

# D-SUBMINIATURE

D\*KL Series

D\*A Series

D\*U Series

Basic D Series

Series 3 - High Reliability

Backshells/Junctionshells/Hoods

Application Tooling

HTD/HPD Series

Overmold Kits

T\* Series

Series 1 - High Reliability

M24308 Series

Accessories



**Cinch**

The D-subminiature is one of the most popular styles of connectors in the I/O category. It is used in computer, telecom, datacom, medical, and test instrumentation applications as well as in the military and aerospace fields.

**Types of D-subminiature connectors manufactured by Cinch**

- Printed Circuit Board connectors:
  - Vertical connectors for panel mounting with Dip Solder PC tails.
  - Right-Angle connectors for board mounting with Dip Solder PC tails.
- Wire Termination connectors for cable assemblies or wire harnesses:
  - Crimp and Poke connectors.
  - Solder Cup connectors.
  - Insulation Displacement connectors IDCs to terminate discrete wire or flat cable.
  - Wire Wrap connectors.

**How to read this section**

- The information pages provide standard data common to all D-subminiature connectors. These include:
  - D-subminiature contact arrangements - see page 4-5.
  - Panel mounting specifications/hardware - see page 4-6.
  - D-subminiature shell dimensions - see page 4-7.
  - D-subminiature and combo D layouts - see pages 4-5, 4-8 thru 4-10, and 4-56.
  - General Performance Specifications - see page 4-2.
  - PCB thickness chart - see page 4-8.
- D-subminiature pages are grouped by series. A series is a family of connectors with a similar performance level. Each series shares a set of features and specifications, from economical and commercial grade product to high-reliability and military connectors. Each series begins with a page outlining general features and specifications of connectors, followed by the pages on individual connectors with drawings or features specific to that connector. Drawings reflect clarifications of dimensions not called out in the information pages of this catalog. The features of each series can be found in the chart on page 4-4.
- Accessories including backshells, junction shells, and hoods as well as hardware can be found on pages 4-80 thru 4-99.
- Termination tooling for Cinch connectors can be found at the end of the D-subminiature section of this catalog on pages 4-100 thru 4-104.

**General Information**

- All connectors are intermateable with any Cinch D-subminiature of comparable pin count and density, or the D-sub connector of any other manufacturer complying dimensionally with MIL-C-24308.
- Solder terminations and boardlocks meet the requirements for solderability in accordance with MIL-STD-202, Method 208.
- **DURABILITY**
  - Mated connectors are subjected to cycles of insertions and withdrawals specified on the catalog page. After the prescribed cycles the connectors will meet the Cinch requirements concerning insertion-withdrawal force, individual contact insertion-withdrawal force, and contact resistance.
- **APPROVALS**
  - Most Cinch connectors have UL recognition and CSA approval; however, the specific approvals are listed on the individual catalog pages.
- **CONTACTS**
  - Cinch connector contacts are generally offered in Gold Flash or 30 $\mu$ in. gold plating for commercial product, and 50 $\mu$ in. gold plating for M24308 Series Military D-subminiature connectors.
  - Cinch connectors utilize economical stamped and formed contacts and/or screw machine contacts for enhanced performance.
  - Standard density connectors utilize size 20 contacts.
  - Cinch 1.5 Density Series connectors utilize size 22 contacts for greater density in a standard size D-subminiature outer shell.
- **METAL SHELLS**
  - Commercial-grade steel shells are usually available in zinc plating with yellow chromate finish or tin plating.
  - Tin-plated plugs have grounding indents.
  - Military grade M24308 Series connector shells are generally steel or in certain cases non-magnetic brass with cadmium plating and yellow chromate finish.
  - Insulator materials are glass-filled polyester, glass-filled nylon, and diallyl phthalate.
- The connectors are usually available in plugs and sockets in 9, 15, 25, 37, and 50 position sizes.

#### Printed Circuit Board Connectors

- Cinch provides connectors in various footprints, contact diameters, and lengths in both vertical and right-angle PC mount styles with dip solder tails.
- Cinch PCB connectors have metal shells.

#### Connectors for Terminating Cable Wire

- Wire Wrap connectors are available in two tail lengths for two-wrap and three-wrap terminations. The contact is terminated by wrapping wire around it using a wire wrap gun. This connector is especially useful for prototyping since the wire can be unwrapped and rewrapped if necessary.
- Solder Cup connectors allow reliable long-term termination by soldering the wire directly into the connector contact. Cinch Solder Cups accommodate up to 20 AWG wire.
- Crimp and Poke connectors allow the wire to be terminated more economically than wire wrap or solder cup styles. Contacts are crimped and inserted into the connector. In our D<sup>U</sup> Series, the contact is crimped around the conductor wire. In our D<sup>A</sup> Series, the contact is crimped around the wire and the insulation. Crimp and Poke connectors can be selectively loaded to save labor and material cost.
- IDC connectors are an alternative to other types of wire termination connectors. IDC is much faster and very reliable when all contacts are terminated and the volume is high. IDC utilizes mass termination of the cable wire. This can save considerable time and expense in the cable assembly process. The estimated time of terminating two ends of a 25-conductor discrete wire cable with 25-position D-subminiature connectors is about 5-1/2 to 6 minutes less per cable assembly using IDC connectors and Cinch Auto-Clinch termination tooling versus using Crimp and Poke connectors. This may vary considerably based on the operator, cable wire, and process. Cinch offers IDC connectors in two versions-for discrete wire or flat ribbon termination.

### Feature Guide

The chart below contains Cinch D-subminiature product features and styles grouped by series.

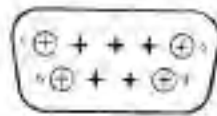
Performance Level	Economical		Commercial				High-Reliability		Military
Series	D*KL	HPD/HTD	D*A	D*U	T	Basic D	Series 1	Series 3	M24308
<b>Termination Type</b>									
Vertical PCB	4-12			4-26		4-42	4-50		4-76
Right-Angle PCB	4-12	4-16		4-26			4-50		4-76
Crimp and Poke		4-16	4-20	4-26				4-72	4-76
Solder Cup					4-34	4-42	4-50		4-76
IDC					4-34				
Wire Wrap						4-42			
<b>Insulator Material</b>									
G-F Nylon			*	*					
G-F Polyester	*	*			*	*			
Diallyl Phthalate							*	*	*
<b>Shell Material</b>									
All Plastic					*				
Steel Shell	*	*	*	*	*	*	*	*	*
<b>Shell Plating</b>									
Tin-Lead Plating	*	*	*	*	*	*	*	*	
Zinc Plating-Y/C finish			*	*	*	*	*	*	
Cadmium Plating-Y/C finish							*	*	*
<b>Contact Plating</b>									
Gold-Flash Plating	*	*	*	*	*	*	*	*	
30µin. Gold Plating	*	*	*	*	*	*	*	*	
50µin. Gold Plating							*	*	*
<b>Contact Type</b>									
Stamped Contacts	*	*	*	*	*	*			
Machined Contacts				*		*	*	*	*

Accessories information starts on page 4-80.

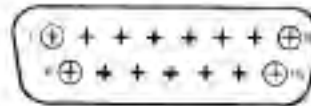
Tooling information starts on page 4-100.

\* Applies to Combination Layout Only.

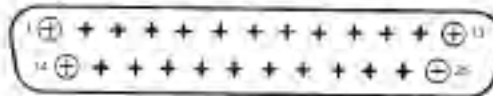
**Standard Density Plug Inserts**



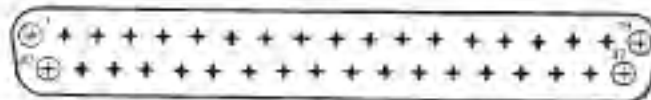
Shell Size E  
(9 Position)



Shell Size A  
(15 Position)



Shell Size B  
(25 Position)

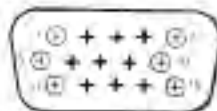


Shell Size C  
(37 Position)

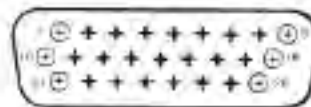


Shell Size D  
(50 Position)

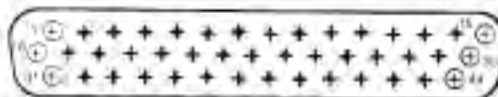
**1.5 Density Plug Inserts**



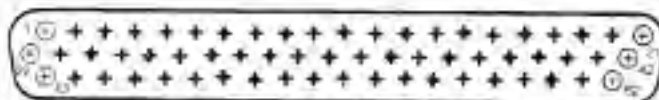
Shell Size E  
(15 Position)



Shell Size A  
(26 Position)



Shell Size B  
(44 Position)



Shell Size C  
(62 Position)

NOTE: Mating face of plug is shown; socket is mirror image.

**Panel Mounting Specifications**



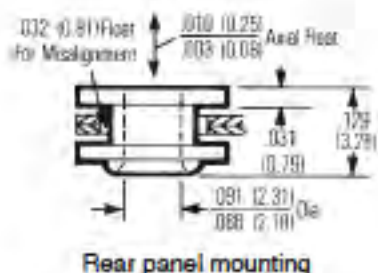
**Dimensions**

Shell Size	Positions	Mounting Method		A		B		C		D		E		F		H		
		Front/Rear Panel	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm		
E	9	Front	0.98	24.89	0.49	12.45	0.87	22.10	0.44	11.18	0.51	12.95	0.26	6.60	0.08	2.03		
		Rear	0.98	24.89	0.49	12.45	0.81	20.57	0.40	10.16	0.45	11.43	0.23	5.84	0.13	3.30		
A	15	Front	1.31	33.27	0.68	16.76	1.10	27.94	0.60	15.24	0.51	12.95	0.26	6.60	0.08	2.03		
		Rear	1.31	33.27	0.68	16.76	1.13	28.70	0.57	14.48	0.45	11.43	0.23	5.84	0.13	3.30		
B	25	Front	1.85	46.99	0.93	23.62	1.74	44.20	0.87	22.10	0.51	12.95	0.26	6.60	0.08	2.03		
		Rear	1.85	46.99	0.93	23.62	1.67	42.42	0.84	21.34	0.45	11.43	0.23	5.84	0.13	3.30		
C	37	Front	2.50	63.50	1.25	31.75	2.39	60.71	1.20	30.48	0.51	12.95	0.26	6.60	0.08	2.03		
		Rear	2.50	63.50	1.25	31.75	2.38	59.18	1.16	29.46	0.45	11.43	0.23	5.84	0.13	3.30		
D	50	Front	2.41	61.21	1.20	30.48	2.30	58.42	1.15	29.21	0.62	15.75	0.31	6.60	0.08	2.03		
		Rear	2.41	61.21	1.20	30.48	2.22	56.39	1.11	28.19	0.56	14.22	0.28	5.84	0.13	3.30		

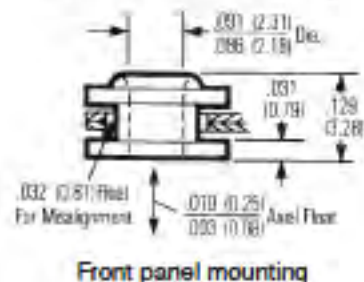
4

**PANEL MOUNTING HARDWARE: Aids in alignment of plug and receptacle.**

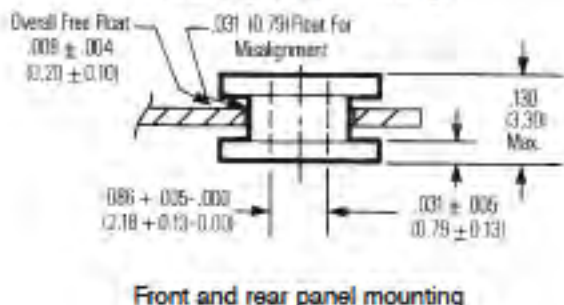
**Float Bushing**



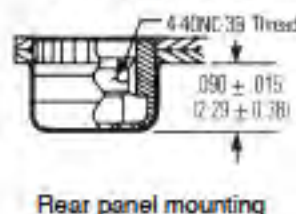
**Reverse Float Bushing**

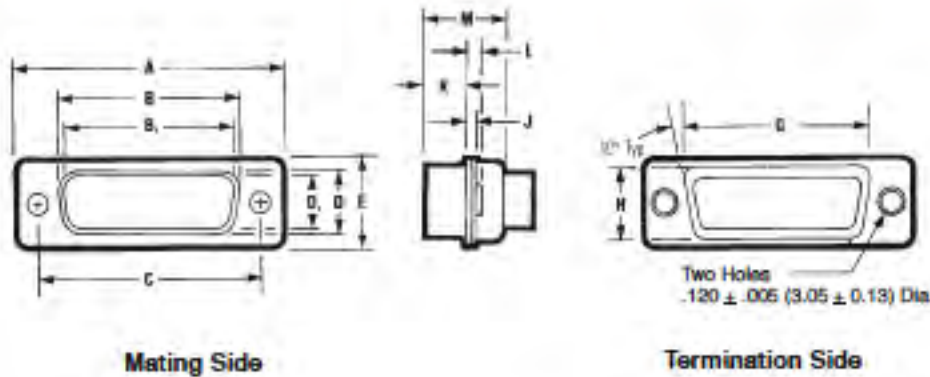


**Floating Dual Bushing**



**4-40 Clinch Nut**





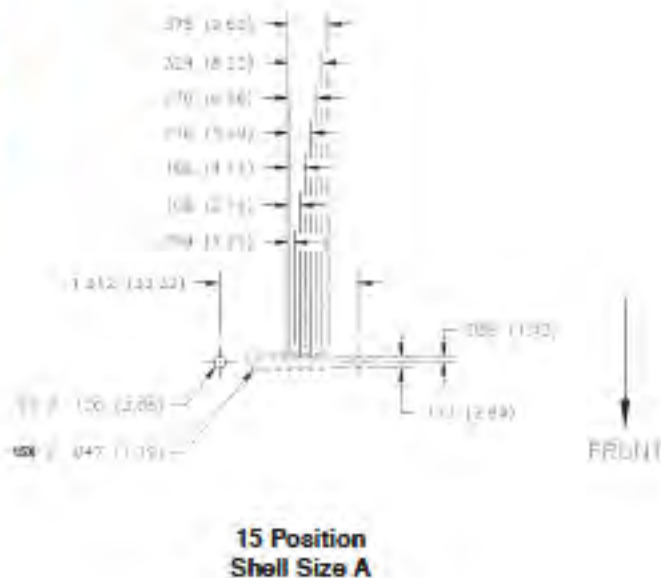
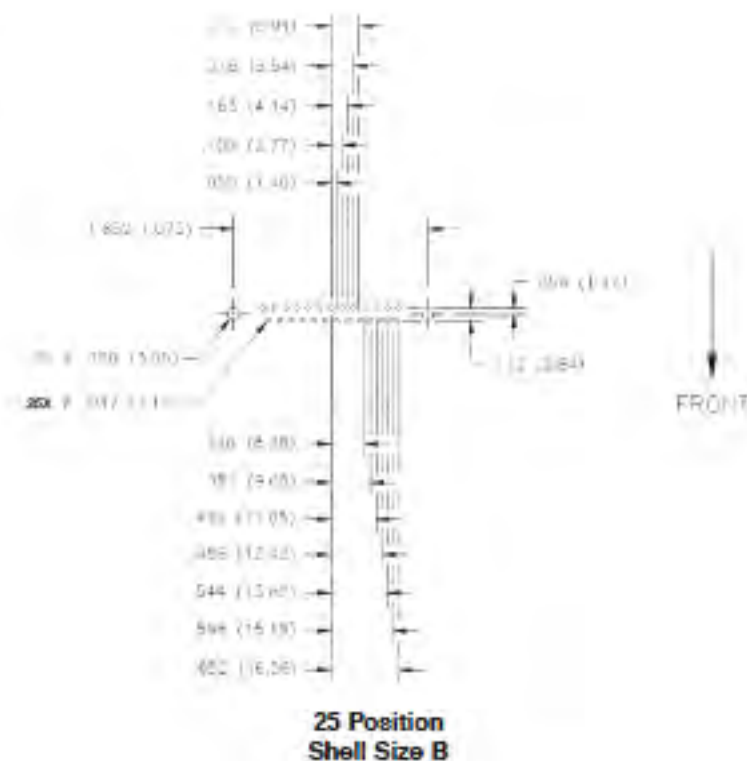
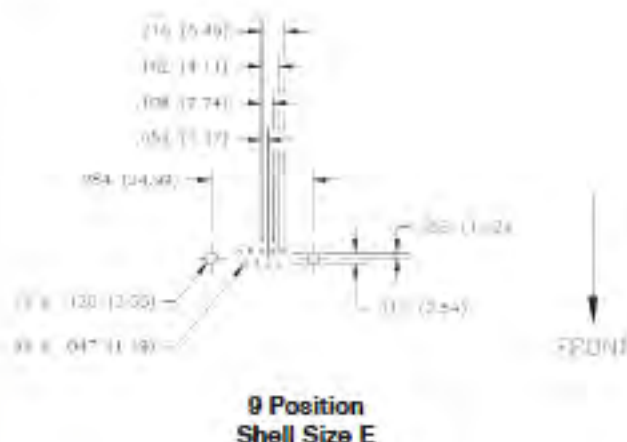
Shell Size	Positions	Connector Type	A $\pm .015^*$ (0.38mm)		B $\pm .010^*$ (0.25mm)		B <sub>1</sub> $\pm .005^*$ (0.13 mm)		C $\pm .005^*$ (0.13mm)		D $\pm .010^*$ (0.25mm)		D <sub>1</sub> $\pm .010^*$ (0.25mm)		E $\pm .010^*$ (0.25mm)	
			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
E	9	Plug	1.213	30.81	—	—	.666	16.90	0.984	24.99	—	—	.329	8.40	.494	12.55
		Socket	1.213	30.81	.640	16.26	—	—	0.984	24.99	.308	7.82	—	—	.494	12.55
A	15	Plug	1.541	39.14	—	—	.994	25.30	1.312	33.32	—	—	.329	8.40	.494	12.55
		Socket	1.541	39.14	.968	24.59	—	—	1.312	33.32	.308	7.82	—	—	.494	12.55
B	25	Plug	2.088	53.04	—	—	1.534	39.00	1.852	47.04	—	—	.329	8.40	.494	12.55
		Socket	2.088	53.04	1.508	38.30	—	—	1.852	47.04	.308	7.82	—	—	.494	12.55
C	37	Plug	2.729	69.32	—	—	2.182	55.40	2.500	63.50	—	—	.329	8.40	.494	12.55
		Socket	2.729	69.32	2.156	54.76	—	—	2.500	63.50	.308	7.82	—	—	.494	12.55
D	50	Plug	2.635	66.93	—	—	2.079	52.80	2.406	61.11	—	—	.436	11.07	.605	15.37
		Socket	2.635	66.93	2.062	52.34	—	—	2.406	61.11	.420	10.67	—	—	.605	15.37

Shell Size	Positions	Connector Type	G $\pm .010^*$ (0.25mm)		H $\pm .010^*$ (0.25mm)		J $\pm .010^*$ (0.25 mm)		K $\pm .005^*$ (0.25mm)		L $\pm .010^*$ (0.25mm)		M $\pm .010^*$ (0.25mm)	
			in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
E	9	Plug	.759	19.28	.422	10.72	.030	0.76	.236	5.99	.045	1.14	.422	10.72
		Socket	.759	19.28	.422	10.72	.030	0.76	.243	6.17	.045	1.14	.429	10.92
A	15	Plug	1.083	27.51	.422	10.72	.030	0.76	.236	5.99	.045	1.14	.422	10.72
		Socket	1.083	27.51	.422	10.72	.030	0.76	.253	6.17	.045	1.14	.429	10.92
B	25	Plug	1.625	41.27	.422	10.72	.039	0.99	.231	5.87	.060	1.52	.426	10.82
		Socket	1.625	41.27	.422	10.72	.030	0.76	.243	6.17	.045	1.14	.429	10.92
C	37	Plug	2.272	57.71	.422	10.72	.039	0.99	.231	5.87	.060	1.52	.426	10.82
		Socket	2.272	57.71	.422	10.72	.030	0.76	.243	6.17	.045	1.14	.429	10.92
D	50	Plug	2.178	55.32	.534	13.56	.039	0.99	.231	5.87	.060	1.52	.426	10.82
		Socket	2.178	55.32	.534	13.56	.030	0.76	.243	6.17	.045	1.14	.429	10.92

B and D are outside dimensions for socket. D and B are inside dimensions for plug.



**Standard Density D-subminiature  
Mounting Dimensions Board Layouts  
Footprints (Component side shown)**



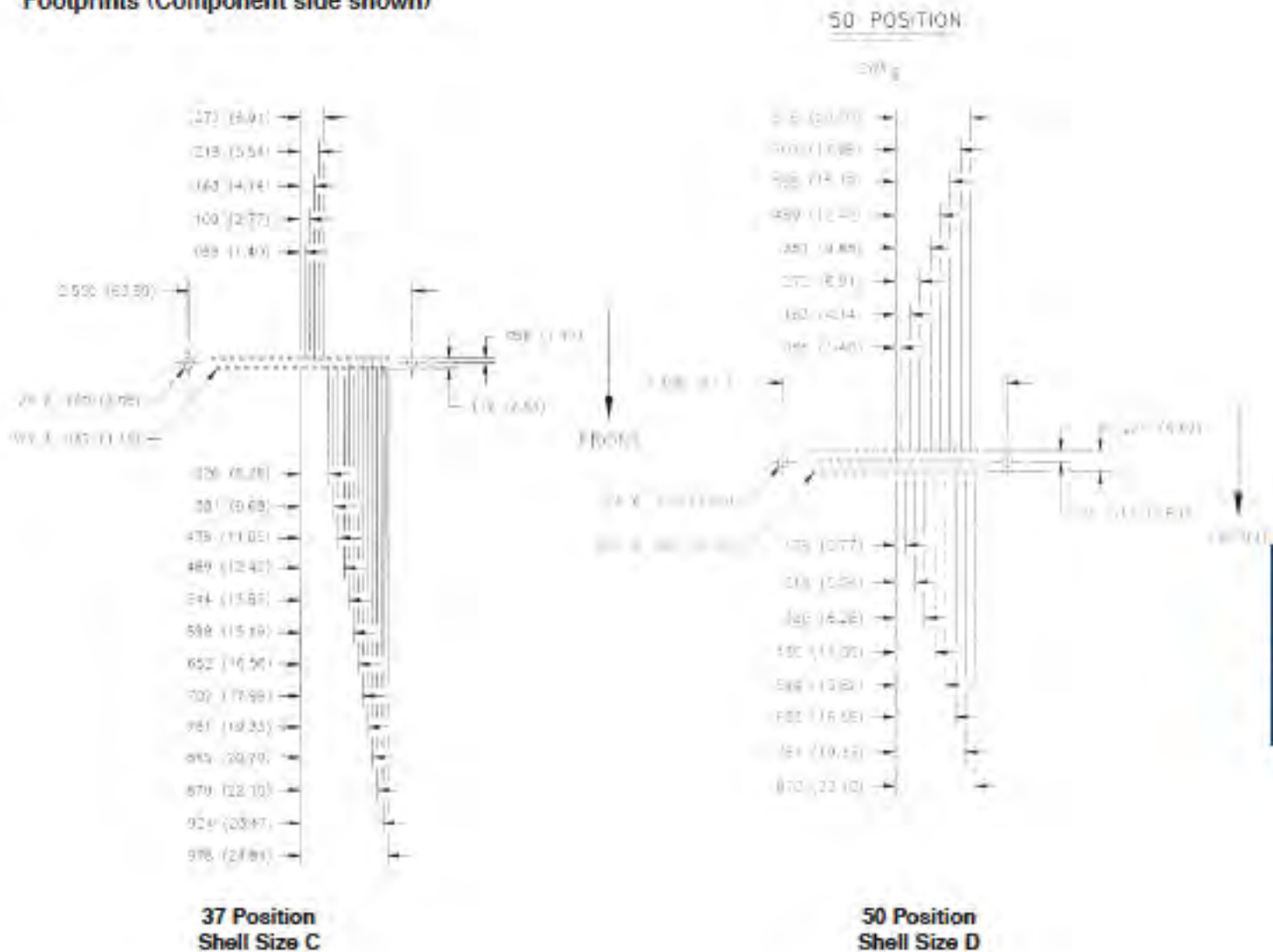
The footprints on this page are standard for all metal shell D-subminiature connectors.

On all right-angle D-subminiature connectors, the short row of contacts is positioned closest to the edge of the board.

