** All part numbers are RoHS compliant.

## HDP-22 Crimp Snap-In Contact Connectors (Continued)

### Material

**Pin**—Brass

**Socket**—Phosphor bronze

### Finish

**A**—Duplex plated .000030 [0.00076] gold on mating end, tin on crimp barrel, with entire contact nickel underplated

**B**—Duplex plated gold flash on mating end, tin on crimp barrel, entire contact nickel underplated

### Related Product Data:

**Performance Characteristics**—  
page 41

**Connectors used with**—pages 105-107

### Technical Documents:

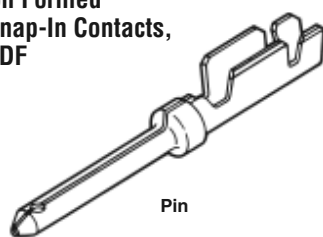
**Application Specification**—  
114-10001

**Product Specification**—108-1268

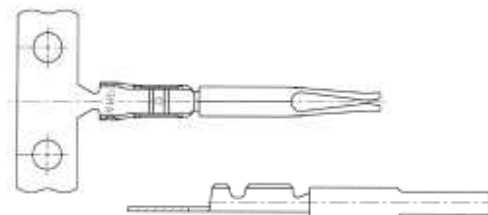
**Instruction Sheet**—408-9381

**Note:** Instruction Sheets for TE Tooling are packaged with the tooling. For additional information call the Tooling Assistance Center: **1-800-722-1111**.

### Precision Formed Crimp Snap-In Contacts, Size 22 DF



Pin



Socket

Wire Size AWG mm <sup>2</sup>	Insulation Diameter Max.	Contact Finish (Plating Code)	Contact Part Numbers				Hand Tools for Loose Form Contacts	
			Pin		Socket		PRO-CRIMPER II Hand Tool	CERTI-CRIMP II Hand Tool
28-22	.040	A	1658670-1	1658670-2	1658686-1	1658686-2	90800-1	91520-1
0.4-0.08	1.02	B	1658670-3	1658670-4	1658686-3	1658686-4		

**Notes:** 1. Strip form contacts shipped 20,000 pieces/reel.

### Insertion/Extraction

**Tool No. 91285-1 (Instruction Sheet—408-9404)**

This tool contains interchangeable tips to Insert/Extract  
Size 22, 28-22 AWG [0.08-0.4 mm<sup>2</sup>] Crimp Contacts  
Size 20, 28-20 AWG [0.08-0.4 mm<sup>2</sup>] Crimp Contacts  
Size 20, Posted Contacts

## Application Tooling



### Applicators

To accommodate the broad range of wire termination products that TE produces, most TE terminating machines are designed for use with interchangeable applicators. The basic styles are quickly interchangeable to minimize costly down times, and feature dial-in wire and insulation crimp-height settings. Special applicators are now available for use with the AMP Crimp Quality Monitor, for measuring the crimp height of each termination as it is made, plus evaluating the quality of each crimp.

For further information, request Catalog 65404.

For applicator part numbers, call the TE Tooling Assistance Center at **1-800-722-1111**.



### AMP-O-LETRIC MODEL "G" Terminating Machine

A totally new design of our most popular machine for bench-top operation. It features a quiet and highly-reliable direct motor drive, electronic controls for ease of setup and operation, and improved guarding and lighting for operator convenience and safety. All versions also include either manual or automatic precision adjustment for crimp height. Power requirement is 120 or 220 VAC, 50 or 60 Hz.

For further information, request Catalog 65828.



### AMP-O-MATIC Model II Stripper-Crimper Machine

This machine automatically strips as well as terminates individual wires. Similar to the AMP-O-LETRIC Model "G" machine, applicators are quickly interchangeable, and it includes precision adjustment for crimp height. All adjustments can be made from the front of the machine without special tools. Power requirement is 120 VAC. Air requirement is 80-100 psi [5.52-6.89 bar], 3.5 scfm [0.00165 m<sup>3</sup>/s].

For further information request Catalog 65004.



### PRO-CRIMPER II Hand Tool Part No. 90800-1

Features interchangeable die sets and ratchet control that provides full die closure to help eliminate partial crimps. The new design is more durable, and requires dramatically less hand force.

For further information, request Catalog 82276.

**Note:** All part numbers are RoHS compliant.