



**PDF CATALOG OF
INDUSTRIAL AND MILITARY
APPLICATION SUBMINIATURE-D
CONNECTORS**

NOTE: In order to reduce download times, we have removed the graphically intense catalog cover from this PDF catalog. If you are using a printed version in conjunction with this PDF version, revision levels can be found on the inside front cover of the printed version and on page 2 of this PDF version.

Products described within this catalog may be protected by one or more of the following U.S. patents:

5,255,580

5,329,697

Other Patents Pending

Maximum Torque Values for 4-40 UNC Threads

MATERIAL	TORQUE		
	Nm	in-lb	in-oz
Phos. Bronze	0.90	8.0	128
Brass	0.68	6.0	96
Aluminum	0.45	4.0	64
Nylon	0.11	1.0	16

These torque values are applicable for threads only and do not apply to hardware assemblies. These torque values are approximate and should not be accepted as accurate limits. Indeterminant factors in specific applications preclude the publication of accurate torque values for universal use.

Unless specified otherwise, dimensional tolerances are:

- 1) ± 0.001 inches (0.03 mm) for male contact mating diameters.**
- 2) ± 0.003 inches (0.08 mm) for contact termination diameters.**
- 3) ± 0.005 inches (0.13 mm) for all other diameters.**
- 4) ± 0.015 inches (0.38 mm) for all other dimensions.**
- 5) ± 0.0015 inches (0.038 mm) for all press-fit contact terminations.**

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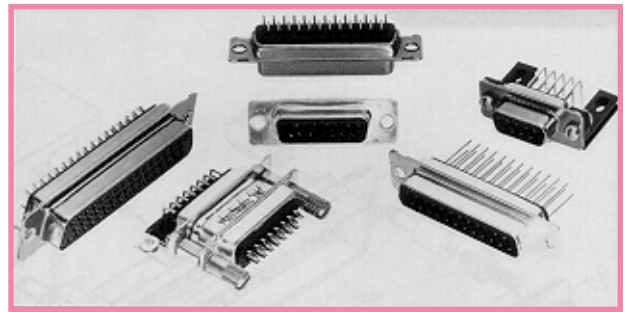
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Exploded views of typical mated Subminiature-D connector assemblies.

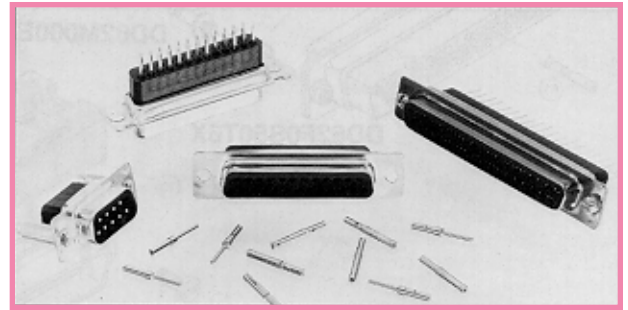
MELO-D and EURO-D CONNECTORS 3-10

MD Series and ED Series. Fixed contact, 7.5 ampere nominal rating. Solder cup, wrap post, and printed board contact terminations for inch and metric printed board hole patterns. Six connector variants, 9 through 50 contacts. Professional quality connectors to IEC 807-2, Performance Level Two.



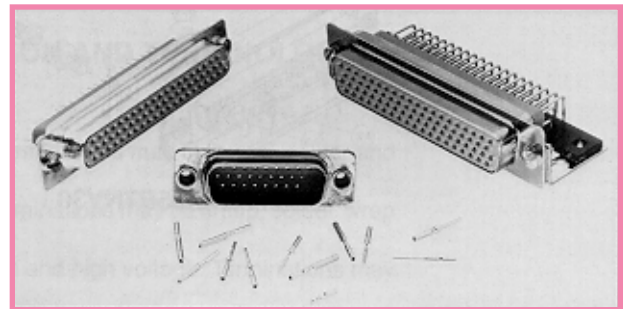
SOLI-D CONNECTORS 11-19

SD Series. Removable contact, 7.5 ampere nominal rating. Solder cup, crimp and straight printed board mount contact terminations. Five connector variants, 9 through 50 contacts. Professional quality connectors to IEC 807-3, Performance Level Two.



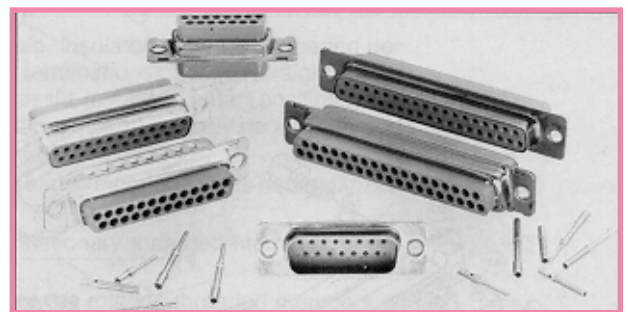
DENSI-D CONNECTORS 20-28

DD Series. Removable contact, five ampere nominal rating. Solder cup, crimp and straight and 90° printed board contact terminations. Six connector variants, 15 through 104 contacts. Military quality connectors qualified to MIL-DTL-24308 and MIL-C-39029.



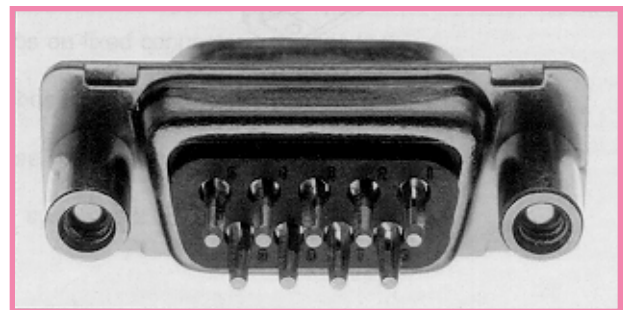
LOW COST HIGH DENSITY CONNECTORS 29-37

ODD Series. Removable contact, five ampere nominal rating. Solder cup, crimp and straight and 90° printed board contact terminations. Six connector variants, 15 through 104 contacts. Professional quality connectors.



LOW COST STANDARD DENSITY CONNECTORS . . . 38-41

ORD Series. Removable contact, 7.5 ampere nominal rating. Crimp contact terminations. Six connector variants, 9 through 50 contacts. Professional quality connectors.



RHAPSO-D CONNECTORS 42-46

RD Series. Removable contact, 7.5 ampere nominal rating. Crimp contact terminations. Six connector variants, 9 through 50 contacts. Military quality connectors qualified to MIL-DTL-24308 and MIL-C-39029. IEC 807-3, Performance Level One.

HARMO-D CONNECTORS 47-52

HDC Series. Fixed contact, 7.5 ampere nominal rating. Solder cup, wrap post and straight and 90° printed board contact terminations. Five connector variants, 9 through 50 contacts. Military quality connectors qualified to MIL-DTL-24308, IEC 807-2, Performance Level One.

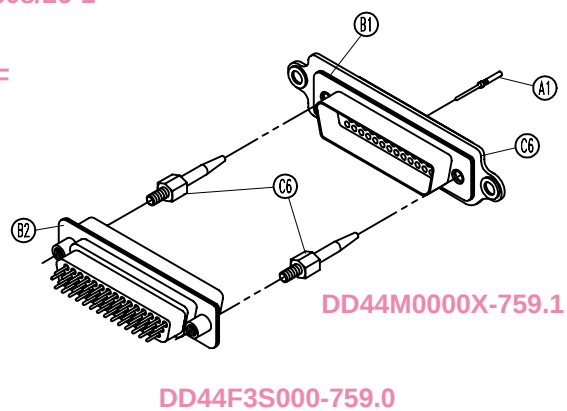
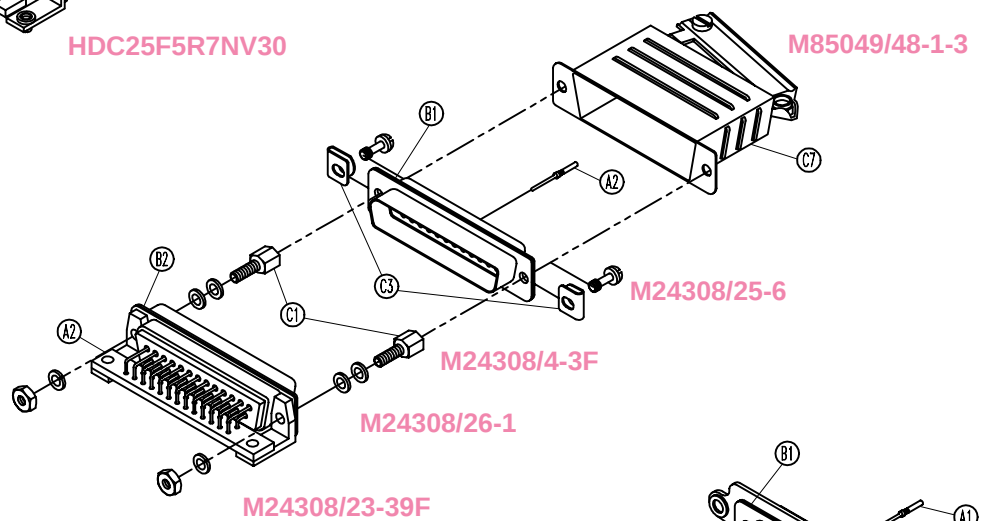
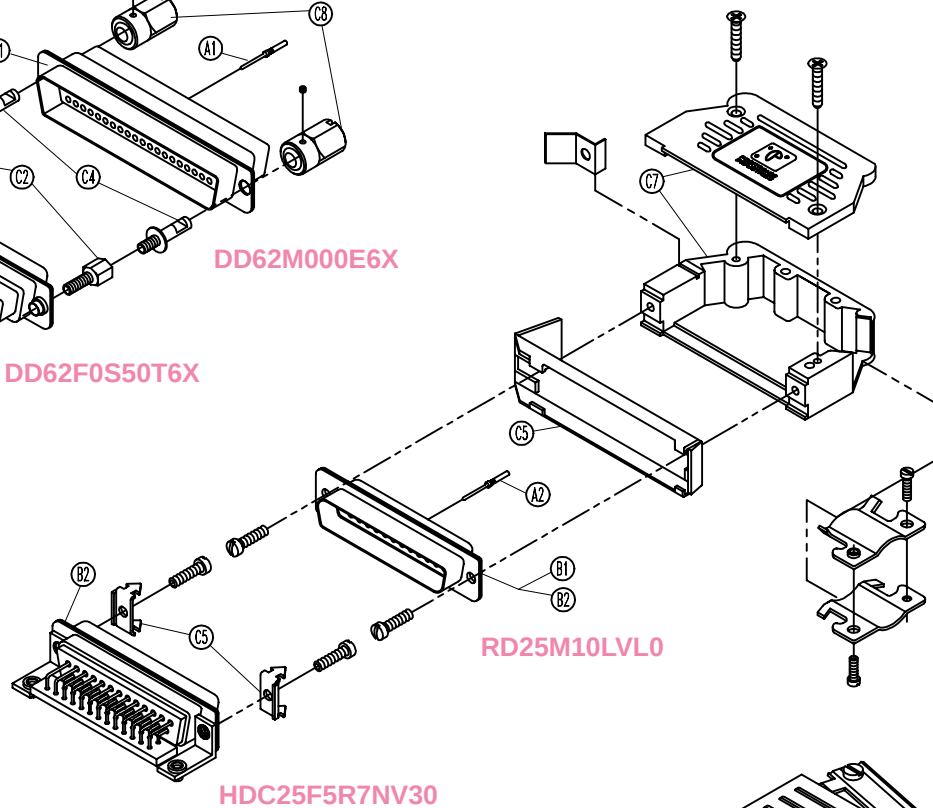
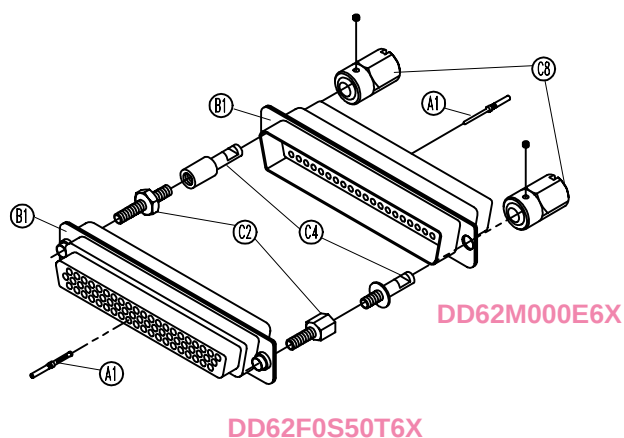
PRESS-FIT CONNECTORS 53-57

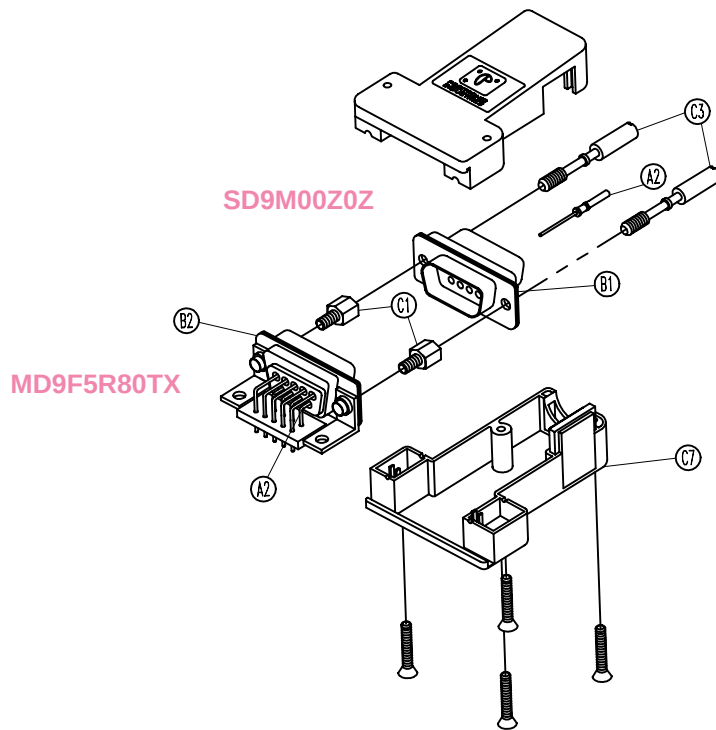
PCD Series. Machined contact, compliant termination, repairable, 7.5 ampere nominal rating. Five connector variants, 9 through 50 contacts. Professional quality connectors, conform to IEC 807-2, Performance Level Two.

HIGH DENSITY PRESS-FIT CONNECTORS 58-62

PCDD Series. Machined contact, compliant termination, repairable, 5 ampere nominal rating. Five connector variants, 15 through 104 contacts. Professional quality connectors.

MIL-DTL-24308, MIL-C-39029 and MIL-C-85049 QUALIFIED PRODUCTS LISTING 63-67





CONNECTOR COMPONENT DESCRIPTION AND TERMINOLOGY

- A-1** – Male and female signal contacts, size 22. Terminations may be crimp, solder cup and printed board mount.
- A-2** – Male and female signal contacts, size 20. Terminations may be crimp, solder cup, wrap post, press-fit and printed board mount.
- B-1** – Unloaded connector insulators, male and female. Insulator retention system retains all contact termination types. Insulator may be used as a free or fixed connector.
- B-2** – Loaded connector insulators, male and female. Insulators may be preloaded per customer requirements with contacts having terminations of 90° or straight solder printed board mount, wrap post, solder cup and press-fit. Insulator contact positions may be selectively loaded with contacts. Connectors are normally fixed panel or printed board connectors.
- C-1** – Fixed female jackscrews are the stationary threaded members of the non-polarized jackscrew system.
- C-2** – Fixed male and female jackscrews are the stationary threaded members of the polarized jackscrew system.
- C-3** – Rotating male jackscrews and screwlocks are the rotating threaded members of the non-polarized jackscrew system.
- C-4** – Rotating male and female jackscrews are the rotating threaded members of the polarized jackscrew system.
- C-5** – Vibration locking system consists of lock tabs on fixed connector and slide lock lever on free cable connector.
- C-6** – Blind mating connector system with pilot probes on free connector and receptacle guides on panel mounted fixed connector.
- C-7** – Cable adapters (Hoods) are used on the free cable connector to provide cable support and contact protection.
- C-8** – Knobs of the polarized rotating jackscrew system are affixed to the rotating jackscrew by a set screw.

Melo-D/Euro-D Series

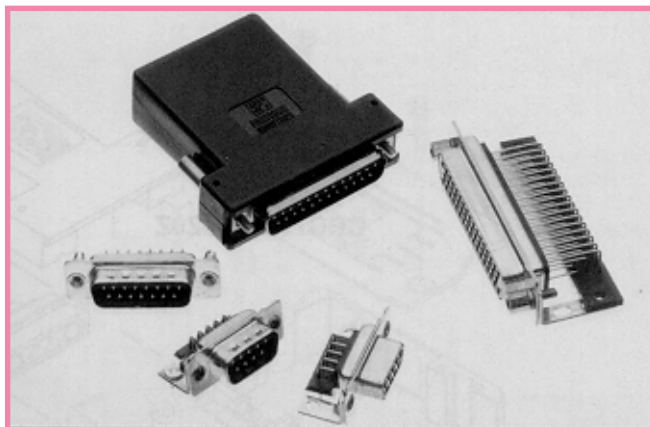
PROFESSIONAL QUALITY, FIXED CONTACT, SUBMINIATURE-D CONNECTORS FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Size 20 Contacts, Fixed
Professional Quality
Connectors
IEC Publication 807-2
Performance Level Two

U.L. Recognized
File #E49351

CSA Recognized
File #LR54219

Telecommunication
U.L. File #14098



Melo-D and Euro-D Series connectors are professional quality connectors recommended for use in sheltered, non-corrosive indoor or outdoor environments having normal ventilation, but without temperature or humidity controls. These fixed contact connectors meet the dimensional and performance requirements of IEC 807-2, Performance Level Two.

Melo-D and Euro-D Series connectors utilize precision machined contacts which are fixed within the connector body. The female contact is an open entry design contact, precision machined of high tensile phosphor bronze.

Six standard connector variants are offered in arrangements of 9, 15, 25, 29, 37 and 50 contacts. Each Melo-D connector variant is available with contact terminations for solder cup, wrap post, and straight and 90° printed board mount termina-

tions featuring a choice of three printed board footprints. Each Euro-D connector variant is available with contact terminations for solder cup, wrap post and straight and 90° printed board mount terminations per standard European metric footprints. Melo-D and Euro-D Series connectors are mateable and compatible with all D-Subminiature connectors conforming to IEC 807-2 and MIL-DTL-24308.

A wide assortment of printed board mounting hardware, cable support hoods and locking systems is available from stock.

Melo-D and Euro-D Series connectors conform to EIA RS 232 and RS 449, and CCITT X.24 interface connector requirements.

MELO-D/EURO-D SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Nylon resin, UL 94V-0, black color.
Contacts:	Male contacts – precision machined brass alloy. Female contacts – precision machined high tensile phosphor bronze.
Contact Plating:	Professional performance Gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate; zinc plate with dichromate seal.
Mounting Spacers and Brackets:	Nylon plastic, or brass with tin plate; zinc plate with dichromate seal.
Push-On Fasteners:	Phosphor bronze or beryllium copper with tin plate.
Jackscrew Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.
Hoods:	Thermoplastic UL 94V-0. Composite, brass or steel with zinc plate and dichromate seal.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	7.5 amperes nominal.
Initial Contact Resistance:	0.008 ohms maximum.
Insulator Resistance:	5 G ohms.
Proof Voltage:	1000 V r.m.s.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0mm).
Working Voltage:	300 V r.m.s.

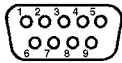
CLIMATIC CHARACTERISTICS:

Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	10 days.

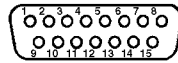
MECHANICAL CHARACTERISTICS:

Fixed Contacts:	Size 20 contact, male contact - 0.040 inch (1.02mm) diameter. Female contact - rugged open entry design.
Contact Retention In Insulator:	6 lbs. (27N)
Resistance To Solder Iron Heat:	500°F (260°C) for 10 seconds duration per IEC 512-6.
Melo-D Contact Terminations:	Solder cup contacts – 0.042 inch (1.06mm) minimum hole diameter for 20 AWG (0.5mm ²) wire maximum. Straight Printed Board Mount – 0.028 inch (0.71mm) diameter. 90° Printed Board Mount – 0.028 inch (0.71mm) diameter for all printed board footprints. Wrap Post – 0.025 inch (0.64mm) square.
Euro-D Contact Terminations:	Solder cup contacts – 0.042 inch (1.06mm) minimum hole diameter for 20 AWG (0.5mm ²) wire maximum. Straight Printed Board Mount – 0.024 inch (0.60mm) diameter. 90° Printed Board Mount – 0.024 inch (0.60mm) diameter for European Metric Footprints.
Shells:	Male shells may be dimpled for EMI/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Mounting To Angle Brackets:	Jackscrews and riveted fasteners with a 0.120 inch (3.05mm) clearance hole, and threaded riveted fasteners with 4-40 threads and nylon lock inserts.
Mounting To Printed Board:	Rapid installation push-on fasteners and threaded posts.
Locking Systems:	Jackscrews and vibration locking systems.
Mechanical Operations:	500 operations minimum per IEC 512-5.

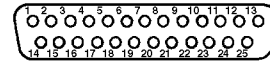
CONTACT VARIANTS FACE VIEW OF MALE OR REAR VIEW OF FEMALE



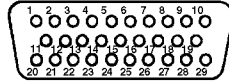
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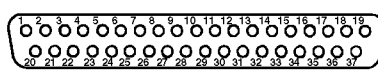
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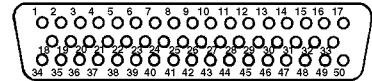
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SIZE 29

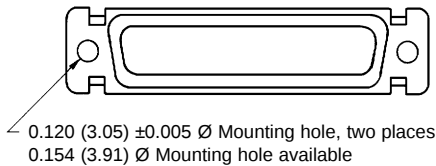
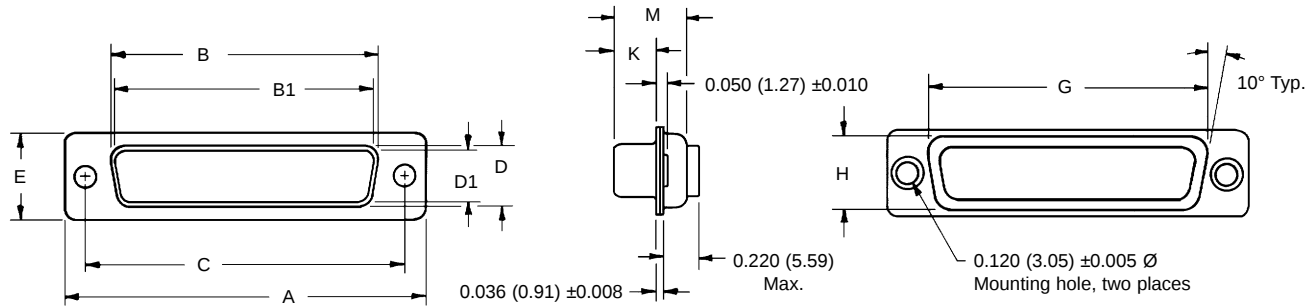


SIZE 37

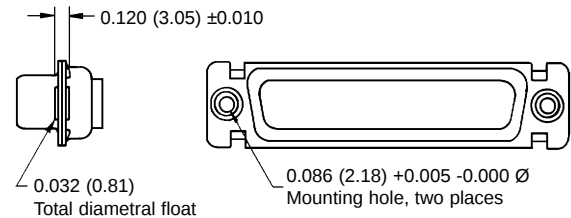
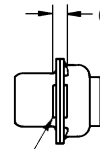


SIZE 50

STANDARD SHELL ASSEMBLY



OPTIONAL SHELL ASSEMBLY

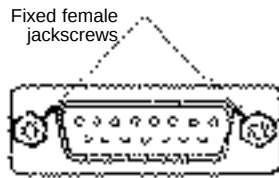
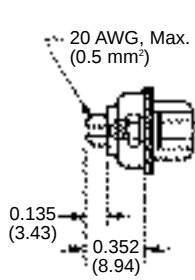


OPTIONAL SHELL ASSEMBLY WITH UNIVERSAL FLOAT MOUNTS

CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
9 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
9 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
15 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
15 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
25 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
25 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
29 M	1.770 (44.96)		1.274 (32.36)	1.534 (38.96)		0.450 (11.43)	0.605 (15.37)	1.322 (33.58)	0.539 (13.69)	0.217 (5.51)	0.426 (10.82)
29 F	1.770 (44.96)	1.251 (31.78)		1.534 (38.96)	0.431 (10.95)		0.605 (15.37)	1.322 (33.58)	0.539 (13.69)	0.237 (6.02)	0.429 (10.90)
37 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
37 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
50 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
50 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)

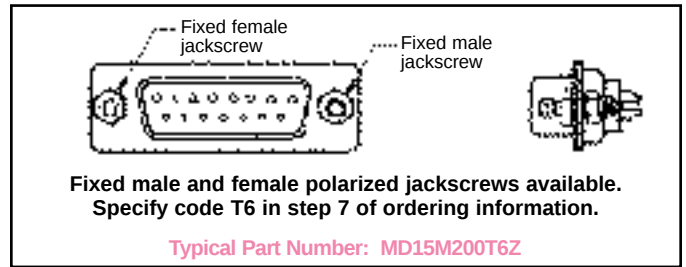
DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

SOLDER CUP CONNECTOR



For solder cup contacts, specify code 2 in step 4 of ordering information.

Typical Part Number: ED15M200T2Z

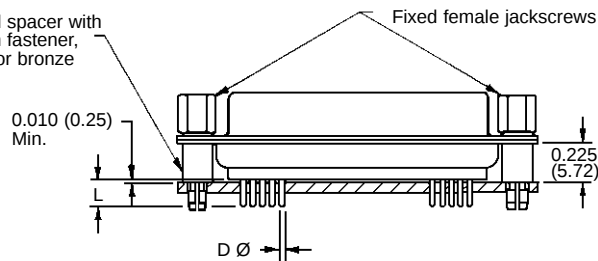


STRAIGHT PRINTED BOARD MOUNT CONNECTOR

CODE NUMBER	L	D Ø
3	0.150 (3.81)	0.028 (0.71)
32	0.375 (9.53)	0.028 (0.71)
36	0.236 (5.99)	0.024 (0.61)

For straight printed board mount contacts, specify code number in step 4 of ordering information.

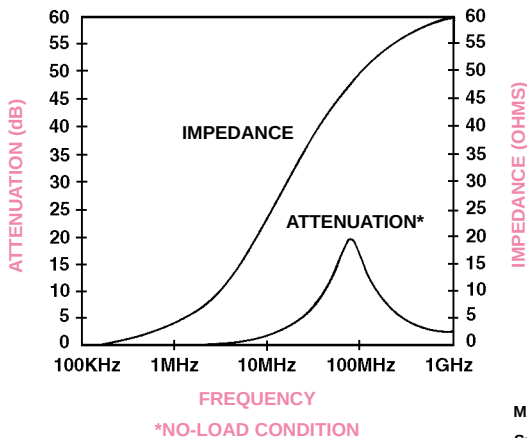
Swaged spacer with push-on fastener, phosphor bronze



Typical Part Number: MD25F3S60T0

FERRITE INDUCTOR BAR FOR EMI/RFI NOISE SUPPRESSION

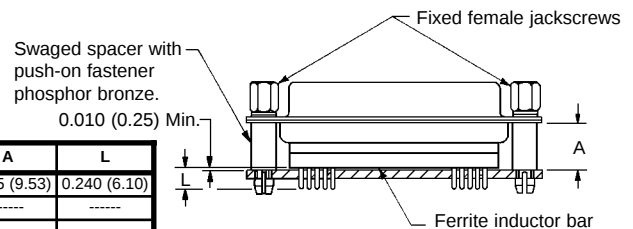
FILTERING CHARACTERISTICS



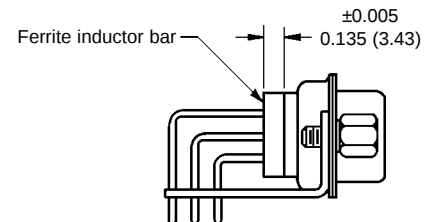
SERIES	CODE NO.	A	L
MD	32	0.375 (9.53)	0.240 (6.10)
MD	4	-----	-----
MD	59	-----	-----
MD	6	0.375 (9.53)	0.360 (9.14)
ED	36	0.375 (9.53)	0.101 (2.57)
ED	6	0.375 (9.53)	0.360 (9.14)
DD	32	0.515 (13.08)	0.165 (4.19)
ODD	32	0.375 (9.53)	0.165 (4.19)
ODD	5	-----	-----
HDC	32	0.375 (9.53)	0.240 (6.10)
HDC	36	0.375 (9.53)	0.101 (2.57)
HDC	6	0.375 (9.53)	0.360 (9.14)

MATERIAL: NICKEL ZINC CERAMIC.

Specify code F or Q in step 6 of ordering information.
F for ferrite inductor and Q for ferrite inductor with push-on fastener.

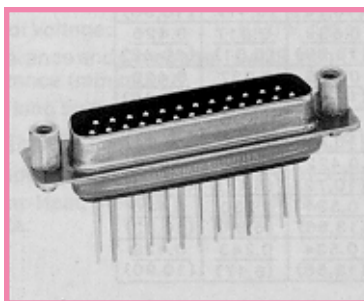


STRAIGHT PRINTED BOARD MOUNT CONNECTOR



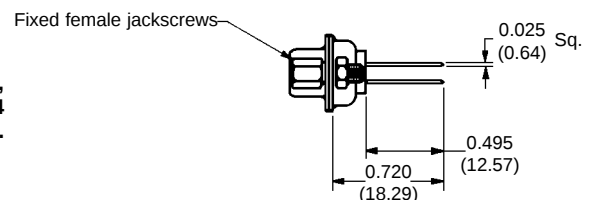
90° PRINTED BOARD MOUNT CONNECTOR

WRAP POST CONNECTOR



MD25M6S50T0

For wrap post contacts, specify code 6 in step 4 of ordering information.

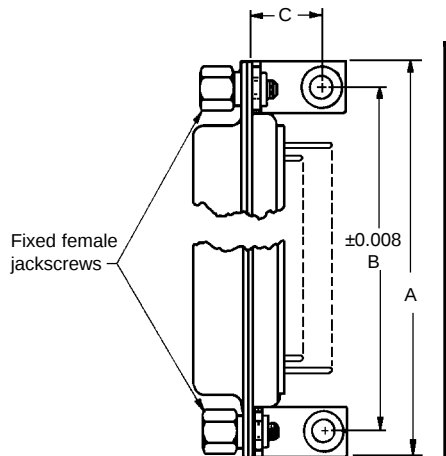


Typical Part Number: MD15F600T20

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

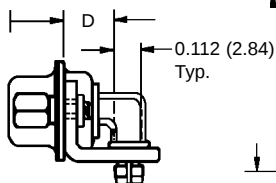
90° PRINTED BOARD MOUNT CONNECTOR

CODE 5, 0.283 (7.19) CONTACT EXTENSION



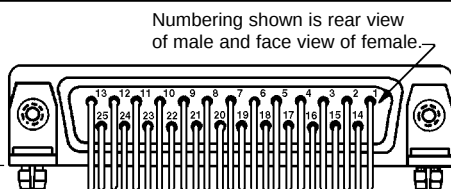
MD005R4000 0.283 (7.19) CONTACT EXTENSION				
PART NUMBER	A	B	C	D
MD905R4000	1.204 (30.58)	0.984 (24.99)	0.339 (8.61)	0.283 (7.19)
MD1505R4000	1.532 (38.91)	1.312 (33.32)	0.339 (8.61)	0.283 (7.19)
MD2505R4000	2.072 (52.63)	1.852 (47.04)	0.339 (8.61)	0.283 (7.19)
MD2905R4000	1.754 (44.55)	1.534 (38.96)	0.395 (10.03)	0.283 (7.19)
MD3705R4000	2.720 (69.09)	2.500 (63.50)	0.339 (8.61)	0.283 (7.19)
MD5005R4000	2.626 (66.70)	2.406 (61.11)	0.395 (10.03)	0.283 (7.19)

Specify code 5 in step 4 of ordering information.

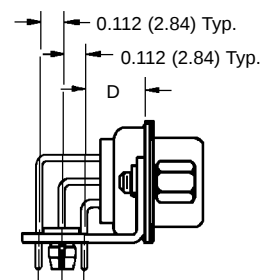
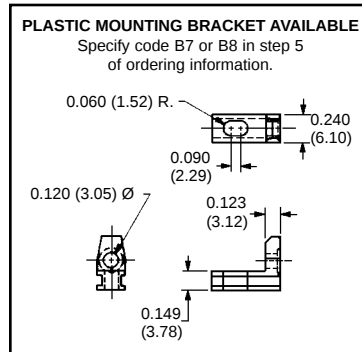


Typical Part Number:
MD25M5R4NT2X

0.160 (4.06)
Nominal



Push-on fastener
beryllium copper

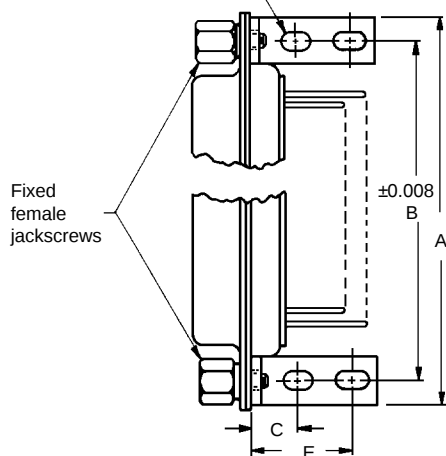


Typical Part Number:
MD50M5R4NT2X

90° PRINTED BOARD MOUNT CONNECTOR

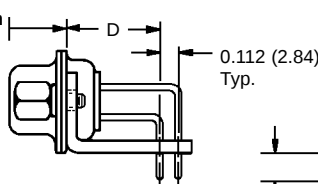
CODE 59, 0.545 (13.84) CONTACT EXTENSION

0.125 (3.18) X 0.233
(5.92) Oval hole typ.



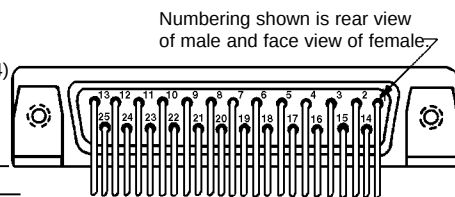
MD0059B000 0.545 (13.84) CONTACT EXTENSION					
PART NUMBER	A	B	C	D	E
MD9059B000	1.204 (30.58)	0.984 (24.99)	0.275 (6.99)	0.545 (13.84)	0.601 (15.27)
MD15059B000	1.532 (38.91)	1.312 (33.32)	0.275 (6.99)	0.545 (13.84)	0.601 (15.27)
MD25059B000	2.072 (52.63)	1.852 (47.04)	0.275 (6.99)	0.545 (13.84)	0.601 (15.27)
MD29059B000	1.754 (44.55)	1.534 (38.96)	0.275 (6.99)	0.545 (13.84)	0.657 (16.69)
MD37059B000	2.720 (69.09)	2.500 (63.50)	0.275 (6.99)	0.545 (13.84)	0.601 (15.27)
MD50059B000	2.626 (66.70)	2.406 (61.11)	0.275 (6.99)	0.545 (13.84)	0.657 (16.69)

Specify code 59 in step 4 of ordering information.