**PC Board Lead Hole Size**

Terminal Dia.		Hole Dia.	
in	mm	in	mm
.040	1.02	.055	1.40
.030	0.76	.045	1.14
.024-.025	0.61-0.64	.039	0.99

**Standard Density D-subminiature  
Mounting Dimensions Board Layouts  
Footprints (Component side shown)**



4

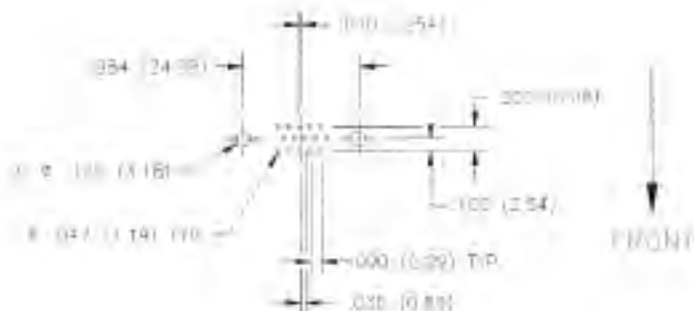
The footprints on this page are standard for all metal shell D-subminiature connectors.

On all right-angle D-subminiature connectors, the short row of contacts is positioned closest to the edge of the board.

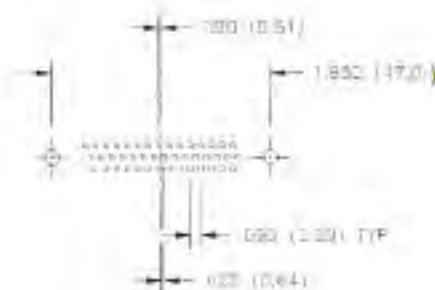
**PC Board Lead Hole Size**

Terminal Dia.		Hole Dia.	
in	mm	in	mm
.040	1.02	.055	1.40
.030	0.76	.045	1.14
.024-.025	0.61-0.64	.039	0.99

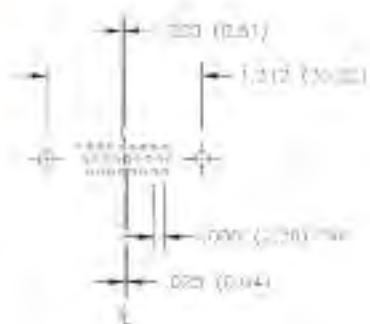
**1.5 Density D-subminiature  
Recommended PCB Layout for  
Footprint (Component side shown)**



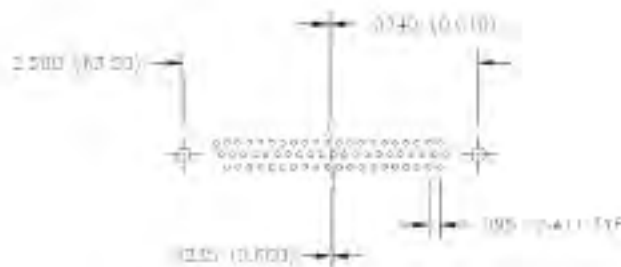
**15 Position  
Shell Size E**



**44 Position  
Shell Size B**



**26 Position  
Shell Size A**



**62 Position  
Shell Size C**

4

The footprints on this page are standard for all metal shell D-subminiature connectors.

On all right-angle D-subminiature connectors, the short row of contacts is positioned closest to the edge of the board.

**PC Board Lead Hole Size**

Terminal Dia.		Hole Dia.	
in	mm	in	mm
.040	1.02	.055	1.40
.030	0.76	.045	1.14
.024-.025	0.61-0.64	.039	0.99

# D-subminiature Metal Shell Right-Angle and Vertical PCB D\*KL Series



## FEATURES

- Offered in right-angle or vertical PCB mount versions.
- Available with gold flash or 30µin. gold plating.
- Metal Shell provides grounding and shielding capability.
- Approvals:
  - UL Recognized: File E130965.
  - CSA Approved: File LR97981.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

## MATERIALS

**Insulator Material:** Glass-filled polyester (black),  
UL 94V-0 rated

**Contact Material:** Socket - Phosphor bronze (stamped)  
Plug - Brass (stamped)

**Contact Plating:** Gold flash or 30µin. gold in mating area and  
tin/lead on tails. All over nickel.

**Metal Shell:** Steel with tin plating (grounding indents on plug)



## ENVIRONMENTAL

**Operating Temperature:** -55°C to +125°C

**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G

**Vibration:** 12 cycles in three perpendicular directions @  
10-2000Hz, per MIL-STD-202, Method 204,  
Condition D

**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96  
hours per MIL-STD-202, Method 103



## ELECTRICAL

**Withstanding Voltage:** Right Angle - minimum AC 1250V  
RMS @ sea level, Vertical -  
minimum AC  
1000V RMS @ sea level

**Current Rating:** 5 Ampe

**Contact Resistance:** 15 milliohms maximum

**Insulation Resistance:** 5000 megohms maximum (initial);  
1000 megohms (minimum) after  
environmental testing



## MECHANICAL

**Individual Contact Insertion and  
Separation Force (minimum/maximum):** 0.7 oz./12 oz.

**Durability:** 500 mating cycles

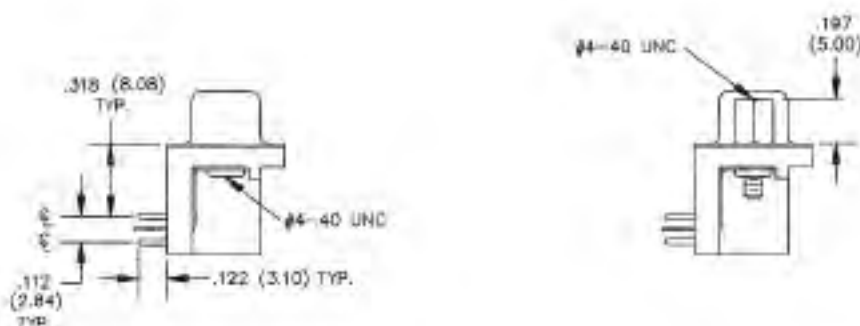


# Economical D-subminiature Metal Shell Right-Angle PCB D\*KL Series

# Cinch

## Right-Angle Connectors

- 0.318" footprint.
- Available in 9, 15, and 25 position plugs and sockets.
- Offered with 4-40 threaded inserts for secure mounting to panels or with female screwlocks.
- Boardlocks to provide mechanical hold-down during wave soldering process.
- **Materials:**
  - Boardlock: Brass with tin plating.
  - Female Screwlock: Brass with nickel plating.



## Ordering Information

### Right-Angle Plugs

Size	4-40 Threaded Inserts		Female Screwlocks	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEKL-9PATI-E	DEKL-9PATI-E2	DEKL-9PATI-F	DEKL-9PATI-F2
15	DAKL-15PATI-E	DAKL-15PATI-E2	DAKL-15PATI-F	DAKL-15PATI-F2
25	DBKL-25PATI-E	DBKL-25PATI-E2	DBKL-25PATI-F	DBKL-25PATI-F2

### Right-Angle Sockets

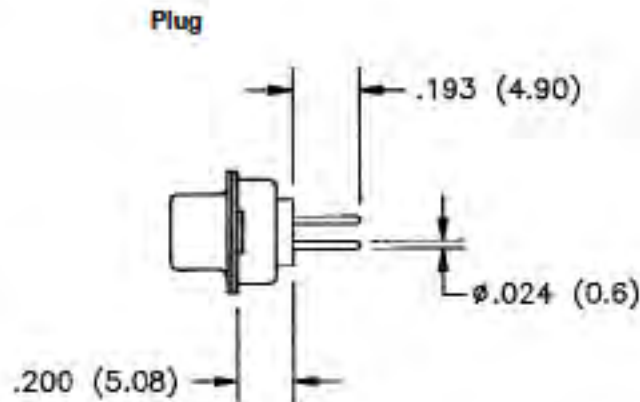
Size	4-40 Threaded Inserts		Female Screwlocks	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEKL-9SAT-E	DEKL-9SAT-E2	DEKL-9SAT-F	DEKL-9SAT-F2
15	DAKL-15SAT-E	DAKL-15SAT-E2	DAKL-15SAT-F	DAKL-15SAT-F2
25	DBKL-25SAT-E	DBKL-25SAT-E2	DBKL-25SAT-F	DBKL-25SAT-F2

# D-subminiature Metal Shell Vertical PCB D\*KL Series



**Vertical Connectors:**

- Available in 9, 15, 25, 37, and 50 position plugs and sockets with straight dip solder tails.
- 0.024" contact diameter.
- Offered with standard mounting holes.



## Ordering Information

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### Vertical PCB Connectors

Size	Plugs		Sockets	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEKL-9PUTI	DEKL-9PUTI-2	DEKL-9SUT	DEKL-9SUT-2
15	DAKL-15PUTI	DAKL-15PUTI-2	DAKL-15SUT	DAKL-15SUT-2
25	DBKL-25PUTI	DBKL-25PUTI-2	DBKL-25SUT	DBKL-25SUT-2
37	DCKL-37PUTI	DCKL-37PUTI-2	DCKL-37SUT	DCKL-37SUT-2
50	DDKL-50PUTI	DDKL-50PUTI-2	DDKL-50SUT	DDKL-50SUT-2

# D-subminiature 1.5 Density Metal Shell Crimp and Poke and Right-Angle PCB HPD/HTD Series



## FEATURES

- 1.5 Density means the connector uses small size #22 contacts for a higher pin count in a standard size shell. Also accepts standard D-subminiature accessories (hoods, backshells, etc.) per the following chart:

Shell Size	1.5 D-sub No. of Pins	Standard D-sub No. of Pins
E	15	9
A	26	15
B	44	25
C	62	37

- Offered in cable plugs and right-angle PCB mount sockets.
- Metal Shell provides grounding and shielding capability.
- Approvals:
  - Plugs: • UL Recognized - Files E170218 (UL1977) & E130965 (UL1863).
  - CSA Approved - File LR31996-7.
  - Sockets: UL Recognized - File E170218.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

## MATERIALS

Connector Shell: Steel with tin plating (grounding indents on plug)

Contact Material: Phosphor bronze (stamped)

Contact Plating:

- Sockets: Gold flash or 30µin. gold in mating area and tin/lead on tails. All over nickel.
- Plugs: Gold flash or 30µin. gold in mating area and gold flash on remainder. All over nickel.



## ENVIRONMENTAL

Operating Temperature: -55°C to +125°C

Shock: 50G peak per MIL-STD-202, Method 213, Condition G

Vibration: 12 cycles in three perpendicular directions @10-2000Hz, per MIL-STD-202, Method 204, Condition D

Moisture Resistance: 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103



## ELECTRICAL

Withstanding Voltage: Minimum 1000V RMS @ sea level

Current Rating: 3 Amps

Contact Resistance: 15 milliohms maximum

Insulation Resistance: 5000 megohms maximum (initial); 1000 megohms (minimum) after environmental testing



## MECHANICAL

Individual Contact Insertion and

Separation Force (minimum/maximum): 0.7 oz./12 oz.

Durability:

- Plugs - 200 mating cycles
- Sockets - 200 mating cycles



# D-subminiature 1.5 Density Metal Shell Crimp and Poke Plugs HTD Series

## Connectors:

- Offered with .120 mounting holes.
- Shells offered with tin plating and grounding indents.
- These connectors are designed to accommodate one repair cycle.

## Contacts: (Not included with connectors, order separately)

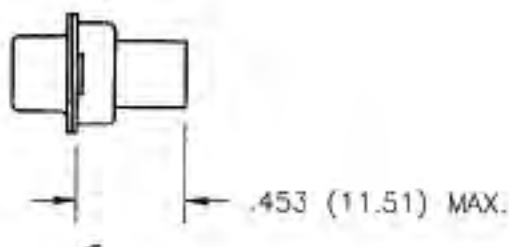
- Available with gold-flash plating or 30µin. gold.
- Crimp and Poke versions are offered in reels of 15,000 or 300 contacts.
- Solder and Poke contacts are packed loose.
- Will accommodate 22-30 AWG wire.
- Order contacts separately. See page 4-18.

## Termination Tooling:

- Semi-automatic Stripper Crimper Tool for 15,000 reels: #HTD-518. See page 4-102.
- Crimp Contact Hand Tool for 300-piece reels: #HTD-266. See page 4-101.
- Semi-automatic Hand Crimping Tool for individual contact termination: #HTD-544. See page 4-101.
- Contact Insertion/Extraction Tool: Cinch #CIET-22-DF. See page 4-101.

## Materials:

- Insulator Material: Black UL 94 V-0 glass-filled nylon.



## Ordering Information

### HTD Series 1.5 Density Crimp and Poke Plug Connectors

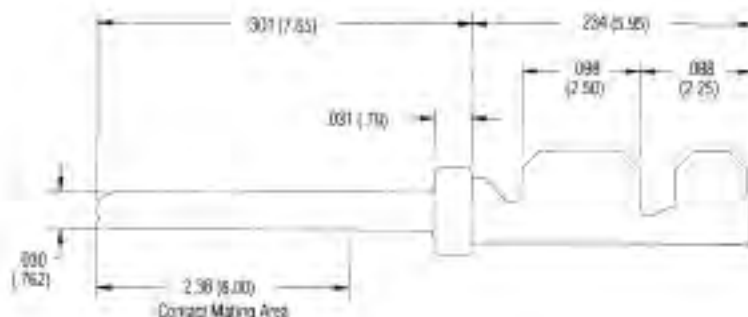
Size	Shell Size	Catalog Number
15	E	HTDE-15PTI-FO
26	A	HTDA-26PTI-FO
44	B	HTDB-44PTI-FO
62	C	HTDC-62PTI-FO



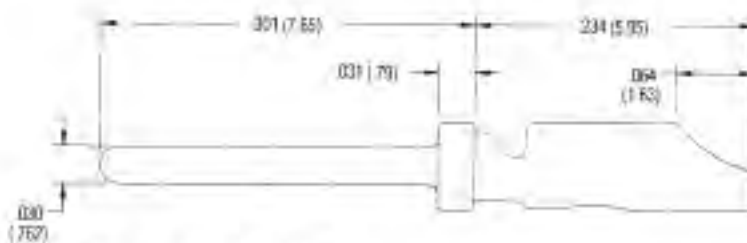
# D-subminiature 1.5 Density Metal Shell Crimp and Poke Plugs HTD Series



- Use with HTD Series 1.5 D-Sub Crimp and Poke connectors and overmold kits.
- All Crimp and Poke contacts are on right-hand feed reels.



**Crimp and Poke Plug Contact**



**Solder and Poke Plug**

4

## Ordering Information

### HTD Series 1.5 D-sub Male Crimp and Poke and Solder and Poke Contacts

Type of Packing	Crimp and Poke 15,000 Reel		Crimp and Poke 300 Reel		Solder and Poke Loose	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
Pin	HTD-CP-9-15000	HTD-CP-1-15000	HTD-CP-9-300	HTD-CP-1-300	HTD-SP-9-10	Not Available

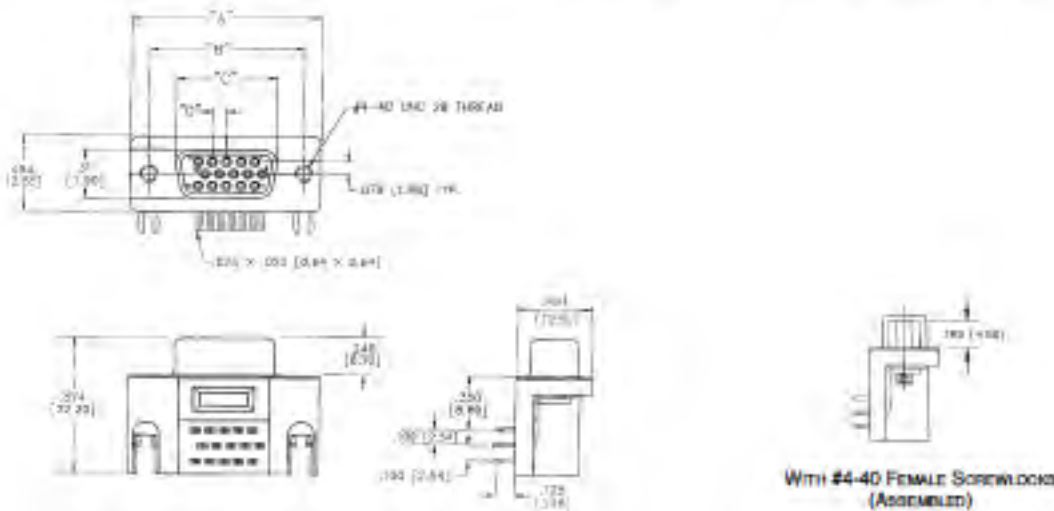
# D-subminiature 1.5 Density Metal Shell Right-Angle PCB Sockets HPD Series



- .350" footprint.
- Offered with fixed 4-40 threaded inserts for secure mounting to panels or with assembled female screwlocks.
- Boardlocks to maintain electrical continuity between shell and PC board ground and provide mechanical hold-down during wave soldering process.
- Available in standard configuration sockets, sizes 15, 26, 44, and 62 with black insulator.
- 15 position socket also available with royal blue insulator in Windows '95® configuration with Pin #9 recessed 0.050".

## Materials:

- Insulator Material: Glass-filled polyester (standard configuration - black, -9R configuration - blue), UL 94V-0 rated.
- Boardlock: Brass with tin plating.
- Female Screwlock: Brass with Nickel plating.



## Dimensions

Positions	A		B		C		D	
	$\pm 0.15$ ( $\pm 0.038$ ) in	mm	$\pm 0.10$ ( $\pm 0.25$ ) in	mm	$\pm 0.10$ ( $\pm 0.25$ ) in	mm	in	mm
15	1.214	30.84	0.984	24.99	0.640	16.26	0.090	2.29
26	1.545	39.24	1.312	33.32	0.967	24.56	0.090	2.29
44	2.088	53.04	1.852	47.04	1.508	38.30	0.090	2.29
62	2.730	69.34	2.500	63.50	2.156	54.76	0.095	2.41

## Ordering Information

### HPD Series 1.5 Density Right-Angle Socket Connectors

Size	Shell			4-40 Threaded Inserts		Female Screwlocks	
	Size	Type	Color	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
15	E	Standard	Black	HPDEB-15SAT-E	HPDEB-15SAT-E2	HPDEB-15SAT-F	HPDEB-15SAT-F2
26	A	Standard	Black	HPDAB-26SAT-E	HPDAB-26SAT-E2	HPDAB-26SAT-F	HPDAB-26SAT-F2
44	B	Standard	Black	HPDDB-44SAT-E	HPDDB-44SAT-E2	HPDDB-44SAT-F	HPDDB-44SAT-F2
62	C	Standard	Black	HPDCB-62SAT-E	HPDCB-62SAT-E2	HPDCB-62SAT-F	HPDCB-62SAT-F2
15	E	Windows '95®	Blue	HPDEB-15SAT-E-9R	HPDEB-15SAT-E2-9R	HPDEB-15SAT-F-9R	HPDEB-15SAT-F2-9R

Windows '95 is a registered trademark of Microsoft.

# D-subminiature Metal Shell Crimp and Poke D\*A Series



## FEATURES

- Offered in 9, 15, 25, 37, and 50 position plugs and sockets.
- **Contacts:**
  - Available with gold flash or 30µin. gold plating.
  - Offered in 15,000 contact reel or 300 contact reel, or in loose-piece bags of 100 or 1000 each.
  - Accommodate 20-24 AWG wire or 26-30 AWG wire.
  - Not included with connector - order stamped contacts separately.
- **Approvals:**
  - UL Recognized - Files E170218 (UL1977) and E130965 (UL1863).
  - CSA Approved - File LR31996.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

## MATERIALS

**Insulator Material:** Glass-filled nylon (black), UL 94 V-O rated  
**Connector Shell:** Steel with zinc plating and yellow chromate finish or tin plating (plug has grounding indents)  
**Contact Material:**

- Plug - Brass (stamped)
- Socket - Phosphor bronze (stamped)

**Contact Plating:** Gold flash or 30µin. gold in mating area and gold flash on the remainder. All over nickel.  
**4-40 Clinch Nut:** Steel with cadmium plating and yellow chromate finish  
**Dual Float Bushing:** Stainless steel, passivated



## ENVIRONMENTAL

**Operating Temperature:** -65°C to + 125°C  
**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G  
**Vibration:** 12 cycles in three perpendicular directions @ 10-2000Hz, per MIL-STD-202, Method 204, Condition D  
**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103

## ELECTRICAL

**Withstanding Voltage:** Minimum 1000V RMS @ sea level  
**Current Rating:** 5 Amps  
**Contact Resistance:** 2.7 milliohms maximum  
**Insulation Resistance:** 5000 megohms maximum (initial);  
 1000 megohms (minimum) after environmental testing

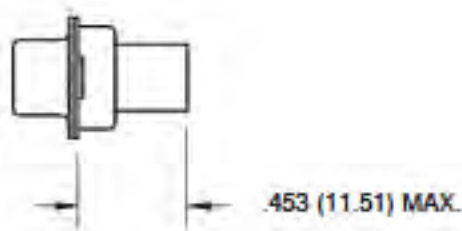
## MECHANICAL

**Individual Contact Insertion and Separation Force (minimum/maximum):** 0.7 oz./12 oz.  
**Durability:** 500 mating cycles

# D-subminiature Metal Shell Crimp and Poke Connectors D\*A Series

# Cinch

- Offered with .120 mounting holes or 4-40 clinch nuts.



## Termination Tools

- Semi-Automatic Stripper Crimper Tool for 15K reels: #GSC-20-30. See page 4-102.
- Contact Insertion/Extraction Tool: #CIET-20-HDB. See page 4-101.
- Crimp Contact Hand Tool for 300-piece reels: #GHC-B (20-28 AWG wire) or Catalog #GHC-B1 (28-30 AWG wire). See page 4-101.
- Crimp Contact Hand Tool for loose piece contacts: #HTD-544. See page 4-101.

## Ordering Information

### D\*A Series Crimp and Poke Connectors - Plugs

Positions	Zinc-plated shell with yellow chromate finish		Tin-plated shell with grounding indents	
	Mounting Holes	4-40 Clinch Nuts	Mounting Holes	4-40 Clinch Nuts
9	DEA-9P-FO	DEAE-9P-FO	DEA-9PTI-FO	DEAE-9PTI-FO
15	DAA-15P-FO	DAAE-15P-FO	DAA-15PTI-FO	DAAE-15PTI-FO
25	DBA-25P-FO	DBAE-25P-FO	DBA-25PTI-FO	DBAE-25PTI-FO
37	DCA-37P-FO	DCAE-37P-FO	DCA-37PTI-FO	DCAE-37PTI-FO
50	DDA-50P-FO	DDAE-50P-FO	DDA-50PTI-FO	DDAE-50PTI-FO

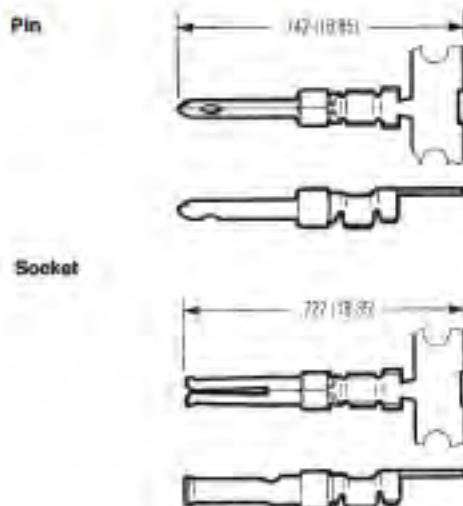
### D\*A Series Crimp and Poke Connectors - Sockets

Positions	Zinc-plated shell with yellow chromate finish		Tin-plated shell	
	Mounting Holes	4-40 Clinch Nuts	Mounting Holes	4-40 Clinch Nuts
9	DEA-9S-FO	DEAE-9S-FO	DEA-9ST-FO	DEAE-9ST-FO
15	DAA-15S-FO	DAAE-15S-FO	DAA-15ST-FO	DAAE-15ST-FO
25	DBA-25S-FO	DBAE-25S-FO	DBA-25ST-FO	DBAE-25ST-FO
37	DCA-37S-FO	DCAE-37S-FO	DCA-37ST-FO	DCAE-37ST-FO
50	DDA-50S-FO	DDAE-50S-FO	DDA-50ST-FO	DDAE-50ST-FO

# D-subminiature Metal Shell Crimp and Poke Insulation Grip Contacts D\*A Series



## Contacts



## Ordering Information

### D\*A Series Crimp and Poke Contacts on Reels

Contacts per Reel	15,000		15,000		300		300	
Wire Gauge	20-24 AWG		26-30 AWG		20-24 AWG		26-30 AWG	
Plating	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
Pin	DGP-15-1	DGP-15-2	DGP-15-3	DGP-15-4	DGP-3-1	DGP-3-2	DGP-3-3	DGP-3-4
Socket	DGS-15-1	DGS-15-2	DGS-15-3	DGS-15-4	DGS-3-1	DGS-3-2	DGS-3-3	DGS-3-4

### D\*A Series Crimp and Poke Loose-Piece Contacts

Contacts per Bag	100		100		1000		1000	
Wire Gauge	20-24 AWG		26-30 AWG		20-24 AWG		26-30 AWG	
Plating	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
Pin	DGP-100L-1	DGP-100L-2	DGP-100L-3	DGP-100L-4	DGP-1000L-1	DGP-1000L-2	DGP-1000L-3	DGP-1000L-4
Socket	DGS-100L-1	DGS-100L-2	DGS-100L-3	DGS-100L-4	DGS-1000L-1	DGS-1000L-2	DGS-1000L-3	DGS-1000L-4

# D-subminiature Metal Shell Overmold Kits D\*A and HTD Series

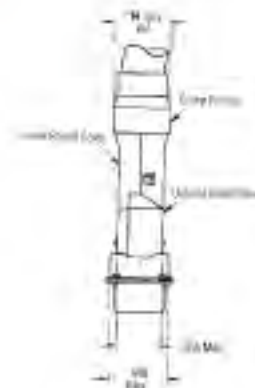
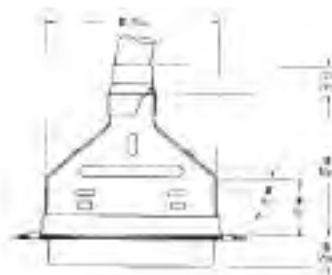


## FEATURES

- *Cinch overmold kits enable you to overmold the connector of the cable assembly for less material and process cost (versus a metal backshell), improved appearance, and improved shielding of the connector to help meet RF/EMI requirements.*
- *An Overmold Kit catalog number consists of:*
  - *D\*A or HTD Crimp and Poke connector.*
  - *Inside shielding cover.*
  - *Outside shielding cover.*
- *You will also need to order the following:*
  - *Crimp and Poke stamped contacts must be ordered separately on page 4-22 for D\*A and page 4-18 for HTD connectors.*
  - *Ferrules are required, but must be ordered separately according to the size necessary to accommodate the wire. See page 4-25.*
  - *Termination tooling is required to crimp the wires on the connector.*
  - *A hand tool and appropriate crimping die are required for crimping the ferrule.*
- *All specifications on the connector portion of the overmold kit can be found on pages 4-16 thru 4-17 for HPD 1.5 density and pages 4-20 thru 4-21 for D\*A series.*

## MATERIALS

Shield Covers: Steel (stamped) with tin/lead finish  
 Ferrule: Brass



### Dimensions

### Overmold Shielding Kits

Positions	C		D		E		F		G	H	
	in	mm	in	mm	in	mm	in	mm	Deg.	in	mm
9 Plug	0.270	6.86	0.705	17.91	1.320	33.53	0.520	13.21	75°	0.440	11.18
9 Socket	0.285	7.24	0.705	17.91	1.320	33.53	0.520	13.21	75°	0.440	11.18
15 Plug	0.270	6.86	1.050	26.67	1.320	33.53	0.520	13.21	58°	0.440	11.18
15 Socket	0.285	7.24	1.050	26.67	1.320	33.53	0.520	13.21	58°	0.440	11.18
25 Plug	0.275	6.99	1.590	40.39	1.320	33.53	0.520	13.21	40°	0.440	11.18
25 Socket	0.285	7.24	1.590	40.39	1.320	33.53	0.520	13.21	40°	0.440	11.18
37 Plug	0.275	6.99	2.240	56.90	1.620	41.15	0.750	19.05	32°	0.520	13.21
37 Socket	0.285	7.24	2.240	56.90	1.620	41.15	0.750	19.05	32°	0.520	13.21

# D-subminiature Metal Shell Overmold Kits and Ferrules D\*A and HTD Series

## Overmold Kits (Cont'd)

### Ordering Information

#### D\*A Series Crimp and Poke Overmold Kits

Positions	Tin-plated shell	
	Plugs	Sockets
9	DEAO-9PTI-FO1	DEAO-9ST-FO1
15	DAAO-15PTI-FO1	DAAO-15ST-FO1
25	DBAO-25PTI-FO1	DBAO-25ST-FO1
37	DCAO-37PTI-FO1	DCAO-37ST-FO1

#### HTD Series 1.5 Density Plugs Overmold Kits

Size	Shell Size	Catalog Number
15	E	HTDEO-15PTI-FO1
26	A	HTDAO-26PTI-FO1
44	B	HTDBO-44PTI-FO1

### Crimp Ferrule

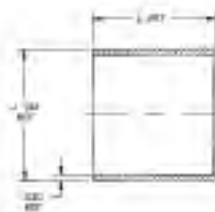


FIG. 2

### Ordering Information

Catalog Number	Type	J		K		L		Crimp Die Catalog No.
		in	mm	in	mm	in	mm	
CF-51	1	.437	11.10	.200	5.08	.450	11.43	CD-07
CF-42	1	.437	11.10	.235	5.97	.450	11.43	CD-00
CF-43	1	.437	11.10	.250	6.35	.450	11.43	CD-01
CF-44	1	.437	11.10	.325	8.28	.450	11.43	CD-02
CF-45	1	.437	11.10	.350	8.89	.450	11.43	CD-03
CF-46	1	.437	11.10	.375	9.53	.450	11.43	CD-04
CF-47	2	.437	11.10	.437	11.10	.450	11.43	CD-05
CF-50	2	.460	11.68	.460	11.68	.450	11.43	CD-06

- Pneumatic Bench Top Press for Crimping Ferrules #FCT-551. See page 4-103.
- Hand Tool for Crimping Ferrules #FCT-552. See page 4-103.

# D-subminiature Metal Shell Crimp and Poke, Right-Angle and Vertical PCB D\*U Series



## FEATURES

- Offered in 9, 15, 25, 37, and 50 position plugs and sockets (except right-angle PCB connectors- 9, 15, and 25 positions).
- Available with gold flash or 30µin. gold plating.
- Offered with .120 mounting holes, optional 4-40 clinch nuts, or dual float bushings (except right-angle PCB connectors-mounting holes only).
- Approvals:
  - UL Recognized - Files E170218 (UL1977) and E130965 (UL1863).
  - CSA Approved - File LR31996.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

## MATERIALS

**Insulator Material:** Glass-filled nylon (black), UL 94 V-O rated  
**Connector Shell:** Steel with zinc plating and yellow chromate finish or tin plating (grounding indents on plug)  
**4-40 Clinch Nut:** Steel with cadmium plating and yellow chromate finish  
**Dual Float Bushing:** Stainless steel, passivated

## ENVIRONMENTAL

**Operating Temperature:** -85°C to + 125°C  
**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G  
**Vibration:** 12 cycles in three perpendicular directions @ 10-2000Hz, per MIL-STD-202, Method 204, Condition D  
**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103

## ELECTRICAL

**Withstanding Voltage:** Minimum 1000V RMS @ sea level  
**Current Rating:** 5 Amps  
**Contact Resistance:** 2.7 milliohms maximum  
**Insulation Resistance:** 5000 megohms maximum (initial); 1000 megohms (minimum) after environmental testing

## MECHANICAL

**Individual Contact Insertion and Separation Force (minimum/maximum):** 0.7 oz./12 oz.  
**Durability:** 500 mating cycles





## D-subminiature Metal Shell Crimp and Poke D\*U Series



- Machined contacts supplied loose with connector or can be ordered separately. Use with 20-24 AWG wire.
- Stamped Contacts (order separately) for use when ordering connector with contacts not included (-FO option). Use with 20-28 AWG wire.
  - Available in 10K reel.
  - Order reels of stamped contacts separately.

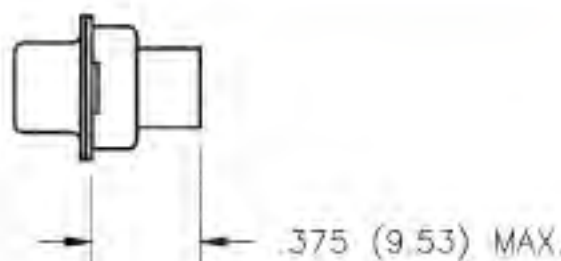
### Materials

- Contact Material: Plug - Brass (stamped) or copper alloy (machined). Socket - Phosphor bronze (stamped) or copper alloy (machined).
- Contact Plating:
  - Stamped Plugs and Sockets: Gold flash or 30µin. gold and gold flash on the remainder. All over nickel.
  - Machined Plugs and Sockets: Gold flash or 30µin. gold. All over nickel.

### Termination Tooling

- Semi-Automatic Stripper Crimper for Stamped Contacts on 10K PC reels: #ESC-20-3. See page 4-102.
- Contact Insertion/Extraction: #CIET-20-HDB. See page 4-101.
- Loose Contact Crimp Tool:
  - Machined Contact - #M22520/2-01. See page 4-103.  
For Positioner as required see page 4-103.
  - Stamped Contacts #BT-20-HC see page 4-101.  
No positioner required.

# D-subminiature Metal Shell Crimp and Poke D\*U Series



## Ordering Information

### D\*U Crimp and Poke Plugs

#### Zinc-Plated Shell with Yellow Chromate Finish

Position	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Contacts Included	Without Contacts	Contacts Included	Without Contacts	Contacts Included	Without Contacts
9	DEU-9P	DEU-9P-FO	DEUE-9-P	DEUE-9P-FO	DEUY-9P	DEUY-9P-FO
15	DAU-15P	DAU-15P-FO	DAUE-15-P	DAUE-15-P-FO	DAUY-15P	DAUY-15P-FO
25	DBU-25P	DBU-25P-FO	DBUE-25-P	DBUE-25P-FO	DBUY-25P	DBUY-25P-FO
37	DCU-37P	DCU-37P-FO	DCUE-37-P	DCUE-37P-FO	DCUY-37P	DCUY-37P-FO
50	DDU-50P	DDU-50P-FO	DDUE-50-P	DDUE-50P-FO	DDUY-50P	DDUY-50P-FO

#### Tin-Plated Shell with Grounding Indents

Position	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Contacts Included	Without Contacts	Contacts Included	Without Contacts	Contacts Included	Without Contacts
9	DEU-9PTI	DEU-9PTI-FO	DEUE-9PTI	DEUE-9PTI-FO	DEUY-9PTI	DEUY-9PTI-FO
15	DAU-15PTI	DAU-15PTI-FO	DAUE-15PTI	DAUE-15PTI-FO	DAUY-15PTI	DAUY-15PTI-FO
25	DBU-25PTI	DBU-25PTI-FO	DBUE-25PTI	DBUE-25PTI-FO	DBUY-25PTI	DBUY-25PTI-FO
37	DCU-37PTI	DCU-37PTI-FO	DCUE-37PTI	DCUE-37PTI-FO	DCUY-37PTI	DCUY-37PTI-FO
50	DDU-50PTI	DDU-50PTI-FO	DDUE-50PTI	DDUE-50PTI-FO	DDUY-50PTI	DDUY-50PTI-FO

### D\*U Crimp and Poke Sockets

#### Zinc-Plated Shell with Yellow Chromate Finish

Position	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Contacts Included	Without Contacts	Contacts Included	Without Contacts	Contacts Included	Without Contacts
9	DEU-9S	DEU-9S-FO	DEUE-9S	DEUE-9S-FO	DEUY-9S	DEUY-9S-FO
15	DAU-15S	DAU-15S-FO	DAUE-15S	DAUE-15S-FO	DAUY-15S	DAUY-15S-FO
25	DBU-25S	DBU-25S-FO	DBUE-25S	DBUE-25S-FO	DBUY-25S	DBUY-25S-FO
37	DCU-37S	DCU-37S-FO	DCUE-37S	DCUE-37S-FO	DCUY-37S	DCUY-37S-FO
50	DDU-50S	DDU-50S-FO	DDUE-50S	DDUE-50S-FO	DDUY-50S	DDUY-50S-FO

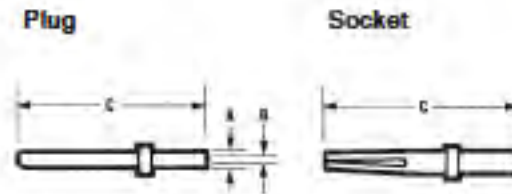
#### Tin-Plated Shell

Position	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Contacts Included	Without Contacts	Contacts Included	Without Contacts	Contacts Included	Without Contacts
9	DEU-9ST	DEU-9ST-FO	DEUE-9ST	DEUE-9ST-FO	DEUY-9ST	DEUY-9ST-FO
15	DAU-15ST	DAU-15ST-FO	DAUE-15ST	DAUE-15ST-FO	DAUY-15ST	DAUY-15ST-FO
25	DBU-25ST	DBU-25ST-FO	DBUE-25ST	DBUE-25ST-FO	DBUY-25ST	DBUY-25ST-FO
37	DCU-37ST	DCU-37ST-FO	DCUE-37ST	DCUE-37ST-FO	DCUY-37ST	DCUY-37ST-FO
50	DDU-50ST	DDU-50ST-FO	DDUE-50ST	DDUE-50ST-FO	DDUY-50ST	DDUY-50ST-FO

# D-subminiature Metal Shell Crimp and Poke Contacts D\*U Series



## Machined Contacts - 20-24 AWG Wire



### Dimensions

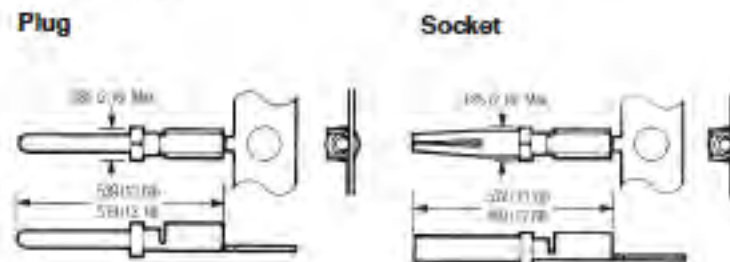
Description	Wire AWG	A		B		C Max.	
		in	mm	in	mm	in	mm
Pin	#20, 22, 24	.066	1.67	.045	1.14	.537	13.64
Socket	#20, 22, 24	.066	1.67	.045	1.14	.523	13.28

### Ordering Information

#### D\*U Series Loose-Piece Machined Contacts

	Gold Flash	30µin. Gold
Pin	030-1952-000	030-1952-030
Socket	030-1953-000	030-1953-030

## Stamped Contacts - 20-28 AWG Wire



### Ordering Information

#### D\*U Series Stamped Contacts on 10K Reels

	Gold Flash	30µin. Gold
Pin	BCL-1964-20P	D110238-034
Socket	BCL-1963-20S	D110238-035

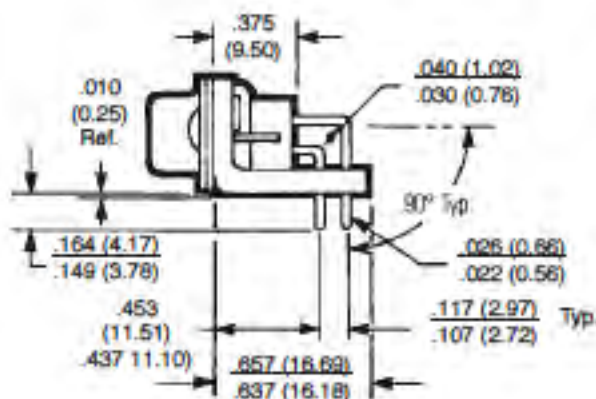
# D-subminiature Metal Shell Right-Angle Dip Solder PCB D\*U Series



- .445" footprint.
- .024" contact diameter.

## Materials

- Contact Material: Socket - Copper alloy (machined), Plug - Brass (machined).
- Contact Plating: Gold flash or 30µin. gold. All over nickel.
- Mounting bracket: Black nylon. Can be removed if necessary.



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## Ordering Information

### D\*U Right-Angle Plugs

Positions	Zinc-Plated Shell with Yellow Chromate Finish		Tin-Plated Shell with Grounding Indents	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEU-9PAD	DEU-9PAD-30	DEU-9PADTI	DEU-9PADTI-30
15	DAU-15PAD	DAU-15PAD-30	DAU-15PADTI	DAU-15PADTI-30
25	DBU-25PAD	DBU-25PAD-30	DBU-25PADTI	DBU-25PADTI-30

### D\*U Right-Angle Sockets

Positions	Zinc-Plated Shell with Yellow Chromate Finish		Tin-Plated Shell	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEU-9SAD	DEU-9SAD-30	DEU-9SADT	DEU-9SADT-30
15	DAU-15SAD	DAU-15SAD-30	DAU-15SADT	DAU-15SADT-30
25	DBU-25SAD	DBU-25SAD-30	DBU-25SADT	DBU-25SADT-30

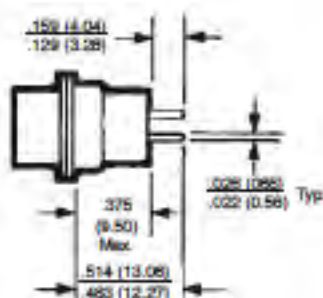
# D-subminiature Metal Shell Vertical Dip Solder PCB D\*U Series



- .024" contact diameter.
- Longer rear insulator provides integral standoff from PCB.

## Materials

- Contact Material: Plug - Brass (machined), Socket - Copper alloy (machined).
- Contact Plating: Gold flash or 30µin. gold. All over nickel.



## Ordering Information

### Vertical Plugs

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEU-9PBF	DEU-9PBF-30	DEUE-9PBF	DEUE-9PBF-30	DEUY-9PBF	DEUY-9PBF-30
15	DAU-15PBF	DAU-15PBF-30	DAUE-15PBF	DAUE-15PBF-30	DAUY-15PBF	DAUY-15PBF-30
25	DBU-25PBF	DBU-25PBF-30	DBUE-25PBF	DBUE-25PBF-30	DBUY-25PBF	DBUY-25PBF-30
37	DCU-37PBF	DCU-37PBF-30	DCUE-37PBF	DCUE-37PBF-30	DCUY-37PBF	DCUY-37PBF-30
50	DDU-50PBF	DDU-50PBF-30	DDUE-50PBF	DDUE-50PBF-30	DDUY-50PBF	DDUY-50PBF-30

#### Tin-Plated Shell with Grounding Indents

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEU-9PBFTI	DEU-9PBFTI-30	DEUE-9PBFTI	DEUE-9PBFTI-30	DEUY-9PBFTI	DEUY-9PBFTI-30
15	DAU-15PBFTI	DAU-15PBFTI-30	DAUE-15PBFTI	DAUE-15PBFTI-30	DAUY-15PBFTI	DAUY-15PBFTI-30
25	DBU-25PBFTI	DBU-25PBFTI-30	DBUE-25PBFTI	DBUE-25PBFTI-30	DBUY-25PBFTI	DBUY-25PBFTI-30
37	DCU-37PBFTI	DCU-37PBFTI-30	DCUE-37PBFTI	DCUE-37PBFTI-30	DCUY-37PBFTI	DCUY-37PBFTI-30
50	DDU-50PBFTI	DDU-50PBFTI-30	DDUE-50PBFTI	DDUE-50PBFTI-30	DDUY-50PBFTI	DDUY-50PBFTI-30

# D-subminiature Metal Shell Vertical Dip Solder PCB D\*U Series



## Ordering Information (Cont'd)

### Vertical Sockets

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEU-9SBF	DEU-9SBF-30	DEUE-9SBF	DEUE-9SBF-30	DEUY-9SBF	DEUY-9SBF-30
15	DAU-15SBF	DAU-15SBF-30	DAUE-15SBF	DAUE-15SBF-30	DAUY-15SBF	DAUY-15SBF-30
25	DBU-25SBF	DBU-25SBF-30	DBUE-25SBF	DBUE-25SBF-30	DBUY-25SBF	DBUY-25SBF-30
37	DCU-37SBF	DCU-37SBF-30	DCUE-37SBF	DCUE-37SBF-30	DCUY-37SBF	DCUY-37SBF-30
50	DDU-50SBF	DDU-50SBF-30	DDUE-50SBF	DDUE-50SBF-30	DDUY-50SBF	DDUY-50SBF-30

#### Tin-Plated Shell

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DEU-9SBFT	DEU-9SBFT-30	DEUE-9SBFT	DEUE-9SBFT-30	DEUY-9SBFT	DEUY-9SBFT-30
15	DAU-15SBFT	DAU-15SBFT-30	DAUE-15SBFT	DAUE-15SBFT-30	DAUY-15SBFT	DAUY-15SBFT-30
25	DBU-25SBFT	DBU-25SBFT-30	DBUE-25SBFT	DBUE-25SBFT-30	DBUY-25SBFT	DBUY-25SBFT-30
37	DCU-37SBFT	DCU-37SBFT-30	DCUE-37SBFT	DCUE-37SBFT-30	DCUY-37SBFT	DCUY-37SBFT-30
50	DDU-50SBFT	DDU-50SBFT-30	DDUE-50SBFT	DDUE-50SBFT-30	DDUY-50SBFT	DDUY-50SBFT-30

# D-subminiature Metal Shell and All Plastic Solder Cup and IDC T\* Series



## FEATURES

- Offered in 9, 15, 25, and 37 position plugs and sockets.
- Available in Solder Cup and IDC (insulation displacement) terminations for discrete wire.
- Offered with .120 mounting holes.
- Approvals:
  - UL Recognized - Files E170218 (UL1977) and E130965 (UL1863).
  - CSA Approved - File LR31996.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

## MATERIALS

**Insulator Material:** Glass-filled polyester (black), UL 94 V-O rated  
**Connector Shell:** Steel with zinc plating and yellow chromate finish or tin plating (grounding indents on plug)  
**Contact Material:** Phosphor bronze (stamped)  
**Contact Plating:** Gold flash or 30µin. gold in mating area and gold flash on the remainder. All over nickel.

## ENVIRONMENTAL

**Operating Temperature:** -65°C to + 125°C  
**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G  
**Vibration:** 12 cycles in three perpendicular directions @ 10-2000Hz, per MIL-STD-202, Method 204, Condition D  
**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103

## ELECTRICAL

**Withstanding Voltage:** Minimum 1000V RMS @ sea level  
**Current Rating:** 3 Amps  
**Contact Resistance:** 2.7 milliohms maximum  
**Insulation Resistance:** 5000 megohms maximum (initial); 1000 megohms (minimum) after environmental testing

## MECHANICAL

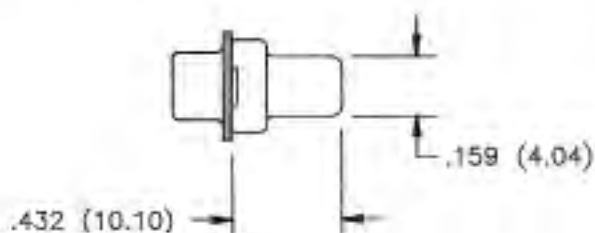
**Individual Contact Insertion and Separation Force (minimum/maximum):** 0.7 oz./12 oz.  
**Durability:** 500 mating cycles



# D-subminiature Metal Shell Solder Cup for Discrete Cable Wire T\* Series



- Solder channels between barriers permit single-pass soldering of each row without solder bridging.
- Will accommodate up to 22 AWG wire.



## Ordering Information

### Solder Cup Plugs

Positions	Zinc-Plated Shell with Yellow Chromate Finish		Tin-Plated Shell with Grounding Indents	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9PS	TE-9PS-30	TE-9PTIS	TE-9PTIS-30
15	TA-15PS	TA-15PS-30	TA-15PTIS	TA-15PTIS-30
25	TB-25PS	TB-25PS-30	TB-25PTIS	TB-25PTIS-30
37	TC-37PS	TC-37PS-30	TC-37PTIS	TC-37PTIS-30

### Solder Cup Sockets

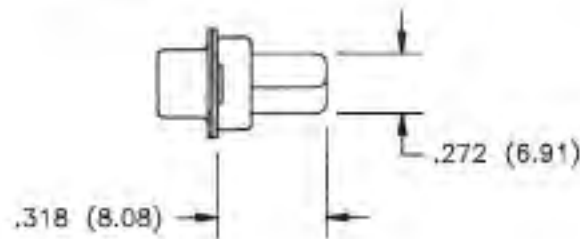
Positions	Zinc-Plated Shell with Yellow Chromate Finish		Tin-Plated Shell	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9SS	TE-9SS-30	TE-9STS	TE-9STS-30
15	TA-15SS	TA-15SS-30	TA-15STS	TA-15STS-30
25	TB-25SS	TB-25SS-30	TB-25STS	TB-25STS-30
37	TC-37SS	TC-37SS-30	TC-37STS	TC-37STS-30



# D-subminiature Metal Shell IDC for Discrete Cable Wire T\* Series



- Will accommodate 24-26 AWG solid or stranded PVC wire.