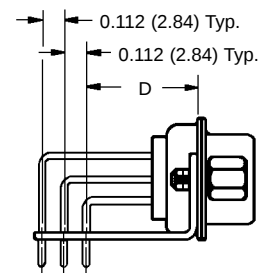


Typical Part Number:
MD25M59B0T2X

0.125 (3.18)
Nominal

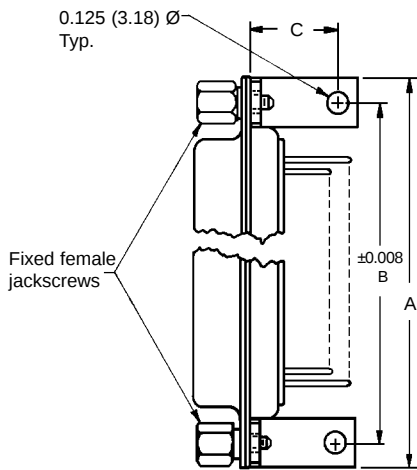


DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

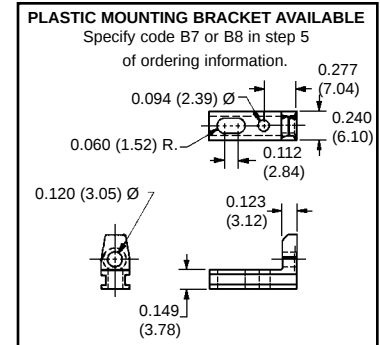


Typical Part Number:
MD29M59B0T2X

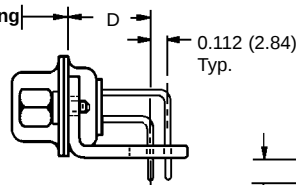
90° PRINTED BOARD MOUNT CONNECTOR CODE 4, 0.450 (11.43) CONTACT EXTENSION



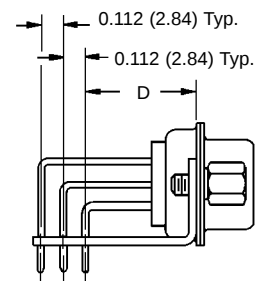
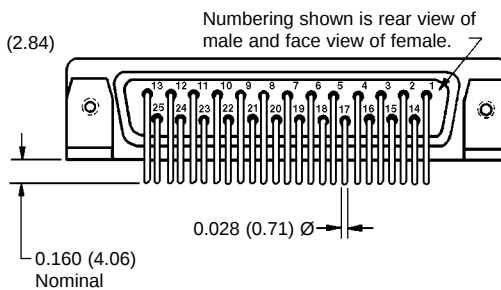
MD004B000 0.450 (11.43) CONTACT EXTENSION				
PART NUMBER	A	B	C	D
MD904B000	1.204 (30.58)	0.984 (24.99)	0.506 (12.85)	0.450 (11.43)
MD1504B000	1.532 (38.91)	1.312 (33.32)	0.506 (12.85)	0.450 (11.43)
MD2504B000	2.072 (52.63)	1.852 (47.04)	0.506 (12.85)	0.450 (11.43)
MD2904B000	1.754 (44.55)	1.534 (38.96)	0.562 (14.27)	0.450 (11.43)
MD3704B000	2.720 (69.09)	2.500 (63.50)	0.506 (12.85)	0.450 (11.43)
MD5004B000	2.626 (66.70)	2.406 (61.11)	0.562 (14.27)	0.450 (11.43)



Specify code 4 in step 4 of ordering information.



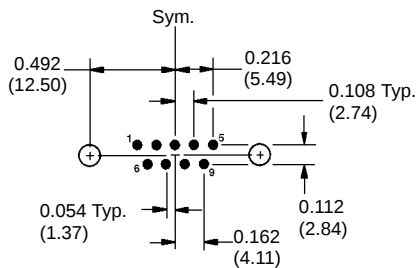
Typical Part Number:
MD25M4B0T20



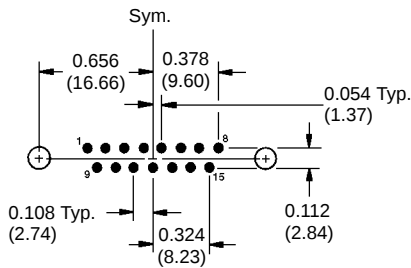
Typical Part Number:
MD50M4B0T20

90° AND STRAIGHT PRINTED BOARD CONTACT HOLE PATTERN

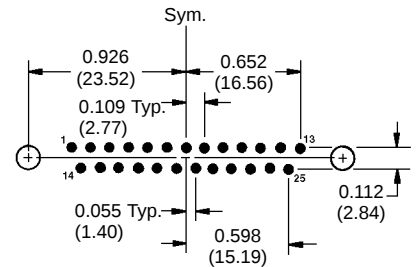
Hole identification shown for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.



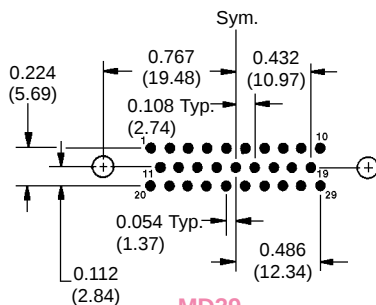
MD9



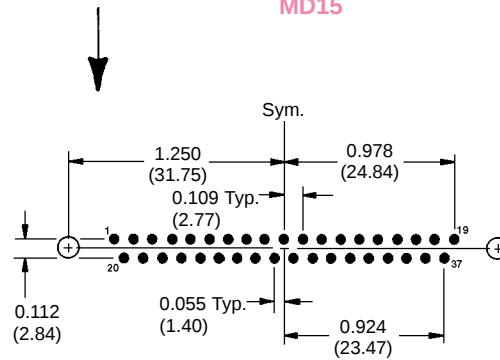
MD15



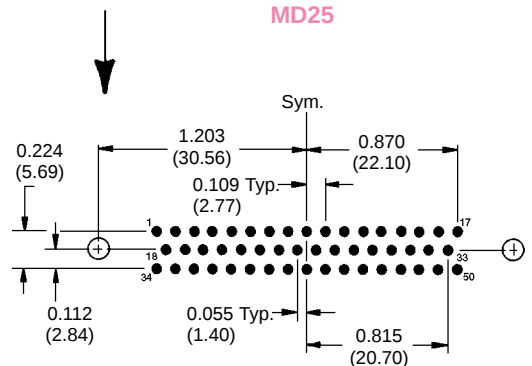
MD25



MD29



MD37



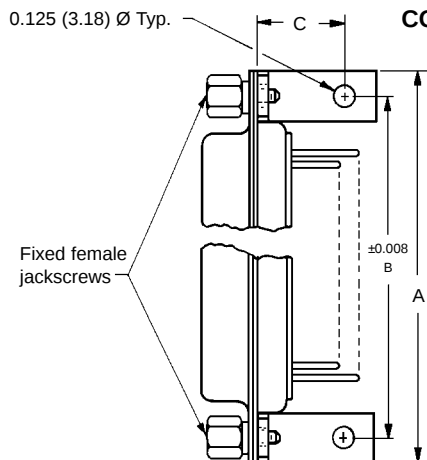
MD50

Suggest 0.045 (1.14) Ø hole for contact termination positions.

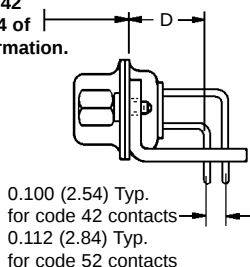
Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

90° PRINTED BOARD MOUNT CONNECTOR CODE 42 AND 52, 0.370 (9.40) CONTACT EXTENSION

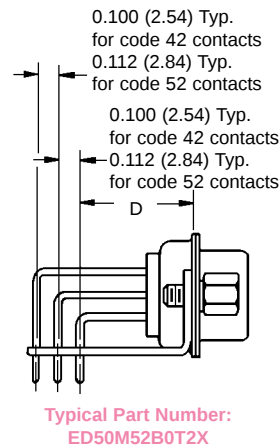
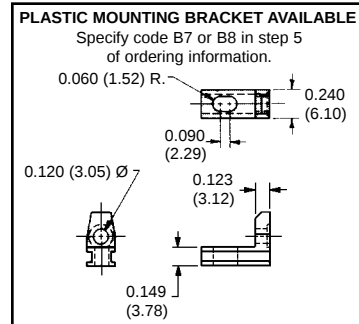
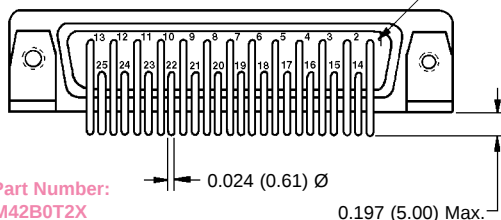


Specify code 42 or 52 in step 4 of ordering information.

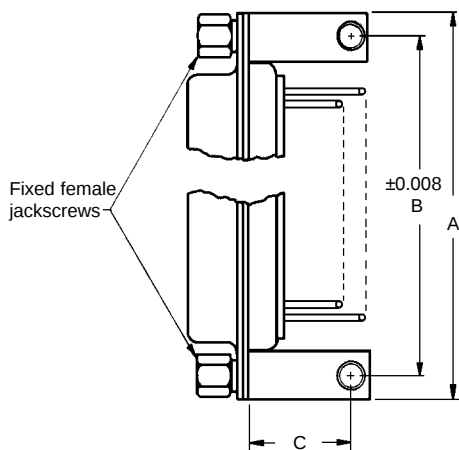


ED00*B000 0.370 (9.40) CONTACT EXTENSION				
PART NUMBER	A	B	C	D
ED90*B000	1.204 (30.58)	0.984 (24.99)	0.420 (10.67)	0.370 (9.40)
ED150*B000	1.532 (38.91)	1.312 (33.32)	0.420 (10.67)	0.370 (9.40)
ED250*B000	2.072 (52.63)	1.852 (47.04)	0.420 (10.67)	0.370 (9.40)
ED290*B000	1.754 (44.55)	1.534 (38.96)	0.470 (11.94)	0.370 (9.40)
ED370*B000	2.720 (69.09)	2.500 (63.50)	0.420 (10.67)	0.370 (9.40)
ED500*B000	2.626 (66.70)	2.406 (61.11)	0.470 (11.94)	0.370 (9.40)

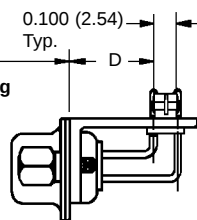
Numbering shown is rear view of male and face view of female.



90° PRINTED BOARD MOUNT CONNECTOR CODE 44, 0.370 (9.40) CONTACT EXTENSION



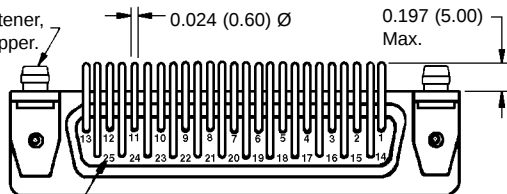
Specify code 44 in step 4 of ordering information.



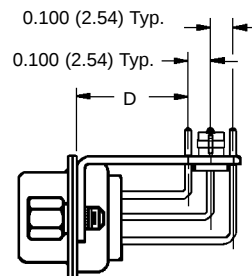
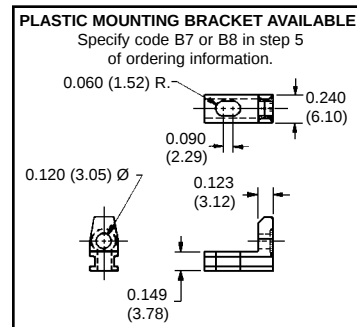
Typical Part Number:
ED25M44BNT2X

ED0044B000 0.370 (9.40) CONTACT EXTENSION				
PART NUMBER	A	B	C	D
ED9044B000	1.204 (30.58)	0.984 (24.99)	0.420 (10.67)	0.370 (9.40)
ED15044B000	1.532 (38.91)	1.312 (33.32)	0.420 (10.67)	0.370 (9.40)
ED25044B000	2.072 (52.63)	1.852 (47.04)	0.420 (10.67)	0.370 (9.40)
ED29044B000	1.754 (44.55)	1.534 (38.96)	0.470 (11.94)	0.370 (9.40)
ED37044B000	2.720 (69.09)	2.500 (63.50)	0.420 (10.67)	0.370 (9.40)
ED50044B000	2.626 (66.70)	2.406 (61.11)	0.470 (11.94)	0.370 (9.40)

Push-on fastener, beryllium copper.



Numbering shown is rear view of male and face view of female.

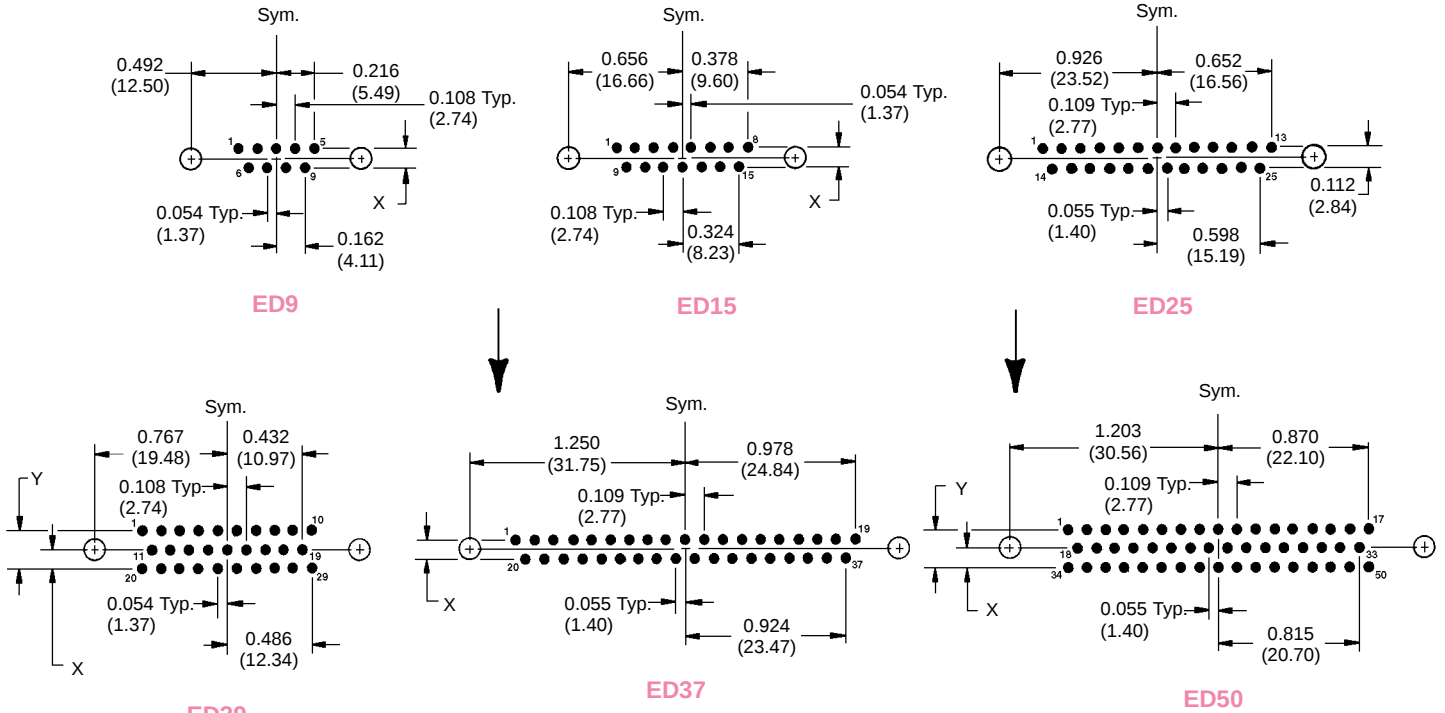


90° AND STRAIGHT PRINTED BOARD CONTACT HOLE PATTERN

Hole identification shown for male connector, use mirror image for female connector.

For code 42 and 52 contacts, mount connector with mating face positioned to follow direction of arrow.

For code 44 contacts, mount connector with mating face positioned to oppose direction of arrow.



CODE NUMBER	X	Y
36	0.112 (2.84)	0.224 (5.69)
42	0.100 (2.54)	0.200 (5.08)
44	0.100 (2.54)	0.200 (5.08)
52	0.112 (2.84)	0.224 (5.69)

Suggest 0.040 (1.02) Ø hole for contact termination positions.

Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

MELO-D SERIES

STEP	1	2	3	4	5	6	7	8	9
	MD	25	F	59	R7	N	T6	X	

STEP 1 - Basic Series

MD Series

STEP 2 -

MD Series Connector Variants

9, 15, 25, 29, 37, 50

STEP 3 - Connector Gender

M – Male
F – Female

STEP 4 - Type of Contacts

- 2 – Solder cup.
- 3 – Solder, Straight Printed Board Mount with 0.150 (3.81) Tail Length.
- 32 – Solder, Straight Printed Board Mount with 0.375 (9.52) Tail Length.
- 4 – Solder, 90° Printed Board Mount with 0.450 (11.43) Contact Extension.
- 5 – Solder, 90° Printed Board Mount with 0.283 (7.19) Contact Extension.
- 59 – Solder, 90° Printed Board Mount with 0.545 (13.84) Contact Extension.
- 6 – Wrap Post.

*STEP 5 - Mounting Style

- 0 – Mounting Hole, 0.120 (3.05) Ø.
- B – Bracket, Mounting, 90° Metal.
- B3 – Bracket, Mounting, 90° Metal with Cross Bar.
- B7 – Bracket, Mounting, 90° Plastic.
- B8 – Bracket, Mounting, 90° Plastic with Cross Bar.
- F – Float Mounts, Universal.
- P – Threaded Post, Brass, 0.225 (5.71) Length.
- P2 – Threaded Post, Nylon, 0.225 (5.71) Length.
- R – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Thread Fixed Female Jackscrews.
- R2 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Thread Fixed Female Jackscrews with Cross Bar.
- R3 – Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole.
- R4 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads.
- R5 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut.
- R6 – Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar.
- R7 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar.
- R8 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar.
- S – Swaged Spacer, 4-40 Threads, 0.225 (5.71) Length.
- S2 – Swaged Spacer, 4-40 Threads, 0.125 (3.18) Length.
- S5 – Swaged Locknut, 4-40 Threads.
- S6 – Swaged Spacer with Push-on Fastener, 4-40 Threads, 0.225 (5.71) Length.
- S7 – Swaged Spacer with Push-on Fastener for use with Ferrite Inductor, 4-40 Threads, 0.375 (9.53) Length.

*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog.

**Ferrite inductor is available on contact types 32, 4, 59 and 6 only.

STEP 9 - Special Options

Consult Sales Department.

STEP 8 - Shell Options

- 0 – Zinc Plated, with Dichromate Seal.
- X – Tin Plated.
- Z – Tin Plated and Dimpled.

*STEP 7 - Locking and Polarizing Systems

- 0 – None.
- V3 – Lock Tab, connector front panel mounted.
- V5 – Lock Tab, connector rear panel mounted.
- VL – Lock Lever, used with Hoods only.
- T – Fixed Female Jackscrews.
- T2 – Fixed Female Jackscrews.
- T6 – Fixed Male and Female Polarized Jackscrews.
- E – Rotating Male Jackscrews.
- E2 – Rotating Male Screw Locks.
- E6 – Rotating Male and Female Polarized Jackscrews.

Specify Complete Connector By Following

Steps 1 through 9

Insert "0" When Step Is Not Used

*STEP 6 - Hoods and Push-On Fasteners

- 0 – None.
- J – Hood, Top Opening, Plastic.
- L – Hood, Side Opening, Plastic.
- Y – Hood, Top Opening, Plastic with Rotating Male Jackscrews. Available in size 50 only.
- Y6 – Hood, Top Opening, Plastic with Rotating Male and Female Polarized Jackscrews. Available in size 50 only.
- Z – Hood, Top or Side Opening, Robust and Extended Height, Composite and Plastic with Rotating Male Jackscrews. Available in size 9, 15, 25, 37, and 50 only.
- H – Hood, Top Opening, Metal. Available in size 15, 25, 37, and 50 only.
- G – Hood, EMI/RFI, Metal. Available in size 9, 15, 25, 37, and 50 only.
- W – Hood, Top or Side Opening, Plastic. Available in size 9, 15, and 25 only.
- N – Push-on Fastener, for 90° Mounting Brackets.
- **F – Ferrite inductor.
- **Q – Ferrite inductor for use with Push-on Fastener and 90° Mounting Brackets.

EURO-D SERIES

STEP	1	2	3	4	5	6	7	8	9
	ED	25	F	42	R7	N	T2	0	

STEP 1 - Basic Series

ED Series

STEP 2 -

ED Series Connector Variants

9, 15, 25, 29, 37, 50

STEP 3 - Connector Gender

M – Male
F – Female

STEP 4 - Type of Contacts

- 2 – Solder cup.
- 36 – Solder, Straight Printed Board Mount with 0.236 (5.99) Tail Length.
- 42 – Solder, 90° Printed Board Mount with 0.370 (9.40) Contact Extension.
- 44 – Solder, Inverted 90° Printed Board Mount with 0.370 (9.40) Contact Extension.
- 52 – Solder, 90° Printed Board Mount with 0.370 (9.40) Contact Extension.

*STEP 5 - Mounting Style

Refer to MD Series Step 5

STEP 9 - Special Options

Consult Sales Department

STEP 8 - Shell Options

- 0 – Zinc Plated, with Dichromate Seal.
- X – Tin Plated.
- Z – Tin Plated and Dimpled.

*STEP 7 - Locking and Polarizing Systems

Refer to MD Series Step 7

*STEP 6 - Hoods and Push-On Fasteners

Refer to MD Series Step 6

*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog.

**Ferrite inductor is available on contact types 36 only.

Soli-D Series

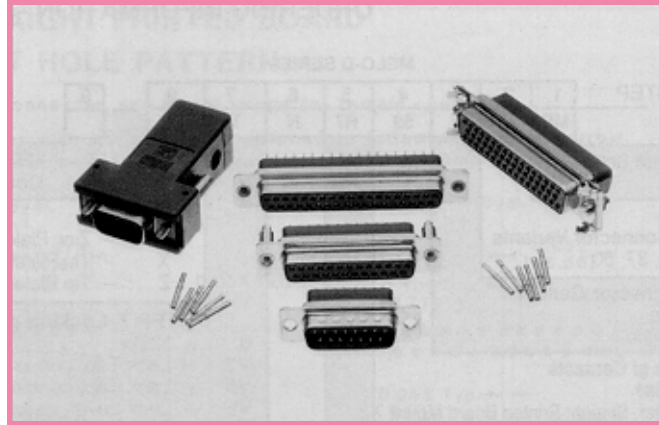
PROFESSIONAL QUALITY, REMOVABLE CONTACT, SUBMINIATURE-D CONNECTORS FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Size 20 Contacts,
Removable
Professional Quality
Connectors
IEC Publication 807-3
Performance Level Two

U.L. Recognized
File #E49351

CSA Recognized
File #LR54219

Telecommunication
U.L. File #14098



Soli-D Series connectors are professional quality connectors recommended for use in sheltered, non-corrosive indoor or outdoor environments having normal ventilation, but without temperature or humidity controls. This crimp removable contact connector will meet the Performance Level Two requirements of IEC 807-3.

Soli-D Series connectors utilize precision machined contacts with closed barrel, crimp terminations. The female contact features the Robi-Contact open entry design. Other contact terminations such as solder cup and printed board terminations

are also available. The removable contact feature provides for rapid assembly and permits contact repairs on wiring changes.

Five standard contact variants are offered in arrangements of 9, 15, 25, 37 and 50 contacts. Soli-D Series connectors are mateable and compatible with all D-Subminiature connectors conforming to IEC 807-2, IEC 807-3 and MIL-DTL-24308.

A wide assortment of cable support hoods and locking systems is available from stock.

Soli-D Series connectors conform to EIA RS 232 and RS 449, and CCITT X.24 interface connection requirements.

SOLI-D SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled nylon resin, UL 94V-0, black color.
Contacts:	Male contacts – precision machined brass alloy. Female contacts – precision machined high tensile phosphor bronze.
Contact Plating:	Professional performance – gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate; zinc plate with dichromate seal.
Mounting Spacers:	Nylon plastic, or brass, zinc plate with dichromate seal.
Push-On Fasteners:	Phosphor bronze with tin plate.
Jackscrew Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.
Hoods:	Thermoplastic UL 94V-0. Composite, brass or steel with zinc plate and dichromate seal.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	7.5 amperes nominal.
Initial Contact Resistance:	0.008 ohms maximum.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0mm).
Working Voltage:	300 V r.m.s.

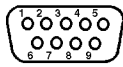
CLIMATIC CHARACTERISTICS:

Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	10 days.

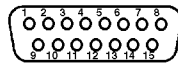
MECHANICAL CHARACTERISTICS:

Removable Contacts:	Insert contact to rear face of insulator and release from rear face of insulator. Size 20 contacts, male – 0.040 inch (1.02mm) diameter; female – Robi-D contact open entry design.
Contact Retention In Insulator:	6 lbs. (27 N).
Contact Terminations:	Closed barrel crimp, wire sizes 18 AWG (1.0mm ²) through 32 AWG (0.03mm ²). Also, solder cup and straight printed board mount terminations.
Shells:	Male shells may be dimpled for EM/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Printed Board Mount:	Rapid installation push-on fasteners.
Locking Systems:	Jackscrews and vibration locking systems.
Mechanical Operations:	500 operations minimum per IEC 512-5.

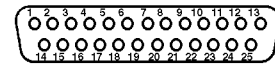
CONTACT VARIANTS FACE VIEW OF MALE OR REAR VIEW OF FEMALE



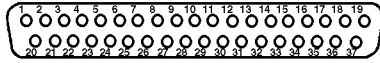
SD 9



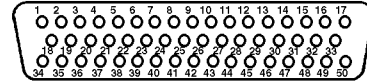
SD 15



SD 25

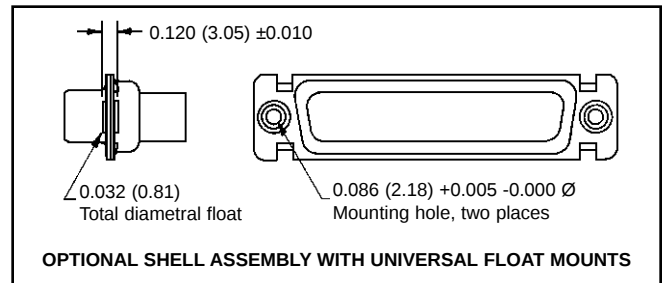
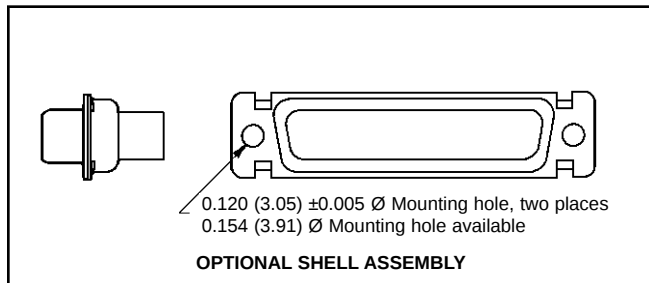
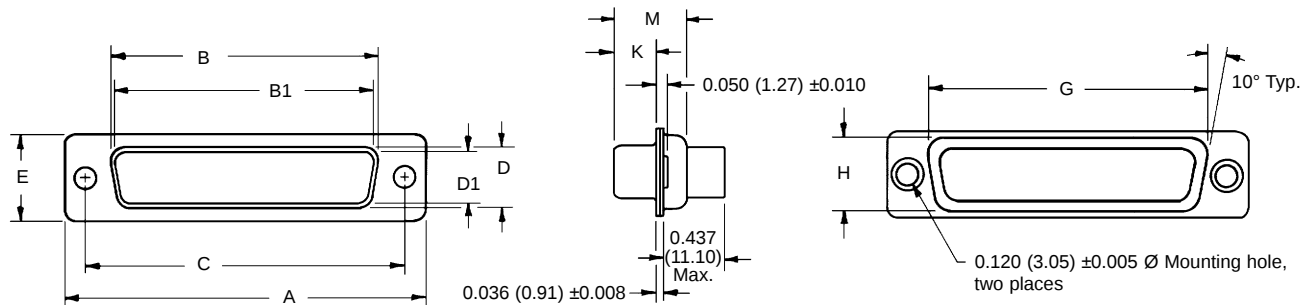


SD 37



SD 50

STANDARD SHELL ASSEMBLY



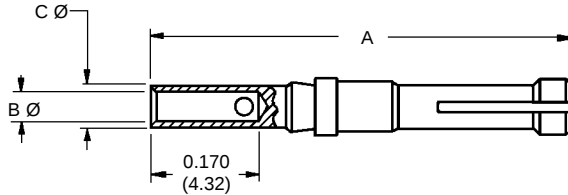
CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
SD 9 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
SD 9 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SD 15 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
SD 15 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SD 25 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
SD 25 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SD 37 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
SD 37 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
SD 50 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
SD 50 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

CRIMP CONTACTS

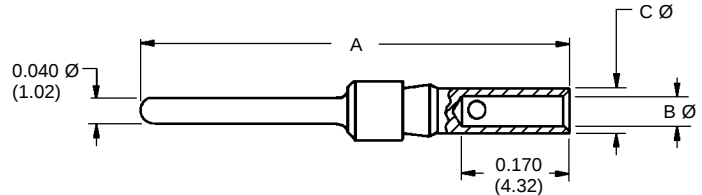
CLOSED CRIMP BARREL

FEMALE CONTACT



PART NUMBER	WIRE SIZE AWG/(mm²)	A	B Ø	C Ø
FC7520D	20 / 22 / 24 (0.5/0.3/0.25)	0.612 (15.54)	0.045 (1.14)	0.066 (1.68)
FC7526D	26 / 28 / 30 (0.12/0.08/0.05)	0.612 (15.54)	0.026 (0.66)	0.066 (1.68)

MALE CONTACT

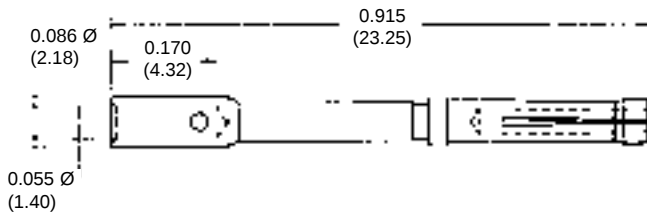


PART NUMBER	WIRE SIZE AWG/(mm²)	A	B Ø	C Ø
MC7520D	20 / 22 / 24 (0.5/0.3/0.25)	0.618 (15.70)	0.045 (1.14)	0.066 (1.68)
MC7526D	26 / 28 / 30 (0.12/0.08/0.05)	0.618 (15.70)	0.026 (0.66)	0.066 (1.68)

Crimp contacts must be ordered separately.

FEMALE CONTACT

18 AWG (1.0 mm²) max.

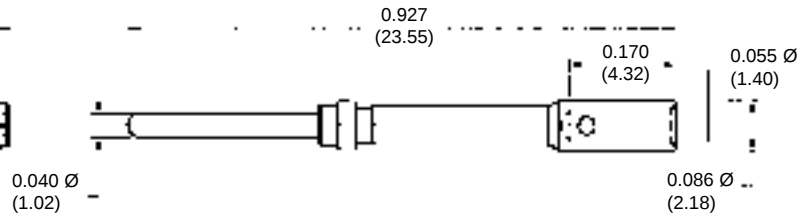


FC7518D

Material – Phosphor bronze.
Plating – Gold flash over nickel.

MALE CONTACT

18 AWG (1.0 mm²) max.



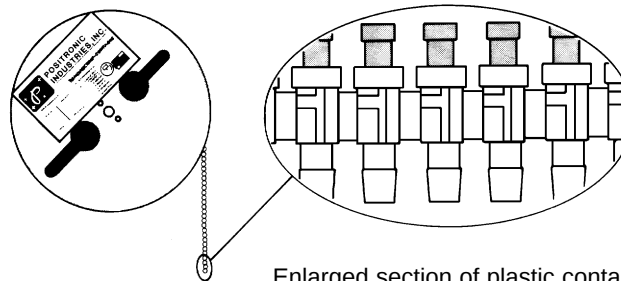
MC7518D

Material – Brass.
Plating – Gold flash over nickel.

REELS FOR AUTOMATIC FEED PNEUMATIC CRIMP TOOLS

Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic feed pneumatic crimp tools, catalog part number 9550-1. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter "R" after the contact part number, such as MC7526DR for a male contact and FC7520DR for a female contact.

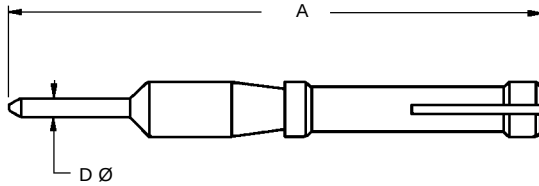


Enlarged section of plastic contact carriers

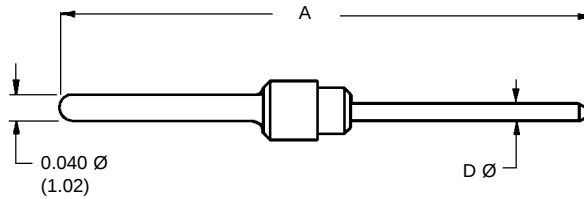
**DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

STRAIGHT PRINTED BOARD MOUNT CONTACTS

FEMALE CONTACT



MALE CONTACT

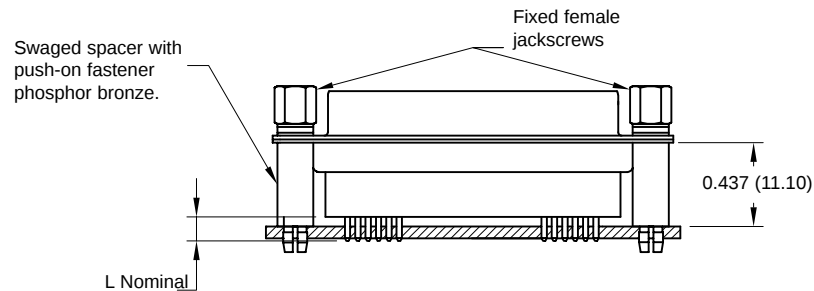


Straight printed board mount contacts are supplied in connector.

CODE NUMBER	L	D Ø	A
3	0.125 (3.18)	0.024 (0.61)	0.772 (19.61)
32	0.188 (4.78)	0.024 (0.61)	0.835 (21.21)

CODE NUMBER	L	D Ø	A
3	0.125 (3.18)	0.024 (0.61)	0.768 (19.51)
32	0.188 (4.78)	0.024 (0.61)	0.831 (21.11)

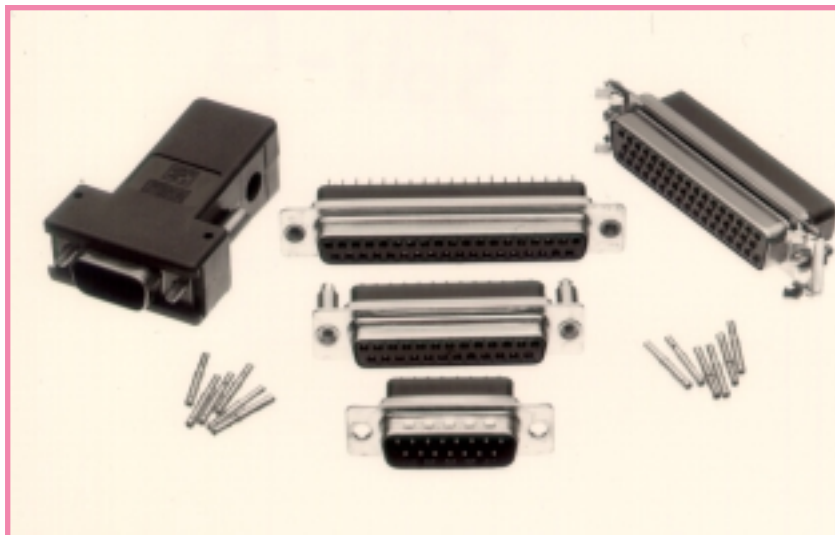
For straight printed board mount contacts specify code no. in step 4 of ordering information.



DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

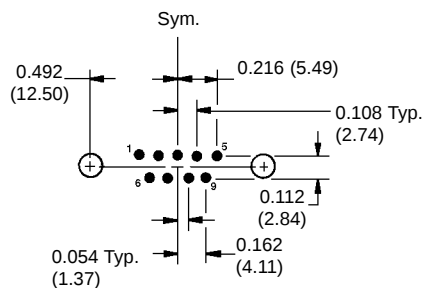
Typical Part Number:
SD37F3S60T2X

Material – Phosphor bronze or brass.
Plating – Gold flash over nickel.

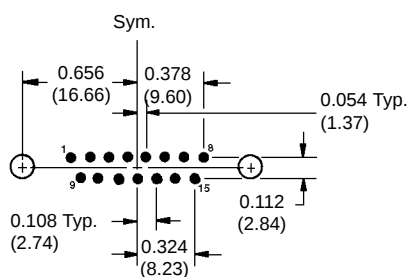


STRAIGHT PRINTED BOARD CONTACT HOLE PATTERN

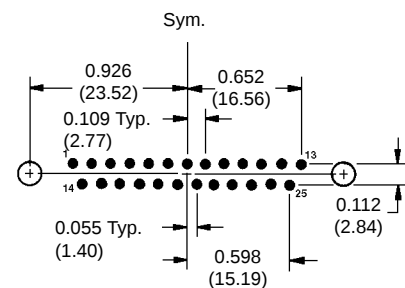
Hole identification shown for male connector, use mirror image for female connector.



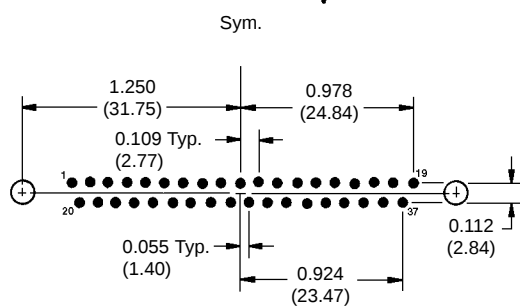
SD9



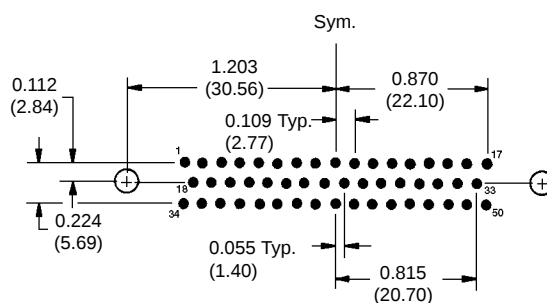
SD15



SD25



SD37



SD50

Suggest 0.045 (1.14) Ø hole for contact termination positions.

Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.



SD37M3S600Z



SD25F3S600X

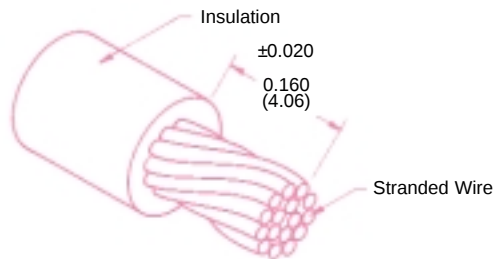
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

CRIMPING INFORMATION FOR RD AND SD SERIES CRIMP CONTACTS

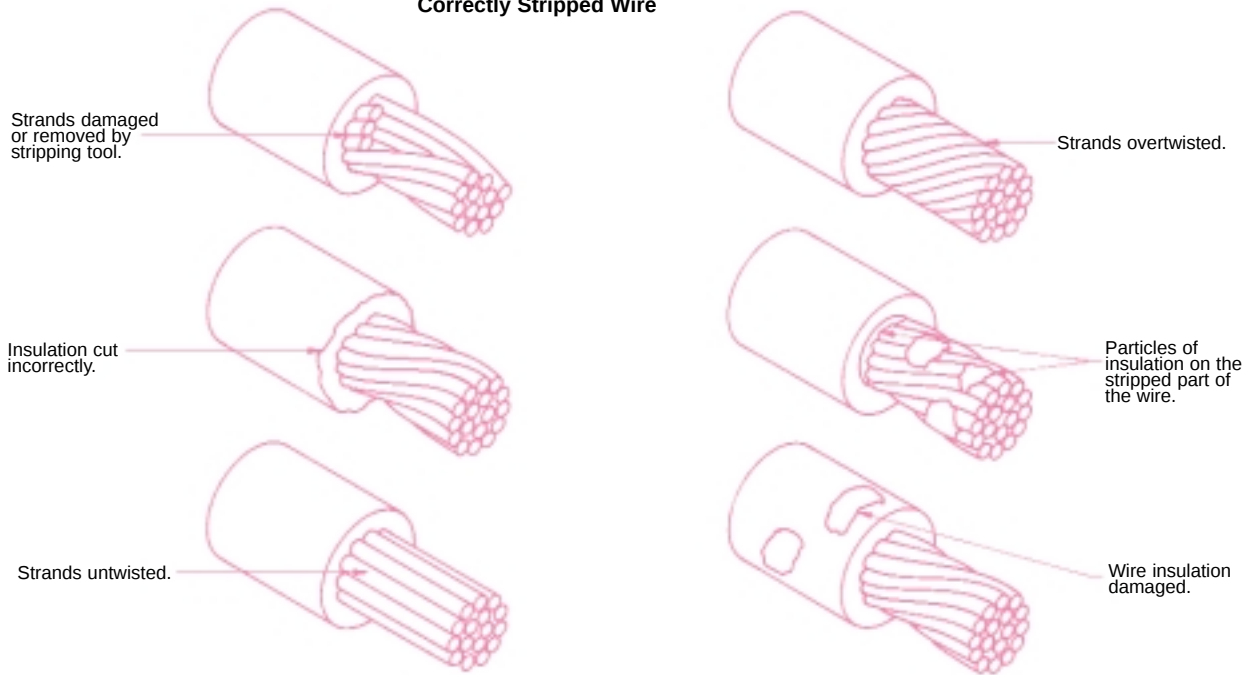
USE INDICATED POSITRONIC TOOLS FOR BEST RESULTS

Step 1: Strip wire to indicated length.

- Take Care Not To:
- Damage or remove strands.
 - Untwist or overtwist strands.
 - Leave insulation particles on strands.
 - Damage insulation.



Correctly Stripped Wire



Examples of Stripping Faults

Step 2: Crimp wire to contact.

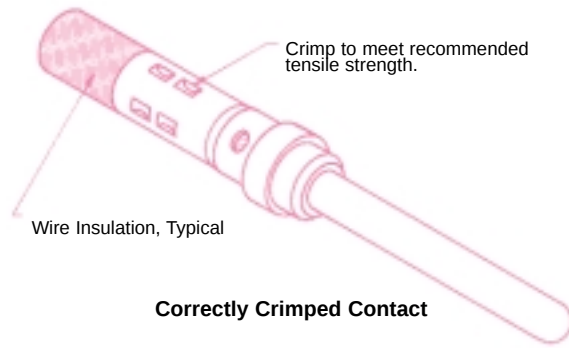
- For Hand Crimp Tool:
- Place contact into crimping tool.
 - Insert wire into contact.
 - Center contact by slowly closing the crimping tool until the crimp indenters make contact with the crimp barrel.
 - Complete the cycle of the crimping tool in one smooth motion.
 - Remove the crimped contact.

- For Automatic Feed Pneumatic Crimp Tool:
- Insert the wire into the contact, positioned in the crimp tool by the plastic carrier.
 - Depress the activating device of the crimping tool to start the crimping cycle.
 - Remove the crimped contact.

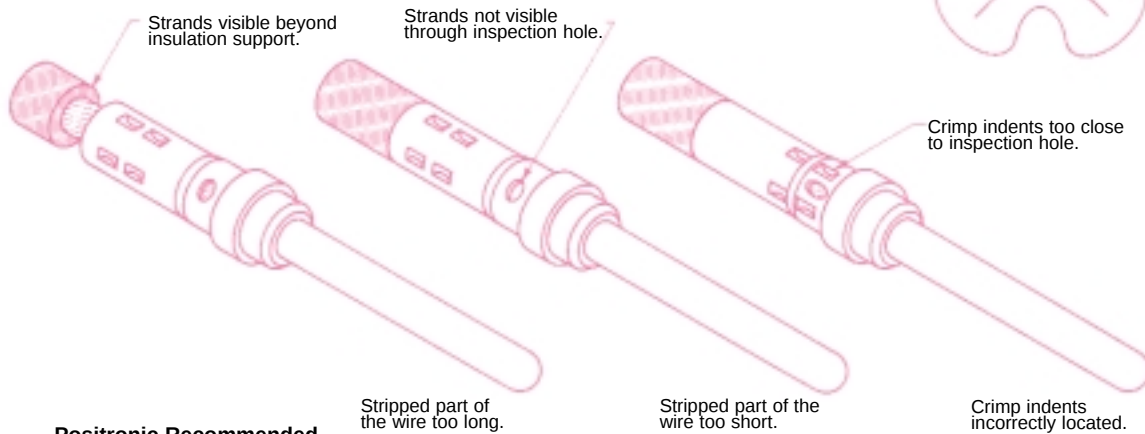
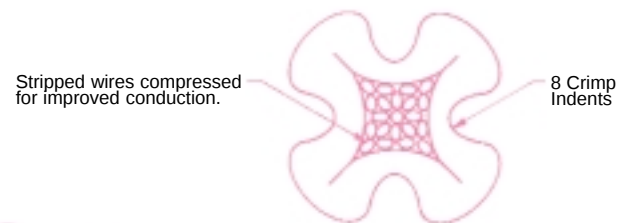
CRIMPING INFORMATION FOR RD AND SD CRIMP CONTACTS

Step 3: Inspect the crimp.

- For All Tools:
- Strands to be visible through the inspection hole.
 - Strands not to be visible beyond the insulation support.
 - Crimped contact to meet recommended conductor tensile force shown in chart.
 - Check for peeled gold and bent contacts.



Cross Section
of Correctly Crimped Contact



Positronic Recommended
Conductor Tensile Strength

WIRE SIZE AWG/(mm ²)	AXIAL LOAD POUNDS/(N)
<u>18</u> (1.0)	<u>28</u> (125)
<u>20</u> (0.5)	<u>20</u> (89)
<u>22</u> (0.3)	<u>12</u> (53)
<u>24</u> (0.25)	<u>8</u> (36)
<u>26</u> (0.12)	<u>5</u> (22)
<u>28</u> (0.08)	<u>3</u> (13)
<u>30</u> (0.05)	<u>1.5</u> (6.7)

Examples of Crimping Faults

Positronic recommended tools for SD series contacts.
For more information see contact crimp tools and accessories page.

CRIMP TOOLS	POSITIONERS FOR FC7520D, FC7526D, MC7520D, MC7526D	POSITIONERS FOR FC7518D, MC7518D, FC6018D, MC6018D
9507, HAND CRIMP TOOL	9502-10	9502-11
9550-1, AUTOMATIC FEED PNEUMATIC CRIMP TOOL	Supplied in reels	Not Available

Conductor tensile strength values are derived using silver-tin plated copper wires.

Values may change depending upon what type of wire is used.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9.
Insert "0" When Step Is Not Used.

STEP	1	2	3	4	5	6	7	8	9
	SD	25	F	3	S6	0	T6	X	

STEP 1 - Basic Series

SD Series

STEP 2 - SD Series Connector Variants

9, 15, 25, 37, 50

STEP 3 - Connector Gender

M - Male
F - Female

STEP 4 - Type of Contacts

- 0 - Order Contacts separately.
- 1 - Crimp, 20 AWG–24 AWG (0.5mm²–0.25mm²).
- 12 - Crimp, 26 AWG–30 (0.12mm²–0.05mm²).
- 3 - Solder, Straight Printed Board Mount with 0.125 (3.18) Tail Length.
- 32 - Solder, Straight Printed Board Mount with 0.188 (4.78) Tail Length.

*STEP 5 - Mounting Style

- 0 - Mounting Hole, 0.120 (3.05) Ø.
- F - Float Mounts, Universal.
- P - Threaded Post, Brass, 0.437 (11.10) Length.
- P2 - Threaded Post, Nylon, 0.437 (11.10) Length.
- S - Swaged Spacer, 4-40 Threads, 0.437 (11.10) Length.
- S2 - Swaged Spacer, 4-40 Threads, 0.125 (3.18) Length.
- S5 - Swaged Locknut, 4-40 Threads.
- S6 - Swaged Spacer with Push-on Fastener, 4-40 Threads, 0.437 (11.10) Length.

STEP 9 - Special Options

Consult Sales Department.

STEP 8 - Shell Options

- 0 - Zinc Plated with Dichromate Seal.
- X - Tin Plated.
- Z - Tin Plated and Dimpled.

*STEP 7 - Locking and Polarizing Systems

- 0 - None.
- V3 - Lock Tab, connector front panel mounted.
- V5 - Lock Tab, connector rear panel mounted.
- VL - Lock Lever, used with Hoods Only.
- T - Fixed Female Jackscrews.
- T2 - Fixed Female Jackscrews.
- T6 - Fixed Male and Female Polarized Jackscrews.
- E - Rotating Male Jackscrews.
- E2 - Rotating Male Screw Locks.
- E6 - Rotating Male and Female Polarized Jackscrews.

*STEP 6 - Hoods

- 0 - None.
- J - Hood, Top Opening, Plastic.
- L - Hood, Side Opening, Plastic.
- Y - Hood, Side Opening, Plastic with Rotating Male Jackscrews. Available in size 50 only.
- Y6 - Hood, Top Opening, Plastic with Rotating Male and Female Polarized Jackscrews. Available in size 50 only.
- Z - Hood, Top or Side Opening, Robust and Extended Height, Composite and Plastic with Rotating Male Jackscrews.
- H - Hood, Top Opening, Metal. Available in size 15, 25, 37, and 50 only.
- G - Hood, EMI/RFI, Metal.
- W - Hood, Top or Side Opening, Plastic. Available in size 9, 15, and 25 only.

*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog.

SD SERIES CRIMP CONTACT TERMINATIONS

TERMINATION TYPE	CONTACT SIZE	WIRE SIZE AWG/(mm ²)	FEMALE PART NUMBER	MALE PART NUMBER
CRIMP	20	<u>20 / 22 / 24</u> (0.5/0.3/0.25)	FC7520D	MC7520D
CRIMP	26	<u>26 / 28 / 30</u> (0.12/0.08/0.05)	FC7526D	MC7526D

**AUTOMATIC FEED
CRIMP TOOL,
PNEUMATICALLY ACTUATED**
Part No. 9550-1

This fast cycling automatic feed crimp tool produces an 8 indent crimp on wire sizes 20 AWG (0.5mm²) through 32 AWG (0.03mm²). Soli-D Series contacts must be ordered on reels.

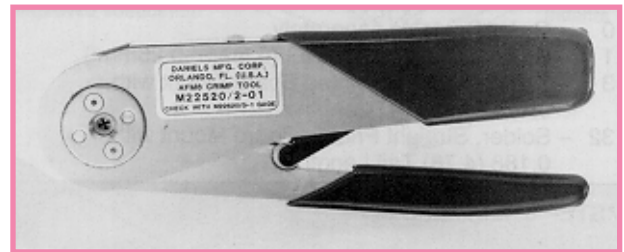
To order, specify part number 9550-1. Foot control valve is supplied as a standard accessory.



MINIATURE STEP ADJUSTABLE TOOL
(M22520/2-01)
Part No. 9507

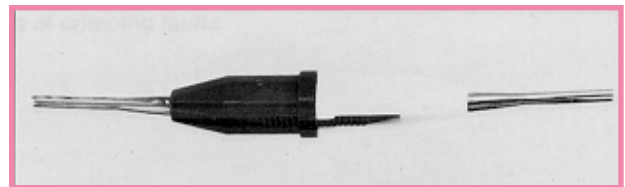
This miniature 8 step adjustable hand crimping tool produces an 8 indent crimp configuration and will crimp wire sizes 18 AWG (1.0mm²) through 32 AWG (0.03mm²).

To crimp wire size 18 AWG (1.0mm²), order contact positioner 9502-11. To crimp wire size 20 AWG (0.5mm²) through 32 AWG (0.03mm²), order contact positioner 9502-10. Each positioner is equipped with a data plate which gives the correct crimp-depth setting for each wire size, and must be used with 9507 tool frame for best results when crimping Soli-D Series contacts.



INSERTION/REMOVAL TOOL
(M81969/1-02)

One end of this tool is used to insert contacts into Soli-D Series connectors. The other end is used to extract contacts. This is accomplished by sliding the extraction tip down the wire into the connector until it bottoms against the contact. A slight rotation while pushing will release the contacts, which are then extracted by simultaneously pulling on the wire.



Densi-D Series

MILITARY QUALITY, REMOVABLE CONTACT, HIGH DENSITY SUBMINIATURE-D CONNECTORS FOR MILITARY AND SEVERE INDUSTRIAL ENVIRONMENTAL APPLICATIONS

**Size 22 Contacts,
Removable Crimp and
Printed Board Mount**

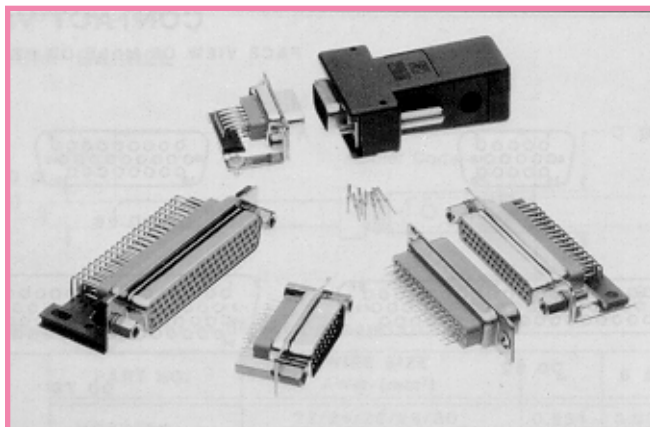
**Military/Industrial
Quality Connectors**

MIL-DTL-24308 and MIL-C-39029

**U.L. Recognized
File #E49351**

**CSA Recognized
File #LR54219**

**Telecommunication
U.L. File #14098**



Densi-D Series connectors are Military/Industrial quality, high density rectangular connectors designed for use in sheltered, mildly corrosive environments having a wide range of temperature, pressure and humidity changes. These crimp removable contact connectors are qualified to MIL-DTL-24308 and MIL-C-39029.

Densi-D Series connectors utilize precision machined contacts with closed barrel crimp terminations and solder cup terminations for straight and 90° printed board mount. All female

contacts are of closed entry design, featuring a fluted stainless steel shroud.

Six standard contact variants are offered in arrangements of 15, 26, 44, 62, 78 and 104 contacts. Densi-D Series connectors are mateable and compatible with other high density D-Subminiature connectors conforming to MIL-DTL-24308.

A wide assortment of mounting spacers, cable support hoods and locking systems is available from stock.

DENSI-D SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulators:	Glass filled polyester per MIL-M-24519, UL 94V-0, blue color.
Contacts:	Male contacts – precision machined high tensile copper alloy. Female contacts – precision machined high tensile copper alloy with stainless steel shroud.
Contact Plating:	Military performance – 0.000050 inch (1.25 microns) gold over copper plate. Industrial performance – gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate; zinc and cadmium plate with dichromate seal, stainless steel, passivated.
Mounting Spacers:	Nylon plastic and brass; zinc plate with dichromate seal.
Push-On Fastener:	Phosphor bronze or beryllium copper with tin plate.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.
Jackscrew Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Hoods:	Thermoplastic UL 94V-0. Composite, brass or steel with zinc plate and dichromate seal.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	5 amperes nominal.
Initial Contact Resistance:	0.005 ohms maximum.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.042 inch (1.06mm).
Working Voltage:	300 V r.m.s.

CLIMATIC CHARACTERISTICS:

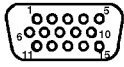
Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	21 days.

MECHANICAL CHARACTERISTICS:

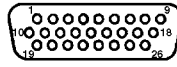
Removable Contacts:	Insert contact to rear face of insulator and release from rear face of insulator. Size 22 contacts, male – 0.030 inch (0.76mm) diameter; female – closed entry design with stainless steel shroud.
Contact Retention In Insulator:	9 lbs. (40 N).
Contact Terminations:	Closed barrel crimp, wire sizes 22 AWG (0.3mm ²) through 30 AWG (0.05mm ²) per IEC 352-2. 90° Printed Board Mount contact terminations.
Shells:	Male shells may be dimpled for EMI/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Mounting To Angle Brackets:	Jackscrews and riveted fasteners with 0.120 inch (3.05mm) clearance hole, and threaded riveted fasteners with 4-40 threads and nylon lock inserts.
Mounting To Printed Board:	Rapid installation push-on fasteners and mounting posts.
Locking Systems:	Jackscrews and vibration locking systems.
Mechanical Operations:	1000 operations minimum per IEC 512-5.

CONTACT VARIANTS

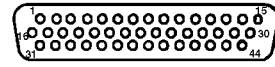
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



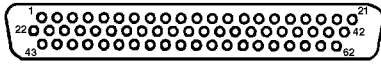
DD 15



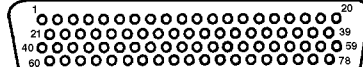
DD 26



DD 44



DD 62

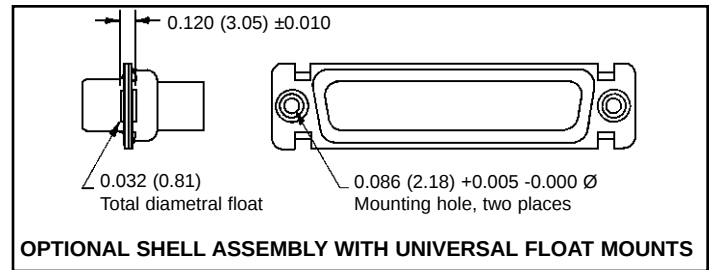
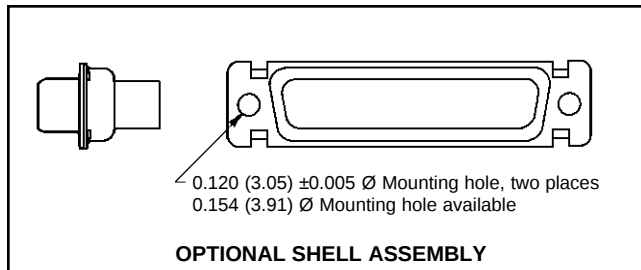
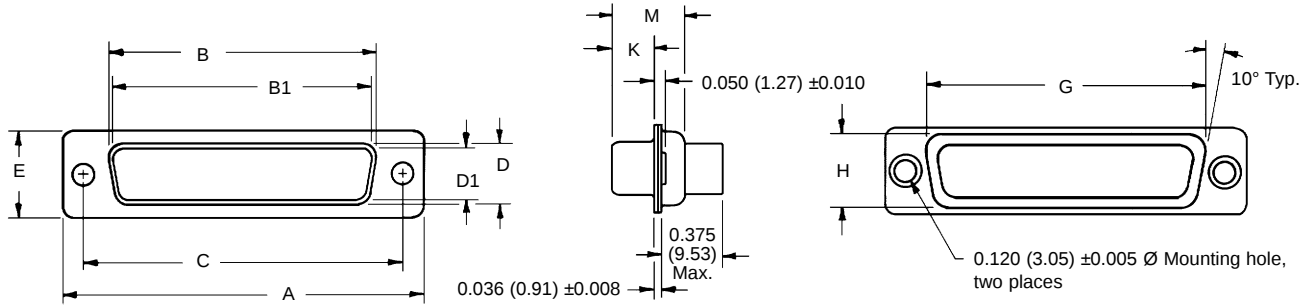


DD 78



DD 104

STANDARD SHELL ASSEMBLY



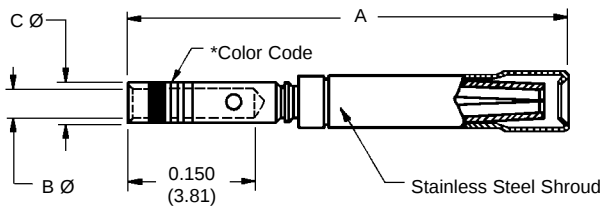
CONNECTOR VARIANT SIZES	A ± 0.015	B ± 0.005	B1 ± 0.005	C ± 0.005	D ± 0.005	D1 ± 0.005	E ± 0.015	G ± 0.010	H ± 0.010	K ± 0.005	M ± 0.010
DD 15 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
DD 15 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
DD 26 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
DD 26 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
DD 44 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
DD 44 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
DD 62 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
DD 62 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
DD 78 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
DD 78 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)
DD 104 M	2.729 (69.32)		2.212 (56.18)	2.500 (63.50)		0.503 (12.78)	0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.230 (5.84)	0.426 (10.82)
DD 104 F	2.729 (69.32)	2.189 (55.60)		2.500 (63.50)	0.485 (12.32)		0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.243 (6.17)	0.429 (10.90)

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

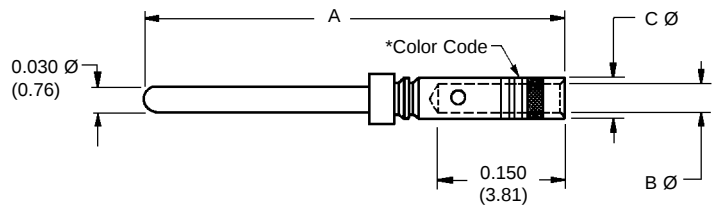
CRIMP CONTACTS

CLOSED CRIMP BARREL

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



MALE CONTACT



Crimp contacts may be supplied kitted with connector or ordered separately.

PART NUMBER	WIRE SIZE AWG/(mm ²)	A	B Ø	C Ø
FC8022D	22 / 24 / 26 / 28 / 30 (0.3/0.25/0.12/0.08/0.05)	0.518 (13.16)	0.035 (0.89)	0.047 (1.19)
*M39029/57-354	22 / 24 / 26 / 28 (0.3/0.25/0.12/0.08)	0.518 (13.16)	0.035 (0.89)	0.047 (1.19)

Material - Leaded nickel copper.

Plating - Gold flash over nickel or 0.000050 inch (1.25µ) gold over copper for military specification contacts.

*Color Code - ORANGE/GREEN/YELLOW for military specification contacts.

PART NUMBER	WIRE SIZE AWG/(mm ²)	A	B Ø	C Ø
MC8022D	22 / 24 / 26 / 28 / 30 (0.3/0.25/0.12/0.08/0.05)	0.531 (13.49)	0.035 (0.89)	0.047 (1.19)
*M39029/58-360	22 / 24 / 26 / 28 (0.3/0.25/0.12/0.08)	0.531 (13.49)	0.035 (0.89)	0.047 (1.19)

Material - Brass.

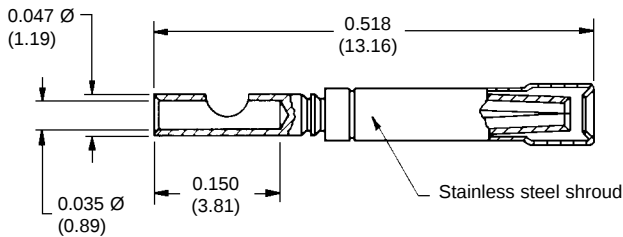
Plating - Gold flash over nickel or 0.000050 inch (1.25µ) gold over copper for military specification contacts.

*Color Code - ORANGE/BLUE/BLACK for military specification contacts.

For contact crimp tool information see page 29.

SOLDER CUP CONTACTS

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)

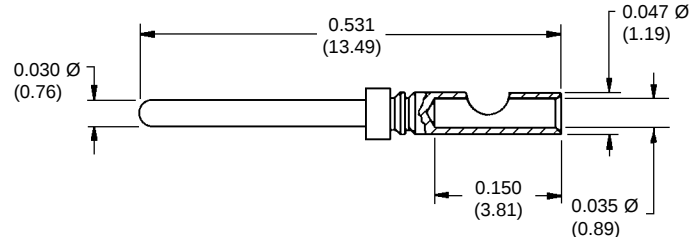


Part Number: FS8022D

Material - Phosphor bronze.

Plating - Gold flash over nickel.

MALE CONTACT



Part Number: MS8022D

Material - Brass.

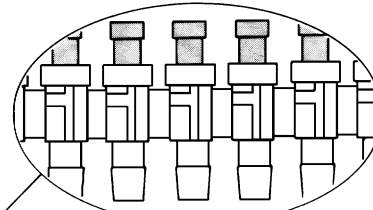
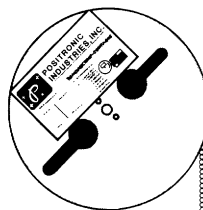
Plating - Gold flash over nickel.

Solder contacts may be supplied kitted with connector or ordered separately.

REELS FOR AUTOMATIC FEED PNEUMATIC CRIMP TOOLS

Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic feed pneumatic crimp tools, catalog part number 9550-1. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter "R" after the contact part number, such as MC8022DR for a male contact and FC8022DR for a female contact.

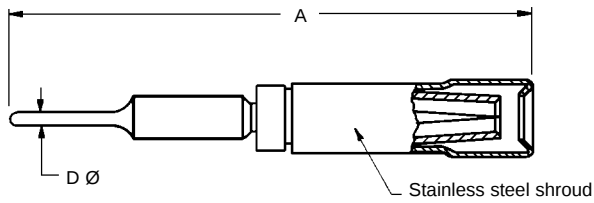


Enlarged section of plastic contact carriers

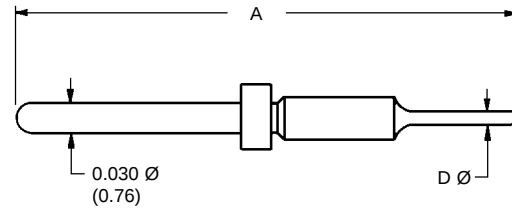
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

STRAIGHT PRINTED BOARD MOUNT CONTACTS

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



MALE CONTACT

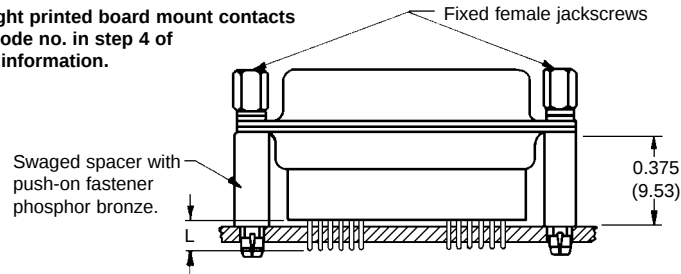


Straight printed board mount contacts are supplied in connector.

CODE NUMBER	L	D Ø	A
3	0.150 (3.81)	0.020 (0.51)	0.725 (18.42)
32	0.300 (7.62)	0.020 (0.51)	0.865 (21.97)

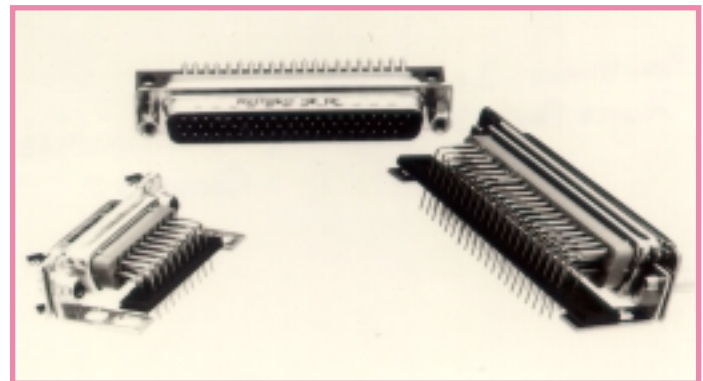
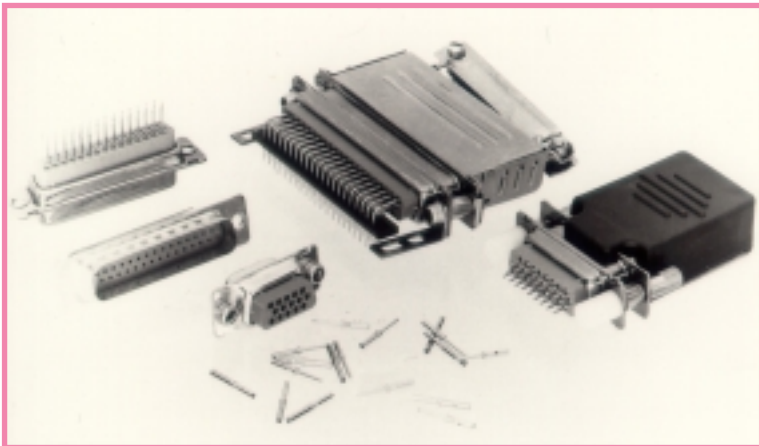
CODE NUMBER	L	D Ø	A
3	0.150 (3.81)	0.020 (0.51)	0.737 (18.72)
32	0.300 (7.62)	0.020 (0.51)	0.877 (22.28)

For straight printed board mount contacts specify code no. in step 4 of ordering information.



Material - Phosphor bronze.
Plating - Gold flash over nickel.

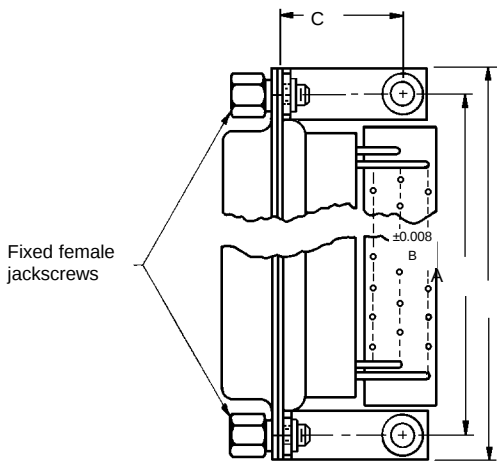
Typical Part Number: DD62F3S60T2X



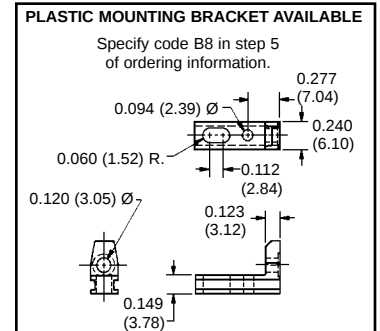
DD Series

MILITARY QUALITY, REMOVABLE CONTACT, HIGH DENSITY SUBMINIATURE-D CONNECTORS FOR MILITARY AND SEVERE INDUSTRIAL ENVIRONMENTAL APPLICATIONS

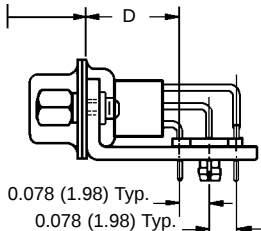
90° PRINTED BOARD MOUNT CONNECTOR CODE 4, 0.450 (11.43) CONTACT EXTENSION



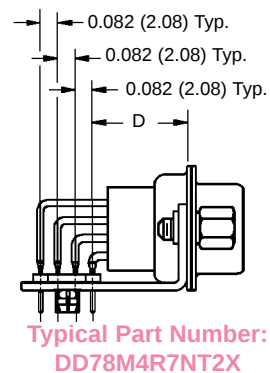
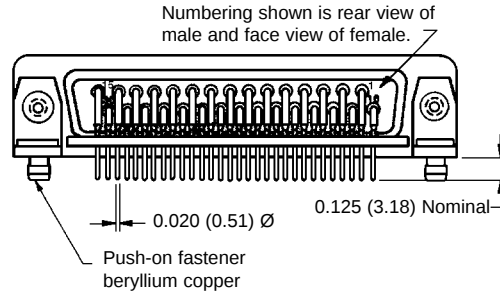
DD004R7000 0.450 (11.43) CONTACT EXTENSION				
PART NUMBER	A	B	C	D
DD1504R7000	1.204 (30.58)	0.984 (24.99)	0.528 (13.41)	0.450 (11.43)
DD2604R7000	1.532 (38.91)	1.312 (33.32)	0.528 (13.41)	0.450 (11.43)
DD4404R7000	2.072 (52.63)	1.852 (47.04)	0.528 (13.41)	0.450 (11.43)
DD6204R7000	2.720 (69.09)	2.500 (63.50)	0.528 (13.41)	0.450 (11.43)
DD7804R7000	2.626 (66.70)	2.406 (61.11)	0.573 (14.55)	0.450 (11.43)



Specify code 4 in step 4 of ordering information.