## Ordering Information

### IDC Plugs

Positions	Zinc-Plated Shell with Yellow Chromate Finish		Tin-Plated Shell with Grounding Indents	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9PSH	TE-9PSH-30	TES-9PTI	TES-9PTI-30
15	TA-15PSH	TA-15PSH-30	TAS-15PTI	TAS-15PTI-30
25	TB-25PSH	TB-25PSH-30	TBS-25PTI	TBS-25PTI-30
37	TC-37PSH	TC-37PSH-30	TCS-37PTI	TCS-37PTI-30

### IDC Sockets

Positions	Zinc-Plated Shell with Yellow Chromate Finish		Tin-Plated Shell	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9SSH	TE-9SSH-30	TES-9ST	TES-9ST-30
15	TA-15SSH	TA-15SSH-30	TAS-15ST	TAS-15ST-30
25	TB-25SSH	TB-25SSH-30	TBS-25ST	TBS-25ST-30
37	TC-37SSH	TC-37SSH-30	TCS-37ST	TCS-37ST-30

# D-subminiature Metal Shell IDC for Discrete Cable Wire T\* Series



- Auto-Clinch D Semi-Automatic Termination Tool #ACD-432: See page 4-100.
  - Certi-Clinch D Manual Termination Tool #SD-CCWN: For 24-26 AWG wire: See page 4-100.
  - Uni-Clinch D Single-Wire Hand Insertion Tool #SD-UC: See page 4-100.
  - Super D Manual Stay Band Tool #SD-MSBT: See page 4-100.
- 
- Optional strain relief covers for connectors when backshell is not required.

## Ordering Information

Positions	Catalog No.
9	SSD-WC9
15	SSD-WC15
25	SSD-WC25
37	SSD-WC37



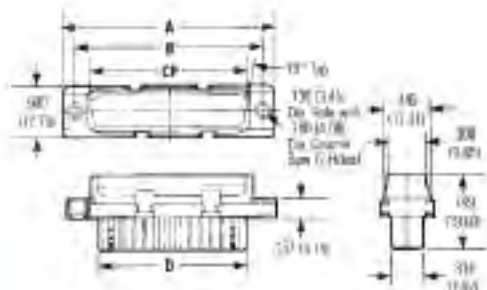
- One-piece cover for 9 contact size. Order one per connector. Two-piece cover for other sizes. Order two per connector.
- Cover fits both plug and socket.

# D-subminiature All-Plastic IDC for Discrete Cable Wire T\* Series

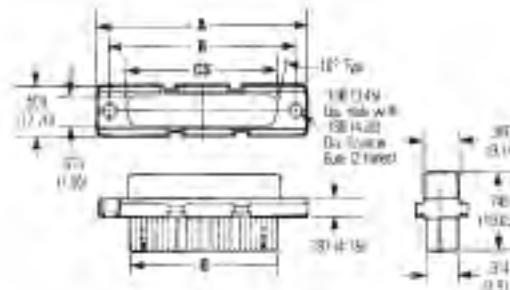


- For use only with SDH Series Gray Backshell on pages 4-89 thru 4-90.
- Offered in 9, 15, 25, and 37 position plugs and sockets.
- Connector will accommodate 24-28 AWG wire.
- Offered with plain flanges and .120 mounting holes, threaded bushings, latch blocks, or latch blocks and threaded bushings.

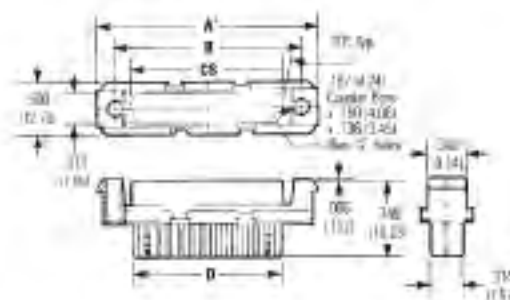
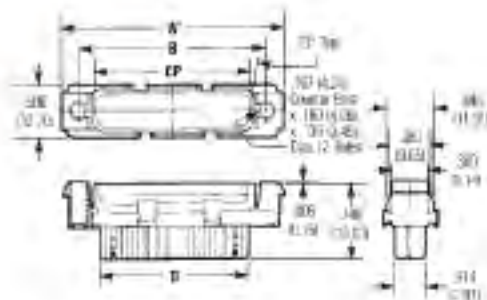
- Auto-Clinch D Semi-Automatic Termination Tool #ACD-432: See page 4-100.
- Certi-Clinch D Manual Termination Tool #SD-CC for 24-28 AWG wire: See page 4-100.
- Uni-Clinch D Single-Wire Hand Insertion Tool #SD-UC: See page 4-100.
- Super D Manual Stay Band Tool #SD-MSBT: See page 4-100.



Plug with Latching Blocks



Socket with Latching Blocks



## Dimensions

Positions	A		A		B		CP		CS		D	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
9	1.209	30.71	1.309	33.25	.984	24.99	.668	16.96	.642	16.31	.592	15.04
15	1.536	39.01	1.636	41.55	1.312	33.32	.995	25.28	.970	24.64	.918	23.31
25	2.079	52.81	2.179	55.35	1.852	47.04	1.535	38.99	1.512	38.40	1.462	37.13
37	2.724	69.19	2.824	71.73	2.500	63.50	2.183	55.45	2.158	54.81	2.114	53.70

# D-subminiature All-Plastic IDC for Discrete Wire T\* Series



## Ordering Information

### IDC All-Plastic Plugs

#### Plain Flange

Positions	Mounting Holes		4-40 Threaded Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9P	TE-9P-30	TE-9PTB	TE-9PTB-30
15	TA-15P	TA-15P-30	TA-15PTB	TA-15PTB-30
25	TB-25P	TB-25P-30	TB-25PTB	TB-25PTB-30
37	TC-37P	TC-37P-30	TC-37PTB	TC-37PTB-30

#### Flange with Latch Block

Positions	Mounting Holes		4-40 Threaded Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9PLB	TE-9PLB-30	TE-9PLB-1	TE-9PLB-1-30
15	TA-15PLB	TA-15PLB-30	TA-15PLB-1	TA-15PLB-1-30
25	TB-25PLB	TB-25PLB-30	TB-25PLB-1	TB-25PLB-1-30
37	TC-37PLB	TC-37PLB-30	TC-37PLB-1	TC-37PLB-1-30

### IDC All-Plastic Sockets

#### Plain Flange

Positions	Mounting Holes		4-40 Threaded Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9S	TE-9S-30	TE-9STB	TE-9STB-30
15	TA-15S	TA-15S-30	TA-15STB	TA-15STB-30
25	TB-25S	TB-25S-30	TB-25STB	TB-25STB-30
37	TC-37S	TC-37S-30	TC-37STB	TC-37STB-30

#### Flange with Latch Block

Positions	Mounting Holes		4-40 Threaded Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	TE-9SLB	TE-9SLB-30	TE-9SLB-1	TE-9SLB-1-30
15	TA-15SLB	TA-15SLB-30	TA-15SLB-1	TA-15SLB-1-30
25	TB-25SLB	TB-25SLB-30	TB-25SLB-1	TB-25SLB-1-30
37	TC-37SLB	TC-37SLB-30	TC-37SLB-1	TC-37SLB-1-30

# D-subminiature Metal Shell Solder Cup, Vertical PCB Mount, and Wire Wrap Basic D Series



## FEATURES

- Offered in Wire Wrap and Solder Cup styles for wire termination and vertical style for PCB mount.
- Offered with .120 mounting holes, 4-40 clinch nuts, and dual float bushings.
- Offered in 9, 15, 25, 37, and 50 position plugs and sockets.
- Available with gold flash or 30µin. gold plating.
- Approvals:
  - UL Recognized - Files E170218 (UL1977) and E130965 (UL1863).
  - CSA Approved - File LR31996.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

## MATERIALS

**Insulator Material:** Glass-filled polyester (white), UL 94V-O rated  
**Connector Shell:** Steel with zinc plating and yellow chromate finish or tin plating (grounding indents on plug)  
**4-40 Clinch Nut:** Steel with cadmium plating and yellow chromate finish  
**Dual Float Bushing:** Stainless steel, passivated

## ENVIRONMENTAL

**Operating Temperature:** -85°C to + 125°C  
**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G  
**Vibration:** 12 cycles in three perpendicular directions @ 10-2000Hz, per MIL-STD-202, Method 204, Condition D  
**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103

## ELECTRICAL

**Withstanding Voltage:** Minimum 1250V RMS @ sea level  
**Current Rating:** 5 Amps  
**Contact Resistance:** 2.7 milliohms maximum  
**Insulation Resistance:** 5000 megohms maximum (initial); 1000 megohms (minimum) after environmental testing

## MECHANICAL

**Individual Contact Insertion and Separation Force (minimum/maximum):** 0.7 oz./12 oz.  
**Durability:** 500 mating cycles



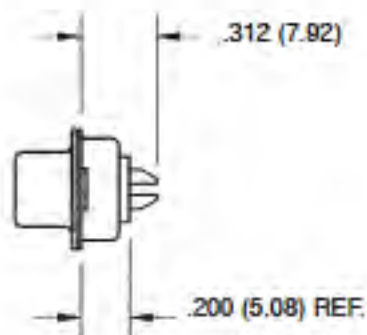
# D-subminiature Metal Shell Solder Cup Basic D Series



- Available with stamped or machined contacts.
- Will accommodate up to 20 AWG wire.

## Materials

- Contact Material: Copper Alloy
- Contact Plating:
  - Stamped contacts with gold flash or 30µin. gold in mating area, gold flash or tin/lead on remainder. All over nickel.
  - Screw machine contacts with gold flash or 30µin. gold. All over nickel.



## Ordering Information

### Solder Cup Plugs

### Zinc-Plated Shell with Yellow Chromate Finish

#### Stamped Contact with Gold Flash in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9P	DE-9P-30	DEE-9P	DEE-9P-30	DEY-9P	DEY-9P-30
15	DA-15P	DA-15P-30	DAE-15P	DAE-15P-30	DAY-15P	DAY-15P-30
25	DB-25P	DB-25P-30	DBE-25P	DBE-25P-30	DBY-25P	DBY-25P-30
37	DC-37P	DC-37P-30	DCE-37P	DCE-37P-30	DCY-37P	DCY-37P-30
50	DD-50P	DD-50P-30	DDE-50P	DDE-50P-30	DDY-50P	DDY-50P-30

#### Stamped Contact with Tin/Lead in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9P-II	DE-9P-II-30	DEE-9P-II	DEE-9P-II-30	DEY-9P-II	DEY-9P-II-30
15	DA-15P-II	DA-15P-II-30	DAE-15P-II	DAE-15P-II-30	DAY-15P-II	DAY-15P-II-30
25	DB-25P-II	DB-25P-II-30	DBE-25P-II	DBE-25P-II-30	DBY-25P-II	DBY-25P-II-30
37	DC-37P-II	DC-37P-II-30	DCE-37P-II	DCE-37P-II-30	DCY-37P-II	DCY-37P-II-30
50	DD-50P-II	DD-50P-II-30	DDE-50P-II	DDE-50P-II-30	DDY-50P-II	DDY-50P-II-30

#### Screw Machine Contact

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9P-SM	DE-9P-SM-30	DEE-9P-SM	DEE-9P-SM-30	DEY-9P-SM	DEY-9P-SM-30
15	DA-15P-SM	DA-15P-SM-30	DAE-15P-SM	DAE-15P-SM-30	DAY-15P-SM	DAY-15P-SM-30
25	DB-25P-SM	DB-25P-SM-30	DBE-25P-SM	DBE-25P-SM-30	DBY-25P-SM	DBY-25P-SM-30
37	DC-37P-SM	DC-37P-SM-30	DCE-37P-SM	DCE-37P-SM-30	DCY-37P-SM	DCY-37P-SM-30
50	DD-50P-SM	DD-50P-SM-30	DDE-50P-SM	DDE-50P-SM-30	DDY-50P-SM	DDY-50P-SM-30

# D-subminiature Metal Shell Solder Cup Basic D Series



## Ordering Information

### Solder Cup Plugs (Cont'd)

#### Tin-Plated Shell with Grounding Indents

##### Stamped Contact with Gold Flash in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9PTI	DE-9PTI-30	DEE-9PTI	DEE-9PTI-30	DEY-9PTI	DEY-9PTI-30
15	DA-15PTI	DA-15PTI-30	DAE-15PTI	DAE-15PTI-30	DAY-15PTI	DAY-15PTI-30
25	DB-25PTI	DB-25PTI-30	DBE-25PTI	DBE-25PTI-30	DBY-25PTI	DBY-25PTI-30
37	DC-37PTI	DC-37PTI-30	DCE-37PTI	DCE-37PTI-30	DCY-37PTI	DCY-37PTI-30
50	DD-50PTI	DD-50PTI-30	DDE-50PTI	DDE-50PTI-30	DDY-50PTI	DDY-50PTI-30

##### Stamped Contact with Tin/Lead in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9PTI-II	DE-9PTI-II-30	DEE-9PTI-II	DEE-9PTI-II-30	DEY-9PTI-II	DEY-9PTI-II-30
15	DA-15PTI-II	DA-15PTI-II-30	DAE-15PTI-II	DAE-15PTI-II-30	DAY-15PTI-II	DAY-15PTI-II-30
25	DB-25PTI-II	DB-25PTI-II-30	DBE-25PTI-II	DBE-25PTI-II-30	DBY-25PTI-II	DBY-25PTI-II-30
37	DC-37PTI-II	DC-37PTI-II-30	DCE-37PTI-II	DCE-37PTI-II-30	DCY-37PTI-II	DCY-37PTI-II-30
50	DD-50PTI-II	DD-50PTI-II-30	DDE-50PTI-II	DDE-50PTI-II-30	DDY-50PTI-II	DDY-50PTI-II-30

##### Screw Machine Contact

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9PTI-SM	DE-9PTI-SM-30	DEE-9PTI-SM	DEE-9PTI-SM-30	DEY-9PTI-SM	DEY-9PTI-SM-30
15	DA-15PTI-SM	DA-15PTI-SM-30	DAE-15PTI-SM	DAE-15PTI-SM-30	DAY-15PTI-SM	DAY-15PTI-SM-30
25	DB-25PTI-SM	DB-25PTI-SM-30	DBE-25PTI-SM	DBE-25PTI-SM-30	DBY-25PTI-SM	DBY-25PTI-SM-30
37	DC-37PTI-SM	DC-37PTI-SM-30	DCE-37PTI-SM	DCE-37PTI-SM-30	DCY-37PTI-SM	DCY-37PTI-SM-30
50	DD-50PTI-SM	DD-50PTI-SM-30	DDE-50PTI-SM	DDE-50PTI-SM-30	DDY-50PTI-SM	DDY-50PTI-SM-30

# D-subminiature Metal Shell Solder Cup Basic D Series



## Ordering Information

### Solder Cup Sockets

#### Zinc-Plated Shell with Yellow Chromate Finish

##### Stamped Contact with Gold Flash in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9S	DE-9S-30	DEE-9S	DEE-9S-30	DEY-9S	DEY-9S-30
15	DA-15S	DA-15S-30	DAE-15S	DAE-15S-30	DAY-15S	DAY-15S-30
25	DB-25S	DB-25S-30	DBE-25S	DBE-25S-30	DBY-25S	DBY-25S-30
37	DC-37S	DC-37S-30	DCE-37S	DCE-37S-30	DCY-37S	DCY-37S-30
50	DD-50S	DD-50S-30	DDE-50S	DDE-50S-30	DDY-50S	DDY-50S-30

##### Stamped Contact Tin/Lead in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9S-II	DE-9S-II-30	DEE-9S-II	DEE-9S-II-30	DEY-9S-II	DEY-9S-II-30
15	DA-15S-II	DA-15S-II-30	DAE-15S-II	DAE-15S-II-30	DAY-15S-II	DAY-15S-II-30
25	DB-25S-II	DB-25S-II-30	DBE-25S-II	DBE-25S-II-30	DBY-25S-II	DBY-25S-II-30
37	DC-37S-II	DC-37S-II-30	DCE-37S-II	DCE-37S-II-30	DCY-37S-II	DCY-37S-II-30
50	DD-50S-II	DD-50S-II-30	DDE-50S-II	DDE-50S-II-30	DDY-50S-II	DDY-50S-II-30

##### Screw Machine Contact

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9S-SM	DE-9S-SM-30	DEE-9S-SM	DEE-9S-SM-30	DEY-9S-SM	DEY-9S-SM-30
15	DA-15S-SM	DA-15S-SM-30	DAE-15S-SM	DAE-15S-SM-30	DAY-15S-SM	DAY-15S-SM-30
25	DB-25S-SM	DB-25S-SM-30	DBE-25S-SM	DBE-25S-SM-30	DBY-25S-SM	DBY-25S-SM-30
37	DC-37S-SM	DC-37S-SM-30	DCE-37S-SM	DCE-37S-SM-30	DCY-37S-SM	DCY-37S-SM-30
50	DD-50S-SM	DD-50S-SM-30	DDE-50S-SM	DDE-50S-SM-30	DDY-50S-SM	DDY-50S-SM-30

### Tin-Plated Shell

##### Stamped Contact with Gold Flash in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9ST	DE-9ST-30	DEE-9ST	DEE-9ST-30	DEY-9ST	DEY-9ST-30
15	DA-15ST	DA-15ST-30	DAE-15ST	DAE-15ST-30	DAY-15ST	DAY-15ST-30
25	DB-25ST	DB-25ST-30	DBE-25ST	DBE-25ST-30	DBY-25ST	DBY-25ST-30
37	DC-37ST	DC-37ST-30	DCE-37ST	DCE-37ST-30	DCY-37ST	DCY-37ST-30
50	DD-50ST	DD-50ST-30	DDE-50ST	DDE-50ST-30	DDY-50ST	DDY-50ST-30

##### Stamped Contact with Tin/Lead in Solder Cup

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9ST-II	DE-9ST-II-30	DEE-9ST-II	DEE-9ST-II-30	DEY-9ST-II	DEY-9ST-II-30
15	DA-15ST-II	DA-15ST-II-30	DAE-15ST-II	DAE-15ST-II-30	DAY-15ST-II	DAY-15ST-II-30
25	DB-25ST-II	DB-25ST-II-30	DBE-25ST-II	DBE-25ST-II-30	DBY-25ST-II	DBY-25ST-II-30
37	DC-37ST-II	DC-37ST-II-30	DCE-37ST-II	DCE-37ST-II-30	DCY-37ST-II	DCY-37ST-II-30
50	DD-50ST-II	DD-50ST-II-30	DDE-50ST-II	DDE-50ST-II-30	DDY-50ST-II	DDY-50ST-II-30

##### Screw Machine Contact

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9ST-SM	DE-9ST-SM-30	DEE-9ST-SM	DEE-9ST-SM-30	DEY-9ST-SM	DEY-9ST-SM-30
15	DA-15ST-SM	DA-15ST-SM-30	DAE-15ST-SM	DAE-15ST-SM-30	DAY-15ST-SM	DAY-15ST-SM-30
25	DB-25ST-SM	DB-25ST-SM-30	DBE-25ST-SM	DBE-25ST-SM-30	DBY-25ST-SM	DBY-25ST-SM-30
37	DC-37ST-SM	DC-37ST-SM-30	DCE-37ST-SM	DCE-37ST-SM-30	DCY-37ST-SM	DCY-37ST-SM-30
50	DD-50ST-SM	DD-50ST-SM-30	DDE-50ST-SM	DDE-50ST-SM-30	DDY-50ST-SM	DDY-50ST-SM-30



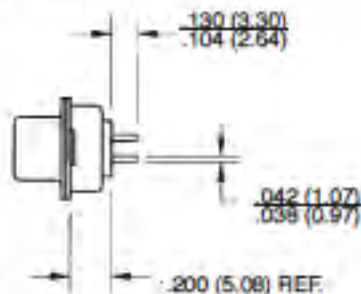
# D-subminiature Metal Shell Vertical Dip Solder PCB Basic D Series



- .040" contact diameter.
- Short rear insulator provides low profile on PCB.
- Offered with .120 mounting holes, dual float bushings, or optional 4-40 clinch nuts.

## Materials

- Contact Material: Socket - Phosphor bronze (machined), Plug - Brass (machined).
- Contact Plating: Gold flash or 30µin. gold over nickel.



## Ordering Information

### Vertical PCB Plugs

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9PV	DE-9PV-30	DEE-9PV	DEE-9PV-30	DEY-9PV	DEY-9PV-30
15	DA-15PV	DA-15PV-30	DAE-15PV	DAE-15PV-30	DAY-15PV	DAY-15PV-30
25	DB-25PV	DB-25PV-30	DBE-25PV	DBE-25PV-30	DBY-25PV	DBY-25PV-30
37	DC-37PV	DC-37PV-30	DCE-37PV	DCE-37PV-30	DCY-37PV	DCY-37PV-30
50	DD-50PV	DD-50PV-30	DDE-50PV	DDE-50PV-30	DCY-50PV	DDY-50PV-30

#### Tin-Plated Shell with Grounding Indents

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9PVTI	DE-9PVTI-30	DEE-9PVTI	DEE-9PVTI-30	DEY-9PVTI	DEY-9PVTI-30
15	DA-15PVTI	DA-15PVTI-30	DAE-15PVTI	DAE-15PVTI-30	DAY-15PVTI	DAY-15PVTI-30
25	DB-25PVTI	DB-25PVTI-30	DBE-25PVTI	DBE-25PVTI-30	DBY-25PVTI	DBY-25PVTI-30
37	DC-37PVTI	DC-37PVTI-30	DCE-37PVTI	DCE-37PVTI-30	DCY-37PVTI	DCY-37PVTI-30
50	DD-50PVTI	DD-50PVTI-30	DDE-50PVTI	DDE-50PVTI-30	DCY-50PVTI	DDY-50PVTI-30

### Vertical PCB Sockets

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9SV	DE-9SV-30	DEE-9SV	DEE-9SV-30	DEY-9SV	DEY-9SV-30
15	DA-15SV	DA-15SV-30	DAE-15SV	DAE-15SV-30	DAY-15SV	DAY-15SV-30
25	DB-25SV	DB-25SV-30	DBE-25SV	DBE-25SV-30	DBY-25SV	DBY-25SV-30
37	DC-37SV	DC-37SV-30	DCE-37SV	DCE-37SV-30	DCY-37SV	DCY-37SV-30
50	DD-50SV	DD-50SV-30	DDE-50SV	DDE-50SV-30	DCY-50SV	DDY-50SV-30

#### Tin-Plated Shell

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9SVT	DE-9SVT-30	DEE-9SVT	DEE-9SVT-30	DEY-9SVT	DEY-9SVT-30
15	DA-15SVT	DA-15SVT-30	DAE-15SVT	DAE-15SVT-30	DAY-15SVT	DAY-15SVT-30
25	DB-25SVT	DB-25SVT-30	DBE-25SVT	DBE-25SVT-30	DBY-25SVT	DBY-25SVT-30
37	DC-37SVT	DC-37SVT-30	DCE-37SVT	DCE-37SVT-30	DCY-37SVT	DCY-37SVT-30
50	DD-50SVT	DD-50SVT-30	DDE-50SVT	DDE-50SVT-30	DDY-50SVT	DDY-50SVT-30

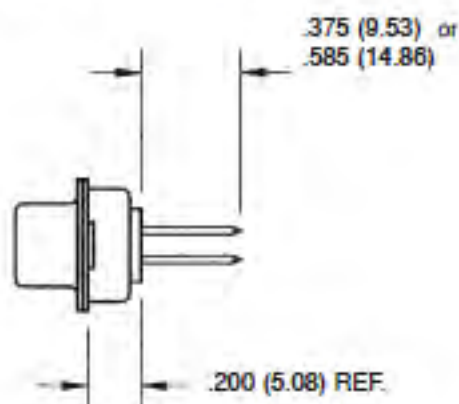
# D-subminiature Metal Shell Wire Wrap Basic D Series



- Reliable wire wrap termination.
- Two contact lengths: .375" or .585"
- .025" square contact tails.

### Materials

- Contact Material: Copper alloy (machined).
- Contact Plating: Gold flash or 30µin. gold. All over nickel.



### Ordering Information

#### Wire Wrap Plugs

#### .375" Tail Length

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9P-F179	DE-9P-F179-30	DEE-9P-F179	DEE-9P-F179-30	DEY-9P-F179	DEY-9P-F179-30
15	DA-15P-F179	DA-15P-F179-30	DAE-15P-F179	DAE-15P-F179-30	DAY-15P-F179	DAY-15P-F179-30
25	DB-25P-F179	DB-25P-F179-30	DBE-25P-F179	DBE-25P-F179-30	DBY-25P-F179	DBY-25P-F179-30
37	DC-37P-F179	DC-37P-F179-30	DCE-37P-F179	DCE-37P-F179-30	DCY-37P-F179	DCY-37P-F179-30
50	DD-50P-F179	DD-50P-F179-30	DDE-50P-F179	DDE-50P-F179-30	DDY-50P-F179	DDY-50P-F179-30

#### Tin-Plated Shell with Grounding Indents

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9PTI-F179	DE-9PTI-F179-30	DEE-9PTI-F179	DEE-9PTI-F179-30	DEY-9PTI-F179	DEY-9PTI-F179-30
15	DA-15PTI-F179	DA-15PTI-F179-30	DAE-15PTI-F179	DAE-15PTI-F179-30	DAY-15PTI-F179	DAY-15PTI-F179-30
25	DB-25PTI-F179	DB-25PTI-F179-30	DBE-25PTI-F179	DBE-25PTI-F179-30	DBY-25PTI-F179	DBY-25PTI-F179-30
37	DC-37PTI-F179	DC-37PTI-F179-30	DCE-37PTI-F179	DCE-37PTI-F179-30	DCY-37PTI-F179	DCY-37PTI-F179-30
50	DD-50PTI-F179	DD-50PTI-F179-30	DDE-50PTI-F179	DDE-50PTI-F179-30	DDY-50PTI-F179	DDY-50PTI-F179-30

# D-subminiature Metal Shell Wire Wrap Basic D Series



## Ordering Information

### Wire Wrap Plugs (Cont'd)

.585" Tail Length

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9P-F179C	DE-9P-F179C-30	DEE-9P-F179C	DEE-9PF-179C-30	DEY-9P-F179C	DEY-9P-F179C-30
15	DA-15P-F179C	DA-15P-F179C-30	DAE-15P-F179C	DAE-15PF-179C-30	DAY-15P-F179C	DAY-15P-F179C-30
25	DB-25P-F179C	DB-25P-F179C-30	DBE-25P-F179C	DBE-25PF-179C-30	DBY-25P-F179C	DBY-25P-F179C-30
37	DC-37P-F179C	DC-37P-F179C-30	DCE-37P-F179C	DCE-37PF-179C-30	DCY-37P-F179C	DCY-37P-F179C-30
50	DD-50P-F179C	DD-50P-F179C-30	DDE-50P-F179C	DDE-50PF-179C-30	DDY-50P-F179C	DDY-50P-F179C-30

#### Tin-Plated Shell with Grounding Indents

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9PTI-F179C	DE-9PTI-F179C-30	DEE-9PTI-F179C	DEE-9PTI-F179C-30	DEY-9PTI-F179C	DEY-9PTI-F179C-30
15	DA-15PTI-F179C	DA-15PTI-F179C-30	DAE-15PTI-F179C	DAE-15PTI-F179C-30	DAY-15PTI-F179C	DAY-15PTI-F179C-30
25	DB-25PTI-F179C	DB-25PTI-F179C-30	DBE-25PTI-F179C	DBE-25PTI-F179C-30	DBY-25PTI-F179C	DBY-25PTI-F179C-30
37	DC-37PTI-F179C	DC-37PTI-F179C-30	DCE-37PTI-F179C	DCE-37PTI-F179C-30	DCY-37PTI-F179C	DCY-37PTI-F179C-30
50	DD-50PTI-F179C	DD-50PTI-F179C-30	DDE-50PTI-F179C	DDE-50PTI-F179C-30	DDY-50PTI-F179C	DDY-50PTI-F179C-30

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# D-subminiature Metal Shell Wire Wrap Basic D Series



## Ordering Information

### Wire Wrap Sockets

#### .375" Tail Length

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9S-F179	DE-9S-F179-30	DEE-9S-F179	DEE-9S-F179-30	DEY-9S-F179	DEY-9S-F179-30
15	DA-15S-F179	DA-15S-F179-30	DAE-15S-F179	DAE-15S-F179-30	DAY-15S-F179	DAY-15S-F179-30
25	DB-25S-F179	DB-25S-F179-30	DBE-25S-F179	DBE-25S-F179-30	DBY-25S-F179	DBY-25S-F179-30
37	DC-37S-F179	DC-37S-F179-30	DCE-37S-F179	DCE-37S-F179-30	DCY-37S-F179	DCY-37S-F179-30
50	DD-50S-F179	DD-50S-F179-30	DDE-50S-F179	DDE-50S-F179-30	DDY-50S-F179	DDY-50S-F179-30

#### Tin-Plated Shell

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9ST-F179	DE-9ST-F179-30	DEE-9ST-F179	DEE-9ST-F179-30	DEY-9ST-F179	DEY-9ST-F179-30
15	DA-15ST-F179	DA-15ST-F179-30	DAE-15ST-F179	DAE-15ST-F179-30	DAY-15ST-F179	DAY-15ST-F179-30
25	DB-25ST-F179	DB-25ST-F179-30	DBE-25ST-F179	DBE-25ST-F179-30	DBY-25ST-F179	DBY-25ST-F179-30
37	DC-37ST-F179	DC-37ST-F179-30	DCE-37ST-F179	DCE-37ST-F179-30	DCY-37ST-F179	DCY-37ST-F179-30
50	DD-50ST-F179	DD-50ST-F179-30	DDE-50ST-F179	DDE-50ST-F179-30	DDY-50ST-F179	DDY-50ST-F179-30

#### .585" Tail Length

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9S-F179C	DE-9S-F179C-30	DEE-9S-F179C	DEE-9S-F179C-30	DEY-9S-F179C	DEY-9S-F179C-30
15	DA-15S-F179C	DA-15S-F179C-30	DAE-15S-F179C	DAE-15S-F179C-30	DAY-15S-F179C	DAY-15S-F179C-30
25	DB-25S-F179C	DB-25S-F179C-30	DBE-25S-F179C	DBE-25S-F179C-30	DBY-25S-F179C	DBY-25S-F179C-30
37	DC-37S-F179C	DC-37S-F179C-30	DCE-37S-F179C	DCE-37S-F179C-30	DCY-37S-F179C	DCY-37S-F179C-30
50	DD-50S-F179C	DD-50S-F179C-30	DDE-50S-F179C	DDE-50S-F179C-30	DDY-50S-F179C	DDY-50S-F179C-30

#### Tin-Plated Shell

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold	Gold Flash	30µin. Gold
9	DE-9ST-F179C	DE-9ST-F179C-30	DEE-9ST-F179C	DEE-9ST-F179C-30	DEY-9ST-F179C	DEY-9ST-F179C-30
15	DA-15ST-F179C	DA-15ST-F179C-30	DAE-15ST-F179C	DAE-15ST-F179C-30	DAY-15ST-F179C	DAY-15ST-F179C-30
25	DB-25ST-F179C	DB-25ST-F179C-30	DBE-25ST-F179C	DBE-25ST-F179C-30	DBY-25ST-F179C	DBY-25ST-F179C-30
37	DC-37ST-F179C	DC-37ST-F179C-30	DCE-37ST-F179C	DCE-37ST-F179C-30	DCY-37ST-F179C	DCY-37ST-F179C-30
50	DD-50ST-F179C	DD-50ST-F179C-30	DDE-50ST-F179C	DDE-50ST-F179C-30	DDY-50ST-F179C	DDY-50ST-F179C-30

# D-subminiature Metal Shell Solder Cup, Right-Angle, and Vertical PCB Series 1 - High Reliability



## FEATURES

- Available in vertical and right-angle dip solder PCB connectors and solder cup version for wire termination.
- Commercial version of M24308 military connectors with tin-plated or zinc-plated shell and 30µin. gold plating.
- Monoblock green diallyl phthalate insulator for improved electrical performance.
- Machined contacts for precision performance.
- Offered in 9, 15, 25, 37, and 50 (except right-angle version) position plugs and sockets.
- Offered with .120 mounting holes, 4-40 clinch nuts (except right-angle version), or dual float bushings (except right-angle version).
- Approvals:
  - UL Recognized - Files E170218 (UL1977) and E130965 (UL1863).
  - CSA Approved - File LR31996.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

## MATERIALS

**Insulator Material:** Glass-filled diallyl phthalate (green)  
UL 94V-0 rated

**Connector Shell:** Steel with zinc plating and yellow chromate finish or tin plating (grounding indents on plug)

**Contact Material:** Plug - Brass (machined), Socket - Phosphor bronze (machined)

**Contact Plating:** 30µin. gold over nickel

**4-40 Clinch Nut:** Steel with cadmium plating and yellow chromate finish

**Dual Float Bushing:** Stainless steel, passivated

## ENVIRONMENTAL

**Operating Temperature:** -85°C to + 125°C

**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G

**Vibration:** 12 cycles in three perpendicular directions @ 10-2000Hz, per MIL-STD-202, Method 204, Condition D

**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103

## ELECTRICAL

**Withstanding Voltage:** Minimum 1250V RMS @ sea level

**Current Rating:** 5 Ampe

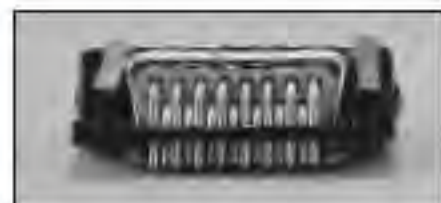
**Contact Resistance:** 2.7 milliohms maximum

**Insulation Resistance:** 5000 megohms maximum (initial);  
1000 megohms (minimum) after environmental testing

## MECHANICAL

**Individual Contact Insertion and Separation Force (minimum/maximum):** 0.7 oz./12 oz.

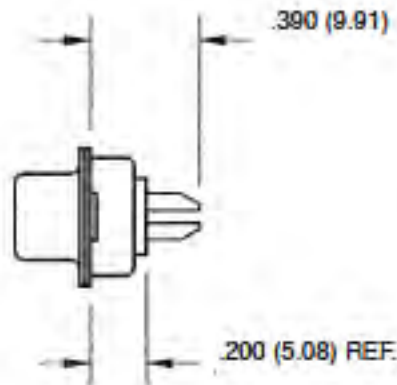
**Durability:** 500 mating cycles



# D-subminiature Metal Shell Solder Cup Series 1 - High Reliability



- Will accommodate up to 20 AWG wire.



## Ordering Information

### Solder Cup Plugs

Positions	Zinc-Plated Shell with Yellow Chromate Finish			Tin-Plated Shell with Grounding Indents		
	Mounting Hole	4-40 Clinch Nut	Dual Float Bushings	Mounting Hole	4-40 Clinch Nut	Dual Float Bushings
9	DEM-9P	DEME-9P	DEMY-9P	DEM-9PTI	DEME-9PTI	DEMY-9PTI
15	DAM-15P	DAME-15P	DAMY-15P	DAM-15PTI	DAME-15PTI	DAMY-15PTI
25	DBM-25P	DBME-25P	DBMY-25P	DBM-25PTI	DBME-25PTI	DBMY-25PTI
37	DCM-37P	DCME-37P	DCMY-37P	DCM-37PTI	DCME-37PTI	DCMY-37PTI
50	DDM-50P	DDME-50P	DDMY-50P	DDM-50PTI	DDME-50PTI	DDMY-50PTI

### Solder Cup Sockets

Positions	Zinc-Plated Shell with Yellow Chromate Finish			Tin-Plated Shell		
	Mounting Hole	4-40 Clinch Nut	Dual Float Bushings	Mounting Hole	4-40 Clinch Nut	Dual Float Bushings
9	DEM-9S	DEME-9S	DEMY-9S	DEM-9ST	DEME-9ST	DEMY-9ST
15	DAM-15S	DAME-15S	DAMY-15S	DAM-15ST	DAME-15ST	DAMY-15ST
25	DBM-25S	DBME-25S	DBMY-25S	DBM-25ST	DBME-25ST	DBMY-25ST
37	DCM-37S	DCME-37S	DCMY-37S	DCM-37ST	DCME-37ST	DCMY-37ST
50	DDM-50S	DDME-50S	DDMY-50S	DDM-50ST	DDME-50ST	DDMY-50ST

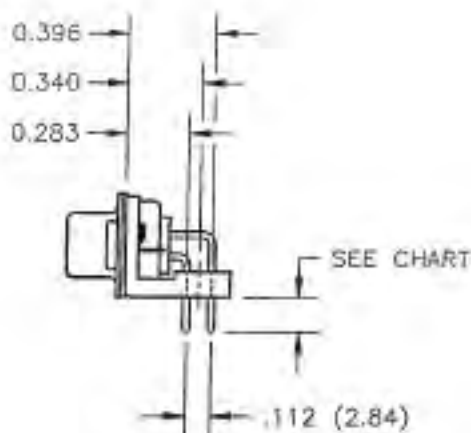
# D-subminiature Metal Shell Right-Angle Dip Solder PCB Series 1 - High Reliability



- .283" footprint uses minimal board space.
- Available with three contact tail lengths (.125", .158", and .185") and two contact diameters (.030" and .040").

## Materials

- Mounting bracket: Black nylon. Can be removed if necessary.



## 4

### Ordering Information

#### Right-Angle PCB Plugs

##### Zinc-Plated Shell with Yellow Chromate Finish

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9PD	DEM-9PL	DEM-9PS	DEM-9PA	DEM-9PG	DEM-9PW
15	DAM-15PD	DAM-15PL	DAM-15PS	DAM-15PA	DAM-15PG	DAM-15PW
25	DBM-25PD	DBM-25PL	DBM-25PS	DBM-25PA	DBM-25PG	DBM-25PW
37	DCM-37PD	DCM-37PL	DCM-37PS	DCM-37PA	DCM-37PG	DCM-37PW

##### Tin-Plated Shell with Grounding Indents

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9PDTI	DEM-9PLTI	DEM-9PSTI	DEM-9PATI	DEM-9PGTI	DEM-9PWTI
15	DAM-15PDTI	DAM-15PLTI	DAM-15PSTI	DAM-15PATI	DAM-15PGTI	DAM-15PWTI
25	DBM-25PDTI	DBM-25PLTI	DBM-25PSTI	DBM-25PATI	DBM-25PGTI	DBM-25PWTI
37	DCM-37PDTI	DCM-37PLTI	DCM-37PSTI	DCM-37PATI	DCM-37PGTI	DCM-37PWTI

# D-subminiature Metal Shell Right-Angle Dip Solder PCB Series 1 - High Reliability



## Ordering Information

### Right-Angle PCB Sockets

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9SD	DEM-9SL	DEM-9SS	DEM-9SA	DEM-9SG	DEM-9SW
15	DAM-15SD	DAM-15SL	DAM-15SS	DAM-15SA	DAM-15SG	DAM-15SW
25	DBM-25SD	DBM-25SL	DBM-25SS	DBM-25SA	DBM-25SG	DBM-25SW
37	DCM-37SD	DCM-37SL	DCM-37SS	DCM-37SA	DCM-37SG	DCM-37SW

#### Tin-Plated Shell

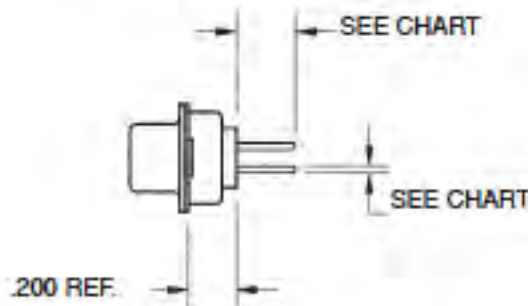
Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9SDT	DEM-9SLT	DEM-9SST	DEM-9SAT	DEM-9SGT	DEM-9SWT
15	DAM-15SDT	DAM-15SLT	DAM-15SST	DAM-15SAT	DAM-15SGT	DAM-15SWT
25	DBM-25SDT	DBM-25SLT	DBM-25SST	DBM-25SAT	DBM-25SGT	DBM-25SWT
37	DCM-37SDT	DCM-37SLT	DCM-37SST	DCM-37SAT	DCM-37SGT	DCM-37SWT



# D-subminiature Metal Shell Vertical Dip Solder PCB Series 1 - High Reliability



- Available with three contact tail lengths (.125", .158", and .185") and two contact diameters (.030" and .040").



## Ordering Information

### Vertical PCB Plugs

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9PE	DEM-9PM	DEM-9PZ	DEM-9PB	DEM-9PH	DEM-9PX
15	DAM-15PE	DAM-15PM	DAM-15PZ	DAM-15PB	DAM-15PH	DAM-15PX
25	DBM-25PE	DBM-25PM	DBM-25PZ	DBM-25PB	DBM-25PH	DBM-25PX
37	DCM-37PE	DCM-37PM	DCM-37PZ	DCM-37PB	DCM-37PH	DCM-37PX
50	DDM-50PE	DDM-50PM	DDM-50PZ	DDM-50PB	DDM-50PH	DDM-50PX

#### Zinc-Plated Shell with Yellow Chromate Finish and 4-40 Clinch Nuts

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEME-9PE	DEME-9PM	DEME-9PZ	DEME-9PB	DEME-9PH	DEME-9PX
15	DAME-15PE	DAME-15PM	DAME-15PZ	DAME-15PB	DAME-15PH	DAME-15PX
25	DBME-25PE	DBME-25PM	DBME-25PZ	DBME-25PB	DBME-25PH	DBME-25PX
37	DCME-37PE	DCME-37PM	DCME-37PZ	DCME-37PB	DCME-37PH	DCME-37PX
50	DDME-50PE	DDME-50PM	DDME-50PZ	DDME-50PB	DDME-50PH	DDME-50PX

#### Zinc-Plated Shell with Yellow Chromate Finish and Dual Float Bushings

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEMY-9PE	DEMY-9PM	DEMY-9PZ	DEMY-9PB	DEMY-9PH	DEMY-9PX
15	DAMY-15PE	DAMY-15PM	DAMY-15PZ	DAMY-15PB	DAMY-15PH	DAMY-15PX
25	DBMY-25PE	DBMY-25PM	DBMY-25PZ	DBMY-25PB	DBMY-25PH	DBMY-25PX
37	DCMY-37PE	DCMY-37PM	DCMY-37PZ	DCMY-37PB	DCMY-37PH	DCMY-37PX
50	DDMY-50PE	DDMY-50PM	DDMY-50PZ	DDMY-50PB	DDMY-50PH	DDMY-50PX

# D-subminiature Metal Shell Vertical Dip Solder PCB Series 1 - High Reliability



## Ordering Information

### Vertical PCB Plugs (Cont'd)

#### Tin-Plated Shell with Grounding Indents

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9PETI	DEM-9PMTI	DEM-9PZTI	DEM-9PBTI	DEM-9PHTI	DEM-9PXTI
15	DAM-15PETI	DAM-15PMTI	DAM-15PZTI	DAM-15PBTI	DAM-15PHTI	DAM-15PXTI
25	DBM-25PETI	DBM-25PMTI	DBM-25PZTI	DBM-25PBTI	DBM-25PHTI	DBM-25PXTI
37	DCM-37PETI	DCM-37PMTI	DCM-37PZTI	DCM-37PBTI	DCM-37PHTI	DCM-37PXTI
50	DDM-50PETI	DDM-50PMTI	DDM-50PZTI	DDM-50PBTI	DDM-50PHTI	DDM-50PXTI

#### Tin-Plated Shell with Grounding Indents and 4-40 Clinch Nuts

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEME-9PETI	DEME-9PMTI	DEME-9PZTI	DEME-9PBTI	DEME-9PHTI	DEME-9PXTI
15	DAME-15PETI	DAME-15PMTI	DAME-15PZTI	DAME-15PBTI	DAME-15PHTI	DAME-15PXTI
25	DBME-25PETI	DBME-25PMTI	DBME-25PZTI	DBME-25PBTI	DBME-25PHTI	DBME-25PXTI
37	DCME-37PETI	DCME-37PMTI	DCME-37PZTI	DCME-37PBTI	DCME-37PHTI	DCME-37PXTI
50	DDME-50PETI	DDME-50PMTI	DDME-50PZTI	DDME-50PBTI	DDME-50PHTI	DDME-50PXTI

#### Tin-Plated Shell with Grounding Indents and Dual Float Bushings

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEMY-9PETI	DEMY-9PMTI	DEMY-9PZTI	DEMY-9PBTI	DEMY-9PHTI	DEMY-9PXTI
15	DAMY-15PETI	DAMY-15PMTI	DAMY-15PZTI	DAMY-15PBTI	DAMY-15PHTI	DAMY-15PXTI
25	DBMY-25PETI	DBMY-25PMTI	DBMY-25PZTI	DBMY-25PBTI	DBMY-25PHTI	DBMY-25PXTI
37	DCMY-37PETI	DCMY-37PMTI	DCMY-37PZTI	DCMY-37PBTI	DCMY-37PHTI	DCMY-37PXTI
50	DDMY-50PETI	DDMY-50PMTI	DDMY-50PZTI	DDMY-50PBTI	DDMY-50PHTI	DDMY-50PXTI

### Vertical PCB Sockets

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9SE	DEM-9SM	DEM-9SZ	DEM-9SB	DEM-9SH	DEM-9SX
15	DAM-15SE	DAM-15SM	DAM-15SZ	DAM-15SB	DAM-15SH	DAM-15SX
25	DBM-25SE	DBM-25SM	DBM-25SZ	DBM-25SB	DBM-25SH	DBM-25SX
37	DCM-37SE	DCM-37SM	DCM-37SZ	DCM-37SB	DCM-37SH	DCM-37SX
50	DDM-50SE	DDM-50SM	DDM-50SZ	DDM-50SB	DDM-50SH	DDM-50SX

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# D-subminiature Metal Shell Vertical Dip Solder PCB Series 1 - High Reliability



## Ordering Information

### Vertical PCB Sockets (Cont'd)

#### Zinc-Plated Shell with Yellow Chromate Finish and 4-40 Clinch Nuts

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEME-9SE	DEME-9SM	DEME-9SZ	DEME-9SB	DEME-9SH	DEME-9SX
15	DAME-15SE	DAME-15SM	DAME-15SZ	DAME-15SB	DAME-15SH	DAME-15SX
25	DBME-25SE	DBME-25SM	DBME-25SZ	DBME-25SB	DBME-25SH	DBME-25SX
37	DCME-37SE	DCME-37SM	DCME-37SZ	DCME-37SB	DCME-37SH	DCME-37SX
50	DDME-50SE	DDME-50SM	DDME-50SZ	DDME-50SB	DDME-50SH	DDME-50SX

#### Zinc-Plated Shell with Yellow Chromate Finish and Dual Float Bushings

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEMY-9SE	DEMY-9SM	DEMY-9SZ	DEMY-9SB	DEMY-9SH	DEMY-9SX
15	DAMY-15SE	DAMY-15SM	DAMY-15SZ	DAMY-15SB	DAMY-15SH	DAMY-15SX
25	DBMY-25SE	DBMY-25SM	DBMY-25SZ	DBMY-25SB	DBMY-25SH	DBMY-25SX
37	DCMY-37SE	DCMY-37SM	DCMY-37SZ	DCMY-37SB	DCMY-37SH	DCMY-37SX
50	DDMY-50SE	DDMY-50SM	DDMY-50SZ	DDMY-50SB	DDMY-50SH	DDMY-50SX

#### Tin-Plated Shell

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEM-9SET	DEM-9SMT	DEM-9SZT	DEM-9SBT	DEM-9SHT	DEM-9SXT
15	DAM-15SET	DAM-15SMT	DAM-15SZT	DAM-15SBT	DAM-15SHT	DAM-15SXT
25	DBM-25SET	DBM-25SMT	DBM-25SZT	DBM-25SBT	DBM-25SHT	DBM-25SXT
37	DCM-37SET	DCM-37SMT	DCM-37SZT	DCM-37SBT	DCM-37SHT	DCM-37SXT
50	DDM-50SET	DDM-50SMT	DDM-50SZT	DDM-50SBT	DDM-50SHT	DDM-50SXT

#### Tin-Plated Shell with 4-40 Clinch Nuts

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEME-9SET	DEME-9SMT	DEME-9SZT	DEME-9SBT	DEME-9SHT	DEME-9SXT
15	DAME-15SET	DAME-15SMT	DAME-15SZT	DAME-15SBT	DAME-15SHT	DAME-15SXT
25	DBME-25SET	DBME-25SMT	DBME-25SZT	DBME-25SBT	DBME-25SHT	DBME-25SXT
37	DCME-37SET	DCME-37SMT	DCME-37SZT	DCME-37SBT	DCME-37SHT	DCME-37SXT
50	DDME-50SET	DDME-50SMT	DDME-50SZT	DDME-50SBT	DDME-50SHT	DDME-50SXT

#### Tin-Plated Shell with Dual Float Bushings

Positions	.125 Tail Length	.158 Tail Length	.185 Tail Length	.125 Tail Length	.158 Tail Length	.185 Tail Length
	.030 Contact Diameter	.030 Contact Diameter	.030 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter	.040 Contact Diameter
9	DEMY-9SET	DEMY-9SMT	DEMY-9SZT	DEMY-9SBT	DEMY-9SHT	DEMY-9SXT
15	DAMY-15SET	DAMY-15SMT	DAMY-15SZT	DAMY-15SBT	DAMY-15SHT	DAMY-15SXT
25	DBMY-25SET	DBMY-25SMT	DBMY-25SZT	DBMY-25SBT	DBMY-25SHT	DBMY-25SXT
37	DCMY-37SET	DCMY-37SMT	DCMY-37SZT	DCMY-37SBT	DCMY-37SHT	DCMY-37SXT
50	DDMY-50SET	DDMY-50SMT	DDMY-50SZT	DDMY-50SBT	DDMY-50SHT	DDMY-50SXT

## D-subminiature Metal Shell - Combination Layout Solder Cup and Vertical PCB Series 1 - High Reliability



- Shell Sizes (equivalent to standard size): E (Size 9), A (Size 15), B (Size 25), C (Size 25), and D (Size 25).
- Offered in a variety of combination layouts in vertical style for PCB mount or solder cup style for wire termination.
- Signal Contacts (Size 20) are fixed and non-removable.
  - Vertical Dip Solder Contacts are available with three contact tail lengths (.125", .158", and .185") and two contact diameters (.030" and .040").
- Removable Coaxial, High Power, High Voltage contacts must be ordered separately.
- See Series 1 page 4-48 for specifications.
- Available with 30 $\mu$ in. or 50 $\mu$ in. gold contact plating.