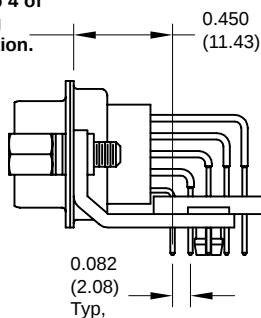


Typical Part Number:
DD44F4R7NT2X

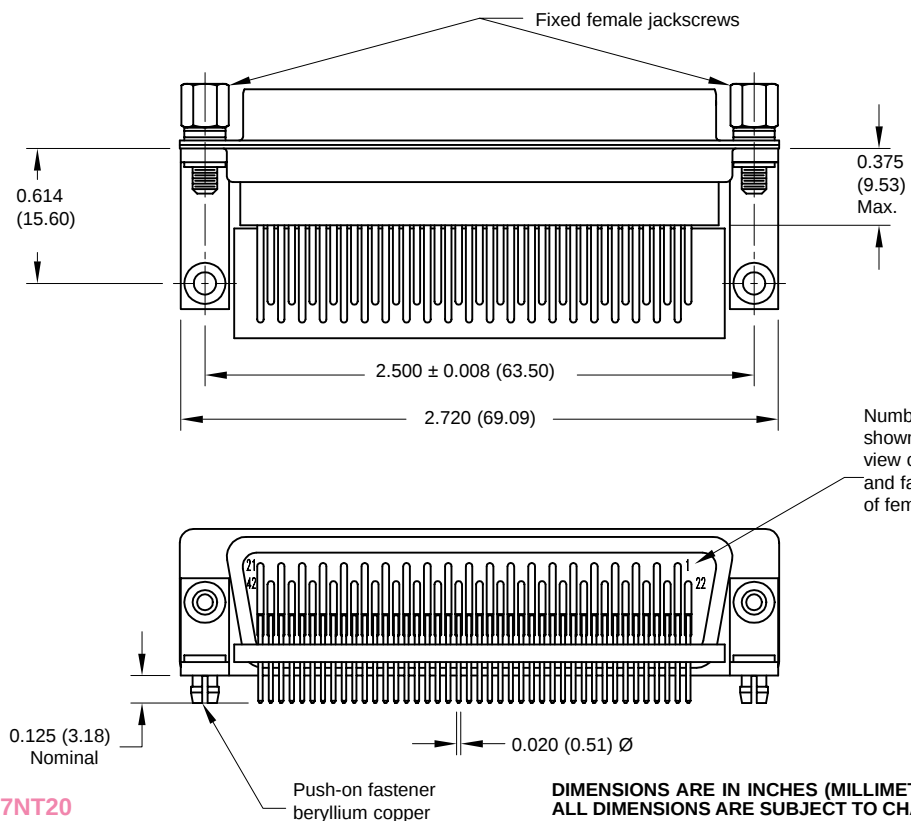


90° PRINTED BOARD MOUNT CONNECTOR, SIZE 104 CODE 4, 0.450 (11.43) CONTACT EXTENSION

Specify code 4 in step 4 of ordering information.



Typical Part Number: DD104M4R7NT20

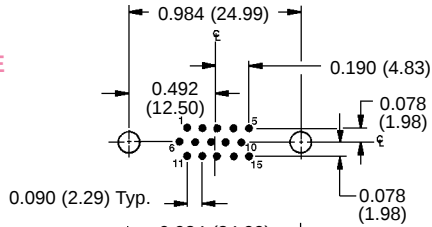


DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

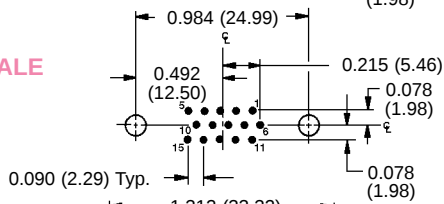
90° AND STRAIGHT PRINTED BOARD CONTACT HOLE PATTERN

Mount connector with mating face positioned to follow direction of arrows.

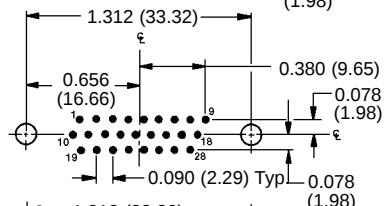
DD15 MALE



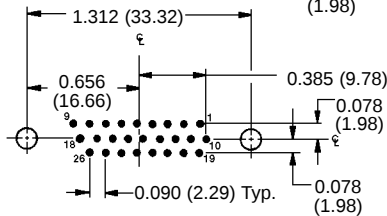
DD15 FEMALE



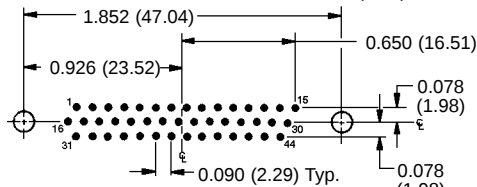
DD26 MALE



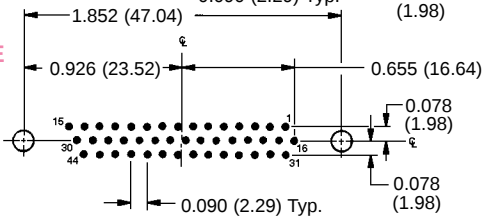
DD26 FEMALE



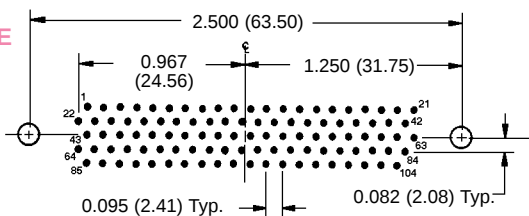
DD44 MALE



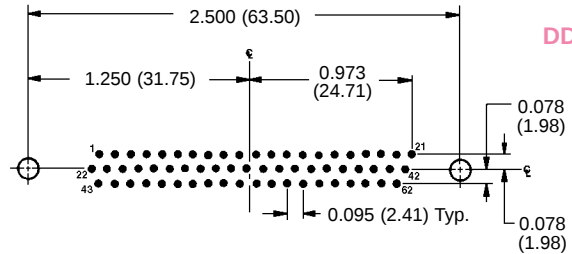
DD44 FEMALE



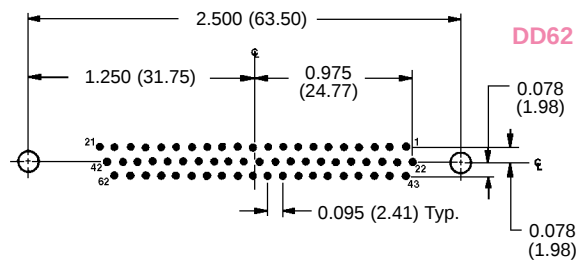
DD104 MALE



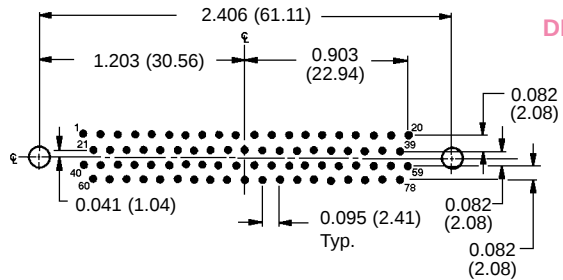
DD62 MALE



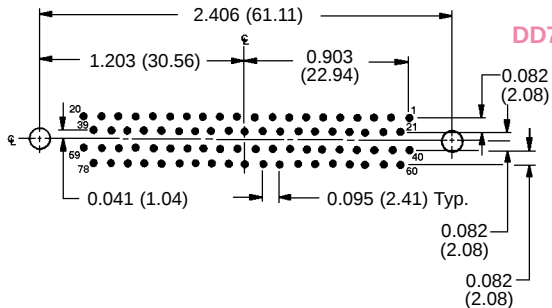
DD62 FEMALE



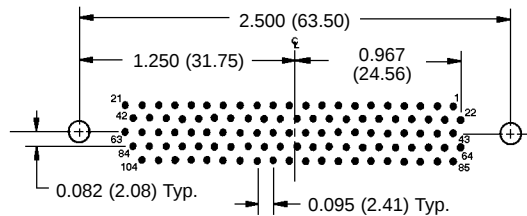
DD78 MALE



DD78 FEMALE



DD104 FEMALE



Suggest 0.035 (0.89) Ø hole for contact termination positions.
Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.

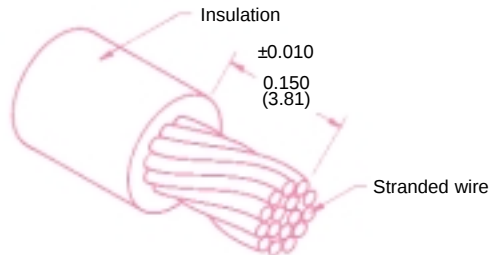
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

CRIMPING INFORMATION FOR DD AND ODD SERIES CRIMP CONTACTS

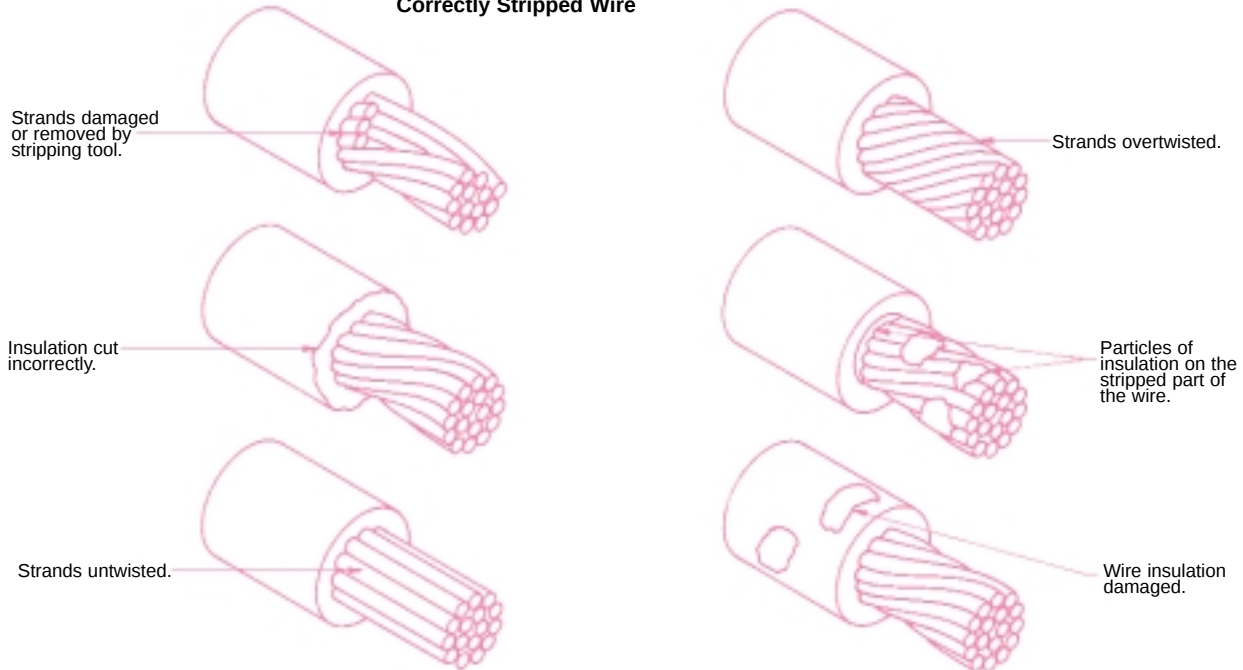
USE INDICATED POSITRONIC TOOLS FOR BEST RESULTS

Step 1: Strip wire to indicated length.

- Take Care Not To:
- Damage or remove strands.
 - Untwist or overtwist strands.
 - Leave insulation particles on strands.
 - Damage insulation.



Correctly Stripped Wire



Examples of Stripping Faults

Step 2: Crimp wire to contact.

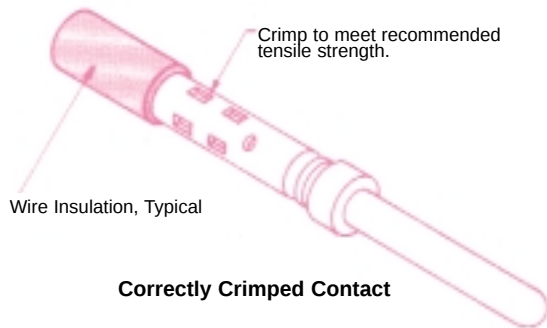
- For Hand Crimp Tool:
- Place contact into crimping tool.
 - Insert wire into contact.
 - Center contact by slowly closing the crimping tool until the crimp indenters make contact with the crimp barrel.
 - Complete the cycle of the crimping tool in one smooth motion.
 - Remove the crimped contact.

- For Automatic Feed Pneumatic Crimp Tool:
- Insert the wire into the contact, positioned in the crimp tool by the plastic carrier.
 - Depress the activating device of the crimping tool to start the crimping cycle.
 - Remove the crimped contact.

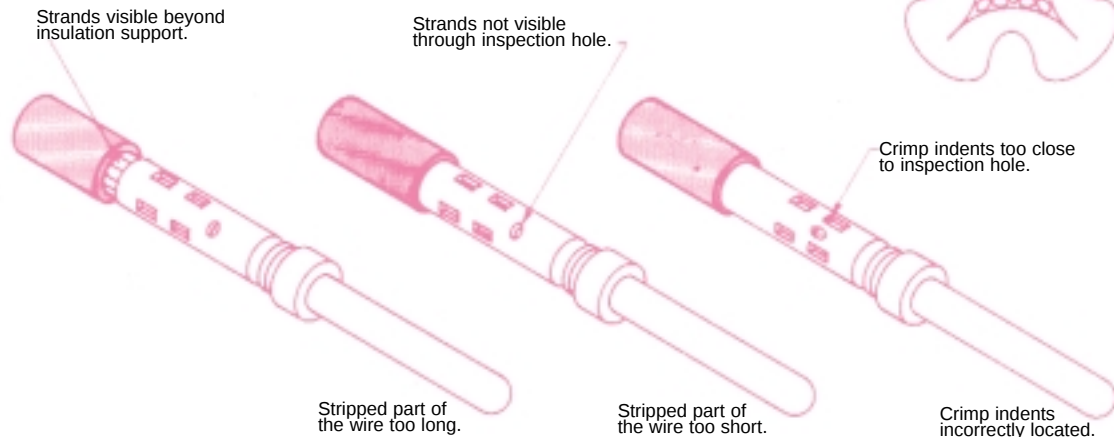
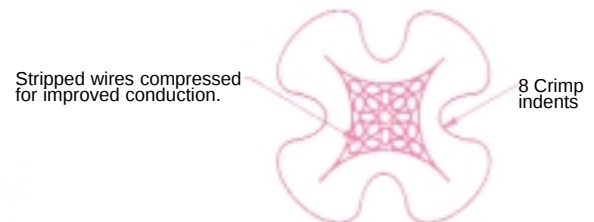
CRIMPING INFORMATION FOR DD AND ODD CRIMP CONTACTS

Step 3: Inspect the crimp.

- For All Tools:
- Strands to be visible through the inspection hole.
 - Strands not to be visible beyond the insulation support.
 - Crimped contact to meet recommended conductor tensile force shown in chart.
 - Check for peeled gold and bent contacts.



Cross Section
of Correctly Crimped Contact



Examples of Crimping Faults

Positronic Recommended
Conductor Tensile Strength

WIRE SIZE AWG/(mm ²)	AXIAL LOAD POUNDS/(N)
<u>22</u> (0.3)	<u>12</u> (53)
<u>24</u> (0.25)	<u>8</u> (36)
<u>26</u> (0.12)	<u>5</u> (22)
<u>28</u> (0.08)	<u>3</u> (13)
<u>30</u> (0.05)	<u>1.5</u> (4.4)

Conductor tensile strength values are derived using silver tin-plated copper wires.

Values may change depending upon what type of wire is used.

Positronic recommended tools for DD series contacts.
For more information see contact crimp tools and accessories page.

CRIMP TOOLS	POSITIONERS FOR FC8022D	POSITIONERS FOR MC8022D
9507, HAND CRIMP TOOL	9502-3	9502-4
9550-1, AUTOMATIC FEED PNEUMATIC CRIMP TOOL	Supplied in reels	Supplied in reels

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9

Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9
	DD	62	F	4	R7	N	T6	S	

STEP 1 - Basic Series

DD Series

STEP 2 - DD Series Connector Variants

15, 26, 44, 62, 78, 104

STEP 3 - Connector Gender

M - Male
F - Female

STEP 4 - Type of Contacts

- 0 - Ordered Without Contacts.
- 1 - Crimp, 22 AWG–30 AWG (0.3mm²–0.05mm²).
- 2 - Solder cup, 22 AWG–30 AWG (0.3mm²–0.05mm²).
- 3 - Solder, Straight Printed Board Mount with 0.150 (3.81) Tail Length.
- 32 - Solder, Straight Printed Board Mount with 0.300 (7.62) Tail Length.
- 4 - Solder, 90° Printed Board Mount with 0.450 (11.43) Contact Extension.

*STEP 5 - Mounting Style

- 0 - Mounting Hole, 0.120 (3.05) Ø.
- B3 - Bracket, Mounting, 90° Metal with Cross Bar.
- B8 - Bracket, Mounting, 90° Plastic with Cross Bar.
- F - Float Mounts, Universal.
- P - Threaded Post, Brass, 0.375 (9.53) Length.
- P2 - Threaded Post, Nylon, 0.375 (9.53) Length.
- R2 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Thread Fixed Female Jackscrews with Cross Bar.
- R6 - Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar.
- R7 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar.
- R8 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar.
- S - Swaged Spacer, 4-40 Threads, 0.375 (9.53) Length.
- S2 - Swaged Spacer, 4-40 Threads, 0.125 (3.18) Length.
- S5 - Swaged Locknut, 4-40 Threads.
- S6 - Swaged Spacer with Push-on Fasteners, 4-40 Threads, 0.375 (9.53) Length.
- S7 - Swaged Spacer with Push-on Fastener for use with Ferrite Inductor, 4-40 Threads, 0.515 (13.08) Length.

STEP 9 - Special Options

Consult Sales Department.

STEP 8 - Shell Options

- 0 - Zinc Plated with Dichromate Seal.
- S - Stainless Steel.
- X - Tin Plated.
- Z - Tin Plated and Dimpled.
- C - Cadmium with Dichromate Seal.

*STEP 7 - Locking and Polarizing Systems

- 0 - None.
- V3 - Lock Tab, connector front panel mounted.
- V5 - Lock Tab, connector rear panel mounted.
- VL - Lock Lever, used with Hoods only.
- T - Fixed Female Jackscrews.
- T2 - Fixed Female Jackscrews.
- T6 - Fixed Male and Female Polarized Jackscrews.
- E - Rotating Male Jackscrews.
- E2 - Rotating Male Screw Locks.
- E6 - Rotating Male and Female Polarized Jackscrews.

*STEP 6 - Hoods and Push-On Fasteners

- 0 - None.
- J - Hood, Top Opening, Plastic.
- L - Hood, Side Opening, Plastic.
- Y - Hood, Top Opening, Plastic with Rotating Male Jackscrews. Available in size 78 and 104 only.
- Y6 - Hood, Top Opening, Plastic with Rotating Male and Female Polarized Jackscrews. Available in size 78 and 104 only.
- Z - Hood, Top or Side Opening, Robust and Extended Height, Composite and Plastic with Rotating Male Jackscrews. Available in size 26, 44, 62, and 78 only.
- H - Hood, Top Opening, Metal. Available in size 26, 44, 62, and 78 only.
- G - Hood, EMI/RFI, Metal. Available in size 15, 26, 44, 62, and 78 only.
- W - Hood, Top or Side Opening, Plastic. Available in size 15, 26, and 44 only.
- N - Push-on Fastener, for 90° Mounting Brackets.
- **F - Ferrite Inductor

*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog.

**Ferrite inductor is available on contact type 32 only.

**AUTOMATIC FEED
CRIMP TOOL,
PNEUMATICALLY ACTUATED
Part No. 9550-1**

This fast cycling automatic feed crimp tool produces an 8 indent crimp on wire sizes 20 AWG (0.5mm²) through 32 AWG (0.03mm²). DD Series contacts must be ordered on reels.

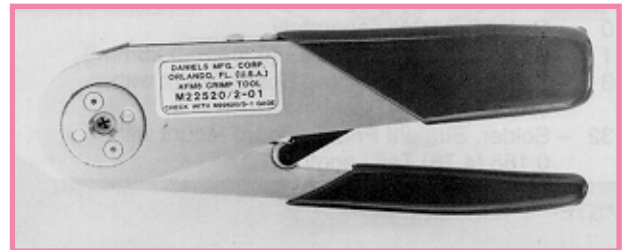
To order, specify part number 9550-1. Foot control valve is supplied as a standard accessory.



**MINIATURE STEP ADJUSTABLE TOOL
(M22520/2-01)
Part No. 9507**

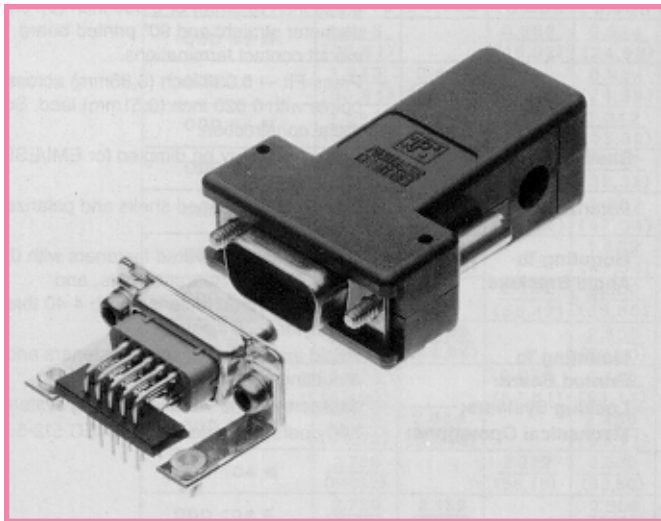
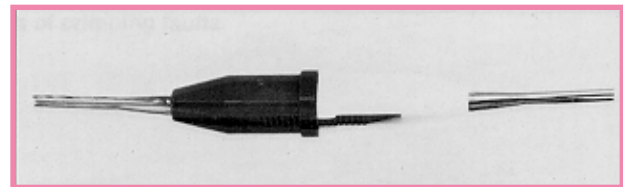
This miniature step adjustable hand crimping tool produces an 8 indent crimp configuration and will crimp wire sizes 20 AWG (0.5mm²) through 32 AWG (0.03mm²).

To crimp female contacts, order contact positioner 9502-3. To crimp male contacts, order contact positioner 9502-4. Each positioner is equipped with a data plate which gives the correct crimp-depth setting for each wire size, and must be used with 9507 tool frame for best results when crimping Densi-D Series contacts.



**INSERTION/REMOVAL TOOL
(M81969/1-04)**

One end of this tool is used to insert contacts into Densi-D Series connectors. The other end is used to extract contacts. This is accomplished by sliding the extraction tip down the wire into the connector until it bottoms against the contact. A slight rotation while pushing will release the contacts, which are then extracted by simultaneously pulling on the wire.



ODD Series

PROFESSIONAL QUALITY, REMOVABLE CONTACT, HIGH DENSITY SUBMINIATURE-D CONNECTORS FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

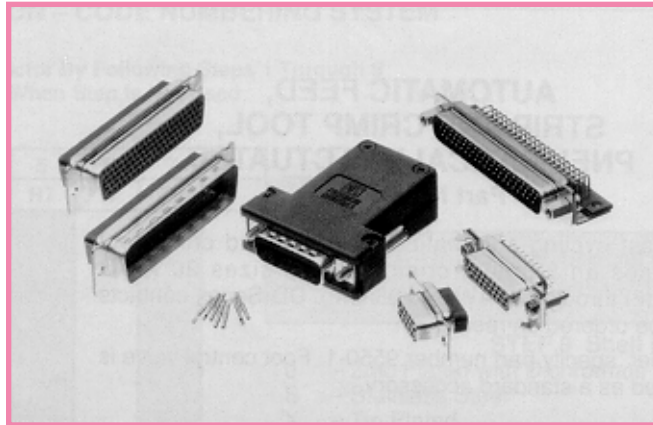
Size 22 Contacts,
Removable Crimp and
Fixed Press-Fit and
Solder Printed Board Mount

Professional Quality

U.L. Recognized
File #E49351

CSA Recognized
File #LR54219

Telecommunication
U.L. File #14098



ODD Series connectors are low cost, professional quality, high density rectangular connectors recommended for use in sheltered, non-corrosive indoor environments having normal ventilation.

ODD Series connectors utilize precision machined, removable contacts having closed barrel crimp terminations and solder cup wire terminations. For printed board mount application, press-fit and straight solder printed board mount and 90° angled solder terminations are available.

Female removable contacts feature a rugged "Robi-D Open

Entry" design. Female, fixed contacts for board mounted applications feature both rugged Robi-D design and standard open entry design, available to customer requirements.

Six standard contact variants are offered in arrangements of 15, 26, 44, 62, 78, and 104 contacts. ODD Series connectors are mateable and compatible with other high density D-subminiature connectors conforming to MIL-DTL-24308, and are U.L. and CSA recognized.

ODD Series connectors are widely used in computer and industrial control applications.

ODD SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulators:	Glass filled polyester per MIL-M-24519, UL 94V-0, black color.
Contacts:	Male contacts – precision machined brass alloy or phosphor bronze. Female contacts – precision machined high tensile phosphor bronze.
Contact Plating:	Professional quality – gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate, zinc plate with dichromate seal.
Mounting Spacers:	Nylon, plastic and brass, zinc plate with dichromate seal.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.
Push-On Fasteners:	Phosphor bronze or beryllium copper with tin plate.
Jackscrew Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Hoods:	Thermoplastic UL 94V-0. Composite, brass or steel with zinc plate and dichromate seal.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	5 amperes nominal.
Initial Contact Resistance:	0.010 ohms maximum.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.042 inch (1.06mm).
Working Voltage:	300 V r.m.s.

CLIMATIC CHARACTERISTICS:

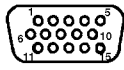
Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	10 days.

MECHANICAL CHARACTERISTICS:

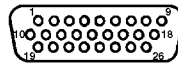
Removable Contacts:	Insert contact to rear face of insulator and release from rear face of insulator. Size 22 contact, male – 0.030 inch (0.76mm) diameter; female removable contacts feature a rugged "Robi-D Open Entry" design.
Fixed Contacts, Board Mounted Applications:	Female contact – both rugged Robi-D design and standard open entry design available to customer requirements.
Contact Retention In Insulator:	9 lbs. (40 N).
Contact Terminations:	Closed barrel crimp, wire sizes 22 AWG (0.3mm ²) through 30 AWG (0.05mm ²). Solder cup wire, 0.035 inch (0.89mm) hole diameter for 22 AWG (0.3mm ²) wire maximum. 0.020 inch (0.5mm) or 0.030 inch (0.76mm) diameter straight and 90° printed board mount contact terminations. Solid Press-Fit – 0.034 inch (0.86mm) across points with 0.020 inch (0.51mm) lead. Solid metal construction. Compliant Press-Fit – 0.047 inch (1.19mm) diameter with 0.022 inch (0.56mm) lead-in diameter.
Shells:	Male shells may be dimpled for EMI/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Mounting To Angle Brackets:	Jackscrews and riveted fasteners with 0.120 inch (3.05mm) clearance hole, and threaded riveted fasteners with 4-40 threads and nylon lock inserts.
Mounting To Printed Board:	Rapid installation push-on fasteners and mounting posts.
Locking Systems:	Jackscrews and vibration locking systems.
Mechanical Operations:	500 operations minimum per IEC 512-5.

CONTACT VARIANTS

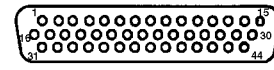
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



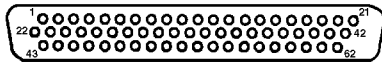
ODD 15



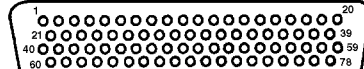
ODD 26



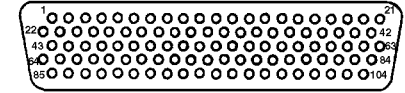
ODD 44



ODD 62

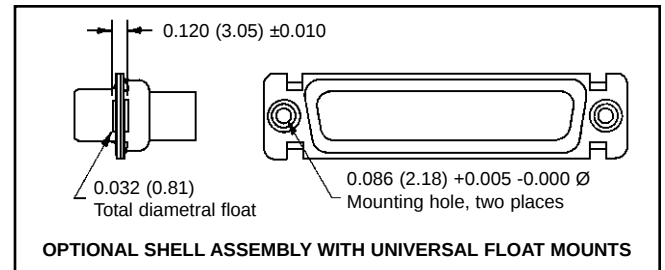
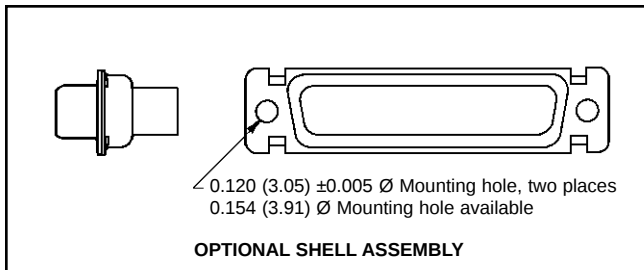
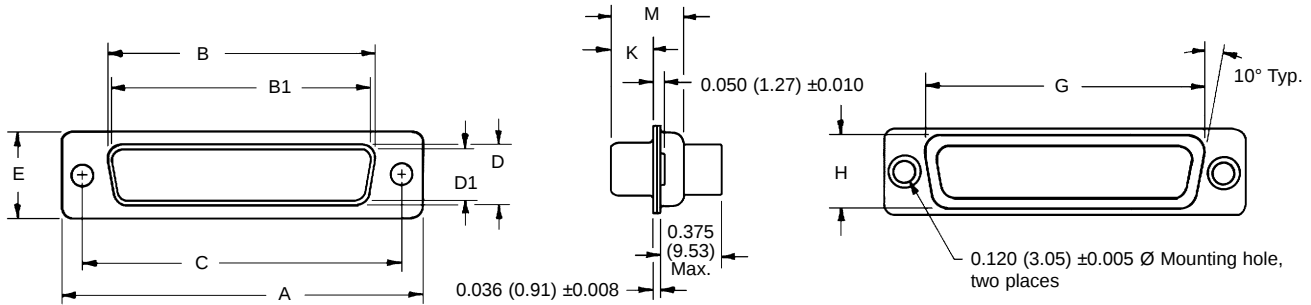


ODD 78



ODD 104

STANDARD SHELL ASSEMBLY



CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
ODD 15 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
ODD 15 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ODD 26 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
ODD 26 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ODD 44 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
ODD 44 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ODD 62 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
ODD 62 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ODD 78 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
ODD 78 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)
ODD 104 M	2.729 (69.32)		2.212 (56.18)	2.500 (63.50)		0.503 (12.78)	0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.230 (5.84)	0.426 (10.82)
ODD 104 F	2.729 (69.32)	2.189 (55.60)		2.500 (63.50)	0.485 (12.32)		0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.243 (6.17)	0.429 (10.90)

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

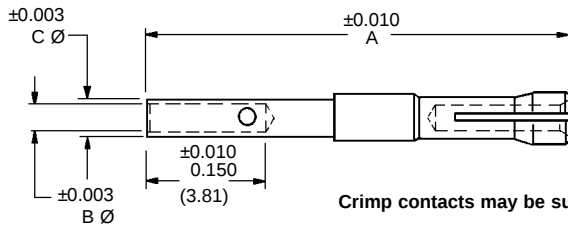
ODD Series

PROFESSIONAL QUALITY, REMOVABLE CONTACT, HIGH DENSITY
SUBMINIATURE-D CONNECTORS
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

CRIMP CONTACTS

CLOSED CRIMP BARREL

FEMALE CONTACT

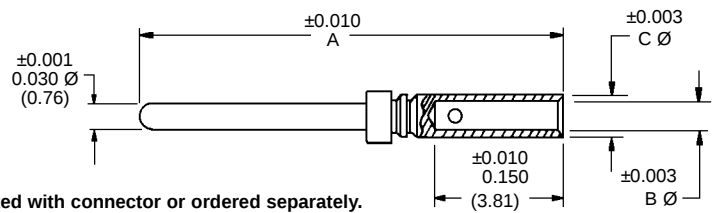


Crimp contacts may be supplied kitted with connector or ordered separately.

PART NUMBER	WIRE SIZE AWG/(mm²)	A	B Ø	C Ø
FC8122D	22 / 24 / 26 / 28 / 30 (0.3/0.25/0.12/0.08/0.05)	0.529 (13.44)	0.035 (0.89)	0.047 (1.19)

Material - Phosphor bronze
Plating - Gold flash over nickel

MALE CONTACT

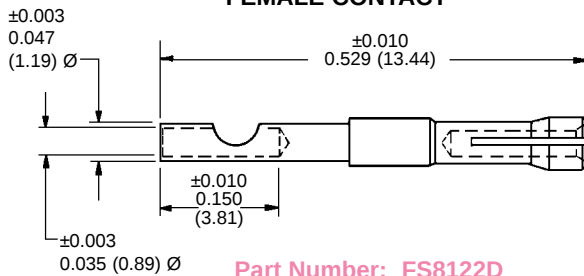


PART NUMBER	WIRE SIZE AWG/(mm²)	A	B Ø	C Ø
MC8122D	22 / 24 / 26 / 28 / 30 (0.3/0.25/0.12/0.08/0.05)	0.531 (13.49)	0.035 (0.89)	0.047 (1.19)

Material - Brass
Plating - Gold flash over nickel

SOLDER CUP CONTACTS

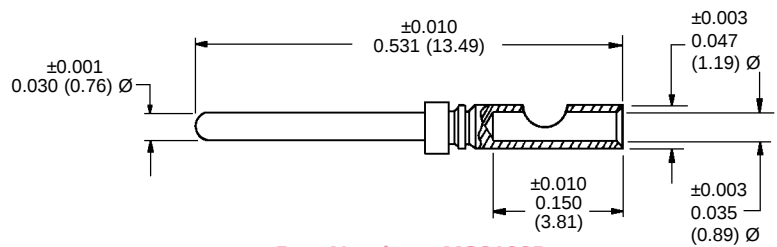
FEMALE CONTACT



Part Number: FS8122D

Material - Phosphor bronze
Plating - Gold flash over nickel

MALE CONTACT

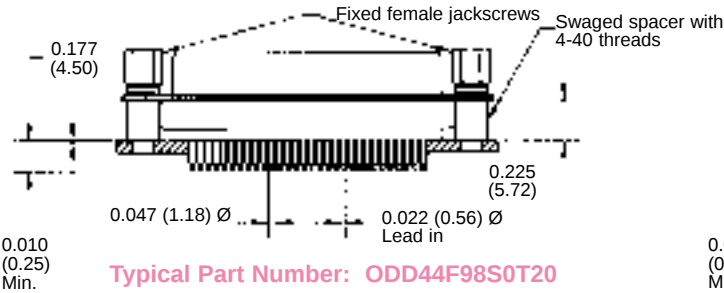


Part Number: MS8122D

Material - Brass
Plating - Gold flash over nickel

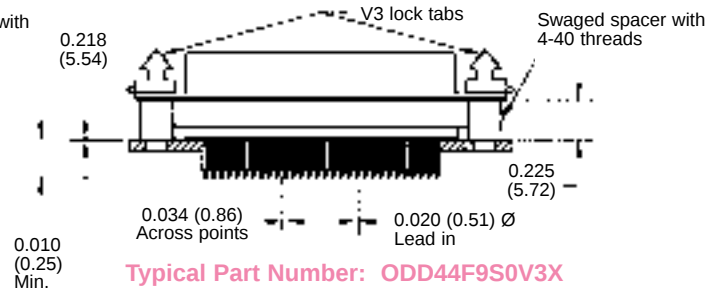
Solder contacts may be supplied kitted with connector or ordered separately.