### Materials

#### Connector Shell:

- Steel with zinc or cadmium plating and yellow chromate finish or tin plating (grounding indents on plug).



# D-subminiature Metal Shell Crimp and Poke Series 3 - High Reliability



## FEATURES

- *High-reliability in a commercial grade connector.*
- *Monoblock diallyl phthalate insulator for improved electrical performance.*
- *Offered in 9, 15, 25, 37, and 50 position plugs and sockets.*
- *Offered with .120 mounting holes, 4-40 clinch nuts, or dual float bushings.*
- *Commercial version of M24308 Military connectors with tin-plated or zinc-plated shell and 30µin. gold contact plating.*
- *Screw Machine Crimp and Poke contacts available as follows:*
  - *Note that all contacts are packed loose.*
  - *Plating options: 30µin. gold.*
  - *Can be included with the connector or purchased separately (FO part numbers).*
- *See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.*

## MATERIALS

**Insulator Material:** Glass fiber-filled diallyl phthalate (green), UL 94V-0  
**Connector Shell:** Steel with zinc plating and yellow chromate finish  
**Contact Material:** Plug - Brass (machined), Socket - Phosphor bronze (machined)  
**Contact Plating:** 30µin. gold over nickel  
**4-40 Clinch Nut:** Steel with cadmium plating and yellow chromate finish  
**Dual Float Bushing:** Stainless steel, passivated

## ENVIRONMENTAL

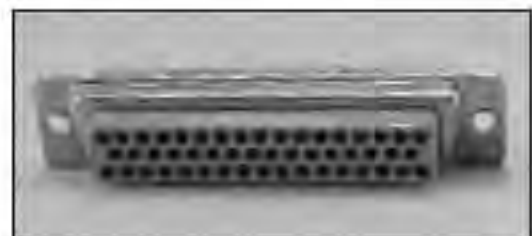
**Operating Temperature:** -65°C to + 125°C  
**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G  
**Vibration:** 12 cycles in three perpendicular directions @ 10-2000Hz, per MIL-STD-202, Method 204, Condition D  
**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103

## ELECTRICAL

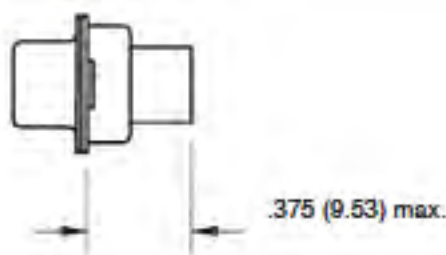
**Withstanding Voltage:** Minimum 1250V RMS @ sea level  
**Current Rating:** 5 Amps  
**Contact Resistance:** 2.7 milliohms maximum  
**Insulation Resistance:** 5000 megohms maximum (initial); 1000 megohms (minimum) after environmental testing

## MECHANICAL

**Individual Contact Insertion and Separation Force (minimum/maximum):** 0.7 oz./12 oz.  
**Durability:** 500 mating cycles



# D-subminiature Metal Shell Crimp and Poke Series 3 - High Reliability



## Termination Tooling

- Contact Insertion/Extraction Tool: #CIET-20-HD (Military #M81969/39-01). See page 4-103.
- Crimp Contact Hand Tool: Military #M22520/2-01. See page 4-103. Contact Positioner (below) required.
- Positioner for machine contacts for Hand Tool #M22520/2-01 (locates contact in the correct position): #M22520/2-08. See page 4-103.

## Ordering Information

### Crimp and Poke - Plugs

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	30µin. Gold Contacts	Without Contacts	30µin. Gold Contacts	Without Contacts	30µin. Gold Contacts	Without Contacts
9	DEMA-9P	DEMA-9P-FO	DEMAE-9P	DEMAE-9P-FO	DEMAY-9P	DEMAY-9P-FO
15	DAMA-15P	DAMA-15P-FO	DAMAE-15P	DAMAE-15P-FO	DAMAY-15P	DAMAY-15P-FO
25	DBMA-25P	DBMA-25P-FO	DBMAE-25P	DBMAE-25P-FO	DBMAY-25P	DBMAY-25P-FO
37	DCMA-37P	DCMA-37P-FO	DCMAE-37P	DCMAE-37P-FO	DCMAY-37P	DCMAY-37P-FO
50	DDMA-50P	DDMA-50P-FO	DDMAE-50P	DDMAE-50P-FO	DDMAY-50P	DDMAY-50P-FO

#### Tin-Plated Shells with Grounding Indents

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	30µin. Gold Contacts	Without Contacts	30µin. Gold Contacts	Without Contacts	30µin. Gold Contacts	Without Contacts
9	DEMA-9PTI	DEMA-9PTI-FO	DEMAE-9PTI	DEMAE-9PTI-FO	DEMAY-9PTI	DEMAY-9PTI-FO
15	DAMA-15PTI	DAMA-15PTI-FO	DAMAE-15PTI	DAMAE-15PTI-FO	DAMAY-15PTI	DAMAY-15PTI-FO
25	DBMA-25PTI	DBMA-25PTI-FO	DBMAE-25PTI	DBMAE-25PTI-FO	DBMAY-25PTI	DBMAY-25PTI-FO
37	DCMA-37PTI	DCMA-37PTI-FO	DCMAE-37PTI	DCMAE-37PTI-FO	DCMAY-37PTI	DCMAY-37PTI-FO
50	DDMA-50PTI	DDMA-50PTI-FO	DDMAE-50PTI	DDMAE-50PTI-FO	DDMAY-50PTI	DDMAY-50PTI-FO

# D-subminiature Metal Shell Crimp and Poke Series 3 - High Reliability



## Ordering Information

### Crimp and Poke - Sockets

#### Zinc-Plated Shell with Yellow Chromate Finish

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	30pin. Gold Contacts	Without Contacts	30pin. Gold Contacts	Without Contacts	30pin. Gold Contacts	Without Contacts
9	DEMA-9S	DEMA-9S-FO	DEMAE-9S	DEMAE-9S-FO	DEMAY-9S	DEMAY-9S-FO
15	DAMA-15S	DAMA-15S-FO	DAMAE-15S	DAMAE-15S-FO	DAMAY-15S	DAMAY-15S-FO
25	DBMA-25S	DBMA-25S-FO	DBMAE-25S	DBMAE-25S-FO	DBMAY-25S	DBMAY-25S-FO
37	DCMA-37S	DCMA-37S-FO	DCMAE-37S	DCMAE-37S-FO	DCMAY-37S	DCMAY-37S-FO
50	DDMA-50S	DDMA-50S-FO	DDMAE-50S	DDMAE-50S-FO	DDMAY-50S	DDMAY-50S-FO

#### Tin-Plated Shell

Positions	Mounting Holes		4-40 Clinch Nuts		Dual Float Bushings	
	30pin. Gold Contacts	Without Contacts	30pin. Gold Contacts	Without Contacts	30pin. Gold Contacts	Without Contacts
9	DEMA-9ST	DEMA-9ST-FO	DEMAE-9ST	DEMAE-9ST-FO	DEMAY-9ST	DEMAY-9ST-FO
15	DAMA-15ST	DAMA-15ST-FO	DAMAE-15ST	DAMAE-15ST-FO	DAMAY-15ST	DAMAY-15ST-FO
25	DBMA-25ST	DBMA-25ST-FO	DBMAE-25ST	DBMAE-25ST-FO	DBMAY-25ST	DBMAY-25ST-FO
37	DCMA-37ST	DCMA-37ST-FO	DCMAE-37ST	DCMAE-37ST-FO	DCMAY-37ST	DCMAY-37ST-FO
50	DDMA-50ST	DDMA-50ST-FO	DDMAE-50ST	DDMAE-50ST-FO	DDMAY-50ST	DDMAY-50ST-FO

4

### Crimp and Poke Machined Contacts

- Will accommodate 20, 22, and 24 AWG wire.



## Ordering Information

### Contacts

#### Description

Pin	M39029/64-369
Socket	M39029/63-368

**D-subminiature Metal Shell  
MIL-C-24308  
M24308 Series**



**FEATURES**

- Meets all MIL-C-24308 Class G specifications.
- Offered in Crimp and Poke and Solder Cup and PCB vertical and right-angle.
- Offered in 9, 15, 25, 37, and 50 position plugs and sockets except right-angle (9 to 37 positions).
- Monoblock green diallyl phthalate insulator for improved electrical performance.
- See pages 4-5 thru 4-10 for standard dimensions, contact arrangements, and panel mounting specifications.

**MATERIALS**

**Insulator Material:** Glass-filled diallyl phthalate (green) per MIL-M-14, Type SDG-F  
**Connector Shell:** Steel with cadmium plating and yellow chromate finish  
**Contact Material:** Plug - Brass (machined), Socket - Phosphor bronze (machined)  
**Contact Plating:** 50µin. gold over copper or nickel  
**Dual Float Bushing:** Stainless steel, passivated or non-magnetic brass

**ENVIRONMENTAL**

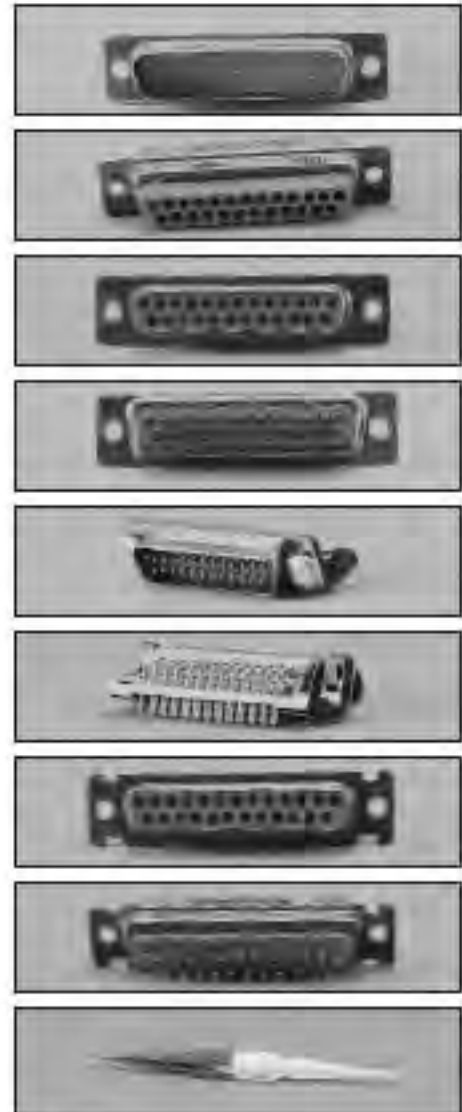
**Operating Temperature:** -85°C to + 125°C  
**Shock:** 50G peak per MIL-STD-202, Method 213, Condition G  
**Vibration:** 12 cycles in three perpendicular directions @ 10-2000Hz, per MIL-STD-202 Method 204, Condition D  
**Moisture Resistance:** 90-95% relative humidity @ 40°C for 96 hours per MIL-STD-202, Method 103

**ELECTRICAL**

**Withstanding Voltage:** Minimum 1250V RMS @ sea level  
**Current Rating:** 5 Ampe  
**Contact Resistance:** 2.7 milliohms maximum  
**Insulation Resistance:** 5000 megohms maximum (initial); 1000 megohms (minimum) after environmental testing

**MECHANICAL**

**Individual Contact Insertion and Separation Force (minimum/maximum):** 0.7 oz./12 oz.  
**Durability:** 500 mating cycles

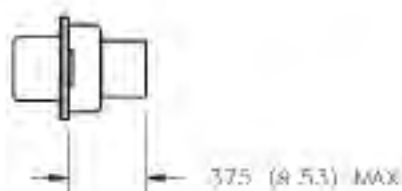




# D-subminiature Metal Shell MIL-C-24308 Crimp and Poke M24308 Series

# Cinch

- Available with .120 mounting holes, float bushings, or dual float bushings.
- Order with contacts included or separately.
- Order with contact Insertion/Extraction Tool included or order tool #CIET-20-HD separately. See page 4-103.



## Ordering Information

### Crimp and Poke Plugs

#### Steel Shell

##### Contacts Included. Insertion/Extraction Tool Not Included.

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/4-1F	M24308/4-302F	M24308/4-435F
15	M24308/4-2F	M24308/4-303F	M24308/4-436F
25	M24308/4-3F	M24308/4-304F	M24308/4-437F
37	M24308/4-4F	M24308/4-305F	M24308/4-438F
50	M24308/4-5F	M24308/4-306F	M24308/4-439F

##### Contacts Included. Insertion/Extraction Tool Included.

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/4-6F	M24308/4-313F	M24308/4-446F
15	M24308/4-7F	M24308/4-314F	M24308/4-447F
25	M24308/4-8F	M24308/4-315F	M24308/4-448F
37	M24308/4-9F	M24308/4-316F	M24308/4-449F
50	M24308/4-10F	M24308/4-317F	M24308/4-450F

##### Contacts Not Included. Insertion/Extraction Tool Not Included.

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/4-259F	M24308/4-324F	M24308/4-457F
15	M24308/4-260F	M24308/4-325F	M24308/4-458F
25	M24308/4-261F	M24308/4-326F	M24308/4-459F
37	M24308/4-262F	M24308/4-327F	M24308/4-460F
50	M24308/4-263F	M24308/4-328F	M24308/4-461F

# D-subminiature Metal Shell MIL-C-24308 Crimp and Poke M24308 Series



## Ordering Information

### Crimp and Poke Sockets

#### Steel Shell

##### Contacts Included. Insertion/Extraction Tool Not Included.

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/2-1F	M24308/2-23F	M24308/2-342F
15	M24308/2-2F	M24308/2-24F	M24308/2-343F
25	M24308/2-3F	M24308/2-25F	M24308/2-344F
37	M24308/2-4F	M24308/2-26F	M24308/2-345F
50	M24308/2-5F	M24308/2-27F	M24308/2-346F

##### Contacts Included. Insertion/Extraction Tool Included.

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/2-6F	M24308/2-34F	M24308/2-353F
15	M24308/2-7F	M24308/2-35F	M24308/2-354F
25	M24308/2-8F	M24308/2-36F	M24308/2-355F
37	M24308/2-9F	M24308/2-37F	M24308/2-356F
50	M24308/2-10F	M24308/2-38F	M24308/2-357F

##### Contacts Not Included. Insertion/Extraction Tool Not Included.

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/2-281F	M24308/2-292F	M24308/2-482F
15	M24308/2-282F	M24308/2-293F	M24308/2-483F
25	M24308/2-283F	M24308/2-294F	M24308/2-484F
37	M24308/2-284F	M24308/2-295F	M24308/2-485F
50	M24308/2-285F	M24308/2-296F	M24308/2-486F

# D-subminiature Metal Shell MIL-C-24308 Crimp and Poke M24308 Series

## Ordering Information

### Tooling

- Contact Insertion/Extraction Tool: #CIET-20-HD (Military #M81969/39-01). See page 4-103.
- Wire termination hand tool: #M22520/2-01. See page 4-103.
- Positioner for machine contacts for hand tool #M22520/2-08 (locates contact in the correct position). See page 4-103.

### Crimp and Poke Contacts



## Ordering Information

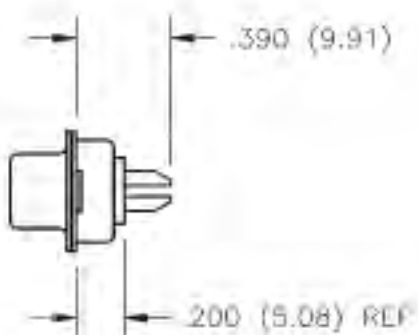
- Will accommodate 20, 22, and 24 AWG wire.

Description	
Pin	M39029/84-369
Socket	M39029/83-368

# D-subminiature Metal Shell MIL-C-24308 Solder Cup M24308 Series



- Available with .120" mounting holes, float bushings, or dual float bushings.
- Will accommodate up to 20 AWG wire.



## Ordering Information

### Solder Cup Plugs

#### Steel Shell

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/3-1F	M24308/3-12F	M24308/3-17F
15	M24308/3-2F	M24308/3-13F	M24308/3-18F
25	M24308/3-3F	M24308/3-14F	M24308/3-19F
37	M24308/3-4F	M24308/3-15F	M24308/3-20F
50	M24308/3-5F	M24308/3-16F	M24308/3-21F

#### Brass Non-Magnetic Shell

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/7-1F	M24308/7-12F	M24308/7-17F
15	M24308/7-2F	M24308/7-13F	M24308/7-18F
25	M24308/7-3F	M24308/7-14F	M24308/7-19F
37	M24308/7-4F	M24308/7-15F	M24308/7-20F
50	M24308/7-5F	M24308/7-16F	M24308/7-21F

### Solder Cup Sockets

#### Steel Shell

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/1-1F	M24308/1-12F	M24308/1-23F
15	M24308/1-2F	M24308/1-13F	M24308/1-24F
25	M24308/1-3F	M24308/1-14F	M24308/1-25F
37	M24308/1-4F	M24308/1-15F	M24308/1-26F
50	M24308/1-5F	M24308/1-16F	M24308/1-27F

#### Brass Non-Magnetic Shell

Positions	Mounting Holes	Float Bushings	Dual Float Bushings
9	M24308/5-1F	M24308/5-12F	M24308/5-23F
15	M24308/5-2F	M24308/5-13F	M24308/5-24F
25	M24308/5-3F	M24308/5-14F	M24308/5-25F
37	M24308/5-4F	M24308/5-15F	M24308/5-26F
50	M24308/5-5F	M24308/5-16F	M24308/5-27F

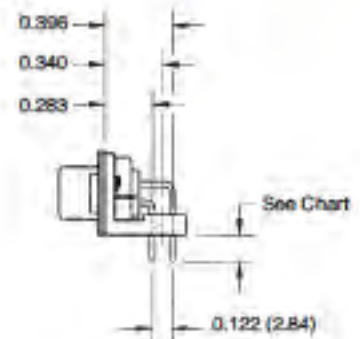
# D-subminiature Metal Shell MIL-C-24308 PCB M24308 Series



## Right-Angle Connector

- .283" footprint requires minimal PCB space.
- Available with three contact tail lengths (.127", .158", and .183") with .030" contact diameter.
- Available with two contact tail lengths (.127" and .183") with .040" contact diameter.
- Offered with .120" mounting holes.
- Mounting bracket: Black nylon. Can be removed if necessary.

Right-Angle



## Ordering Information

### Right-Angle PCB Plugs (Sockets not available)

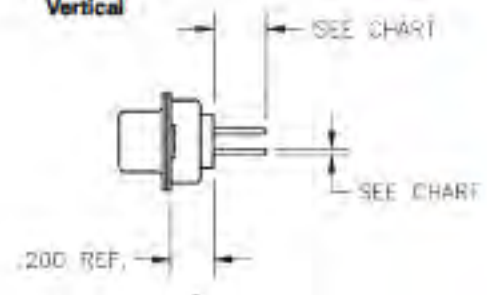
#### Steel Shell

Positions	.127 Tail Length .030 Contact Diameter	.158 Tail Length .030 Contact Diameter	.183 Tail Length .030 Contact Diameter	.127 Tail Length .040 Contact Diameter	.183 Tail Length .040 Contact Diameter
9	M24308/24-25F	M24308/24-31F	M24308/24-49F	M24308/24-37F	M24308/24-55F
15	M24308/24-26F	M24308/24-32F	M24308/24-50F	M24308/24-38F	M24308/24-56F
25	M24308/24-27F	M24308/24-33F	M24308/24-51F	M24308/24-39F	M24308/24-57F
37	M24308/24-28F	M24308/24-34F	M24308/24-52F	M24308/24-40F	M24308/24-58F

## Vertical Connector

- Available with two contact tail lengths (.158" and .183") and two contact diameters (.030" and .040").
- Offered with .120" mounting holes.

Vertical



## Ordering Information

### Vertical PCB Plugs

#### Steel Shell

Positions	.158 Tail Length .030 Contact Diameter	.183 Tail Length .030 Contact Diameter	.158 Tail Length .040 Contact Diameter	.183 Tail Length .040 Contact Diameter
9	M24308/24-1F	M24308/24-7F	M24308/24-13F	M24308/24-19F
15	M24308/24-2F	M24308/24-8F	M24308/24-14F	M24308/24-20F
25	M24308/24-3F	M24308/24-9F	M24308/24-15F	M24308/24-21F
37	M24308/24-4F	M24308/24-10F	M24308/24-16F	M24308/24-22F
50	M24308/24-5F	M24308/24-11F	M24308/24-17F	M24308/24-23F

## Vertical PCB Sockets

#### Steel Shell

Positions	.158 Tail Length .030 Contact Diameter	.183 Tail Length .030 Contact Diameter	.158 Tail Length .040 Contact Diameter	.183 Tail Length .040 Contact Diameter
9	M24308/23-1F	M24308/23-7F	M24308/23-13F	M24308/23-19F
15	M24308/23-2F	M24308/23-8F	M24308/23-14F	M24308/23-20F
25	M24308/23-3F	M24308/23-9F	M24308/23-15F	M24308/23-21F
37	M24308/23-4F	M24308/23-10F	M24308/23-16F	M24308/23-22F
50	M24308/23-5F	M24308/23-11F	M24308/23-17F	M24308/23-23F



Cinch backshells are offered in a variety of styles, each having a specific strength.

- **Backshells** have two-piece construction and are frequently used where appearance is a major factor. RF/EMI shielding capability is also an option:
  - Plastic Backshells: No shielding.
  - Metallized Plastic: Economical method of shielding.
  - Diecast Backshells: Maximum shielding.
- Cinch SDH Series backshells utilize Cinch's Latch-N-Lock™ system with quick release disconnect. Just squeeze the latch levers to release the connector. Also available with standard 4-40 mounting hardware.
- **Junction Shells** come in a variety of sizes and shapes including right-angle and low profile. They are generally of one-piece construction with an adjustable clamp, but there is no shielding.
- **Hoods** have an improved appearance versus junction shells but no shielding. They are all-plastic and come in right-angle or straight configurations.
- **Hardware**, in the form of adjustable grommets or strain relief clamps and 4-40 screws, is generally supplied with the product; however, a variety of optional hardware is also available in the accessories section of this catalog.

# D-subminiature Backshells/Junction Shells/Hoods Accessories



The following is a summary of the various backshells, junction shells, and hoods that Cinch offers:

## Backshells

Type	2-Piece	2-Piece	2-Piece	2-Piece	Super-D Connection System	
Material	Plastic	Metallized	Diecast	Diecast	Black Plastic	Gray Plastic
Series	DPH	DCH	DMH	Ethernet	SDH - B	SDH - G
Shell Sizes <sup>a</sup>	E A B C	E A B C D	E A B C D	A	E A B C	E A B C
Cable Exit	180°	180°	180°	90°/180°	90°/180°	90°/180°
Fits Connector Series marked with "•":						
D'A Series	•	•	•	•	•	
HTD Series	•	•	•			
D'U Series	•	•	•	•	•	
Series 3	•	•	•	•	•	
T Series Metal Shell	•	•	•	•	•	
T Series All-Plastic						•
Basic D	•	•	•	•	•	
Series 1	•	•	•	•	•	

## Junction Shells/Hoods

Type	Junction Shells					Hoods		
	Straight Clamp	Round Clamp	Rt. Angle Clamp	Deep Straight Clamp	Switching Shell	Phenolic	Straight	Rt. Angle
Material	Metal	Metal	Metal	Metal	Metal	Plastic	Plastic	Plastic
Shell Sizes <sup>a</sup>	A B C D	A B C D	E A B C D	E A B C D	A B C D	A B	E A B	A B
Cable Exit	180°	180°	90°	180°	180°	180°	180°	90°
Fits Connector Series marked with "•":								
D'A Series	•	•	•	•	•	•	•	•
D'U Series	•	•	•	•	•	•	•	•
Series 3	•	•	•	•	•	•	•	•
T Series Metal Shell	•	•	•	•	•	•	•	•
T Series All-Plastic								
Basic D Series	•	•	•	•	•	•	•	•
Series 1	•	•	•	•	•	•	•	•

<sup>a</sup>Conversion Chart between Standard Density Connectors and HPD/HTD Series 1.5 Density Connectors

Shell Size	Standard D-sub	1.5 D-Sub HTD
E	9	15
A	15	26
B	25	44
C	37	62
D	50	N/A

## D-subminiature Backshells - Two-Piece D\*H Series

# Cinch

- Standard two-piece construction available in plastic, metallized plastic, or diecast zinc versions with 180° straight cable entry.
- Fits standard metal shell D-subminiature plugs and sockets as well as HTD Series 1.5 D-sub.
- Ethernet hoods are available in diecast 15 position versions only with both 90° and 180° cable entry.
- Included in all backshells:
  - Hardware: 4-40 screws, hex nuts, 4-40 screw mounting bracket.
  - Grommets: To accommodate most cable sizes. Grommets also function as strain reliefs.
- Backshells are individually bagged.
- Note that slide locks may not be used with these backshells.
- Optional thumbscrew for backshell must be ordered separately if required.

### Materials

- 4-40 screws, hex nuts, mounting bracket: Steel with zinc plating and clear chromate coating.
- Standard Backshells:
  - Plastic Backshells: ABS (black), hardware - steel with zinc plating, grommets - polyphenylene, (black).
  - Metallized Plastic Backshells: ABS with nickel over copper plating, hardware - steel with zinc plating, grommets - PVC (black).
  - Diecast Backshells: Diecast zinc, grommets - PVC (black).
- Ethernet Backshells: Diecast zinc, grommets - PVC (black).

4



Plastic



Metallized



Diecast



Ethernet Straight



Ethernet Right-Angle

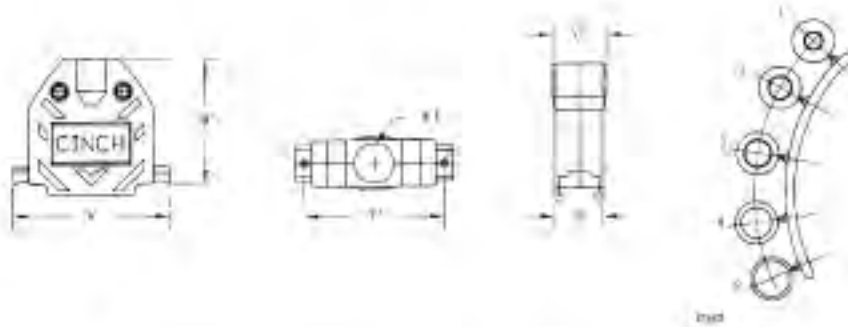


# D-subminiature Backshells - Two-Piece D\*H Series



## Straight (180°) Standard Backshells

### Plastic and Metallized Plastic Backshells



### Dimensions

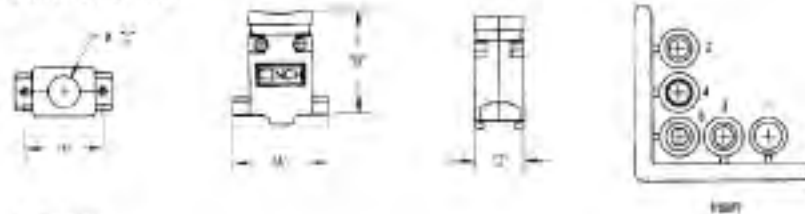
Shell Size	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
E	1.225	31.12	1.547	39.29	0.640	16.26	0.645	16.38	0.400	10.16	0.984	24.99
A	1.540	39.12	1.516	38.51	0.640	16.26	0.645	16.38	0.400	10.16	1.312	33.32
B	2.090	53.09	1.655	42.04	0.710	18.03	0.645	16.38	0.522	13.26	1.857	47.17
C	2.730	69.34	1.830	46.48	0.906	23.01	0.645	16.38	0.725	18.42	2.500	63.50
D	2.645	67.18	1.855	41.12	0.940	23.88	0.750	19.05	0.725	18.42	2.406	61.11

# D-subminiature Backshells - Two-Piece D\*H Series

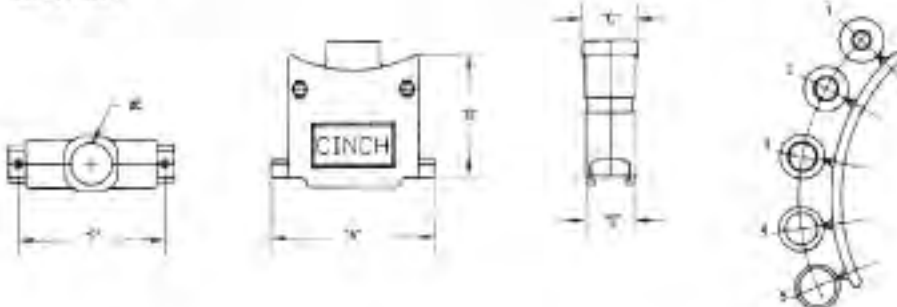


## EMVRFI Shielded Diecast Backshells

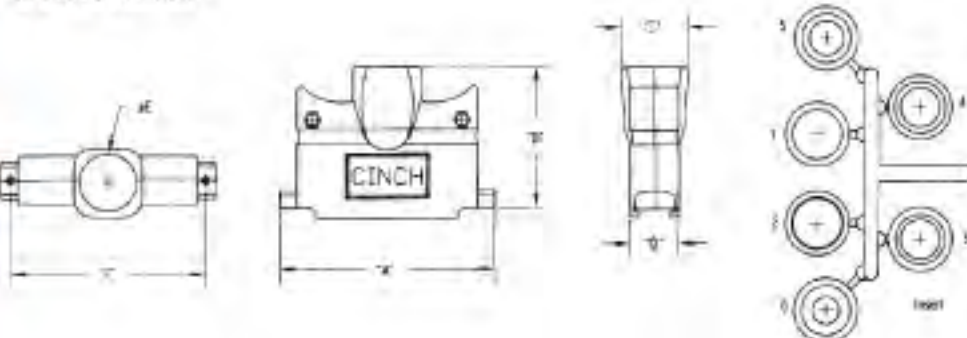
### 9 and 15 Position



### 25 Position



### 37 and 50 Position



## Dimensions

Shell	A		B		C		D		E		F	
Size	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
E	1.225	31.12	1.485	37.21	0.620	15.75	0.620	15.75	0.400	10.16	0.984	24.99
A	1.540	39.12	1.600	40.64	0.620	15.75	0.620	15.75	0.400	10.16	1.312	33.32
B	2.090	53.09	1.570	39.88	0.690	17.53	0.620	15.75	0.525	13.34	1.857	47.17
C	2.730	69.34	1.810	45.97	0.862	21.89	0.620	15.75	0.725	18.42	2.500	63.50
D	2.624	66.65	1.800	45.72	0.862	21.89	0.730	18.54	0.725	18.42	2.406	61.11

## Ordering Information

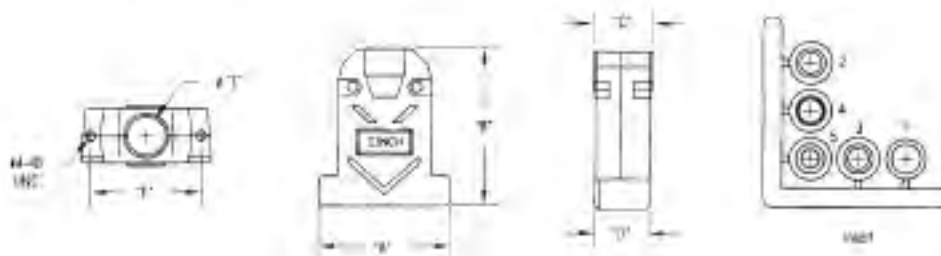
### D\*H Two-Piece Backshells

Shell Size	Fits Standard Density	Fits HTD 1.5 Density	Cable Entry Style	Plastic	Cable Dia. (in)	Metallized Plastic	Cable Dia. (in)	Diecast Metal	Cable Dia. (in)
E	9	15	Straight (180°)	DPH-E-001	.210-.320	DCH-E-001	.210-.350	DMH-E-001	.210-.320
A	15	26	Straight (180°)	DPH-A-001	.210-.320	DCH-A-001	.210-.350	DMH-A-001	.210-.320
B	25	44	Straight (180°)	DPH-B-001	.230-.450	DCH-B-001	.230-.450	DMH-B-001	.230-.450
C	37	62	Straight (180°)	DPH-C-001	.350-.650	DCH-C-001	.350-.640	DMH-C-001	.350-.650
D	50	N/A	Straight (180°)	DPH-D-001	.350-.650	DCH-D-001	.350-.640	DMH-D-001	.350-.640

# D-subminiature Backshells - Two-Piece D\*H Series

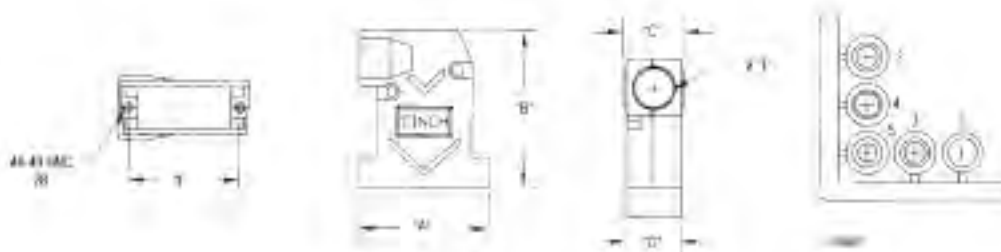


## Straight (180°) Diecast Ethernet Backshells



Type 2

## Right-Angle (90°) Diecast Ethernet Backshells



## Ordering Information

### D\*H Ethernet Diecast Backshells

Fits Shell Size	Fits Standard Density	Cable Diameter (in)	Cable Entry Style	A		B		C		D		E		F		
				in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
A	15	.210-.320	Straight (180°)	DMH-A-001XL	1.550	39.37	1.880	47.75	0.710	18.03	0.64	16.26	0.522	13.26	1.312	33.32
A	15	.210-.320	Rt. Angle (90°)	DMH-A-901X	1.550	39.37	1.880	47.75	0.710	18.03	0.64	16.26	0.522	13.26	1.312	33.32



**THUMBSCREWS (OPTIONAL) FOR D\*H BACKSHELLS**  
 Order #4-40-THMB-1 (two each required per backshell).  
 (Will not work with ethernet type backshells)

### FEATURES

- *The Cinch Super D Interconnection System is a simple, fast, economical, and reliable way for mating connectors from cable to cable or cable to panel.*
- *Snap-on Super D plastic hoods captivate connectors providing positive, self-latching, audible mating with reliable retention and Latch-N-Lock quick release disconnect.*
- *Snap-on Super-D plastic hoods are also available with filler ends to utilize 4-40 mounting hardware.*
- *Super D hoods are available:*
  - *Straight (180°) or Right-Angle (90°) cable entry.*
  - *Sizes: 9, 15, 25, and 37.*
  - *Sizes 15, 25, and 37 are available in standard or large cable openings.*
- *Black SDH backshells accommodate any standard metal shell IDC, solder cup, or crimp and poke D-subminiature connector.*
- *Gray SDH backshells accommodate the Cinch All-Plastic IDC T-Series connector on pages 4-38 thru 4-39.*
- *Each Super-D plastic hood includes a stay band to strain relief the cable wire. Stay band tool SD-MSBT is required. Extra stay bands are available on page 4-90.*

### MATERIALS

**Hood:** Modified phenylene oxide - black for metal shell connectors or gray for all-plastic IDC connectors

**Latch Block:** Diecast zinc

**Screws for Latching Blocks:** Steel with nickel plating

**Stay Band:** Steel with zinc plating and clear chromate finish

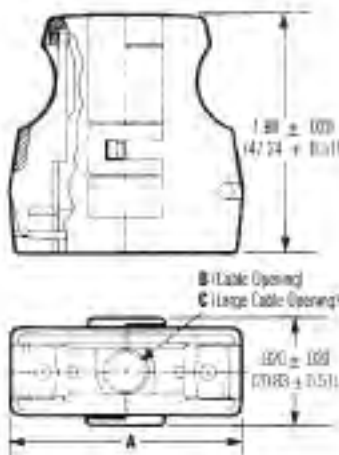


# D-subminiature Backshells - For use with Metal Shell Connectors SDH Series

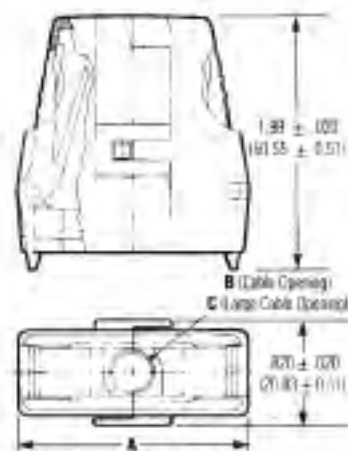


## Straight (180°) Cable Entry Black Backshells for Metal Shell Connectors

Adapter Hood with Filler Ends

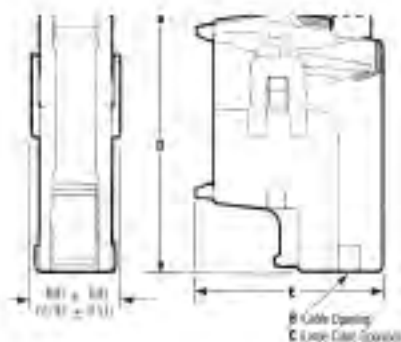


Adapter Hood with Latches



## Right-Angle (90°) Cable Entry Black Backshells for Metal Shell Connectors

Right-Angle Adapter Hood



### Dimensions

Positions	A ± .020" (.58mm)		B ± .020" (.58mm)		C ± .020" (.58mm)		D ± .020" (.58mm)		E ± .020" (.58mm)	
	in	mm	in	mm	in	mm	in	mm	in	mm
9	1.47	37.34	.31	7.87	-	-	1.94	49.21	1.25	31.75
15	1.80	45.72	.31	7.87	.41	10.41	2.25	57.15	1.34	34.13
25	2.35	59.69	.33	8.40	.47	11.94	2.94	74.61	1.50	38.10
37	2.99	75.95	.37	9.40	.50	12.70	3.59	91.28	1.53	38.89

# D-subminiature Backshells - For use with Metal Shell Connectors SDH Series



## Ordering Information

### Straight (180°) Cable Entry Black Backshells for Metal Shell Connectors

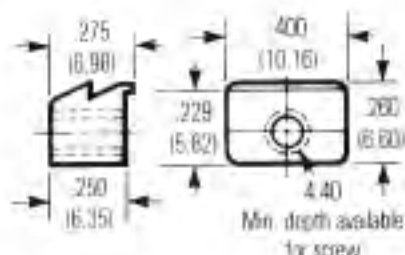
Positions	Latches		Filler Ends		Filler Ends w/4-40 Screws	
	Standard Cable Opening	Large Cable Opening	Standard Cable Opening	Large Cable Opening	Standard Cable Opening	Large Cable Opening
9	SDH-9BL	N/A	SDH-9BF	N/A	SDH-9BFCS	N/A
15	SDH-15BL	SDH-15BLL	SDH-15BF	SDH-15BFL	SDH-15BFCS	SDH-15BFLCS
25	SDH-25BL	SDH-25BLL	SDH-25BF	SDH-25BFL	SDH-25BFCS	SDH-25BFLCS
37	SDH-37BL	SDH-37BLL	SDH-37BF	SDH-37BFL	SDH-37BFCS	SDH-37BFLCS

### Right-Angle (90°) Cable Entry Black Backshells for Metal Shell Connectors

## Ordering Information

Positions	Standard Cable Opening	Latches
		Large Cable Opening
9	SDH-9RBL	N/A
15	SDH-15RBL	SDH-15RBLL
25	SDH-25RBL	SDH-25RBLL
37	SDH-37RBL	SDH-37RBLL

### Latching Blocks for Super D Adapter System



## Ordering Information

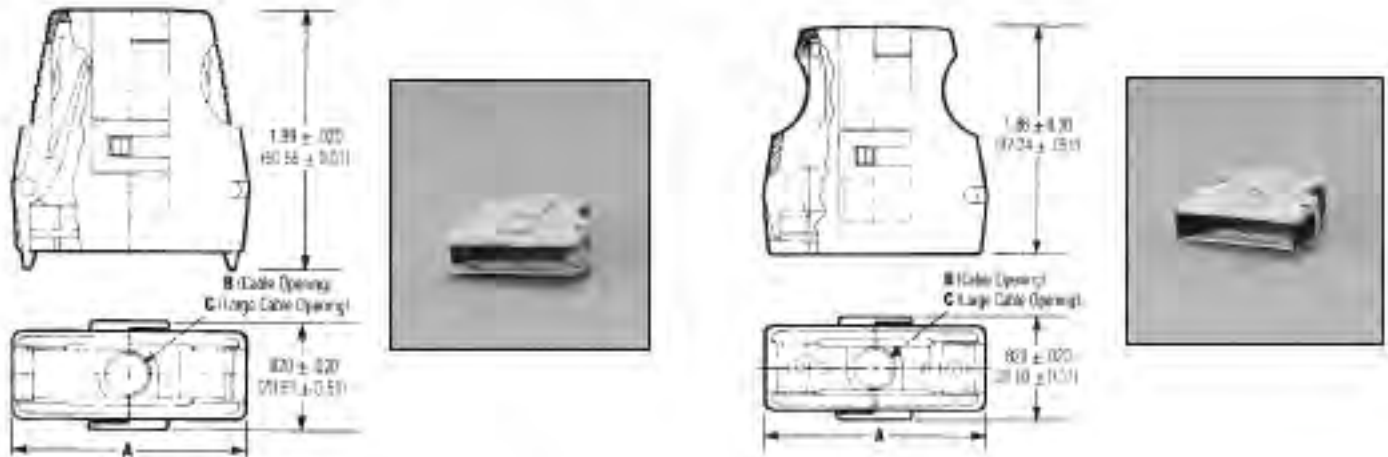
Description	For Panel Thickness	Qty per pack	Qty Required Per SDH Hood	Catalog Number
Latching Block	N/A	1 each	2 each	SD-LB
Latching Block with SEM Screws	Up to .060"	2 each	2 each	SD-LB-060
Removable Mounting Screws for Adapter Hood	N/A	1 each	2 each	4-40UNC2AX3/4
Latching Block with SEM Screws	.060" to .080"	2 each	2 each	SD-LB-060-080
Latching Block with SEM Screws	.080" to .125"	2 each	2 each	SD-LB-125

# D-subminiature Backshells - Gray with All-Plastic Connectors SDH Series



- Fits only T Series All-Plastic IDC connector on pages 4-38 thru 4-39.

## Straight (180°) Cable Entry Gray Backshells for All-Plastic Connectors



### Dimensions

Positions	A ±.020" (.58mm)		B ±.020" (.58mm)		C ±.020" (.58mm)	
	in	mm	in	mm	in	mm
9	1.47	37.34	.31	7.87	—	—
15	1.80	45.72	.31	7.87	.41	10.41
25	2.35	59.69	.33	8.40	.47	11.94
37	2.99	75.95	.37	9.40	.50	12.70

### Ordering Information

#### Straight (180°) Cable Entry Gray Backshells for All-Plastic Connectors

Positions	Latches		Filler Ends		Filler Ends w/4-40 Screws	
	Standard Cable Opening	Large Cable Opening	Standard Cable Opening	Large Cable Opening	Standard Cable Opening	Large Cable Opening
9	SDH-9GL	N/A	SDH-9GF	N/A	SDH-9GFCS	N/A
15	SDH-15GL	SDH-15GLL	SDH-15GF	SDH-15GFL	SDH-15GFCS	SDH-15GFLCS
25	SDH-25GL	SDH-25GLL	SDH-25GF	SDH-25GFL	SDH-25GFCS	SDH-25GFLCS
37	SDH-37GL	SDH-37GLL	SDH-37GF	SDH-37GFL	SDH-37GFCS	SDH-37GFLCS

# D-subminiature Backshells - Gray use with All-Plastic Connectors SDH Series



## Right-Angle (90°) Cable Entry Gray Backshells for All-Plastic Connectors

- Fits only IDC connectors on pages 4-38 thru 4-39.



### Dimensions

Positions	A ±.020* (.58mm)		B ±.020* (.58mm)		C ±.020* (.58mm)		D ±.020* (.58mm)	
	in	mm	in	mm	in	mm	in	mm
9	1.94	49.21	.31	7.87	—	—	1.25	31.75
15	2.25	57.15	.31	7.87	.41	10.41	1.34	34.13
25	2.94	74.61	.33	8.40	.47	11.94	1.50	38.10
37	3.59	91.28	.37	9.40	.50	12.70	1.53	38.89

### Ordering Information

#### Right-Angle (90°) Cable Entry Gray Backshells for All-Plastic Connectors

Positions	Latches	
	Standard Cable Opening	Large Cable Opening
9	SDH-9RGL	N/A
15	SDH-15RGL	SDH-15RGLL
25	SDH-25RGL	SDH-25RGLL
37	SDH-37RGL	SDH-37RGLL

### Ordering Information

#### Accessories for Gray Backshells

Positions	Optional Strain Reliefs*	Additional Stay Bands**
9	SD-WC9	SD-9-15-SB
15	SD-WC15	SD-9-15-SB
25	SD-WC25	SD-25-37-SB
37	SD-WC37	SD-25-37-SB

\* Two each required per backshell.

\*\* Stay band tool #SD-MSBT required. See page 4-100.



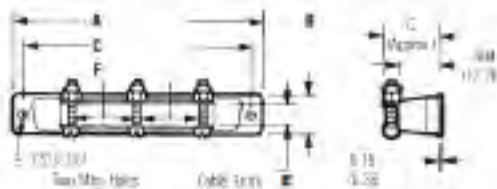
Screw for screwlocking connector assembly - (2 each required): 4-40UNC2AX3/4.

See page 4-85 for latch block drawing.



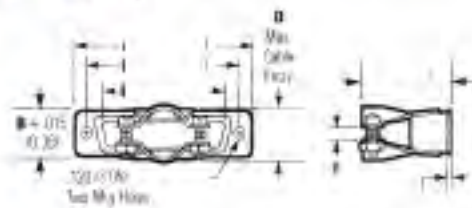
- **Shell Material:** Zinc-plated low carbon steel with yellow chromate finish.
- **Clamp:** Zinc-plated steel with yellow chromate finish.
- **Screw:** Zinc-plated steel with yellow chromate finish.
- **Stop Nut:** Zinc-plated brass with yellow chromate finish.