Press-Fit CONNECTOR



Typical Part Number: ODD44F98S0T20

For "Omega" Press-Fit contacts, specify code 98 in step 4 ordering information.



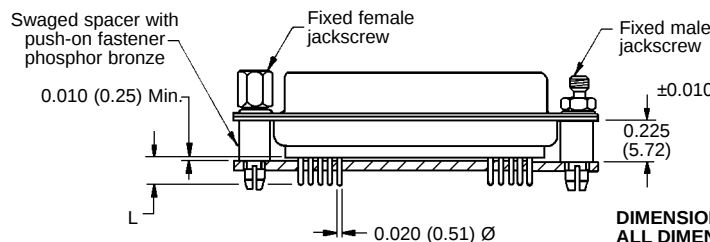
Typical Part Number: ODD44F9S0V3X

For solid press-fit contacts, specify code 9 in step 4 ordering information.

STRAIGHT PRINTED BOARD MOUNT CONNECTOR

Code No.	L
3	0.150 (3.81)
32	0.300 (7.62)

For straight printed board mount contacts specify code no. in step 4 of ordering information

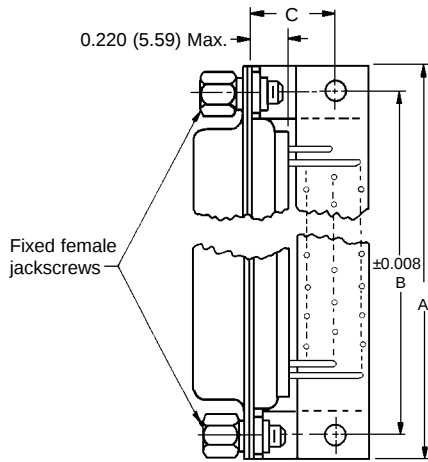


Typical Part Number: ODD62F3S60T6X

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

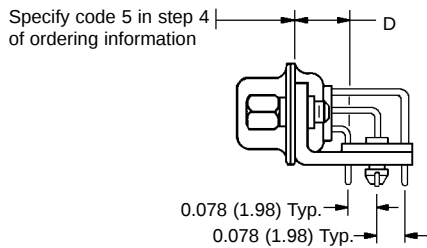
90° PRINTED BOARD MOUNT CONNECTOR

CODE 5, 0.450 (11.50) CONTACT EXTENSION RUGGED "Robi-D Open Entry" FEMALE CONTACT

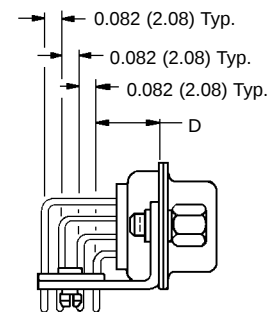
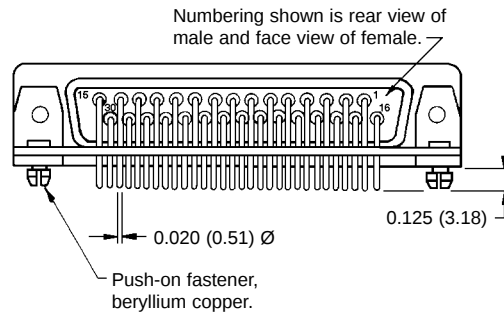


ODD005R7000 0.450 (11.43) CONTACT EXTENSION				
PART NUMBER	A	B	C	D
ODD1505R7000	1.204 (30.58)	0.984 (24.99)	0.528 (13.41)	0.450 (11.43)
ODD2605R7000	1.532 (38.91)	1.312 (33.32)	0.528 (13.41)	0.450 (11.43)
ODD4405R7000	2.072 (52.63)	1.852 (47.04)	0.528 (13.41)	0.450 (11.43)
ODD6205R7000	2.720 (69.09)	2.500 (63.50)	0.528 (13.41)	0.450 (11.43)
ODD7805R7000	2.626 (66.70)	2.406 (61.11)	0.573 (14.55)	0.450 (11.43)

See next page for size 104
Right Angle Connectors.



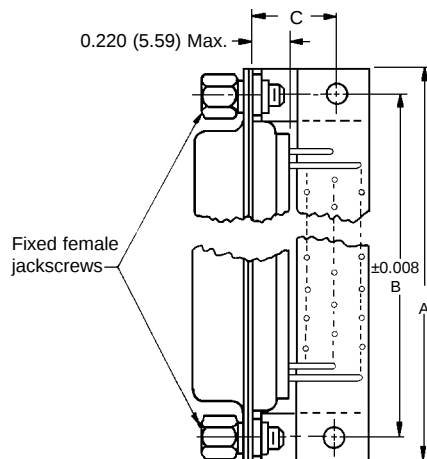
Typical Part Number:
ODD44F5R7NT2X



Typical Part Number:
ODD78M5R7NT20

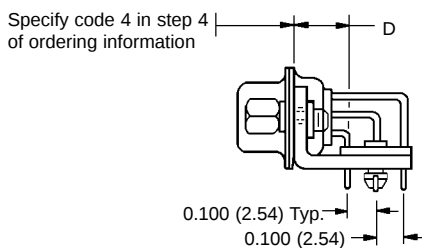
90° PRINTED BOARD MOUNT CONNECTOR

CODE 4, 0.314 (7.98) CONTACT EXTENSION SLOTTED OPEN ENTRY FEMALE CONTACT

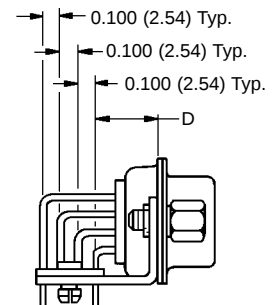
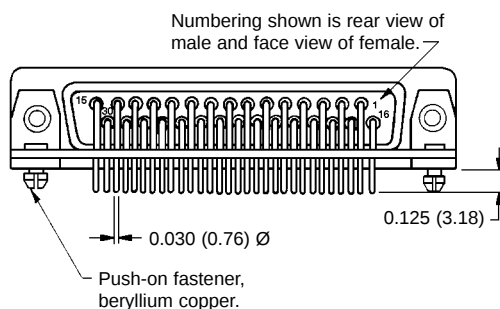


ODD004R7000 0.314 (7.98) CONTACT EXTENSION				
PART NUMBER	A	B	C	D
ODD1504R7000	1.204 (30.58)	0.984 (24.99)	0.414 (10.52)	0.314 (7.98)
ODD2604R7000	1.532 (38.91)	1.312 (33.32)	0.414 (10.52)	0.314 (7.98)
ODD4404R7000	2.072 (52.63)	1.852 (47.04)	0.414 (10.52)	0.314 (7.98)
ODD6204R7000	2.720 (69.09)	2.500 (63.50)	0.414 (10.52)	0.314 (7.98)
ODD7804R7000	2.626 (66.70)	2.406 (61.11)	0.414 (10.52)	0.314 (7.98)

See next page for size 104
Right Angle Connectors.



Typical Part Number:
ODD44F4R7NT2X



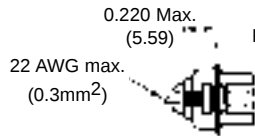
Typical Part Number:
ODD78M4R7NT20

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

ODD Series

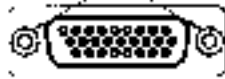
**PROFESSIONAL QUALITY, REMOVABLE CONTACT, HIGH DENSITY
SUBMINIATURE-D CONNECTORS**
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

FIXED CONTACT SOLDER CUP CONNECTOR



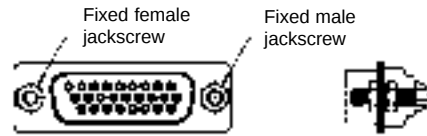
0.082 (2.08) --
0.145 (3.68) -

Fixed female jackscrews



For fixed solder cup contacts, specify
code 21 in step 4 of ordering information.

Typical Part Number: ODD26F2100T2X



Fixed male and female polarized jackscrews available.
Specify code T6 in step 7 of ordering information.

Typical Part Number: ODD26F2100T6X

90° PRINTED BOARD MOUNT CONNECTOR

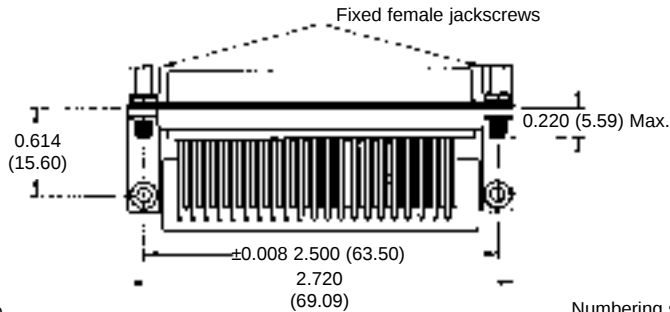
CODE 5, 0.450 (11.43) CONTACT EXTENSION
RUGGED "Robi-D Open Entry" FEMALE CONTACT
CONTACT VARIANT 104

Specify code 5 in step 4
of ordering information



0.082 (2.08) Typ.

**Typical Part Number:
ODD104F5R7NT2X**



Numbering shown is
rear view of male and
face view of female



Push-on fastener,
beryllium copper.

90° PRINTED BOARD MOUNT CONNECTOR

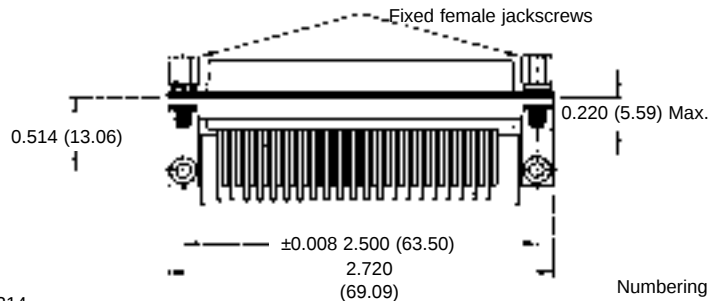
CODE 4, 0.314 (7.98) CONTACT EXTENSION
SLOTTED OPEN ENTRY FEMALE CONTACT
CONTACT VARIANT 104

Specify code 4 in step 4
of ordering information



0.100 (2.54) Typ.

**Typical Part Number:
ODD104F4R7NT2X**



Numbering shown is
rear view of male and
face view of female



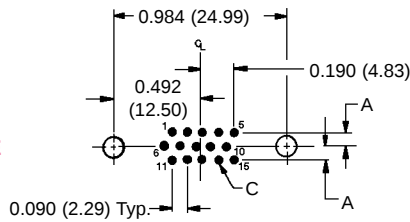
Push-on fastener,
beryllium copper.

**DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

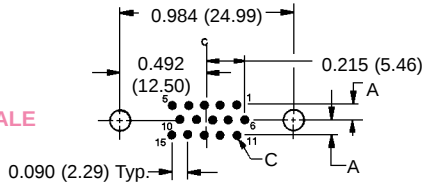
90° AND STRAIGHT PRINTED BOARD CONTACT HOLE PATTERN

Mount connector with mating face positioned to follow direction of arrows.

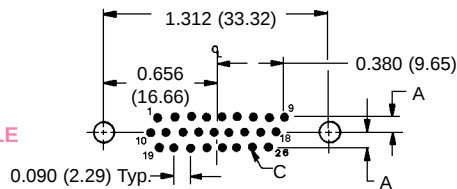
ODD15 MALE



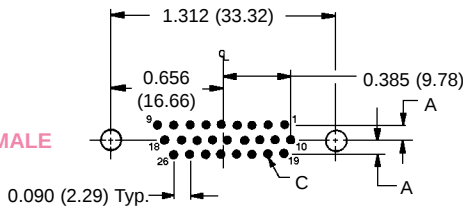
ODD15 FEMALE



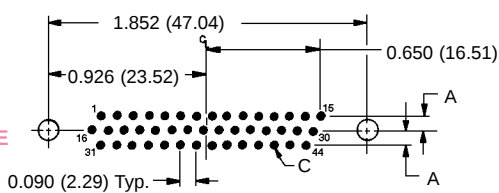
ODD26 MALE



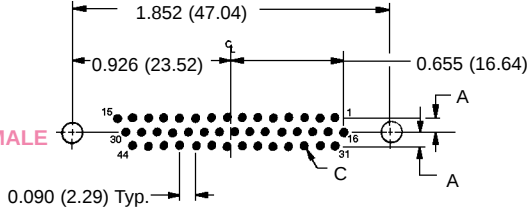
ODD26 FEMALE



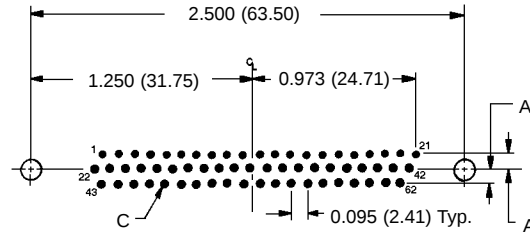
ODD44 MALE



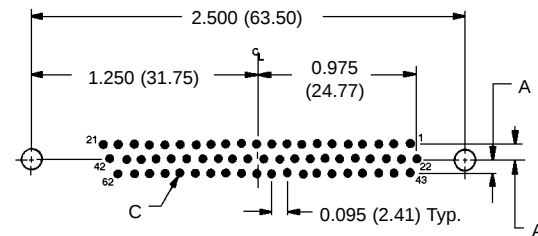
ODD44 FEMALE



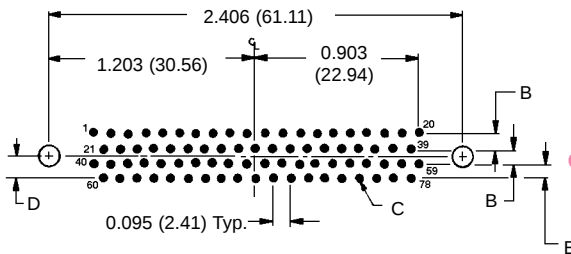
ODD62 MALE



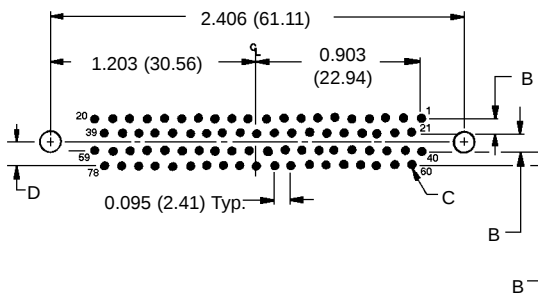
ODD62 FEMALE



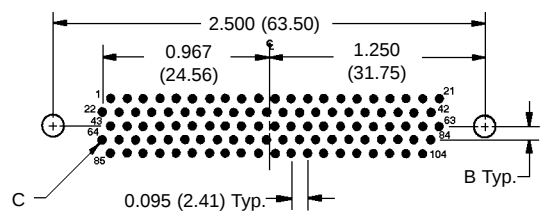
ODD78 MALE



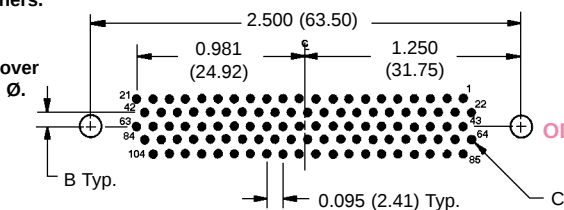
ODD78 FEMALE



ODD104 MALE



ODD104 FEMALE



CODE NUMBER	A	B	C Ø	D
4	0.100 (2.54)	0.100 (2.54)	0.045 (1.14)	0.100 (2.54)
3, 32, 5	0.078 (1.98)	0.082 (2.08)	0.035 (0.89)	0.123 (3.12)
9, 98	0.078 (1.98)	0.082 (2.08)	*	0.123 (3.12)

Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.

Suggest 0.035 (0.89) Ø hole for contact termination positions.

For Code 9 Solid Press-Fit Contacts:

*Suggest 0.0355 ±0.0010 (0.90) Ø drill with 0.0006 (15µ) minimum tin or tin/lead over 0.0010 (25µ) minimum copper plate. Final hole is 0.0315 +0.0010 -0.0020 (0.80) Ø.

*For Code 98 "Omega" Compliant Press-Fit Contacts:

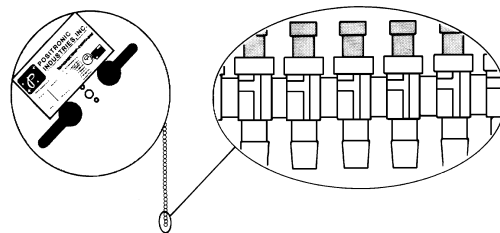
Suggest 0.0453±0.0010 (1.150) Ø hole with 0.0005 (0.013) minimum tin or tin/lead over 0.001 (0.03) minimum copper plate. Final hole size is 0.0394+0.0035-0.0024 (1.000+0.090-0.060) Ø

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

REELS FOR AUTOMATIC FEED PNEUMATIC CRIMP TOOLS

Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic feed pneumatic crimp tools, catalog part number 9550-1. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter "R" after the contact part number, such as MC8122DR for a male contact and FC8122DR for a female contact.



Enlarged section of plastic contact carrier.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9
	ODD	62	F	5	R7	N	T6	S	
STEP 1 - Basic Series ODD Series									STEP 9 - Special Options Consult Sales Department.
STEP 2 - ODD Series Connector Variants 15, 26, 44, 62, 78, 104									STEP 8 - Shell Options 0 - Zinc Plated with Dichromate Seal. S - Stainless Steel. X - Tin Plated. Z - Tin Plated and Dimpled.
STEP 3 - Connector Gender M - Male F - Female									*STEP 7 - Locking and Polarizing Systems 0 - None. V3 - Lock Tab, connector front panel mounted. V5 - Lock Tab, connector rear panel mounted. VL - Lock Lever, used with Hoods Only. T - Fixed Female Jackscrews. T2 - Fixed Female Jackscrews. T6 - Fixed Male and Female Polarized Jackscrews. E - Rotating Male Jackscrews. E2 - Rotating Male Screw Locks. E6 - Rotating Male and Female Polarized Jackscrews.
STEP 4 - Type of Contacts 0 - Ordered Without Contacts. 1 - Crimp, 22 AWG–30 AWG (0.3mm ² –0.05mm ²). 2 - Solder cup, 22 AWG–30 AWG (0.3mm ² –0.05mm ²), Removable contacts. 21 - Solder cup, 22 AWG–30 AWG (0.3mm ² –0.05mm ²), Fixed contacts. 3 - Solder, Straight Printed Board Mount with 0.150 (3.81) Tail Length. 32 - Solder, Straight Printed Board Mount with 0.300 (7.62) Tail Length. 4 - Solder, 90° Printed Board Mount with 0.314 (7.98) Contact Extension. 5 - Solder, 90° Printed Board Mount with 0.450 (11.43) Contact Extension. 9 - Press-Fit, Solid. 98 - Press-Fit, Compliant.									*STEP 6 - Hoods and Push-On Fasteners 0 - None. J - Hood, Top Opening, Plastic. L - Hood, Side Opening, Plastic. Y - Hood, Top Opening, Plastic with Rotating Male Jackscrews. Available in size 78 and 104 only. Y6 - Hood, Top Opening, Plastic with Rotating Male and Female Polarized Jackscrews. Available in size 78 and 104 only. Z - Hood, Top or Side Opening, Robust Extended Height, Composite and Plastic with Rotating Male Jackscrews. Available in size 15, 26, 44, 62 and 78 only. H - Hood, Top Opening, Metal. Available in size 26, 44, 62, and 78 only. G - Hood, EMI/RFI, Metal. Available in size 15, 26, 44, 62, and 78 only. W - Hood, Top or Side Opening, Plastic. Available in size 15, 26, and 44 only. N - Push-on Fastener, for 90° Mounting. **F - Ferrite Inductor. **Q - Ferrite Inductor with Push-on Fastener, for 90° Mounting Brackets.
*STEP 5 - Mounting Style 0 - Mounting Hole, 0.120 (3.05) Ø. B3 - Bracket, Mounting, 90° Metal with Cross Bar. B8 - Bracket, Mounting, 90° Plastic with Cross Bar. F - Float Mounts, Universal. P - Threaded Post, Brass, 0.225 (5.71) Length. P2 - Threaded Post, Nylon, 0.225 (5.71) Length. R2 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Thread Fixed Female Jackscrews with Cross Bar. R6 - Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar. R7 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar. R8 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar. S - Swaged Spacer, 4-40 Threads, 0.225 (5.71) Length. S2 - Swaged Spacer, 4-40 Threads, 0.125 (3.18) Length. S5 - Swaged Locknut, 4-40 Threads. S6 - Swaged Spacer with Push-on Fasteners, 4-40 Threads, 0.225 (5.71) Length. S7 - Swaged Spacer with Push-on Fastener for use with Ferrite Inductor, 4-40 Threads, 0.375 (9.53) Length.									*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog. **Ferrite inductor is available on contact types 32 and 5 only.

For ODD crimping information, see DD Series, p. 26 & 27.

AUTOMATIC FEED
CRIMP TOOL,
PNEUMATICALLY ACTUATED
Part No. 9550-1

This fast cycling automatic feed crimp tool produces an 8 indent crimp on wire sizes 20 AWG (0.5mm²) through 32 AWG (0.03mm²). ODD Series contacts must be ordered on reels.

To order, specify part number 9550-1. Foot control valve is supplied as a standard accessory.



Positronic Recommended
Conductor Tensile Strength

WIRE SIZE AWG/(mm ²)	AXIAL LOAD POUNDS/(N)
<u>22</u> (0.3)	<u>12</u> (53)
<u>24</u> (0.25)	<u>8</u> (36)
<u>26</u> (0.12)	<u>5</u> (22)
<u>28</u> (0.08)	<u>3</u> (13)
<u>30</u> (0.05)	<u>1.5</u> (4.4)

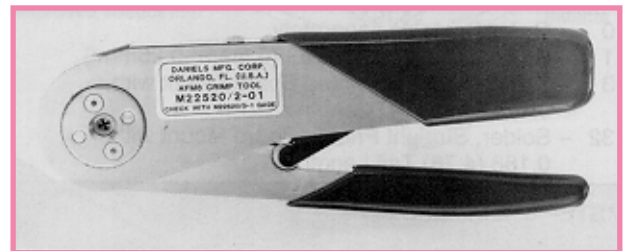
Conductor tensile strength values are derived using silver-tin plated copper wires.

Values may change depending upon what type of wire is used.

MINIATURE STEP ADJUSTABLE TOOL
(M22520/2-01)
Part No. 9507

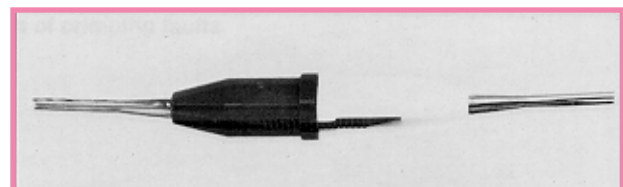
This miniature step adjustable hand crimping tool produces an 8 indent crimp configuration and will crimp wire sizes 20 AWG (0.5mm²) through 32 AWG (0.03mm²).

To crimp female contacts, order contact positioner 9502-3. To crimp male contacts, order contact positioner 9502-4. Each positioner is equipped with a data plate which gives the correct crimp-depth setting for each wire size, and must be used with 9507 tool frame for best results when crimping ODD Series contacts.



INSERTION/REMOVAL TOOL
(M81969/1-04)

One end of this tool is used to insert contacts into ODD Series connectors. The other end is used to extract contacts. This is accomplished by sliding the extraction tip down the wire into the connector until it bottoms against the contact. A slight rotation while pushing will release the contacts, which are then extracted by simultaneously pulling on the wire.



Positronic recommended tools for ODD series contacts.

CRIMP TOOLS	POSITIONERS FOR FC8122D	POSITIONERS FOR MC8122D
9507, HAND CRIMP TOOL	9502-3	9502-4
9550-1, AUTOMATIC FEED PNEUMATIC CRIMP TOOL	Supplied in reels	Supplied in reels

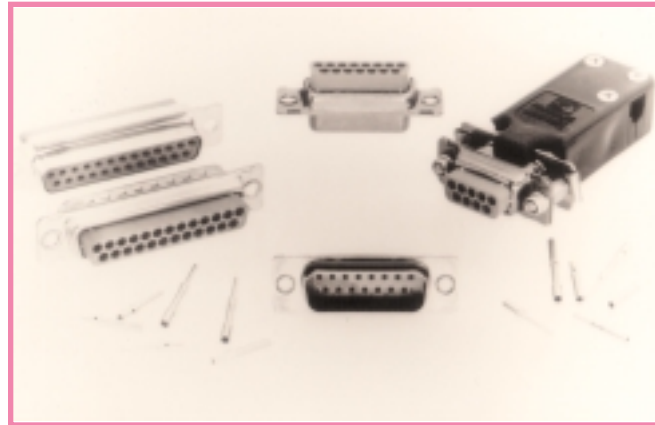
ORD Series

PROFESSIONAL QUALITY CRIMP, REMOVABLE CONTACT, SUBMINIATURE-D CONNECTORS FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Size 20 Contacts,
Removable Crimp

Industrial Quality
Connectors

IEC Publication 807-3
Performance Level Two



ORD Series connectors are low cost, industrial/professional quality D-Subminiature connectors with closed barrel crimp removable contacts. ORD Series connectors are recommended for use in sheltered, mildly corrosive environments having a wide range of temperatures with normal ventilation where high performance is required.

ORD Series connectors utilize precision-machined contacts to provide durability. Female contacts feature the low cost, high performance Robi-D Open Entry design. ORD Series connectors meet the performance requirements of IEC 807-3, Performance Level Two. Closed entry female contacts are

available upon request.

Six (6) standard contact variants are offered in arrangements of 9, 15, 25, 29, 37, and 50 contacts. ORD Series connectors are mateable and compatible with all D-Subminiature connectors conforming to MIL-DTL-24308, IEC 807-2, and IEC 807-3.

A wide assortment of cable support hoods and locking systems is available from stock.

ORD Series connectors also conform to EIA RS 232 and RS 449, and CCITTX.24 interface connection requirements.

ORD SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulators:	Glass filled DAP per ASTM-D-5948, SDG-F, UL 94V-0, green color.
Contacts:	Male contacts – precision machined brass alloy. Female contacts – precision machined high tensile copper alloy with rugged “Robi-D Open Entry” design.
Contact Plating:	Industrial performance – gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel with tin plate; zinc plate with dichromate seal, or stainless steel, passivated. Brass available upon request.
Mounting Spacers:	Brass, zinc plate with dichromate seal, or clear zinc plate.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.
Jackscrew Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Hoods:	Thermoplastic UL 94V-0. Composite, brass or steel with zinc plate and dichromate seal.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	7.5 amperes nominal.
Initial Contact Resistance:	0.005 ohms maximum.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0mm).
Working Voltage:	300 V r.m.s.

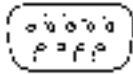
CLIMACTIC CHARACTERISTICS:

Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	10 days.

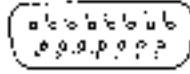
MECHANICAL CHARACTERISTICS:

Removable Contacts:	Insert contact to rear face of insulator and release from rear face of insulator. Size 20 male contact – 0.040 inch (1.02mm) diameter; Size 20 female contacts – Rugged “Robi-D Open Entry” design.
Contact Retention In Insulator:	9 lbs. (40 N).
Contact Terminations:	Closed barrel crimp, wire sizes 18 AWG (1.0mm ²) through 24 AWG (0.25mm ²).
Shells:	Tin-plated male shells may be dimpled for EMI/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Locking Systems:	Jackscrews and vibration locking systems.
Mechanical Operations:	500 operations minimum per IEC 512-5 for “Robi-D” Open Entry” design.

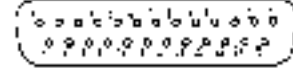
CONTACT VARIANTS FACE VIEW OF MALE OR REAR VIEW OF FEMALE



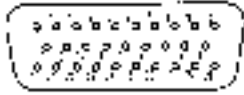
ORD 9



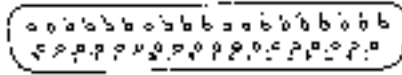
ORD 15



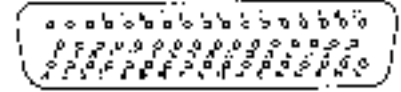
ORD 25



ORD 29

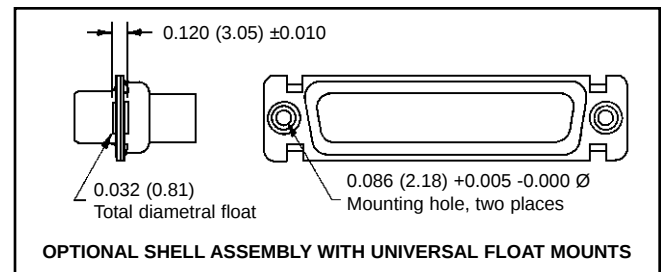
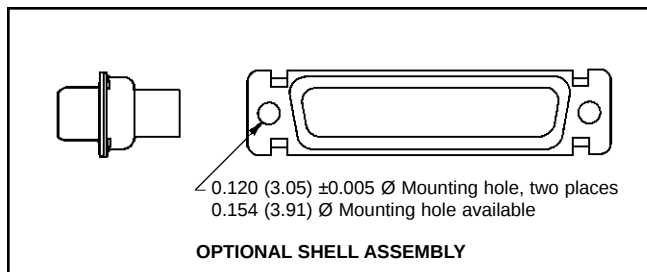
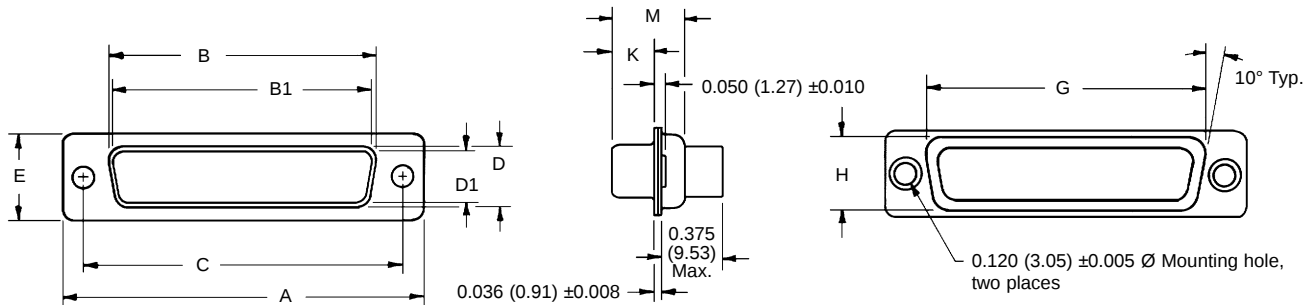


ORD 37



ORD 50

STANDARD SHELL ASSEMBLY



CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
ORD 9 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
ORD 9 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ORD 15 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
ORD 15 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ORD 25 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
ORD 25 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ORD 29 M	1.770 (44.96)		1.274 (32.36)	1.534 (38.96)		0.450 (11.43)	0.605 (15.37)	1.322 (33.58)	0.539 (13.69)	0.217 (5.51)	0.426 (10.82)
ORD 29 F	1.770 (44.96)	1.251 (31.78)		1.534 (38.96)	0.431 (10.95)		0.605 (15.37)	1.322 (33.58)	0.539 (13.69)	0.237 (6.02)	0.429 (10.90)
ORD 37 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
ORD 37 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
ORD 50 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
ORD 50 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)

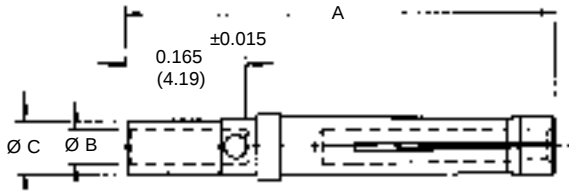
DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

CRIMP CONTACTS

CLOSED CRIMP BARREL

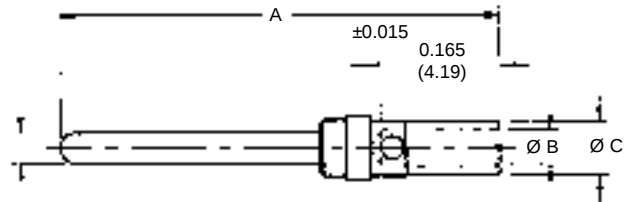
FEMALE CONTACT

RUGGED 'ROBI-D' OPEN ENTRY DESIGN



Material – Phosphor bronze.
Plating – Gold flash over nickel.

MALE CONTACT



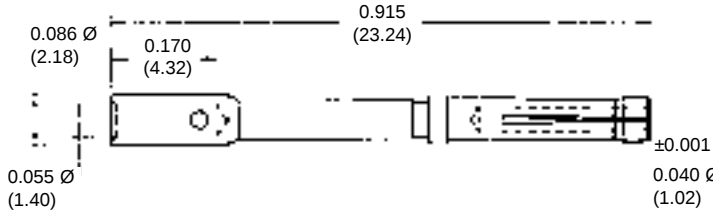
Material – Brass.
Plating – Gold flash over nickel.

Closed entry contacts are available. See page 43 of the RD Series in this catalog for additional information.

PART NUMBER	WIRE SIZE AWG/(mm ²)	A ±0.015	B Ø ±0.005	C Ø ±0.005
FC6120D	20 / 22 / 24 (0.5/0.3/0.25)	0.538 (13.67)	0.044 (1.12)	0.066 (1.68)
MC6020D	20 / 22 / 24 (0.5/0.3/0.25)	0.538 (13.67)	0.044 (1.12)	0.066 (1.68)

FEMALE CONTACT

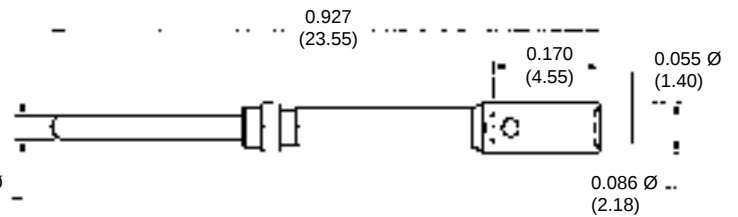
RUGGED 'ROBI-D' OPEN ENTRY DESIGN



FC6118D

Material – Phosphor bronze.
Plating – Gold flash over nickel.

MALE CONTACT



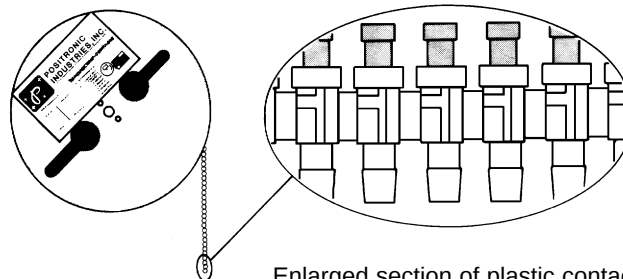
MC6018D

Material – Brass.
Plating – Gold flash over nickel.

REELS FOR AUTOMATIC FEED PNEUMATIC CRIMP TOOLS

Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic feed pneumatic crimp tools, catalog part number 9550-1. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter "R" after the contact part number, such as MC6020DR for a male contact and FC6120DR for a female contact.



Enlarged section of plastic contact carriers

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9

Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9
	ORD	15	M	1	0	H	0	0	

STEP 1 - Basic Series
ORD Series

STEP 2 - ORD Series Connector Variants
9, 15, 25, 29, 37, 50

STEP 3 - Connector Gender
M - Male
F - Female

STEP 4 - Type of Contacts
0 - Ordered Without Contacts.
1 - Crimp, 20 AWG–24 AWG (0.5mm²–0.25mm²).

***STEP 5 - Mounting Style**
0 - Mounting Hole, 0.120 (3.05) Ø.
F - Float Mounts, Universal.
S2 - Swaged Spacer, 4-40 Threads, 0.125 (3.18) Length.
S5 - Swaged Locknut, 4-40 Threads.

STEP 6 - Hoods
0 - None.
J - Hood, Top Opening, Plastic.
L - Hood, Side Opening, Plastic.
Y - Hood, Top Opening, Plastic with Rotating Male Jackscrews. Available in size 50 only.
Y6 - Hood, Top Opening, Plastic with Rotating Male and Female Polarized Jackscrews. Available in size 50 only.
Z - Hood, Top or Side Opening, Robust Extended Height, Composite and Plastic with Rotating Male Jackscrews. Available in size 9, 15, 25, 37, and 50 only.
H - Hood, Top Opening, Metal. Available in size 15, 25, 37, and 50 only.
G - Hood, EMI/RFI, Metal. Available in size 9, 15, 25, 37, and 50 only.
W - Hood, Top or Side Opening, Plastic. Available in size 9, 15, and 25 only.

***STEP 7 - Locking and Polarizing Systems**
0 - None.
V3 - Lock Tab, connector front panel mounted.
V5 - Lock Tab, connector rear panel mounted.
VL - Lock Lever, used with Hoods Only.
T - Fixed Female Jackscrews.
T2 - Fixed Female Jackscrews.
T6 - Fixed Male and Female Polarized Jackscrews.
E - Rotating Male Jackscrews.
E2 - Rotating Male Screw Locks.
E6 - Rotating Male and Female Polarized Jackscrews.

STEP 8 - Shell Options
0 - Zinc Plated with Dichromate Seal.
S - Stainless Steel.
X - Tin Plated.
Z - Tin Plated and Dimpled.
C - Cadmium plated with Dichromate Seal.

STEP 9 - Special Options
Consult Sales Department.

*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog.

For ORD crimping information,
see SD Series, p. 16 and 17.

For ORD crimp tools,
see RD Series, p. 46.

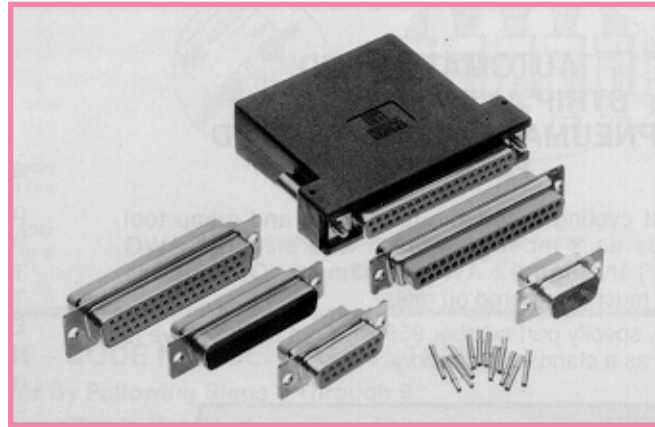
Rhapso-D Series

MILITARY QUALITY, CRIMP REMOVABLE CONTACT, SUBMINIATURE-D CONNECTORS FOR MILITARY AND SEVERE INDUSTRIAL ENVIRONMENTAL APPLICATIONS

Size 20 Contacts,
Crimp Removable
Military/Industrial
Quality Connectors
IEC Publication 807-3
Performance Level One
MIL-DTL-24308 and MIL-C-39029

U.L. Recognized File #E49351 CSA Recognized File #LR54219

Telecommunication
U.L. File #14098



Rhapso-D Series connectors are Military/Industrial quality rectangular connectors designed for use in sheltered, mildly corrosive environments having a wide range of temperature, pressure and humidity changes. These crimp removable contact connectors are qualified to MIL-DTL-24308 and MIL-C-39029, and will meet the performance requirements of IEC 807-3, Performance Level One.

Rhapso-D Series connectors utilize precision machined contacts with closed barrel, crimp terminations. The female contact features a rugged closed entry design contact with stainless steel shroud. A "Robi-D Open Entry" female contact is

also available.

Six standard connector variants are offered in arrangements of 9, 15, 25, 29, 37 and 50 contacts. Rhapso-D Series connectors are mateable and compatible with all D-Subminiature connectors conforming to MIL-DTL-24308, IEC 807-2 and IEC 807-3.

A wide assortment of cable support hoods and locking systems is available from stock.

Rhapso-D Series connectors conform to EIA RS 232 and RS 449, and CCITT X.24 interface connection requirements.

RHAPSO-D SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled DAP per ASTM-D-5948, SDG-F, UL 94V-0, green color.
Contacts:	Male contacts – precision machined brass alloy. Female contacts – precision machined high tensile copper alloy with stainless steel shroud or open entry Robi-D design.
Contact Plating:	Military performance – 0.000050 inch (1.25 microns) gold over copper plate. Industrial performance – gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate; zinc and cadmium plate with dichromate seal, stainless steel, passivated.
Mounting Spacers:	Brass, zinc plate with dichromate seal.
JackscREW Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.
Hoods:	Thermoplastic UL 94V-0. Composite, brass or steel with zinc plate and dichromate seal.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	7.5 amperes nominal.
Initial Contact Resistance:	0.005 ohms maximum.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0mm).
Working Voltage:	300 V r.m.s.

CLIMATIC CHARACTERISTICS:

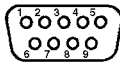
Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	21 days.

MECHANICAL CHARACTERISTICS:

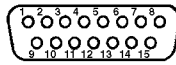
Removable Contacts:	Insert contact to rear face of insulator and release from rear face of insulator. Size 20 contact, male – 0.040 inch (1.02mm) diameter; female – closed entry design with stainless steel shroud or open entry Robi-D design.
Contact Retention In Insulator:	9 lbs. (40 N).
Contact Terminations:	Closed barrel crimp, wire sizes 18 AWG (1.0mm ²) through 30 AWG (0.05mm ²).
Shells:	Male shells may be dimpled for EM/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Locking Systems:	Jackscrews and vibration locking systems.
Mechanical Operations:	1000 operations minimum per IEC 512-5 for closed entry female contact. 500 operations per IEC 512-5 for "Robi-D Open Entry" design female contact.

CONTACT VARIANTS

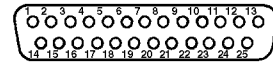
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



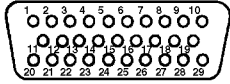
RD 9



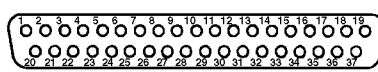
RD 15



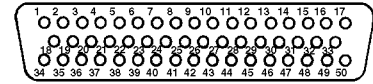
RD 25



RD 29

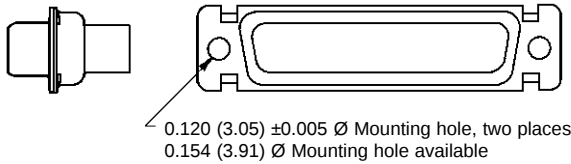
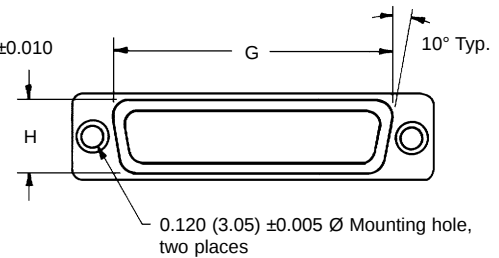
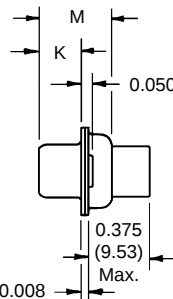
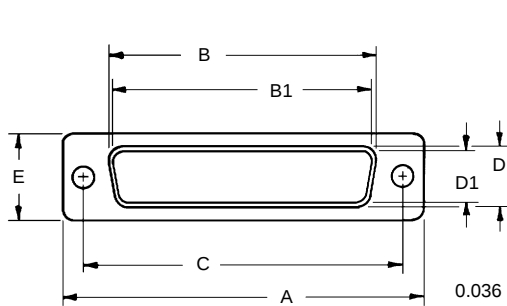


RD 37

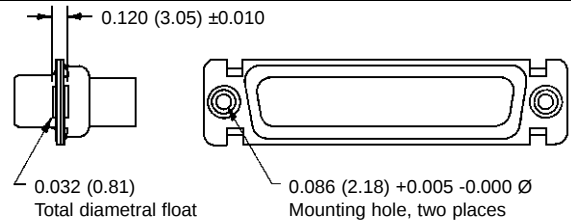


RD 50

STANDARD SHELL ASSEMBLY



OPTIONAL SHELL ASSEMBLY



OPTIONAL SHELL ASSEMBLY WITH UNIVERSAL FLOAT MOUNTS

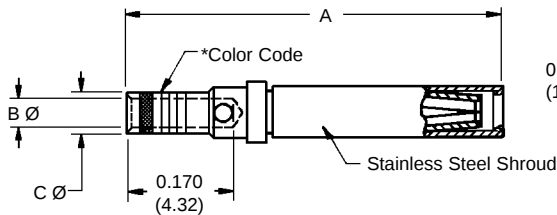
CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
RD 9 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
RD 9 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
RD 15 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
RD 15 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
RD 25 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
RD 25 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
RD 29 M	1.770 (44.96)		1.274 (32.36)	1.534 (38.96)		0.450 (11.43)	0.605 (15.37)	1.322 (33.58)	0.539 (13.69)	0.217 (5.51)	0.426 (10.82)
RD 29 F	1.770 (44.96)	1.251 (31.78)		1.534 (38.96)	0.431 (10.95)		0.605 (15.37)	1.322 (33.58)	0.539 (13.69)	0.237 (6.02)	0.429 (10.90)
RD 37 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
RD 37 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
RD 50 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
RD 50 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

CRIMP CONTACTS

CLOSED CRIMP BARREL

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



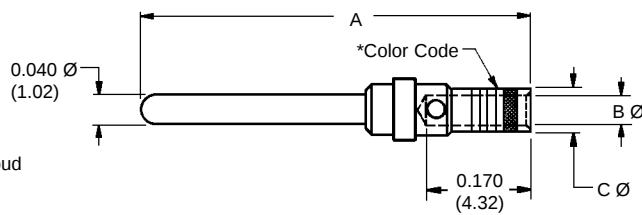
Material - Leaded nickel copper.

Plating - Gold flash over nickel or 0.000050 inch (1.25µ) gold over copper for military specification contacts.

*Color Code -ORANGE/BLUE/GRAY for military specification contacts.

PART NUMBER	WIRE SIZE AWG/(mm²)	A	B Ø	C Ø
FC6020D	20 / 22 / 24 (0.5/0.3/0.25)	0.538 (13.67)	0.044 (1.12)	0.066 (1.68)
FC6026D	26 / 28 / 30 (0.12/0.08/0.05)	0.538 (13.67)	0.027 (0.69)	0.066 (1.68)
*M39029/63-368	20 / 22 / 24 (0.5/0.3/0.25)	0.538 (13.67)	0.044 (1.12)	0.066 (1.68)

MALE CONTACT



Material - Brass.

Plating - Gold flash over nickel or 0.000050 inch (1.25µ) gold over copper for military specification contacts.

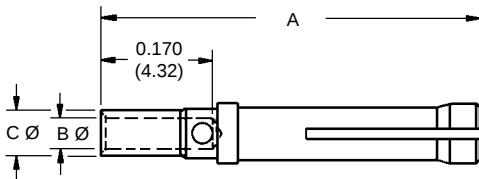
*Color Code -ORANGE/BLUE/WHITE for military specification contacts.

PART NUMBER	WIRE SIZE AWG/(mm²)	A	B Ø	C Ø
MC6020D	20 / 22 / 24 (0.5/0.3/0.25)	0.550 (13.97)	0.044 (1.12)	0.066 (1.68)
MC6026D	26 / 28 / 30 (0.12/0.08/0.05)	0.550 (13.97)	0.027 (0.69)	0.066 (1.68)
*M39029/64-369	20 / 22 / 24 (0.5/0.3/0.25)	0.550 (13.97)	0.044 (1.12)	0.066 (1.68)

Crimp contacts may be supplied kitted with connector or ordered separately.

See page 46 for crimp tool information.

FEMALE CONTACT ("Robi-D Open Entry" DESIGN)

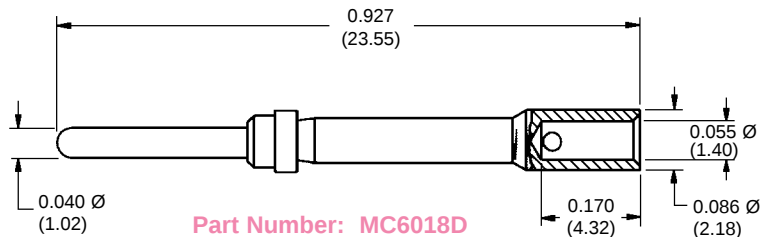


Material - Phosphor bronze.

Plating - Gold flash over nickel.

PART NUMBER	WIRE SIZE AWG/(mm²)	A	B Ø	C Ø
FC6120D	20 / 22 / 24 (0.5/0.3/0.25)	0.538 (13.67)	0.044 (1.12)	0.066 (1.68)

MALE CONTACT 18 AWG (1.0mm²) max.

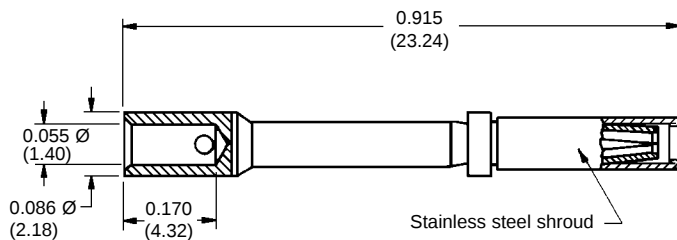


Part Number: MC6018D

Material - Brass.

Plating - Gold flash over nickel.

FEMALE CONTACT ("CLOSED ENTRY" DESIGN) 18 AWG (1.0mm²) max.



Part Number: FC6018D

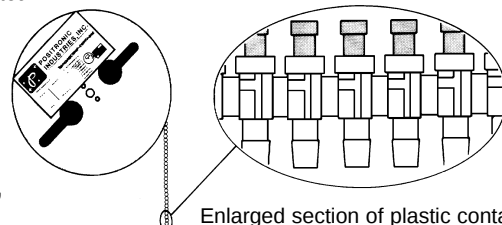
Material - Phosphor bronze.

Plating - Gold flash over nickel.

REELS FOR AUTOMATIC FEED PNEUMATIC CRIMP TOOLS

Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic feed pneumatic crimp tools, catalog part number 9550-1. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter "R" after the contact part number, such as MC6020DR for a male contact and FC6026DR for a female contact.



Enlarged section of plastic contact carriers

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

For RD crimping information,
see SD Series, p. 16 and 17.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9

Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9
	RD	15	M	12	0	H	0	0	

STEP 1 - Basic Series

RD Series

STEP 2 - RD Series Connector Variants

9, 15, 25, 29, 37, 50

STEP 3 - Connector Gender

M - Male
F - Female

STEP 4 - Type of Contacts

0 - Ordered Without Contacts.
1 - Crimp, 20 AWG–24 AWG (0.5mm²–0.25mm²).
12 - Crimp, 26 AWG–30 AWG (0.12mm²–0.08mm²).
14 - Crimp, 20 AWG–24 AWG (0.5mm²–0.25mm²)
"Robi-D Open Entry" female contact.

*STEP 5 - Mounting Style

0 - Mounting Hole, 0.120 (3.05) Ø.
F - Float Mounts, Universal.
S2 - Swaged Spacer, 4-40 Threads, 0.125 (3.18) Length.
S5 - Swaged Locknut, 4-40 Threads.

STEP 9 - Special Options

Consult Sales Department.

STEP 8 - Shell Options

0 - Zinc Plated with Dichromate Seal.
S - Stainless Steel.
X - Tin Plated.
Z - Tin Plated and Dimpled.
C - Cadmium plated with Dichromate Seal.

*STEP 7 - Locking and Polarizing Systems

0 - None.
V3 - Lock Tab, connector front panel mounted.
V5 - Lock Tab, connector rear panel mounted.
VL - Lock Lever, used with Hoods Only.
T - Fixed Female Jackscrews.
T2 - Fixed Female Jackscrews.
T6 - Fixed Male and Female Polarized Jackscrews.
E - Rotating Male Jackscrews.
E2 - Rotating Male Screw Locks.
E6 - Rotating Male and Female Polarized Jackscrews.

*STEP 6 - Hoods

0 - None.
J - Hood, Top Opening, Plastic.
L - Hood, Side Opening, Plastic.
Y - Hood, Top Opening, Plastic with Rotating Male Jackscrews.
Available in size 50 only.
Y6 - Hood, Top Opening, Plastic with Rotating Male and Female Polarized Jackscrews. Available in size 50 only.
Z - Hood, Top or Side Opening, Robust Extended Height, Composite and Plastic with Rotating Male Jackscrews.
Available in size 9, 15, 25, 37, and 50 only.
H - Hood, Top Opening, Metal. Available in size 15, 25, 37, and 50 only.
G - Hood, EMI/RFI, Metal. Available in size 9, 15, 25, 37, and size 50 only.
W - Hood, Top or Side Opening, Plastic. Available in size 9, 15, and 25 only.

*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog.

For RD crimping information,
see SD Series, p. 16 and 17.

**AUTOMATIC FEED
CRIMP TOOL,
PNEUMATICALLY ACTUATED
Part No. 9550-1**

This fast cycling automatic feed crimp tool produces an 8 indent crimp on wire sizes 20 AWG (0.5mm²) through 32 AWG (0.03mm²). Rhaps-D Series contacts must be ordered on reels.

To order, specify part number 9550-1. Foot control valve is supplied as a standard accessory.



**Positronic Recommended
Conductor Tensile Strength**

WIRE SIZE AWG/(mm ²)	AXIAL LOAD POUNDS/(N)
18 (1.0)	28 (125)
20 (0.5)	20 (89)
22 (0.3)	12 (53)
24 (0.25)	8 (36)
26 (0.12)	5 (22)
28 (0.08)	3 (13)
30 (0.05)	1.5 (6.7)

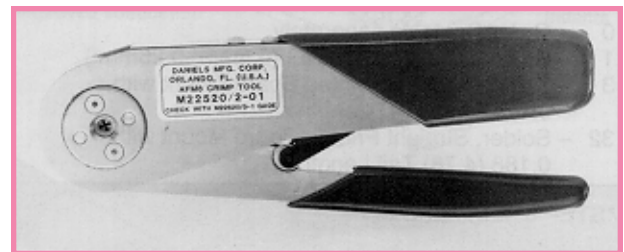
Conductor tensile strength values are derived using silver-tin plated copper wires.

Values may change depending upon what type of wire is used.

**MINIATURE STEP ADJUSTABLE TOOL
(M22520/2-01)
Part No. 9507**

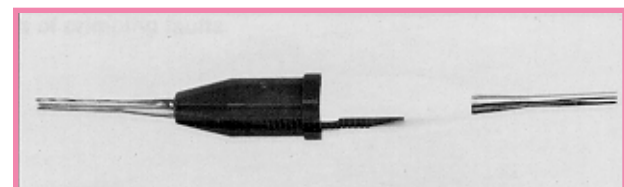
This miniature 8 step adjustable hand crimping tool produces an 8 indent crimp configuration and will crimp wire sizes 18 AWG (1.0mm²) through 32 AWG (0.03mm²).

To crimp wire size 18 AWG (1.0mm²), order contact positioner 9502-11. To crimp wire size 20 AWG (0.5mm²) through 30 AWG (0.05mm²), order contact positioner 9502-5. Each positioner is equipped with a data plate which gives the correct crimp-depth setting for each wire size, and must be used with 9507 tool frame for best results when crimping Rhaps-D Series contacts.



**INSERTION/REMOVAL TOOL
(M81969/1-02)**

One end of this tool is used to insert contacts into Rhaps-D Series connectors. The other end is used to extract contacts. This is accomplished by sliding the extraction tip down the wire into the connector until it bottoms against the contact. A slight rotation while pushing will release the contacts, which are then extracted by simultaneously pulling on the wire.



Positronic recommended tools for RD series contacts.
For more information see contact crimp tools and accessories page.

CRIMP TOOLS	POSITIONERS FOR FC6020D, MC6020D, FC6026D, MC6026D, FC6120D M39029/63-368 M39029/64-369	POSITIONERS FOR FC6018D, MC6018D, FC6118D
9507, HAND CRIMP TOOL	9502-5	9502-11
9550-1, AUTOMATIC FEED PNEUMATIC CRIMP TOOL	Supplied in reels	Not Available

Harmo-D Series

MILITARY QUALITY, FIXED CONTACT, SUBMINIATURE-D CONNECTORS
FOR MILITARY AND SEVERE INDUSTRIAL ENVIRONMENTAL APPLICATIONS

Size 20 Contacts, Fixed

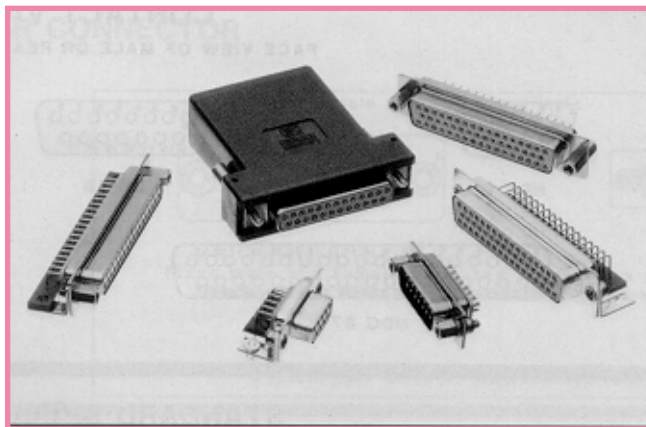
Military/Industrial
Quality Connectors

IEC Publication 807-2
Performance Level One
MIL-DTL-24308

U.L. Recognized
File #E49351

CSA Recognized
File #LR54219

Telecommunication
U.L. File #14098



Harmo-D Series connectors are Military/Industrial quality rectangular connectors designed for use in sheltered, mildly corrosive environments having a wide range of temperature, pressure and humidity changes. These fixed contact connectors are qualified to MIL-DTL-24308 and meet the performance requirements of IEC 807-2, Performance Level One.

Harmo-D Series connectors utilize precision machined contacts which are fixed within the connector body. The female contact features a rugged, closed entry design contact with a stainless steel shroud.

Five standard connector variants are offered in arrange-

ments of 9, 15, 25, 37 and 50 contacts. Each connector variant is available with contact terminations for solder cup, wrap post and straight and 90° printed board mount terminations with Inch and Metric footprints. Harmo-D Series connectors are mateable and compatible with all D-Subminiature connectors conforming to IEC 807-2 and MIL-DTL-24308.

A wide assortment of printed board mounting hardware, cable support hoods and locking systems is available from stock.

Harmo-D Series connectors conform to EIA RS 232 and RS 449, and CCITT X.24 interface connection requirements.

HARMO-D SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled DAP per ASTM-D-5948, SDG-F, UL 94V-0, green color.
Contacts:	Male contacts – precision machined brass alloy. Female contacts – precision machined high tensile phosphor bronze with stainless steel shroud.
Contact Plating:	Military performance – 0.000050 inch (1.25 microns) gold over copper plate. Industrial performance – gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate; zinc and cadmium plate with dichromate seal, stainless steel, passivated.
Mounting Spacers and Brackets:	Nylon plastic, or brass with tin plate; zinc plate with dichromate seal.
Push-On Fasteners:	Phosphor bronze or beryllium copper with tin plate.
Jackscrew Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.
Hoods:	Thermoplastic UL 94V-0. Composite, brass or steel with zinc plate and dichromate seal.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	7.5 amperes nominal.
Initial Contact Resistance:	0.005 ohms maximum.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0mm).
Working Voltage:	300 V r.m.s.

CLIMATIC CHARACTERISTICS:

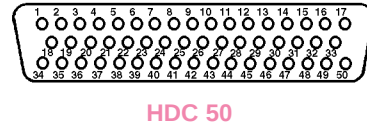
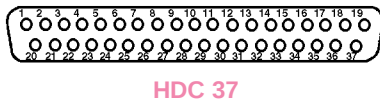
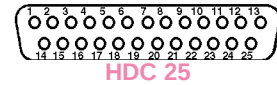
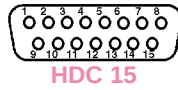
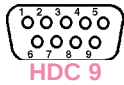
Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	56 days.

MECHANICAL CHARACTERISTICS:

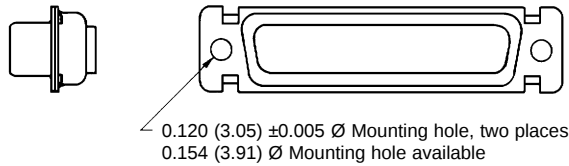
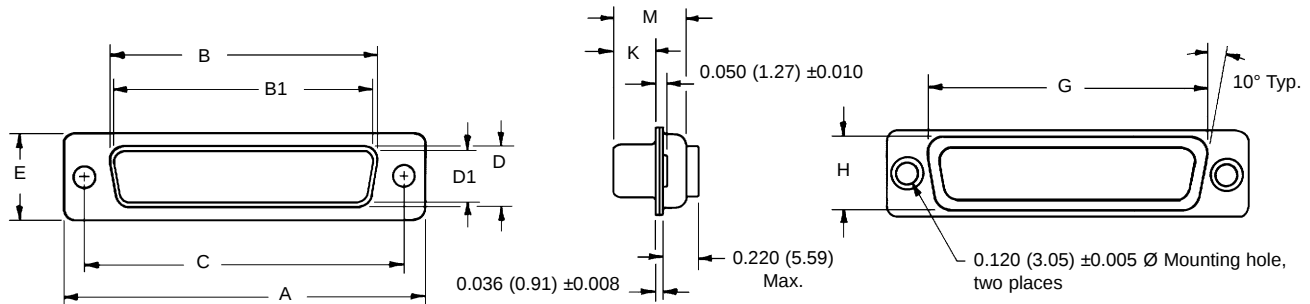
Fixed Contacts:	Size 20 contact, male contact – 0.040 inch (1.02mm) diameter. Female contact – closed entry design with stainless steel shroud.
Contact Retention In Insulator:	9 lbs. (40 N).
Resistance To Solder Iron Heat:	650°F (350°C) for 10 seconds duration per IEC 512-6.
Contact Terminations:	Solder cup contacts – 0.042 inch (1.06mm) minimum hole diameter in solder style contact for 20 AWG (0.5mm ²) wire maximum. Straight Printed Board Mount – 0.028 inch (0.71mm) diameter and 0.024 inch (0.61mm) diameter. 90° Printed Board Mount – 0.028 (0.71mm) diameter for Inch System footprint, and 0.024 (0.61mm) diameter for European Metric footprint. Wrap Post – 0.025 inch (0.64mm) square.
Shells:	Male shells may be dimpled for EM/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Mounting To Angle Brackets:	Jackscrews and riveted fasteners with 0.120 inch (3.05mm) clearance hole, and threaded riveted fasteners with 4-40 threads and nylon lock inserts.
Mounting To Printed Board:	Rapid installation push-on fasteners and mounting posts.
Locking Systems:	Jackscrews and vibration locking systems.
Mechanical Operations:	1000 operations minimum per IEC 512-5.

CONTACT VARIANTS

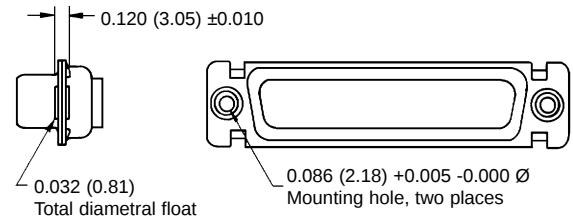
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



STANDARD SHELL ASSEMBLY



OPTIONAL SHELL ASSEMBLY

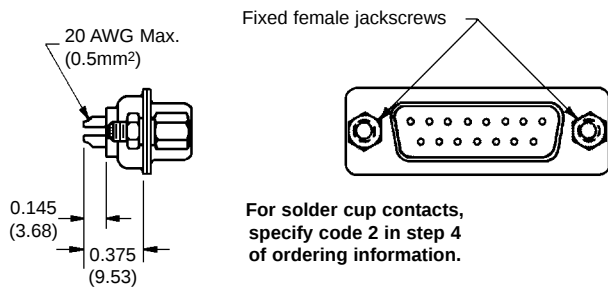


OPTIONAL SHELL ASSEMBLY WITH UNIVERSAL FLOAT MOUNTS

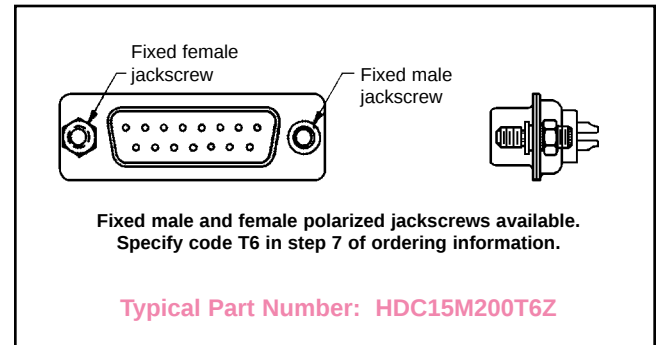
CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
HDC 9 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
HDC 9 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
HDC 15 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
HDC 15 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
HDC 25 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
HDC 25 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
HDC 37 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
HDC 37 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
HDC 50 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
HDC 50 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALL DIMENSIONS ARE SUBJECT TO CHANGE.

SOLDER CUP CONNECTOR



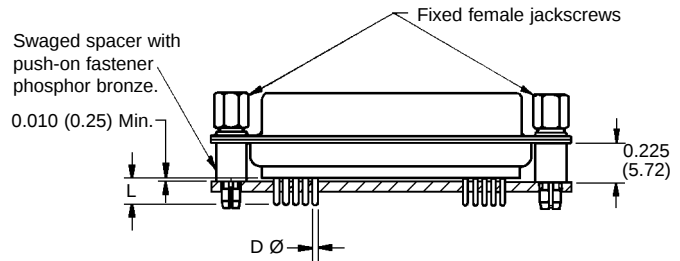
Typical Part Number: **HDC15M200T2Z**



STRAIGHT PRINTED BOARD MOUNT CONNECTOR

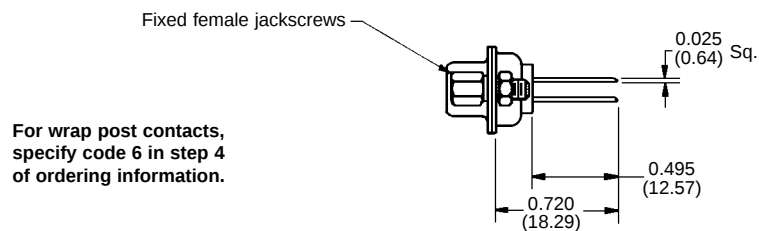
CODE NUMBER	L	D Ø
3	0.170 (4.32)	0.028 (0.71)
32	0.375 (9.53)	0.028 (0.71)
36	0.236 (6.00)	0.024 (0.61)

For straight printed board mount contacts, specify code no. in step 4 of ordering information.

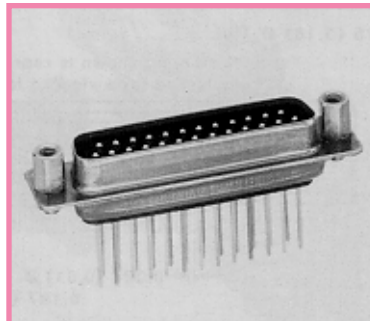


Typical Part Number: **HDC25F3S60T0**

WRAP POST CONNECTOR

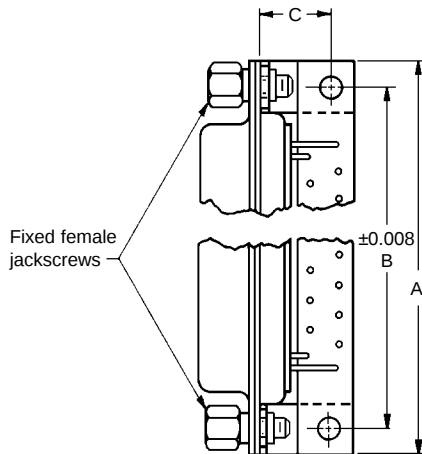


Typical part number: **HDC15F600T0**

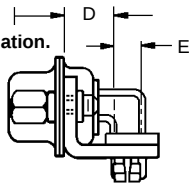


HDC25M6S50T0

90° PRINTED BOARD MOUNT CONNECTOR CODE 5, 0.283 (7.19) CONTACT EXTENSION

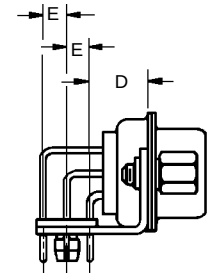
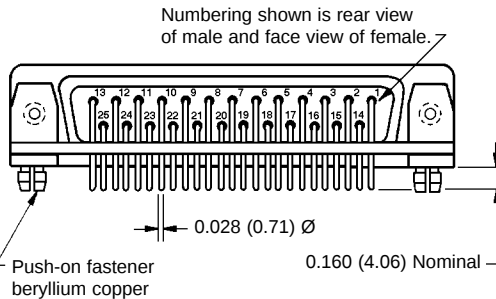


Specify code 5
in step 4 of
ordering information.



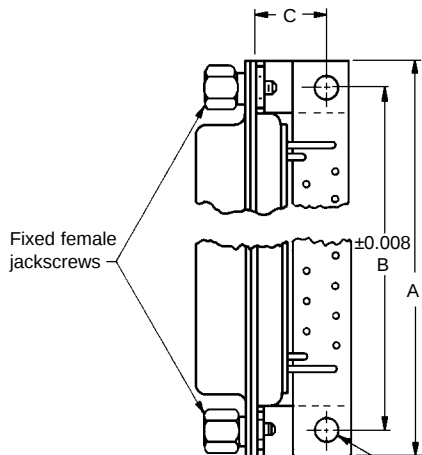
Typical Part Number:
HDC25M5R7NT2X

HDC005B3000 0.283 (7.19) CONTACT EXTENSION					
PART NUMBER	A	B	C	D	E
HDC905B3000	1.204 (30.58)	0.984 (24.99)	0.339 (8.61)	0.283 (7.19)	0.112 (2.84)
HDC1505B3000	1.532 (38.91)	1.312 (33.32)	0.339 (8.61)	0.283 (7.19)	0.112 (2.84)
HDC2505B3000	2.072 (52.63)	1.852 (47.04)	0.339 (8.61)	0.283 (7.19)	0.112 (2.84)
HDC3705B3000	2.720 (69.09)	2.500 (63.50)	0.339 (8.61)	0.283 (7.19)	0.112 (2.84)
HDC5005B3000	2.626 (66.70)	2.406 (61.11)	0.395 (10.03)	0.283 (7.19)	0.112 (2.84)

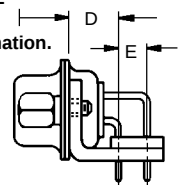


Typical Part Number:
HDC50F5R7NTX

90° PRINTED BOARD MOUNT CONNECTOR CODE 42, 0.370 (9.40) CONTACT EXTENSION



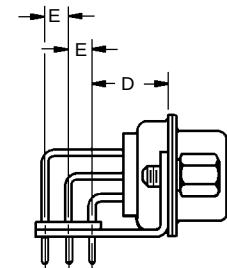
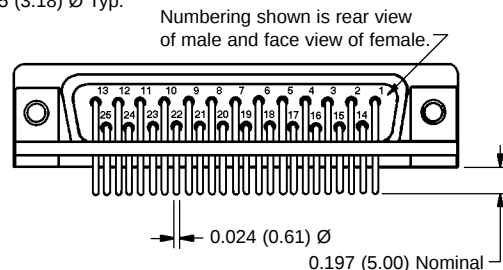
Specify code 42
in step 4 of
ordering information.