## Straight Clamp



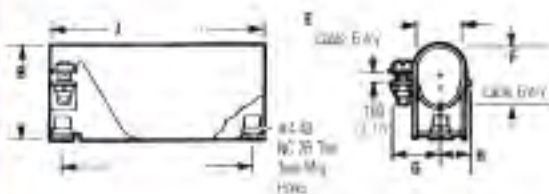
Shell Size	Positions	A		B		C		E		F		G	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
A	15	1.531	38.89	.500	12.70	1.312	33.32	.296	7.52	.312	7.92	.640	16.26
B	25	2.078	52.78	.500	12.70	1.852	47.04	.296	7.52	.796	20.22	.640	16.26
C	37	2.718	69.04	.500	12.70	2.500	63.50	.296	7.52	.687	17.45	.640	16.26
D	50	2.625	66.68	.609	15.47	2.406	61.11	.390	9.91	.687	17.45	.703	17.86

## Round Clamp



Shell Size	Positions	A		B		C		D		E		F		G	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
A	15	1.531	38.89	.500	12.70	1.312	33.32	.406	10.31	.984	23.72	.125	3.18	1.031	26.19
B	25	2.078	52.78	.500	12.70	1.852	47.04	.593	15.06	1.515	38.48	.187	4.75	1.062	26.97

## Right-Angle Clamp

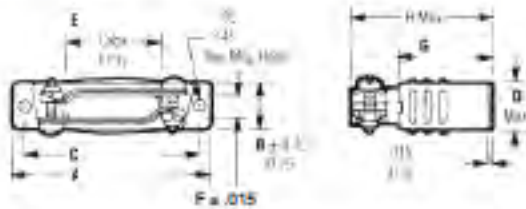


Shell Size	Positions	A		B		C		E		F		G		H	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
E	9	1.203	30.56	0.718	18.24	.984	24.99	.437	11.10	.437	11.10	.468	11.89	.281	7.14
A	15	1.531	38.89	0.718	18.24	1.312	33.32	.437	11.10	.437	11.10	.468	11.89	.281	7.14
B	25	2.078	52.78	0.968	24.59	1.852	47.04	.437	11.10	.625	15.88	.468	11.89	.281	7.14
C	37	2.718	69.04	1.187	30.15	2.500	63.50	.437	11.10	.812	20.62	.468	11.89	.281	7.14
D	50	2.625	66.68	1.250	31.75	2.406	61.11	.562	14.27	.906	23.01	.531	13.49	.343	8.71

# D-subminiature Junction Shells

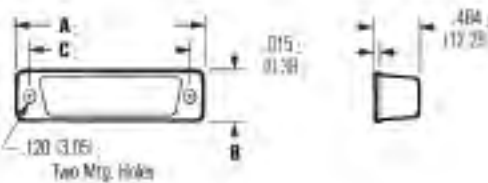


## Deep Straight Clamp



Shell Size	Positions	A in	A mm	B in	B mm	C in	C mm	D in	D mm	E in	E mm	F in	F mm	G in	G mm	H in	H mm
E	9	1.203	30.56	.484	12.29	0.984	24.99	.578	14.68	.375	9.53	.375	9.53	.750	19.05	1.219	30.96
A	15	1.531	38.89	.484	12.29	1.312	33.32	.578	14.68	.713	18.11	.312	7.92	.750	19.05	1.250	31.75
B	25	2.078	52.78	.484	12.29	1.852	47.04	.578	14.68	1.000	25.40	.312	7.92	1.000	25.40	1.531	38.89
C	37	2.718	69.04	.484	12.29	2.500	63.50	.578	14.68	1.375	34.93	.312	7.92	1.000	25.40	1.531	38.89
D	50	2.625	66.68	.593	15.06	2.406	61.11	.667	17.45	1.406	35.71	.406	10.31	1.125	28.58	1.656	42.06

## Switching Shell



Shell Size	Positions	A in	A mm	B in	B mm	C in	C mm
A	15	1.531	38.89	.500	12.70	1.312	33.32
B	25	2.078	52.78	.500	12.70	1.852	47.04
C	37	2.718	69.04	.500	12.70	2.500	63.50
D	50	2.625	66.68	.609	15.47	2.406	61.11

## Ordering Information

### Junction Shells - Metal

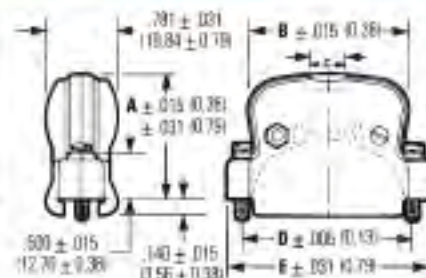
Shell Size	Fits					
	Standard Density	Straight Clamp	Round Clamp	Right-Angle Clamp	Deep Straight Clamp	Switching Shell
E	9	N/A	N/A	DE-19977-5	DE-24657	N/A
A	15	DA-19678-1	DA-20961	DA-19977-1	DA-24658	DA-19678-6
B	25	DB-19678-2	DB-20962	DB-19977-2	DB-24659	DB-19678-7
C	37	DC-19678-3	N/A	DC-19977-3	DC-24660	DC-19678-8
D	50	DD-19678-4	N/A	DD-19977-4	DD-24661	DD-19678-9

## D-subminiature Plastic Hoods

# Cinch

### Phenolic Hood

Shell Material: Phenolic (black).  
#4-40 Screws: Steel with nickel plating.



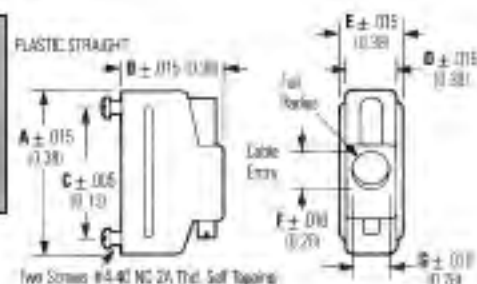
Shell Size	Positions	A		B		C		D		E	
		in	mm	in	mm	in	mm	in	mm	in	mm
A	15	1.297	32.94	1.219	30.96	.268	6.76	1.312	33.32	1.641	41.68
B	25	1.406	35.71	1.797	45.64	.328	8.33	1.852	47.04	2.203	55.96

### All-Plastic Straight (180°) Hood

Shell Material: Nylon (gray).  
#4-40 Screws: Steel with nickel plating.



Connector Not Included



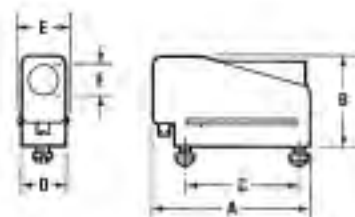
Shell Size	Positions	A		B		C		D		E		F		G	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
E	9	1.218	30.94	1.000	25.40	.984	23.72	.500	12.70	.562	14.27	.281	7.14	.218	7.14
A	15	1.546	38.27	1.000	25.40	1.312	33.32	.500	12.70	.562	14.27	.360	9.14	.360	9.14
B	25	2.093	53.18	1.250	31.75	1.852	47.04	.500	12.70	.562	14.27	.493	12.52	.360	9.14

### All-Plastic Right-Angle (90°) Hood

Shell Material: Nylon (gray).  
#4-40 Screws: Steel with nickel plating.



Connector Not Included



Shell Size	Positions	A		B		C		D		E		F	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
A	15	1.822	46.28	1.000	25.40	1.312	33.32	.500	12.70	.562	14.28	.360	9.14
B	25	2.368	60.15	1.250	31.75	1.852	47.04	.500	12.70	.562	14.28	.360	9.14

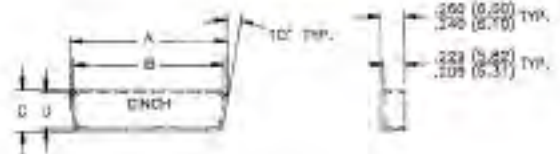
### Ordering Information

#### Plastic Hoods

Shell Size	Standard Density	Phenolic Hood	Straight Hood	Right Angle
E	9	N/A	DE-51218-1	N/A
A	15	DA-51225-1	DA-51210-1	DA-51211-1
B	25	DB-51226-1A	DB-51212-1	DB-51213-1
C	37	N/A	N/A	N/A
D	50	N/A	N/A	N/A

## Dust Caps

- For use with all Cinch D-subminiature connectors.
- Used to protect connector contacts when connector is not mated.
- Made of polyethylene (black).



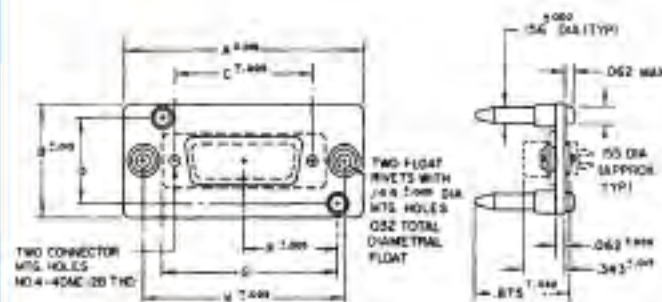
## Ordering Information

Fits Shell Size	Fits Standard Density	Catalog No.	Description	A		B		C		D	
				in	mm	in	mm	in	mm	in	mm
E	9	DE-59-20	Socket	.694	17.63	.627	15.93	.362	9.19	.295	7.49
E	9	DE-60-20	Plug	.749	19.02	.692	17.32	.412	10.46	.345	8.76
A	15	DA-59-20	Socket	1.022	25.95	.955	24.25	.362	9.19	.295	7.49
A	15	DA-60-20	Plug	1.077	27.36	1.010	25.65	.412	10.46	.345	8.76
B	25	DB-59-20	Socket	1.562	39.67	1.495	37.97	.362	9.19	.295	7.49
B	25	DB-60-20	Plug	1.635	41.52	1.568	39.83	.430	10.92	.363	9.22
C	37	DC-59-20	Socket	2.210	56.13	2.143	54.43	.362	9.19	.295	7.49
C	37	DC-60-20	Plug	2.283	57.99	2.216	56.29	.430	10.92	.363	9.22
D	50	DD-59-20	Socket	2.116	53.75	2.049	52.04	.474	12.04	.407	10.34
D	50	DD-60-20	Plug	2.179	55.35	2.112	53.64	.538	13.61	.469	11.91

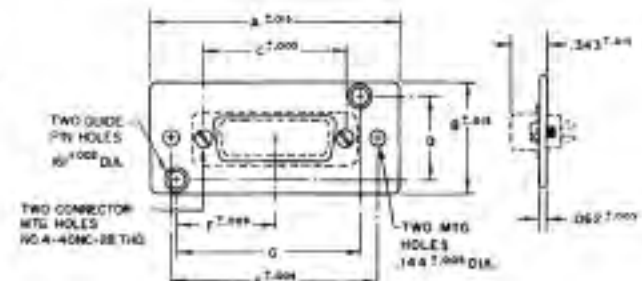
## Guide Pin Plates

- Aligns connectors before actual mating. Generally used in blind mate applications.
- Male or female guide plates will accommodate Cinch male or female connectors.
- Plate: Cold-rolled steel with cadmium plating and yellow chromate finish.
- Guide pin (male): Stainless steel, passivated.
- Screws, rivets (male plate), washers (male plate): Steel with cadmium plating and yellow chromate finish.

### Plug



### Socket



## Ordering Information

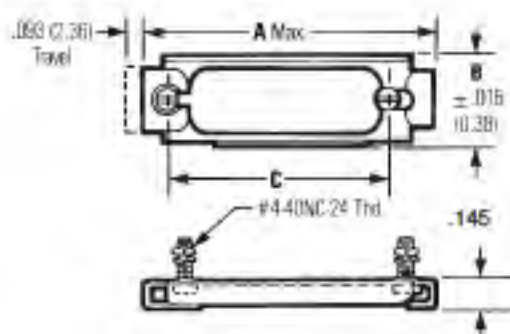
Fits Shell Size	Fits Standard Density	Plug	Socket	A		B		C		D		F		G		K	
				in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
E	9	N/A	N/A														
A	15	DA-22213	DA-22214	2.281	57.93	1.000	25.40	1.312	33.32	.750	19.05	.868	22.81	1.603	42.24	1.906	48.41
B	25	DB-22255	DB-22254	2.820	71.63	1.000	25.40	1.852	47.04	.750	19.05	1.168	29.67	2.203	55.96	2.446	62.13
C	37	DC-22070	DC-22071	3.468	88.09	1.000	25.40	2.500	63.50	.750	19.05	1.492	37.90	2.851	72.42	3.094	78.59
D	50	DD-21962	DD-21961	3.375	85.73	1.125	28.58	2.406	61.112	.874	21.88	1.437	36.50	2.749	69.82	3.000	76.20

## Slide Lock Assemblies

- A slide lock assembly is a metal bracket offered with hardware necessary to mount into the standard connector mounting holes. It consists of the lock retainer plate, two screws, two washers, and two nuts. Two lock posts are required to fit into the mounting holes of the mating connector. These must be ordered separately.
- Compatible with all Cinch Backshells, Hoods, and Junction Shells except D\*H Series, SDH Series, and phenolic hood.
- Compatible with all Cinch metal shell D-subminiature connectors.

## Materials

- Slide Lock Plate: Stainless steel, passivated.
- Slide lock hex nut, washer #4-40 screw: Steel with zinc plating and yellow chromate finish.
- Lockpost, washer, lockwasher, and hex nut: Steel with zinc plating and yellow chromate finish.



Consists of Lock Retainer and two lock posts (order separately).  
NOTE: Not compatible with D\*H Series or SDH Series backshells.

## Ordering Information

Shell Size	Fits Standard Density	Lock Retainer	A		B		C	
			in	mm	in	mm	in	mm
E	9	DE-51224-1	1.442	36.63	.500	12.70	0.984	24.99
A	15	DA-51220-1	1.770	44.96	.500	12.70	1.312	33.27
B	25	DB-51221-1	2.293	58.24	.500	12.70	1.852	47.04
C	37	DC-51222-1	2.958	75.13	.500	12.70	2.500	63.50
D	50	DD-51223-1	2.847	72.31	.609	15.47	2.406	62.48

Lock Post: #D53018. Two (2) required with each Slide Lock Assembly.

### Screwlocks

- Screwlocks are designed to retain the same size mated connectors together or to secure the connector to a rack/panel. Screwlocks may be used on plugs or sockets.
- Female screwlocks consist of one #4-40 screw with a #4-40 hole in the top, two flat washers to accommodate different panel thicknesses, one lockwasher, and one #4-40 nut. Military female screwlocks include three flat washers.
- Male screwlocks consist of one #4-40 slotted screw and a spring tension clip. Different sizes accommodate the various connector flange sizes and types of backshells or hoods (if applicable).
- Two screwlocks are required per connector.
- Military screwlocks meet all requirements of MIL-C-24308.

### Materials

#### Commercial Screwlock Assemblies:

- Male Screwlock Assembly: Clip and screw are steel with zinc plating and yellow chromate finish.
- Female Screwlock Assembly: Washers (2), lockwashers, hex nuts, and nuts are steel with zinc plating and yellow chromate finish.

#### M24308 Military Screwlock Assemblies:

- Male Screwlock Assembly: Clip and screw are steel with cadmium plating and yellow chromate finish.
- Female Screwlock Assembly: Washers (3), lockwashers, hex nuts, and nuts are steel with cadmium plating and yellow chromate finish.



Female Screwlock



Male Screwlock

- Screwlock assemblies will not fit D\*H or SDH Series backshells.

## Male Screwlocks

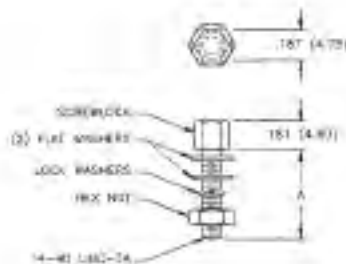


## Ordering Information

Shell Size Positions	A		B		E	A	B	C	D
	in	mm	in	mm	9	15	25	37	50
<b>Commercial:</b>									
D20419-0	0.250	56.35	0.033	0.84	P/S	P/S	S	S	
D20419-16	0.250	56.35	0.048	1.22	S*	S*	P/S*	P/S*	
D20419-21	0.281	63.34	0.059	1.50		P*	P*		
D20420-0	0.250	56.35	0.033	0.84					S
D20420-12	0.281	63.34	0.048	1.22					P/S*
D20420-15	0.281	63.34	0.059	1.50					P*
<b>Military MIL-C-24308:</b>									
M24308/25-9F	Per MIL spec				P/S	P/S	P/S	P/S	
M24308/25-10F	Per MIL spec								P/S

NOTE: P = Plug, S = Socket  
\* Indicates use with junction shell

## Female Screwlocks



## Ordering Information

Shell Size Positions	A		E	A	B	C	D
	in	mm	9	15	25	37	50
<b>Commercial:</b>							
D20418-2	0.312	70.32	P/S	P/S	P/S	P/S	P/S
D20418-39	0.628	141.55	P/S	P/S	P/S	P/S	P/S
<b>Military MIL-C-24308:</b>							
M24308/26-1F	Per MIL spec		P/S	P/S	P/S	P/S	P/S
M24308/26-2F	Per MIL spec		P/S	P/S	P/S	P/S	P/S

NOTE: P = Plug, S = Socket

**Auto-Clinch™ D Semi-Automatic Termination Tool**

Auto Clinch D is a semi-automatic, pneumatically powered, and electrically controlled termination machine designed to terminate IDC D-subminiature connectors. It employs a selective programmer and a common nest for all four connector sizes and can be equipped to terminate metal shell connectors. It can also be optionally equipped with remote visual color code display for training sequences. It has a provision for omission of wires.

Part No.: ACD-432

**Auto-Clinch D Tool****Certi-Clinch™ D Field Termination Tool**

\*For 24-26 AWG Wire

Certi-Clinch D is designed for mass termination of individual wires, eliminating wire stripping, soldering, and crimping. It handles all four connector sizes, is readily portable, and requires no set-up time and little operator time. Rugged, all-metal construction affords trouble-free long life.

For metal shell IDC D-subminiature connectors.

Part No. SD-CCWN

For all-plastic IDC D-subminiature connectors.

Part No. SD-CC

Conversion nest for converting all-plastic type to metal shell.

Part No. SD-CCN

**Certi-Clinch D Field Termination Tool****Uni-Clinch™ D Single-Wire Hand Insertion Tool**

Designed to insert one 22-26 AWG wire at a time, Uni-Clinch D is used as a field repair tool by field service engineers.

Part No. SD-UC

**Uni-Clinch Hand Insertion Tool****Super D™ Manual Stay Band Tool**

Designed for applying the steel stay band/strain relief to the cable before termination of wires to the connector, the manual Stay Band Tool applies both stay band sizes to the full range of cable sizes.

Part No. SD-MSBT

**Manual Tool**

NOTE: All termination tools on this page are used in conjunction with T<sup>®</sup> Series D-subminiature connectors.



**Hand Crimping Tool for Stamped Contact 300 PC Reels**

Two types of transport for connector chains are available with crimping ranges of 20 through 30 AWG for B crimpings

	Part Number
D*A Series 20 through 26 AWG Wire	GHC-B
D*A Series 28 through 30 AWG Wire	GHC-B1
HTD Series	HTD-266



Contact Crimp Hand Tool  
(300 Contact Reel)

**Hand Crimping Tool for Loose Stamped Contacts**

	Part Number
D*A Series	HTD-544
D*U Series	BT-20-HC
HTD Series	HTD-544



Contact Crimp Hand Tool  
(HTD-544)

**Contact Insertion/Extraction Tool for Stamped Contacts**

	Part Number
D*A Series	CIET-20-HDB
D*U Series	CIET-20-HDB
HTD Series	CIET-22-DF



Contact Crimp Hand Tool  
(BT-20-HC)



Contact Insertion/Extraction Hand Tool  
For D\*A and D\*U Series for Stamped  
Contacts  
(CIET-20-HDB)



Contact Insertion/Extraction Hand Tool  
For D1/2 Contacts  
(CIET-22-DF)

## Semi-Automatic Stripping and Crimping Tool

Advantages and Characteristics

- Stripping and crimping in one easy operation
- Easy to install and adjust
- Requires little maintenance
- Wearing parts replaced in a matter of minutes
- Long service life thanks to best-quality materials
- Different quick change applicators in the same stripper crimper
- Increased productivity



Our GSC-20-30 crimp machine in operation with stripper crimper and quick change tool

## Ordering Information

## Stripper Crimper

Description	Part Number	Comments	Catalog Number
D'A Series Stripper Crimper Only	599-11-11-578	Comes equipped with the applicator for 20-24 AWG contacts	GSC-20-30
D'A Series Applicator Only For 20-24 AWG	598-98-97-630	Applicator only For 20-24 AWG contacts	ASC-20-24
D'A Series Applicator Only For 26-30 AWG	598-98-97-632	Applicator only For 26-30 AWG contacts	ASC-26-30
HTD Series Stripper Crimper Only	599-11-11-518	Comes equipped with applicator for 22-28 AWG contacts	HTD-518
HTD Series Applicator Only 22-28 AWG	598-98-97-636	Applicator only For 22-28 AWG contacts	ASC-DH
D'U Series Stripper Crimper Only	599-11-11-258	Comes equipped with applicator for 20-28 AWG contacts	ESC-20-3
D'U Series Applicator Only 20-28	598-98-97-638	Applicator only For 20-28 AWG contacts	ASC-DU

## Stripper Crimper Spare Parts

Part Number	Description	Catalog Number
598-98-97-631	D'A Punch & Anvil Kit 20-24 AWG	SCPA-631
598-98-97-633	D'A Punch & Anvil Kit 26-30 AWG	SCPA-633
598-98-97-637	HTD Series Punch & Anvil Kit	SCPA-637
598-98-97-639	D'U Series Punch & Anvil Kit	SCPA-639
598-98-97-640	Stripping Blades for 20-24 AWG Wire	SCSB-640
598-98-97-641	Stripping Blades for 26-30 AWG Wire	SCSB-641
598-98-97-642	D'A Series Contact shear blade	SCCS-642
598-98-97-643	Shear blade holder	SCSH-643
598-98-97-644	Sensor switch	SCSS-644
598-98-97-645	Strip blade holder	SCBH-645



M22520/2-01

**Metal Shell High-Reliability Crimp and Poke Termination Tool**

Hand crimping tool for high-reliability machined D<sup>9</sup>U, Series 3, and M24308 Crimp and Poke contacts.  
M22520/2-01

NOTE: Positioner required with crimping tool

**Positioner**—A device when attached to a crimping tool that locates the contact in the correct position.

Positioner for machined contacts  
**D<sup>9</sup>U Series Positioner**  
Part No.: 599-11-11-580  
Catalog No.: EP-580  
**Series 3 and M24308 Connector Positioner**  
Part No.: 598-98-97-618  
Catalog No.: M22520/2-08



CIET-20-HD

**Metal Shell Military Crimp and Poke Insertion/Extraction Tool**

For inserting or extracting machined D<sup>9</sup>U, Series 3, or M24308 Crimp and Poke contacts.  
Part No.: CIET-20-HD



CET-20-11

**Military Extraction Tip Only**

For extracting high-reliability machined D<sup>9</sup>U, Series 3, or M24308 Crimp and Poke contacts.  
Part No.: CET-20-11



CET-C6B

**Coaxial and High-Voltage Contact Extraction Tool**

For extracting co-axial and high-voltage contacts from metal shell high-reliability connectors.  
Part No.: CET-C6B



FCT-551

**Pneumatic Bench Top Press for Crimping Ferrules**

This lightweight, portable press is used to crimp the ferrules on the overmold shielding hardware kits. Crimp dies ordered separately.

Part No.: 599-11-11-551  
Catalog No.: FCT-551

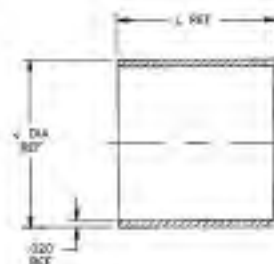


FCT-552

**Hand Tool for Crimping Ferrules and Coax Contacts**

Uses same crimp dies as pneumatic tool.  
Part No.: 599-11-11-552  
Catalog No.: FCT-552

**Crimp Ferrule**



Catalog Number	Part Number	Type	Crimp Die Part No.	Crimp Die Catalog No.
CF-51	482-44-22-451	1	598-98-97-607	CD-07
CF-42	482-44-22-442	1	598-98-97-600	CD-00
CF-43	482-44-22-443	1	598-98-97-601	CD-01
CF-44	482-44-22-444	1	598-98-97-602	CD-02
CF-45	482-44-22-445	1	598-98-97-603	CD-03
CF-46	482-44-22-446	1	598-98-97-604	CD-04
CF-47	482-44-22-447	2	598-98-97-605	CD-05
CF-50	482-44-22-450	2	598-98-97-606	CD-06

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