Typical Part Number:
HDC25M42B30T2X

HDC0042B3000 0.370 (9.40) CONTACT EXTENSION					
PART NUMBER	A	B	C	D	E
HDC9042B3000	1.204 (30.58)	0.984 (24.99)	0.420 (10.67)	0.370 (9.40)	0.100 (2.54)
HDC15042B3000	1.532 (38.91)	1.312 (33.32)	0.420 (10.67)	0.370 (9.40)	0.100 (2.54)
HDC25042B3000	2.072 (52.63)	1.852 (47.04)	0.420 (10.67)	0.370 (9.40)	0.100 (2.54)
HDC37042B3000	2.720 (69.09)	2.500 (63.50)	0.420 (10.67)	0.370 (9.40)	0.100 (2.54)
HDC50042B3000	2.626 (66.70)	2.406 (61.11)	0.470 (11.94)	0.370 (9.40)	0.100 (2.54)

0.125 (3.18) Ø Typ.

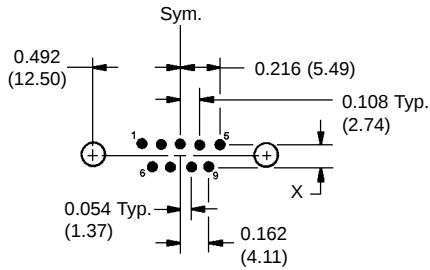


Typical Part Number:
HDC50M42B30T2X

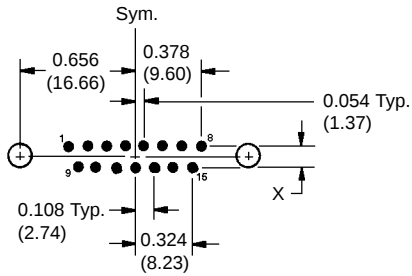
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

90° AND STRAIGHT PRINTED BOARD CONTACT HOLE PATTERN

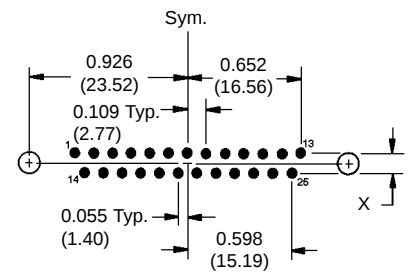
Hole identification shown for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrows.



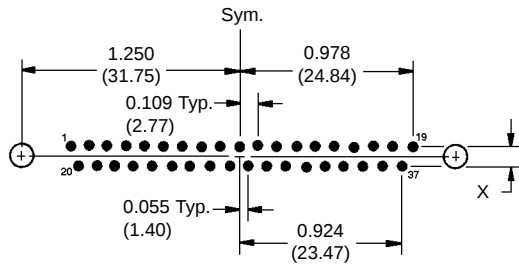
HDC 9



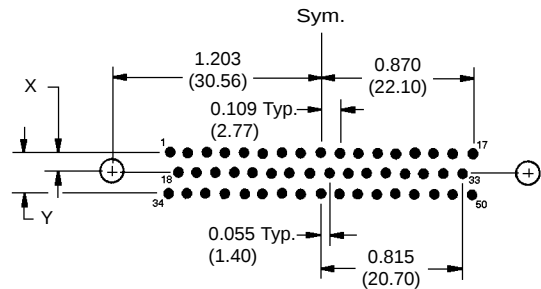
HDC 15



HDC 25



HDC 37

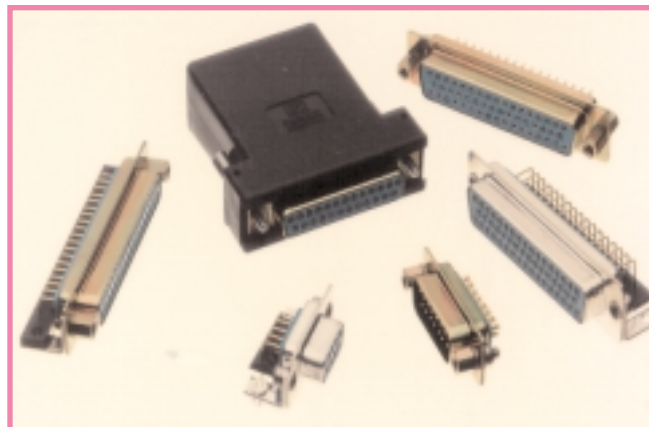


HDC 50

CODE NUMBER	X	Y
3	0.112 (2.84)	0.224 (5.69)
5	0.112 (2.84)	0.224 (5.69)
32	0.112 (2.84)	0.224 (5.69)
36	0.112 (2.84)	0.224 (5.69)
*42	0.100 (2.54)	0.200 (5.08)

Suggest 0.039 (0.99) Ø hole for 0.024 (0.61) Ø contact termination positions.
Suggest 0.045 (1.14) Ø hole for 0.028 (0.71) Ø contact termination positions.
Suggest 0.123 ±0.003 (3.12) Ø hole for mounting connector with push-on fasteners.

*Metric system, European contact hole pattern.



DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9
	HDC	37	F	5	B3	0	T	0	

STEP 1 - Basic Series

HDC Series

STEP 2 - HDC Series Connector Variants

9, 15, 25, 37, 50

STEP 3 - Connector Gender

M - Male
F - Female

STEP 4 - Type of Contacts

- 2 - Solder cup.
- 3 - Solder, Straight Printed Board Mount with 0.170 (4.32) Tail Length.
- 32 - Solder, Straight Printed Board Mount with 0.375 (9.52) Tail Length.
- 36 - Solder, Straight Printed Board Mount with 0.236 (5.99) Tail Length.
- 42 - Solder, Metric System 90° Printed Board Mount with 0.370 (9.40) Contact Extension.
- 5 - Solder, 90° Printed Board Mount with 0.283 (7.19) Contact Extension.
- 6 - Wrap Post.

*STEP 5 - Mounting Style

- 0 - Mounting Hole, 0.120 (3.05) Ø.
- B3 - Bracket, Mounting, 90° Metal with Cross Bar.
- B8 - Bracket, Mounting, 90° Plastic with Cross Bar.
- F - Float Mounts, Universal.
- P - Threaded Post, Brass, 0.225 (5.71) Length.
- P2 - Threaded Post, Nylon, 0.225 (5.71) Length.
- R2 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Thread Fixed Female Jackscrews with Cross Bar.
- R6 - Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar.
- R7 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar.
- R8 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar.
- S - Swaged Spacer, 4-40 Threads, 0.225 (5.71) Length.
- S2 - Swaged Spacer, 4-40 Threads, 0.125 (3.18) Length.
- S5 - Swaged Locknut, 4-40 Threads.
- S6 - Swaged Spacer with Push-on Fastener, 4-40 Threads, 0.225 (5.71) Length.
- S7 - Swaged Spacer with Push-on Fastener for use with Ferrite Inductor, 4-40 Threads, 0.375 (9.53) Length.

STEP 9 - Special Options

Consult Sales Department.

STEP 8 - Shell Options

- 0 - Zinc Plated with Dichromate Seal.
- S - Stainless Steel.
- X - Tin Plated.
- Z - Tin Plated and Dimpled.
- C - Cadmium plated with Dichromate Seal.

*STEP 7 - Locking and Polarizing Systems

- 0 - None.
- V3 - Lock Tab, connector front panel mounted.
- V5 - Lock Tab, connector rear panel mounted.
- VL - Lock Lever, used with Hoods Only.
- T - Fixed Female Jackscrews.
- T2 - Fixed Female Jackscrews.
- T6 - Fixed Male and Female Polarized Jackscrews.
- E - Rotating Male Jackscrews.
- E2 - Rotating Male Screw Locks.
- E6 - Rotating Male and Female Polarized Jackscrews.

*STEP 6 - Hoods and Push-On Fasteners

- 0 - None.
- J - Hood, Top Opening, Plastic.
- L - Hood, Side Opening, Plastic.
- Y - Hood, Top Opening, Plastic with Rotating Male Jackscrews. Available in size 50 only.
- Y6 - Hood, Top Opening, Plastic with Rotating Male and Female Polarized Jackscrews. Available in size 50 only.
- Z - Hood, Top or Side Opening, Robust and Extended Height, Composite and Plastic with Rotating Male Jackscrews.
- H - Hood, Top Opening, Metal. Available in size 15, 25, 37 and 50 only.
- G - Hood, EMI/RFI, Metal.
- W - Hood, Top or Side Opening, Plastic. Available in size 9, 15, and 25 only.
- N - Push-on Fastener, for 90° Mounting Brackets.
- **F - Ferrite Inductor.

*For additional information on accessories listed in steps 5, 6 and 7, see Accessory Catalog.

**Ferrite inductor is available on contact types 32, 36 and 6 only.

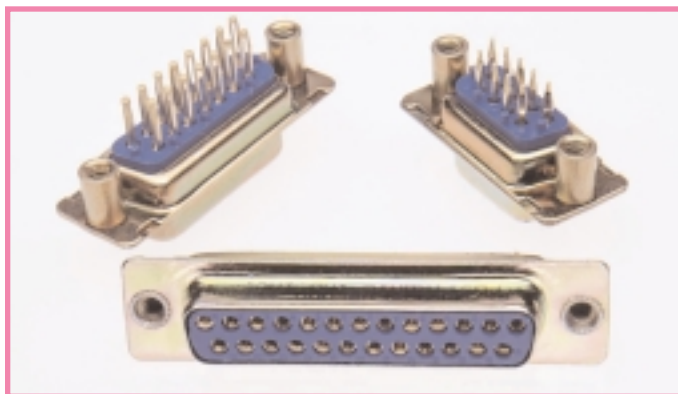
PCD Series

PROFESSIONAL QUALITY, STANDARD DENSITY COMPLIANT TERMINATION REPAIRABLE CONTACT, PRESS-FIT SUBMINIATURE-D CONNECTORS FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Size 20 Contacts,
Fixed
Machined Contact,
“Bi-Spring” or “Omega”
Compliant Termination
Repairable Contact

Professional Quality
IEC 807-2 & IEC 352-5
MIL-STD 2166

U.L. Recognized Telecommunication
File #E49351 U.L. File #140980



PCD Series connectors are professional quality rectangular connectors with compliant terminations. The low press-in force required to install the contacts into the board eliminates printed board pressure-warp and twisting stresses which can result in expensive repair or replacement of printed boards and back panels. Female connectors are available with closed entry contacts for high reliability applications.

These connectors were designed to allow removal and replacement of individual contacts damaged in manufacturing, testing, or field use without removing the connector from the board. The compliant section of the contact causes no damage or deformation of the plated-through-hole during installation or removal from the printed board. With a minimum axial push-out force of 5 lbs. (21 N), an individual contact may be removed from both the printed board and connector insulator. A virgin contact may then be pushed into the connector insulator and plated-through-hole, thereby accomplishing the repair of the connector without the removal of the connector

from the printed board.

Bi-Spring Compliant Contacts have press-in and push-out forces of 2 lbs (8.4 N) to 2.5 lbs (10.5 N). The requirement for finished printed board hole diameter is 0.047 inches (1.19 mm). The compliant contact will permit up to three replacement operations.

Omega Compliant Contacts have press-in and push-out forces of 4 lbs (16.8 N) to 6 lbs (25.2 N). The requirement for the finished printed board hole diameter is 0.0394 inches (1.00mm). This contact style offers an economically priced connector with a finished hole diameter common to many press fit contacts.

Five standard connector variants are offered in arrangement of 9, 15, 25, 37, and 50 contacts. PCD connectors are mateable and compatible with all D-Subminiature connectors conforming to IEC 807-2, IEC 807-3, and dimensional requirements of MIL-DTL-24308.

COMPLIANT PRESS-D CONNECTOR TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled polyester per MIL-M-24519, U.L. 94V-0, blue color.
Contacts:	Male and female contacts are precision machined—high tensile phosphor bronze.
Contact Plating:	Professional performance - Gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate or zinc plate with dichromate seal.
Mounting Spacers and Brackets:	Brass with tin plate; zinc plate with dichromate seal.
Jackscrew System:	Steel; zinc plate with dichromate seal.
Vibration Lock Systems:	Lock tabs, nickel plated steel.

ELECTRICAL CHARACTERISTICS OF COMPLIANT CONNECTION TO PLATED-THROUGH-HOLE OF PRINTED BOARD:

Initial Contact Resistance of Connection:	Less than 0.001 ohms per IEC 512-2, Test 2a.
Change in Contact Resistance of Connection after Mechanical, Electrical or Climatic Conditioning:	Less than 0.001 ohms increase per IEC 512-2, Test 2a.
Gas-tight Connections Test:	Less than 0.001 ohms increase in contact resistance after 1 hour per EIA 364, TP36, Method One.

ELECTRICAL CHARACTERISTICS OF CONNECTOR:

Contact Current Rating:	7.5 amperes, nominal.
Initial Contact Resistance:	0.008 ohms maximum per IEC 512-2, Test 2a.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0mm).
Working Voltage:	300 V.

MECHANICAL CHARACTERISTICS:

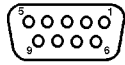
Repairable Contacts	
Solid Metal Construction:	Size 20 contact male – 0.040 inch (1.02mm) diameter; female contact – rugged open-entry design or closed entry design.
Contact Retention In Insulator:	5 lbs. (21 N) minimum.
Compliant Termination Bi-Spring Construction:	0.053 inch (1.35mm) diameter with 0.034 inch (0.86mm) lead-in diameter. Offered with three termination lengths for 0.063 inch (1.60mm) 0.093 inch (2.36mm) 0.125 (3.18mm) thick printed boards or back planes.
Press-In Force of Contact into plated-through-hole of 0.125 inch (3.18mm) printed board:	2.5 lbs. (10.5 N).
Push-Out Force of Contact from plated-through-hole of 0.125 inch (3.18mm) printed board:	2 lbs. (8.4 N).
Compliant Termination Omega Construction:	0.047 inch (1.18mm) diameter with 0.022 inch (0.56mm) lead-in diameter. A single termination length accommodates any thickness printed board or back-plane.
Press-In Force of Contact into plated-through-hole of 0.125 inch (3.18mm) printed board:	4 lbs. (16.8 N).
Push-Out Force of Contact from plated-through-hole of 0.125 inch (3.18mm) printed board:	6 lbs. (25.2 N).
Vibration Test per MIL-STD 1344, Method 2005, Test Conditioning:	No electrical discontinuity of 1 μ s or greater.
Connector Polarization:	Trapezoidal shaped shells and polarized jackscrews.
Locking System:	Jackscrews and vibration locking systems.
Mechanical Operations:	500 operations per IEC 512-5.

CLIMATIC CHARACTERISTICS:

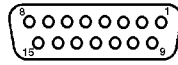
Temperature Range:	-55°C to +125°C.
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PCD CONTACT VARIANTS

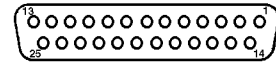
FACE VIEW OF FEMALE CONNECTOR OR REAR VIEW OF MALE CONNECTOR



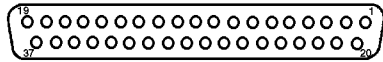
PCD 9



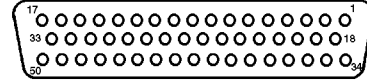
PCD 15



PCD 25

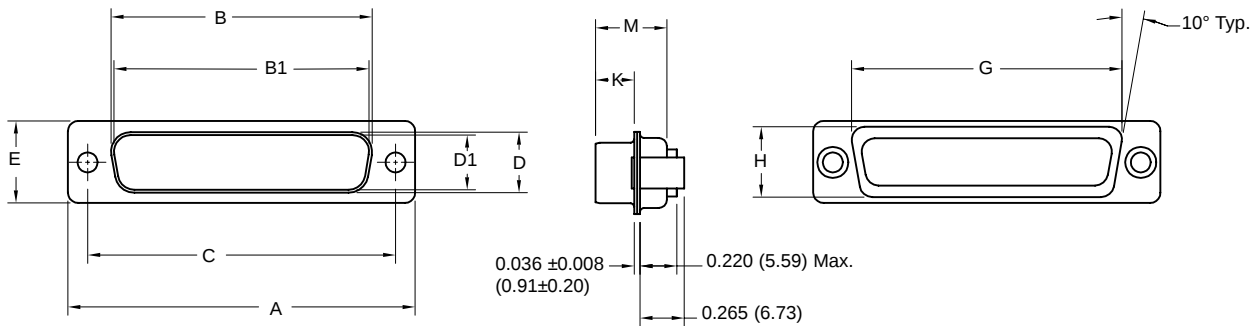


PCD 37



PCD 50

STANDARD SHELL ASSEMBLY



CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
PCD 9 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
PCD 9 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCD 15 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
PCD 15 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCD 25 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
PCD 25 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCD 37 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
PCD 37 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCD 50 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
PCD 50 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)

“Bi-Spring” Compliant Termination

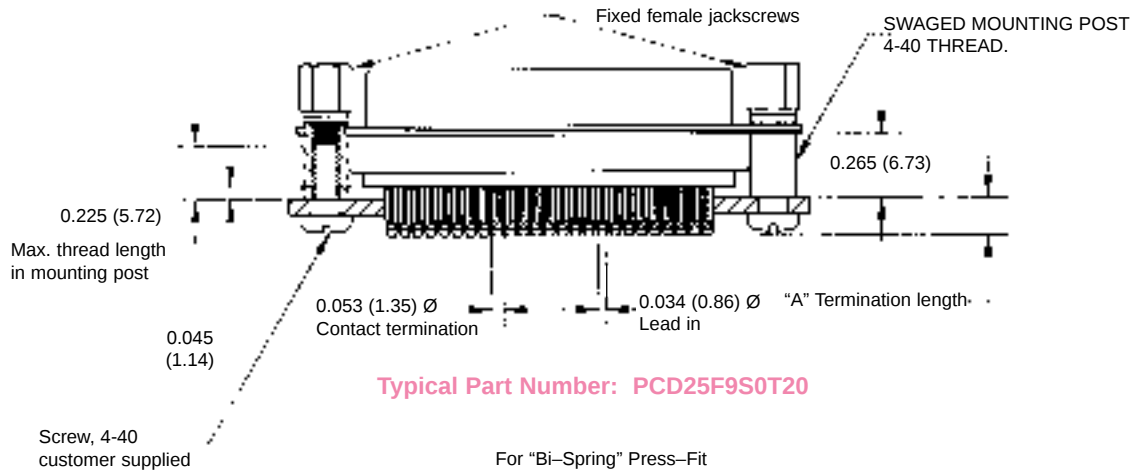


“Omega” Compliant Termination



DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

BI-SPRING COMPLIANT PRESS-FIT CONNECTOR

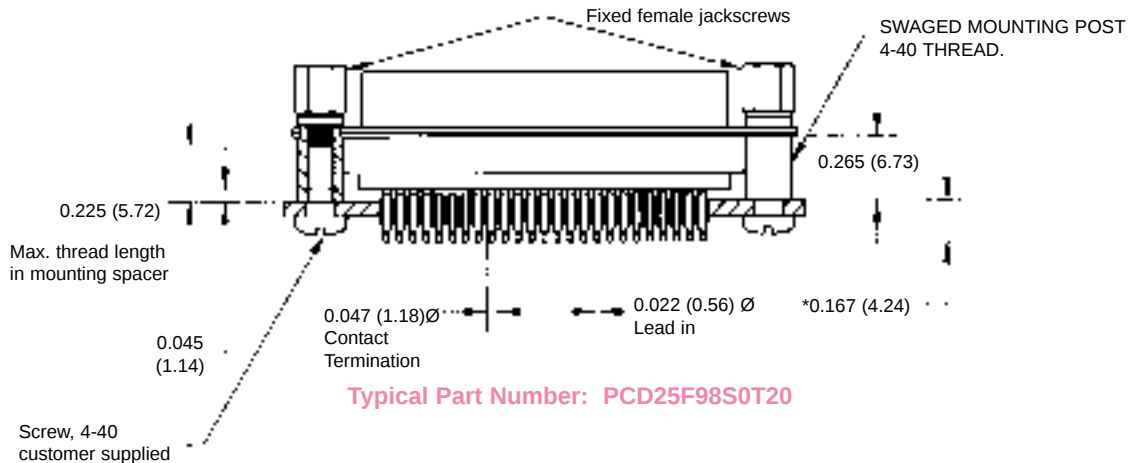


Detail of Bi-Spring contacts

*CONTACT TERMINATION LENGTH

BOARD THICKNESS	"A"	CONTACT TYPE
0.063 (1.60)	0.153 (3.89)	9
0.093 (2.36)	0.183 (4.65)	92
0.125 (3.18)	0.218 (5.54)	93

OMEGA COMPLIANT PRESS-FIT CONNECTOR



Detail of Omega contacts

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

*The effective length of the compliant section may also be varied (longer or shorter) and can be selectively positioned and centered at several points along the contact termination length, permitting high or low profile mounting of the connector on printed boards.

PCD Series

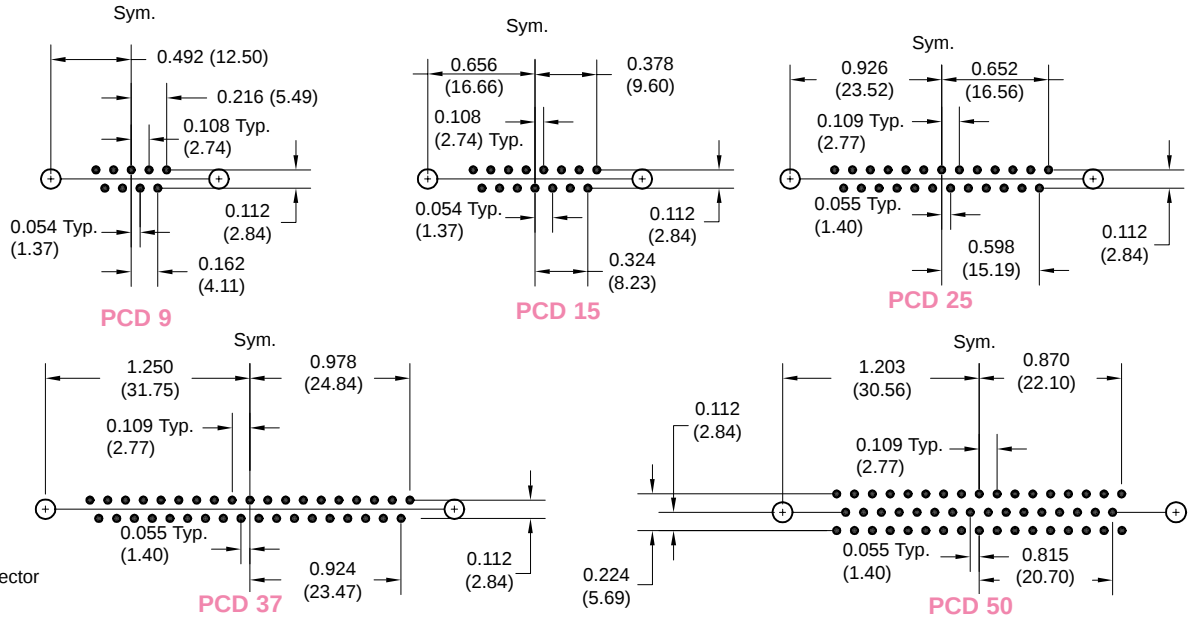
PROFESSIONAL QUALITY, STANDARD DENSITY COMPLIANT TERMINATION
REPAIRABLE CONTACT, PRESS-FIT SUBMINIATURE-D CONNECTORS
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

COMPLIANT PRESS-FIT CONNECTOR PRINTED BOARD CONTACT HOLE PATTERN

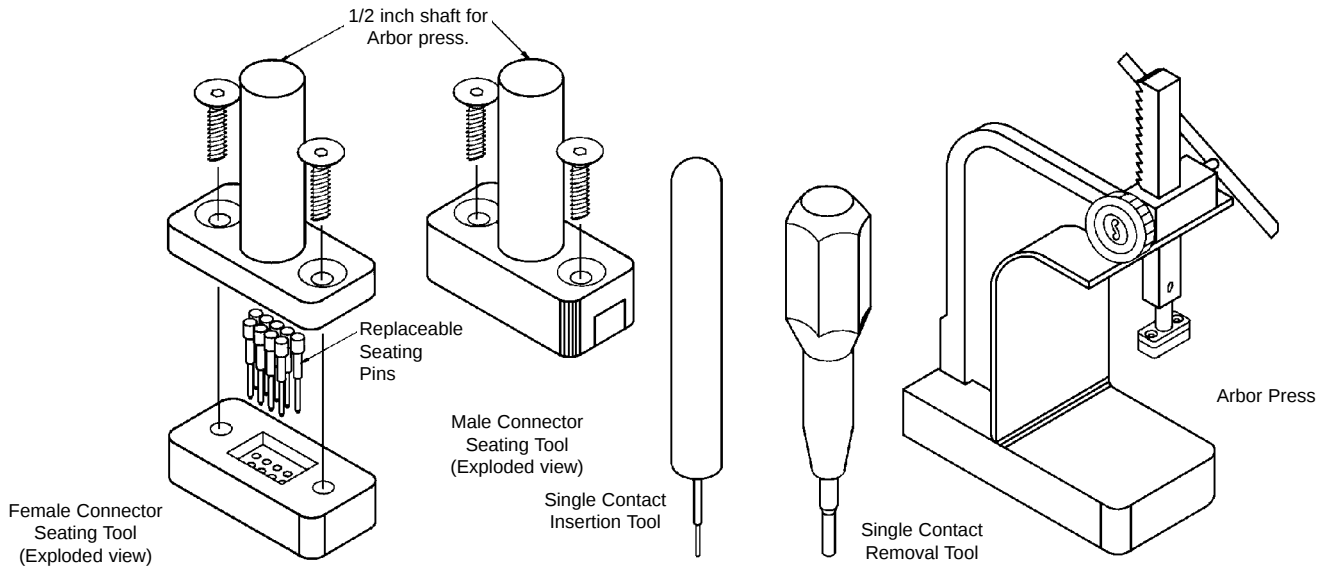
For Bi-Spring contact terminations:
Suggest hole with 0.0001 (0.003) minimum solder over 0.001 (0.03) minimum copper plate. Final hole size is $\varnothing$ 0.047 $\pm$ 0.002 (1.19 $\pm$ 0.05).

For Omega contact terminations: Suggest $\varnothing$ 0.0453 $\pm$ 0.0010 (1.150 $\pm$ 0.025) hole with 0.0005 (0.013) minimum tin or tin/lead over 0.001 (0.03) minimum copper plate. Final hole size is $\varnothing$ 0.0394+0.0035-0.0024 (1.000+0.090-0.060).

Suggest 0.120 (3.05) $\varnothing$ hole for mounting connector



PCD SERIES PRESS-FIT CONNECTORS INSTALLATION TOOLS



Positronic recommended tools for PCD Series Connectors and Contacts

Series	Connector Seating		Single Contact Insertion		Single Contact Removal
	Male	Female	Male	Female	
PCD 9	9512-1-0-41	9512-6-0-41	9512-100-0 FOR ALL SIZES	9512-101-0 FOR ALL SIZES	9512-102-0 FOR ALL SIZES
PCD 15	9512-2-0-41	9512-7-0-41			
PCD 25	9512-3-0-41	9512-8-0-41			
PCD 37	9512-4-0-41	9512-9-0-41			
PCD 50	9512-5-0-41	9512-10-0-41			
Arbor press for connector seating tools-9530-1-0			1 ton capacity		4 inch throat
Replacement pins for connector seating tools.			Female - 855-658-0-41		

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert “0” When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9
	PCD	25	M	9	S	0	T2	X	
STEP 1 - Basic Series PCD Series									STEP 9 - Special Options Consult Sales Department.
STEP 2 - PCD Series Connector Variants 9, 15, 25, 37, 50									STEP 8 - Shell Options 0 - Zinc Plated with Dichromate Seal. X - Tin Plated. Z - Tin Plated and Dimpled.
STEP 3 - Connector Gender M - Male F - Female FC - Female, Closed Entry									STEP 7 - Locking and Polarizing Systems 0 - None. V3 - Lock Tab. T6 - Fixed Male and Female Polarized Jackscrews. T2 - Fixed Female Jackscrews, 4-40 Thread. Note: These options must be ordered with connector and cannot be ordered separately.
STEP 4 - Type of Contacts – Compliant Press-Fit 9 - Bi-Spring type compliant, termination length 0.153 (3.89). 92 - Bi-Spring type compliant, termination length 0.183 (4.65). 93 - Bi-Spring type compliant, termination length 0.218 (5.54). 98 - Omega type compliant.									STEP 6 - Hoods 0 - None
STEP 5 - Mounting Style S - Swaged Mounting Post 4-40 Threads 0.265 (6,73) Length.									

REPLACEMENT CONTACTS PART NUMBERS

CODE	MALE	OPEN ENTRY FEMALE	CLOSED ENTRY FEMALE
9	4305-13-1-*	4306-14-1-*	4306-139-1-*
92	4305-13-2-*	4306-14-2-*	4306-139-2-*
93	4305-13-3-*	4306-14-3-*	4306-139-3-*
98	4305-15-0-*	4306-17-0-*	4306-189-0-*

* - PLATING OPTIONS FOR REPLACEMENT CONTACTS

-14 GOLD 0.000030 (0.75 MICRONS) OVER NICKEL PLATE

-51 GOLD FLASH OVER NICKEL PLATE

PCDD Series

PROFESSIONAL QUALITY, HIGH DENSITY COMPLIANT TERMINATION REPAIRABLE CONTACT, PRESS-FIT SUBMINIATURE-D CONNECTORS FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Size 22 Contacts Fixed Machined Contact, "Omega" Compliant Termination Repairable Contact

Professional Quality
IEC 807-2 & IEC 352-5
MIL-STD 2166

U.L. Recognized
File #E49351

Telecommunication
U.L. File #140980



PCDD Series connectors are professional quality rectangular connectors with compliant termination repairable contacts. The low press-in force required to install the contacts into the board eliminates printed board pressure-warp and twisting stresses which can result in expensive repair or replacement of printed boards and back panels. Female connectors are available with closed entry contacts for high reliability applications.

These connectors were designed to allow removal and replacement of individual contacts damaged in manufacturing, testing, or field use without removing the connector from the board. The compliant section of the contact causes no damage or deformation of the plated-through-hole during installation or removal from the printed board. With a minimum axial push-out force of 5 lbs (21 N), an individual contact may be

removed from both the printed board and connector insulator and plated-through-hole, thereby accomplishing the repair of the connector without the removal of the connector from the printed board.

Omega Compliant Contacts have press-in and push-out forces of 4 lbs (16.8 N) to 6 lbs (25.2 N). The requirement for the finished printed board hole diameter is 0.0394 inch (1.00 mm). This contact style offers an economically priced connector with a finished hole diameter common to many press fit contacts.

Six standard connector variants are offered in arrangements of 15, 26, 44, 62, 72, and 104 contacts. PCDD connectors are mateable and compatible with all Subminiature-D connectors conforming to dimensional requirements of MIL-DTL-24308.

COMPLIANT PRESS-D CONNECTOR TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled polyester per MIL-M-24519, U.L. 94V-0, blue color.
Contacts:	Male and female contacts are precision machined-high tensile phosphor bronze.
Contact Plating:	Professional performance - Gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel or brass with tin plate or zinc plate with dichromate seal.
Mounting Spacers and Brackets:	Brass with tin plate; zinc plate with dichromate seal.
Jackscrew System:	Steel; zinc plate with dichromate seal.
Vibration Lock Systems:	Lock tabs, nickel plated steel.

ELECTRICAL CHARACTERISTICS OF COMPLIANT CONNECTION TO PLATED-THROUGH-HOLE OF PRINTED BOARD:

Initial Contact Resistance of Connection:	Less than 0.001 ohms per IEC 512-2, Test 2a.
Change in Contact Resistance of Connection after Mechanical, Electrical or Climatic Conditioning:	Less than 0.001 ohms increase per IEC 512-2, Test 2a.
Gas-tight Connections Test:	Less than 0.001 ohms increase in contact resistance after 1 hour per EIA 364, TP36, Method One.

ELECTRICAL CHARACTERISTICS OF CONNECTOR:

Contact Current Rating:	5 amperes, nominal.
Initial Contact Resistance:	0.010 ohms maximum per IEC 512-2, Test 2a.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.042 inch (1.02 mm).
Working Voltage:	300 V.

MECHANICAL CHARACTERISTICS:

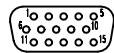
Repairable Contacts	
Solid Metal Construction:	Size 22 contact male – 0.030 inch (0.76 mm) diameter; female contact – rugged open-entry design or closed entry design.
Contact Retention	
In Insulator:	5 lbs. (21 N) minimum.
Compliant Termination	
Omega Construction:	0.047 inch (1.18mm) diameter with 0.022 inch (0.56mm) lead-in diameter. A single termination length accommodates any thickness printed board or back-plane.
Press-In Force of Contact into plated-through-hole of 0.125 inch (3.18mm) printed board:	4 lbs. (16.8 N).
Push-Out Force of Contact from plated-through-hole of 0.125 inch (3.18mm) printed board:	6 lbs. (25.2 N).
Vibration Test per MIL-STD 1344, Method 2005, Test Conditioning:	No electrical discontinuity of 1 μ s or greater.
Connector Polarization:	Trapezoidal shaped shells and polarized jackscrews.
Locking System:	Jackscrews and vibration locking systems.
Mechanical Operations:	500 operations per IEC 512-5.

CLIMATIC CHARACTERISTICS:

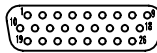
Temperature Range:	-55°C to +125°C.
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PCDD CONTACT VARIANTS

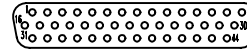
FACE VIEW OF MALE AND REAR VIEW OF FEMALE



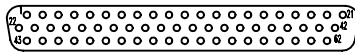
PCDD 15



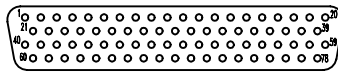
PCDD 26



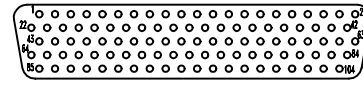
PCDD 44



PCDD 62

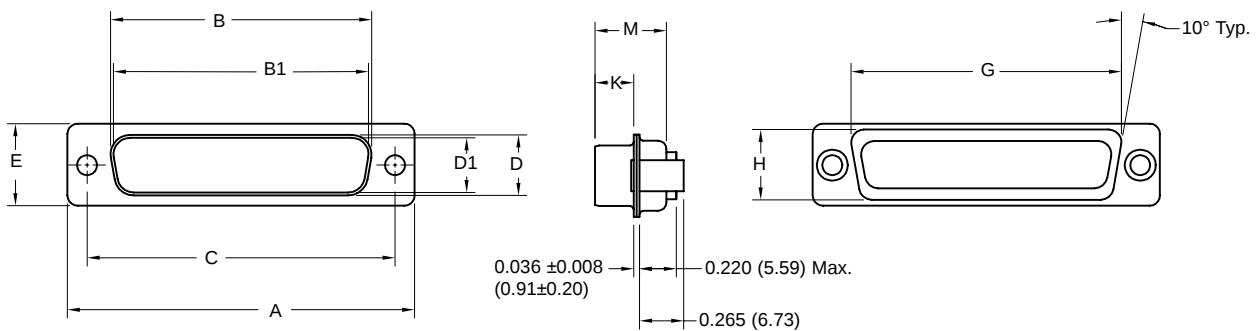


PCDD 78



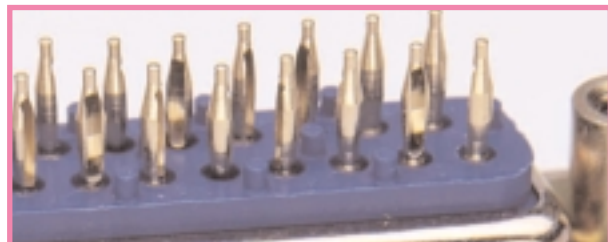
PCDD 104

STANDARD SHELL ASSEMBLY



CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
PCDD 15 M	1.213 (30.81)		0.666 (16.92)	0.984 (24.99)		0.329 (8.36)	0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
PCDD 15 F	1.213 (30.81)	0.643 (16.33)		0.984 (24.99)	0.311 (7.90)		0.494 (12.55)	0.759 (19.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCDD 26 M	1.541 (39.14)		0.994 (25.25)	1.312 (33.32)		0.329 (8.36)	0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.233 (5.92)	0.422 (10.72)
PCDD 26 F	1.541 (39.14)	0.971 (24.66)		1.312 (33.32)	0.311 (7.90)		0.494 (12.55)	1.083 (27.51)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCDD 44 M	2.088 (53.04)		1.534 (38.96)	1.852 (47.04)		0.329 (8.36)	0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
PCDD 44 F	2.088 (53.04)	1.511 (38.38)		1.852 (47.04)	0.311 (7.90)		0.494 (12.55)	1.625 (41.28)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCDD 62 M	2.729 (69.32)		2.182 (55.42)	2.500 (63.50)		0.329 (8.36)	0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.230 (5.84)	0.426 (10.82)
PCDD 62 F	2.729 (69.32)	2.159 (54.84)		2.500 (63.50)	0.311 (7.90)		0.494 (12.55)	2.272 (57.71)	0.422 (10.72)	0.243 (6.17)	0.429 (10.90)
PCDD 78 M	2.635 (66.93)		2.079 (52.81)	2.406 (61.11)		0.441 (11.20)	0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.230 (5.84)	0.426 (10.82)
PCDD 78 F	2.635 (66.93)	2.064 (52.43)		2.406 (61.11)	0.423 (10.74)		0.605 (15.37)	2.178 (55.32)	0.534 (13.56)	0.243 (6.17)	0.429 (10.90)
PCDD 104 M	2.729 (69.32)		2.212 (56.18)	2.500 (63.50)		0.503 (12.78)	0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.230 (5.84)	0.426 (10.82)
PCDD 104 F	2.729 (69.32)	2.189 (55.60)		2.500 (63.50)	0.485 (12.32)		0.668 (16.97)	2.302 (58.47)	0.596 (15.14)	0.243 (6.17)	0.429 (10.90)

“Omega” Compliant
Termination

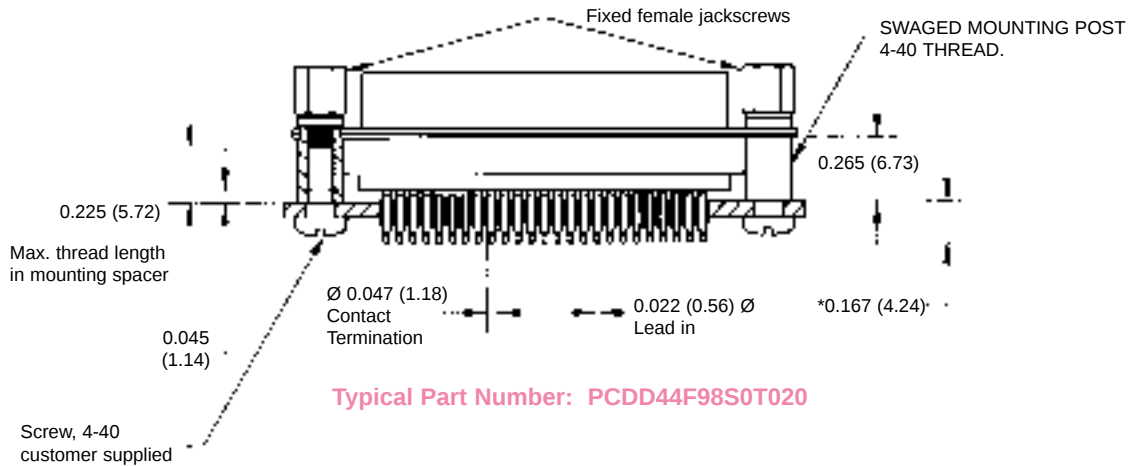


DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

PCDD Series

PROFESSIONAL QUALITY, HIGH DENSITY COMPLIANT TERMINATION
REPAIRABLE CONTACT, PRESS-FIT SUBMINIATURE-D CONNECTORS
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

OMEGA COMPLIANT PRESS-FIT CONNECTOR



Detail of Omega contacts

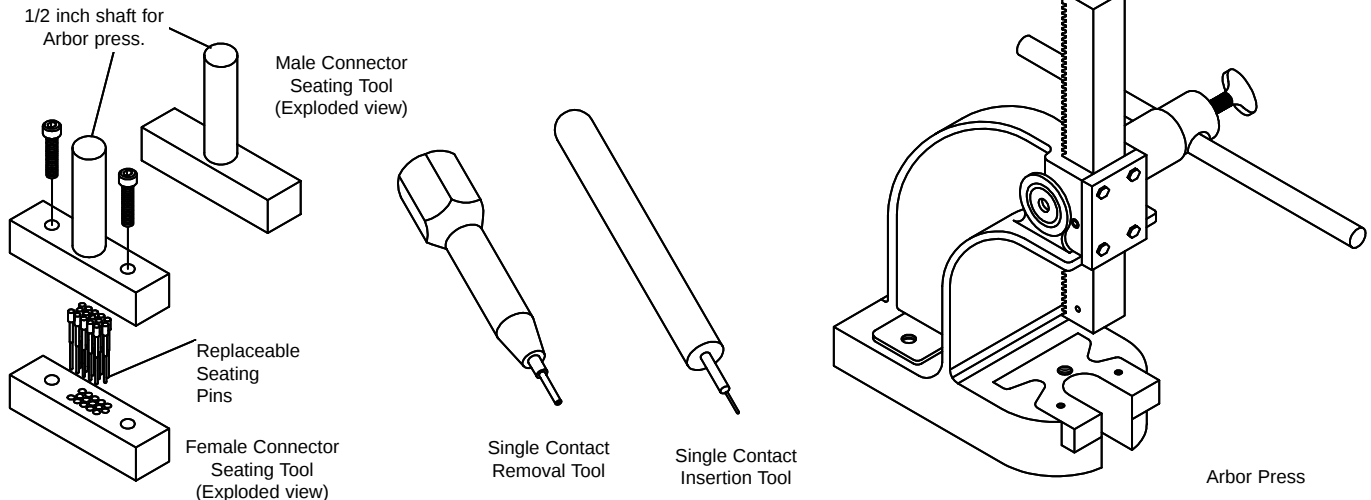


For "Omega" Press-Fit contacts, specify code 98 in step 4 of ordering information.

DIMENSIONS ARE IN INCHES (MILLIMETERS).
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*The effective length of the compliant section may also be varied (longer or shorter) and can be selectively positioned and centered at several points along the contact termination length, permitting high or low profile mounting of the connector on printed boards.

PCDD SERIES PRESS-FIT CONNECTORS INSTALLATION TOOLS

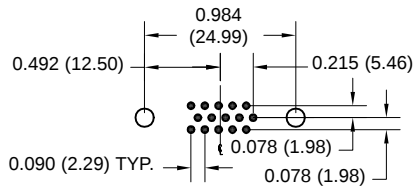


Positronic recommended tools for PCDD Series Connectors and Contacts

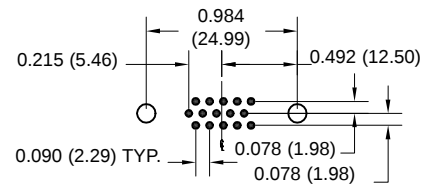
Series	Connector Seating		Single Contact Insertion		Single Contact Removal
	Male	Female	Male	Female	
PCDD 15	9512-1-0-41	9512-11-0-41	9512-103-0 FOR ALL SIZE	9512-104-0 FOR ALL SIZE	9512-105-0 FOR ALL SIZE
PCDD 26	9512-2-0-41	9512-12-0-41			
PCDD 44	9512-3-0-41	9512-13-0-41			
PCDD 62	9512-4-0-41	9512-14-0-41			
PCDD 78	9512-5-0-41	9512-15-0-41			
PCDD 104	9512-16-0-41	9512-17-0-41			
Arbor press for connector seating tools-9530-1-0			1 ton capacity		4 inch throat
Replacement pins for connector seating tools,			Female - 855-751-0-41		

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

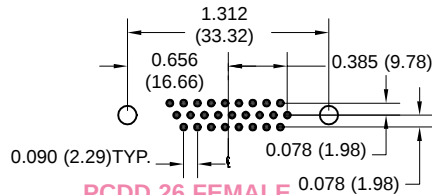
COMPLIANT PRESS-FIT CONNECTOR PRINTED BOARD CONTACT HOLE PATTERN



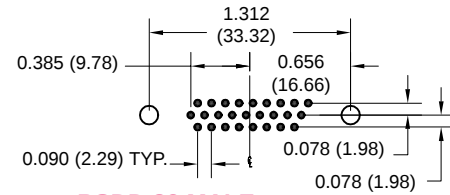
PCDD 15 FEMALE



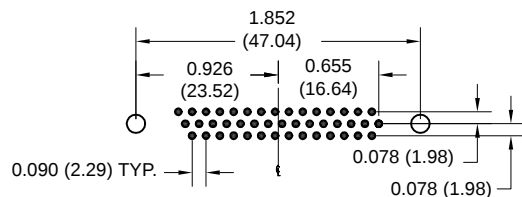
PCDD 15 MALE



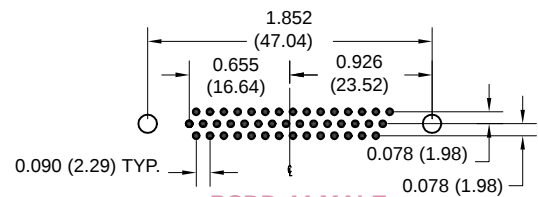
PCDD 26 FEMALE



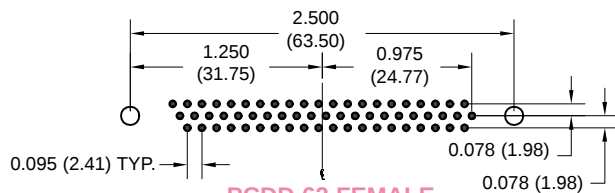
PCDD 26 MALE



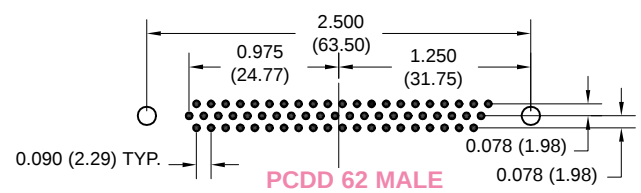
PCDD 44 FEMALE



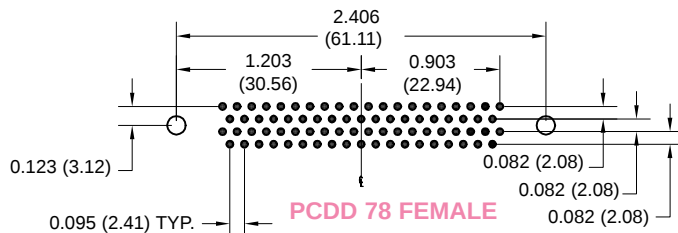
PCDD 44 MALE



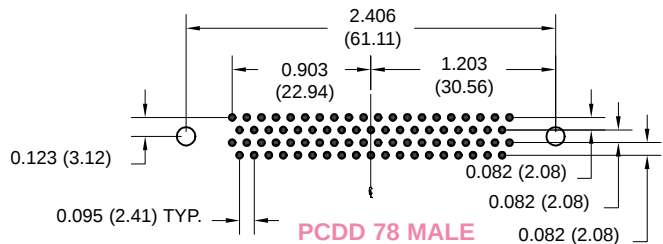
PCDD 62 FEMALE



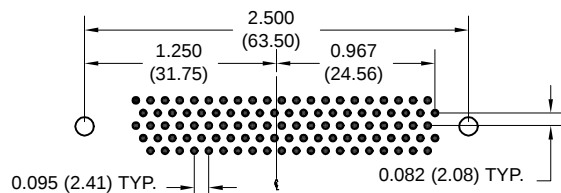
PCDD 62 MALE



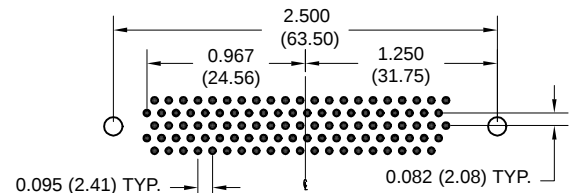
PCDD 78 FEMALE



PCDD 78 MALE



PCDD 104 FEMALE



PCDD 104 MALE

15μ (0.0005) Minimum
Tin or Tin-Lead
Plate Thickness

25μ (0.0010) Minimum
Copper Plate Thickness

Ø1.50±0.025
(0.0453±0.0010)
Drilled Hole

Ø1.000+0.090-0.060
(0.0394+0.0035-0.0024)
Finished Hole

Suggest Ø 0.120 (3.05)
Mounting hole size

CONTACT HOLE DIAMETERS

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9
	PCDD	26	M	98	S	0	T2	X	
STEP 1 - Basic Series PCDD Series									STEP 9 - Special Options Consult Sales Department.
STEP 2 - PCDD Series Connector Variants 15, 26, 44, 62, 78, 104									STEP 8 - Shell Options 0 - Zinc Plated with Dichromate Seal. X - Tin Plated. Z - Tin Plated and Dimpled.
STEP 3 - Connector Gender M - Male F - Female FC - Female, Closed Entry									STEP 7 - Locking and Polarizing Systems 0 - None. V3 - Lock Tab. T6 - Fixed Male and Female Polarized Jackscrews. T2 - Fixed Female Jackscrews, 4-40 Thread. Note: These options must be ordered with connector and cannot be ordered separately.
STEP 4 - Type of Contacts 98 - Omega type compliant.									STEP 6 - Hoods 0 - None
STEP 5 - Mounting Style S - Swaged Mounting Post 4-40 Threads 0.265 (6,73) Length.									

REPLACEMENT CONTACTS PART NUMBERS

MALE	OPEN ENTRY FEMALE	CLOSED ENTRY FEMALE
4803-21-0-*	4804-25-0-*	4804-249-0-*

* - PLATING OPTIONS FOR REPLACEMENT CONTACTS
-14 GOLD 0.000030 (0.75 MICRONS) OVER NICKEL PLATE
-51 GOLD FLASH OVER NICKEL PLATE

**MIL-DTL-24308/MIL-C-39029/MIL-C-85049
QUALIFIED PRODUCTS LISTING**

Positronic Industries offers the following listing of connectors and connector accessories, which are products qualified under Military Specification MIL-DTL-24308, MIL-C-39029 and MIL-C-85049. For additional Q.P.L. connectors, please consult the factory sales office.

MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER
M24308/1-1	HDC9F20000-50	M24308/2-286	DD15F00000	M24308/2-522	RD15F10000-50-799.1	M24308/3-19	HDC25M2F000-50
M24308/1-1F	HDC9F2000C-50	M24308/2-286F	DD15F0000C	M24308/2-523	RD25F10000-50-799.1	M24308/3-19F	HDC25M2F00C-50
M24308/1-2	HDC15F20000-50	M24308/2-287	DD26F00000	M24308/2-524	RD37F10000-50-799.1	M24308/3-20	HDC37M2F000-50
M24308/1-2F	HDC15F2000C-50	M24308/2-287F	DD26F0000C	M24308/2-525	RD50F10000-50-799.1	M24308/3-20F	HDC37M2F00C-50
M24308/1-3	HDC25F20000-50	M24308/2-288	DD44F00000	M24308/2-526	DD15F10000-50-799.0	M24308/3-21	HDC50M2F000-50
M24308/1-3F	HDC25F2000C-50	M24308/2-288F	DD44F0000C	M24308/2-527	DD26F10000-50-799.0	M24308/3-21F	HDC50M2F00C-50
M24308/1-4	HDC37F20000-50	M24308/2-289	DD62F00000	M24308/2-528	DD44F10000-50-799.0	M24308/3-23	HDC9M20000-50-799.0
M24308/1-4F	HDC37F2000C-50	M24308/2-289F	DD62F0000C	M24308/2-529	DD62F10000-50-799.0	M24308/3-24	HDC15M20000-50-799.0
M24308/1-5	HDC50F20000-50	M24308/2-290	DD78F00000	M24308/2-530	DD78F10000-50-799.0	M24308/3-25	HDC25M20000-50-799.0
M24308/1-5F	HDC50F2000C-50	M24308/2-290F	DD78F0000C	M24308/2-531	DD104F10000-50-799.0	M24308/3-26	HDC37M20000-50-799.0
M24308/1-23	HDC9F2F000-50	M24308/2-291	DD104F00000	M24308/2-532	DD15F10000-50-799.1	M24308/3-27	HDC50M20000-50-799.0
M24308/1-23F	HDC9F2F00C-50	M24308/2-291F	DD104F0000C	M24308/2-533	DD26F10000-50-799.1	M24308/3-39	HDC9M2F000-50-799.2
M24308/1-24	HDC15F2F000-50	M24308/2-342	RD9F1F000-50	M24308/2-534	DD44F10000-50-799.1	M24308/3-40	HDC15M2F000-50-799.2
M24308/1-24F	HDC15F2F00C-50	M24308/2-342F	RD9F1F00C-50	M24308/2-535	DD62F10000-50-799.1	M24308/3-41	HDC25M2F000-50-799.2
M24308/1-25	HDC25F2F000-50	M24308/2-343	RD15F1F000-50	M24308/2-536	DD78F10000-50-799.1	M24308/3-42	HDC37M2F000-50-799.2
M24308/1-25F	HDC25F2F00C-50	M24308/2-343F	RD15F1F00C-50	M24308/2-537	DD104F10000-50-799.1	M24308/3-43	HDC50M2F000-50-799.2
M24308/1-26	HDC37F2F000-50	M24308/2-344	RD25F1F000-50	M24308/2-560	RD9F00000-799.0	M24308/4-1	RD9M10000-50
M24308/1-26F	HDC37F2F00C-50	M24308/2-344F	RD25F1F00C-50	M24308/2-561	RD15F00000-799.0	M24308/4-1F	RD9M1000C-50
M24308/1-27	HDC50F2F000-50	M24308/2-345	RD37F1F000-50	M24308/2-562	RD25F00000-799.0	M24308/4-2	RD15M10000-50
M24308/1-27F	HDC50F2F00C-50	M24308/2-345F	RD37F1F00C-50	M24308/2-563	RD37F00000-799.0	M24308/4-2F	RD15M1000C-50
M24308/1-34	HDC9F20000-50-799.0	M24308/2-346	RD50F1F000-50	M24308/2-564	RD50F00000-799.0	M24308/4-3	RD25M10000-50
M24308/1-35	HDC15F20000-50-799.0	M24308/2-346F	RD50F1F00C-50	M24308/2-565	DD15F00000-799.0	M24308/4-3F	RD25M1000C-50
M24308/1-36	HDC25F20000-50-799.0	M24308/2-347	DD15F1F000-50	M24308/2-566	DD26F00000-799.0	M24308/4-4	RD37M10000-50
M24308/1-37	HDC37F20000-50-799.0	M24308/2-347F	DD15F1F00C-50	M24308/2-567	DD44F00000-799.0	M24308/4-4F	RD37M1000C-50
M24308/1-38	HDC50F20000-50-799.0	M24308/2-348	DD26F1F000-50	M24308/2-568	DD62F00000-799.0	M24308/4-5	RD50M10000-50
M24308/1-56	HDC9F2F000-50-799.2	M24308/2-348F	DD26F1F00C-50	M24308/2-569	DD78F00000-799.0	M24308/4-5F	RD50M1000C-50
M24308/1-57	HDC15F2F000-50-799.2	M24308/2-349	DD44F1F000-50	M24308/2-570	DD104F00000-799.0	M24308/4-6	RD9M10000-50-400.0
M24308/1-58	HDC25F2F000-50-799.2	M24308/2-349F	DD44F1F00C-50	M24308/2-585	RD9F1F000-50-799.2	M24308/4-6F	RD9M1000C-50-400.0
M24308/1-59	HDC37F2F000-50-799.2	M24308/2-350	DD62F1F000-50	M24308/2-586	RD15F1F000-50-799.2	M24308/4-7	RD15M10000-50-400.0
M24308/1-60	HDC50F2F000-50-799.2	M24308/2-350F	DD62F1F00C-50	M24308/2-587	RD25F1F000-50-799.2	M24308/4-7F	RD15M1000C-50-400.0
M24308/2-1	RD9F10000-50	M24308/2-351	DD78F1F000-50	M24308/2-588	RD37F1F000-50-799.2	M24308/4-8	RD25M10000-50-400.0
M24308/2-1F	RD9F1000C-50	M24308/2-351F	DD78F1F00C-50	M24308/2-589	RD50F1F000-50-799.2	M24308/4-8F	RD25M1000C-50-400.0
M24308/2-2	RD15F10000-50	M24308/2-352	DD104F1F000-50	M24308/2-590	DD15F1F000-50-799.2	M24308/4-9	RD37M10000-50-400.0
M24308/2-2F	RD15F1000C-50	M24308/2-352F	DD104F1F00C-50	M24308/2-591	DD26F1F000-50-799.2	M24308/4-9F	RD37M1000C-50-400.0
M24308/2-3	RD25F10000-50	M24308/2-353	RD9F1F000-50-400.0	M24308/2-592	DD44F1F000-50-799.2	M24308/4-10	RD50M10000-50-400.0
M24308/2-3F	RD25F1000C-50	M24308/2-353F	RD9F1F00C-50-400.0	M24308/2-593	DD62F1F000-50-799.2	M24308/4-10F	RD50M1000C-50-400.0
M24308/2-4	RD37F10000-50	M24308/2-354	RD15F1F000-50-400.0	M24308/2-594	DD78F1F000-50-799.2	M24308/4-11	DD15M10000-50
M24308/2-4F	RD37F1000C-50	M24308/2-354F	RD15F1F00C-50-400.0	M24308/2-595	DD104F1F000-50-799.2	M24308/4-11F	DD15M1000C-50
M24308/2-5	RD50F10000-50	M24308/2-355	RD25F1F000-50-400.0	M24308/2-596	RD9F1F000-50-799.3	M24308/4-12	DD26M10000-50
M24308/2-5F	RD50F1000C-50	M24308/2-355F	RD25F1F00C-50-400.0	M24308/2-597	RD15F1F000-50-799.3	M24308/4-12F	DD26M1000C-50
M24308/2-6	RD9F10000-50-400.0	M24308/2-356	RD37F1F000-50-400.0	M24308/2-598	RD25F1F000-50-799.3	M24308/4-13	DD44M10000-50
M24308/2-6F	RD9F1000C-50-400.0	M24308/2-356F	RD37F1F00C-50-400.0	M24308/2-599	RD37F1F000-50-799.3	M24308/4-13F	DD44M1000C-50
M24308/2-7	RD15F10000-50-400.0	M24308/2-357	RD50F1F000-50-400.0	M24308/2-600	RD50F1F000-50-799.3	M24308/4-14	DD62M10000-50
M24308/2-7F	RD15F1000C-50-400.0	M24308/2-357F	RD50F1F00C-50-400.0	M24308/2-601	DD15F1F000-50-799.3	M24308/4-14F	DD62M1000C-50
M24308/2-8	RD25F10000-50-400.0	M24308/2-358	DD15F1F000-50-400.1	M24308/2-602	DD26F1F000-50-799.3	M24308/4-15	DD78M10000-50
M24308/2-8F	RD25F1000C-50-400.0	M24308/2-358F	DD15F1F00C-50-400.1	M24308/2-603	DD44F1F000-50-799.3	M24308/4-15F	DD78M1000C-50
M24308/2-9	RD37F10000-50-400.0	M24308/2-359	DD26F1F000-50-400.1	M24308/2-604	DD62F1F000-50-799.3	M24308/4-16	DD104M10000-50
M24308/2-9F	RD37F1000C-50-400.0	M24308/2-359F	DD26F1F00C-50-400.1	M24308/2-605	DD78F1F000-50-799.3	M24308/4-16F	DD104M1000C-50
M24308/2-10	RD50F10000-50-400.0	M24308/2-360	DD44F1F000-50-400.1	M24308/2-606	DD104F1F000-50-799.3	M24308/4-17	DD15M10000-50-400.1
M24308/2-10F	RD50F1000C-50-400.0	M24308/2-360F	DD44F1F00C-50-400.1	M24308/2-607	RD9F0F000-799.2	M24308/4-17F	DD15M1000C-50-400.1
M24308/2-11	DD15F10000-50	M24308/2-361	DD62F1F000-50-400.1	M24308/2-608	RD15F0F000-799.2	M24308/4-18	DD26M10000-50-400.1
M24308/2-11F	DD15F1000C-50	M24308/2-361F	DD62F1F00C-50-400.1	M24308/2-609	RD25F0F000-799.2	M24308/4-18F	DD26M1000C-50-400.1
M24308/2-12	DD26F10000-50	M24308/2-362	DD78F1F000-50-400.1	M24308/2-610	RD37F0F000-799.2	M24308/4-19	DD44M10000-50-400.1
M24308/2-12F	DD26F1000C-50	M24308/2-362F	DD78F1F00C-50-400.1	M24308/2-611	RD50F0F000-799.2	M24308/4-19F	DD44M1000C-50-400.1
M24308/2-13	DD44F10000-50	M24308/2-363	DD104F1F000-50-400.1	M24308/2-612	DD15F0F000-799.2	M24308/4-20	DD62M10000-50-400.1
M24308/2-13F	DD44F1000C-50	M24308/2-363F	DD104F1F00C-50-400.1	M24308/2-613	DD26F0F000-799.2	M24308/4-20F	DD62M1000C-50-400.1
M24308/2-14	DD62F10000-50	M24308/2-482	RD9F0F000	M24308/2-614	DD44F0F000-799.2	M24308/4-21	DD78M10000-50-400.1
M24308/2-14F	DD62F1000C-50	M24308/2-482F	RD9F0F00C	M24308/2-615	DD62F0F000-799.2	M24308/4-21F	DD78M1000C-50-400.1
M24308/2-15	DD78F10000-50	M24308/2-483	RD15F0F000	M24308/2-616	DD78F0F000-799.2	M24308/4-22	DD104M10000-50-400.1
M24308/2-15F	DD78F1000C-50	M24308/2-483F	RD15F0F00C	M24308/2-617	DD104F0F000-799.2	M24308/4-22F	DD104M1000C-50-400.1
M24308/2-16	DD104F10000-50	M24308/2-484	RD25F0F000	M24308/3-1	HDC9M20000-50	M24308/4-259	RD9M00000
M24308/2-16F	DD104F1000C-50	M24308/2-484F	RD25F0F00C	M24308/3-1F	HDC9M2000C-50	M24308/4-259F	RD9M0000C
M24308/2-17	DD15F10000-50-400.1	M24308/2-485	RD37F0F000	M24308/3-2	HDC15M20000-50	M24308/4-260	RD15M00000
M24308/2-17F	DD15F1000C-50-400.1	M24308/2-485F	RD37F0F00C	M24308/3-2F	HDC15M2000C-50	M24308/4-260F	RD15M0000C
M24308/2-18	DD26F10000-50-400.1	M24308/2-486	RD50F0F000	M24308/3-3	HDC25M20000-50	M24308/4-261	RD25M00000
M24308/2-18F	DD26F1000C-50-400.1	M24308/2-486F	RD50F0F00C	M24308/3-3F	HDC25M2000C-50	M24308/4-261F	RD25M0000C
M24308/2-19	DD44F10000-50-400.1	M24308/2-487	DD15F0F000	M24308/3-4	HDC37M20000-50	M24308/4-262	RD37M00000
M24308/2-19F	DD44F1000C-50-400.1	M24308/2-487F	DD15F0F00C	M24308/3-4F	HDC37M2000C-50	M24308/4-262F	RD37M0000C
M24308/2-20	DD62F10000-50-400.1	M24308/2-488	DD26F0F000	M24308/3-5	HDC50M20000-50	M24308/4-263	RD50M00000
M24308/2-20F	DD62F1000C-50-400.1	M24308/2-488F	DD26F0F00C	M24308/3-5F	HDC50M2000C-50	M24308/4-263F	RD50M0000C
M24308/2-21	DD78F10000-50-400.1	M24308/2-489	DD44F0F000	M24308/3-12	HDC9M2F000-50	M24308/4-264	DD15M00000
M24308/2-21F	DD78F1000C-50-400.1	M24308/2-489F	DD44F0F00C	M24308/3-12F	HDC9M2F00C-50	M24308/4-264F	DD15M0000C
M24308/2-22	DD104F10000-50-400.1	M24308/2-490	DD62F0F000	M24308/3-13	HDC15M2F000-50	M24308/4-265	DD26M00000
M24308/2-22F	DD104F1000C-50-400.1	M24308/2-490F	DD62F0F00C	M24308/3-13F	HDC15M2F00C-50	M24308/4-265F	DD26M0000C
M24308/2-281	RD9F00000	M24308/2-491	DD78F0F000	M24308/3-14	HDC25M2F000-50	M24308/4-266	DD44M00000
M24308/2-281F	RD9F0000C	M24308/2-491F	DD78F0F00C	M24308/3-14F	HDC25M2F00C-50	M24308/4-266F	DD44M0000C
M24308/2-282	RD15F00000	M24308/2-492	DD104F0F000	M24308/3-15	HDC37M2F000-50	M24308/4-267	DD62M00000
M24308/2-282F	RD15F0000C	M24308/2-492F	DD104F0F00C	M24308/3-15F	HDC37M2F00C-50	M24308/4-267F	DD62M0000C
M24308/2-283	RD25F00000	M24308/2-516	RD9F10000-50-799.0	M24308/3-16	HDC50M2F000-50	M24308/4-268	DD78M00000
M24308/2-283F	RD25F0000C	M24308/2-517	RD15F10000-50-799.0	M24308/3-16F	HDC50M2F00C-50	M24308/4-268F	DD78M0000C
M24308/2-284	RD37F00000	M24308/2-518	RD25F10000-50-799.0	M24308/3-17	HDC9M2F000-50	M24308/4-269	DD104M00000
M24308/2-284F	RD37F0000C	M24308/2-519	RD37F10000-50-799.0	M24308/3-17F	HDC9M2F00C-50	M24308/4-269F	DD104M0000C
M24308/2-285	RD50F00000	M24308/2-520	RD50F10000-50-799.0	M24308/3-18	HDC15M2F000-50	M24308/4-302	RD9M1F0000-50
M24308/2-285F	RD50F0000C	M24308/2-521	RD9F10000-50-799.1	M24308/3-18F	HDC15M2F00C-50	M24308	

Q.P.L. CONNECTORS

MIL-DTL-24308/MIL-C-39029/MIL-C-85049 QUALIFIED PRODUCTS LISTING

Positronic HDC Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-618-79/24308-1210-85.

Positronic RD Series hoods are Q.P.L. approved to MIL-C-85049 per test report number 85049-870-84.

Positronic DD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-1209-85/24308-1210-85/24308-117-89.

Positronic RD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-211-79/24308-1210-85.

Positronic RD Series contacts are Q.P.L. approved to MIL-C-39029 per test report number 39029-694-79.

MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER
M24308/4-303	RD15M1F000-50	M24308/4-419	DD44M1F000-50-799.3	M24308/4-467	DD104M0F000	M24308/6-13F	DD44F1000C-50-403.0
M24308/4-303F	RD15M1F00C-50	M24308/4-420	DD62M1F000-50-799.3	M24308/4-467F	DD104M0F00C	M24308/6-13P	DD44F1000S-50
M24308/4-304	RD25M1F000-50	M24308/4-421	DD78M1F000-50-799.3	M24308/5-1	HDC9F20000-50-403.0	M24308/6-14	DD62F10000-50-403.0
M24308/4-304F	RD25M1F00C-50	M24308/4-422	DD104M1F000-50-799.3	M24308/5-1F	HDC9F2000C-50-403.0	M24308/6-14F	DD62F1000C-50-403.0
M24308/4-305	RD37M1F000-50	M24308/4-423	RD9M0F000-799.2	M24308/5-1P	HDC9F2000S-50	M24308/6-14P	DD62F1000S-50
M24308/4-305F	RD37M1F00C-50	M24308/4-424	RD15M0F000-799.2	M24308/5-2	HDC15F20000-50-403.0	M24308/6-15	DD78F10000-50-403.0
M24308/4-306	RD50M1F000-50	M24308/4-425	RD25M0F000-799.2	M24308/5-2F	HDC15F2000C-50-403.0	M24308/6-15F	DD78F1000C-50-403.0
M24308/4-306F	RD50M1F00C-50	M24308/4-426	RD37M0F000-799.2	M24308/5-2P	HDC15F2000S-50	M24308/6-15P	DD78F1000S-50
M24308/4-313	RD9M1F000-50-400.0	M24308/4-427	RD50M0F000-799.2	M24308/5-3	HDC25F20000-50-403.0	M24308/6-16	DD104F10000-50-403.0
M24308/4-313F	RD9M1F00C-50-400.0	M24308/4-428	DD15M0F000-799.2	M24308/5-3F	HDC25F2000C-50-403.0	M24308/6-16F	DD104F1000C-50-403.0
M24308/4-314	RD15M1F000-50-400.0	M24308/4-429	DD26M0F000-799.2	M24308/5-3P	HDC25F2000S-50	M24308/6-16P	DD104F1000S-50
M24308/4-314F	RD15M1F00C-50-400.0	M24308/4-430	DD44M0F000-799.2	M24308/5-4	HDC37F20000-50-403.0	M24308/6-17	DD15F10000-50-403.2
M24308/4-315	RD25M1F000-50-400.0	M24308/4-431	DD62M0F000-799.2	M24308/5-4F	HDC37F2000C-50-403.0	M24308/6-17F	DD15F1000C-50-403.2
M24308/4-315F	RD25M1F00C-50-400.0	M24308/4-432	DD78M0F000-799.2	M24308/5-4P	HDC37F2000S-50	M24308/6-17P	DD15F1000S-50-400.1
M24308/4-316	RD37M1F000-50-400.0	M24308/4-433	DD104M0F000-799.2	M24308/5-5	HDC50F20000-50-403.0	M24308/6-18	DD26F10000-50-403.2
M24308/4-316F	RD37M1F00C-50-400.0	M24308/4-435	RD9M1F000-50	M24308/5-5F	HDC50F2000C-50-403.0	M24308/6-18F	DD26F1000C-50-403.2
M24308/4-317	RD50M1F000-50-400.0	M24308/4-435F	RD9M1F00C-50	M24308/5-5P	HDC50F2000S-50	M24308/6-18P	DD26F1000S-50-400.1
M24308/4-317F	RD50M1F00C-50-400.0	M24308/4-436	RD15M1F000-50	M24308/5-23	HDC9F2F000-50-403.0	M24308/6-19	DD44F10000-50-403.2
M24308/4-324	RD9M0F000	M24308/4-436F	RD15M1F00C-50	M24308/5-23F	HDC9F2F00C-50-403.0	M24308/6-19F	DD44F1000C-50-403.2
M24308/4-324F	RD9M0F00C	M24308/4-437	RD25M1F000-50	M24308/5-23P	HDC9F2F00S-50	M24308/6-19P	DD44F1000S-50-400.1
M24308/4-325	RD15M0F000	M24308/4-437F	RD25M1F00C-50	M24308/5-24	HDC15F2F000-50-403.0	M24308/6-20	DD62F10000-50-403.2
M24308/4-325F	RD15M0F00C	M24308/4-438	RD37M1F000-50	M24308/5-24F	HDC15F2F00C-50-403.0	M24308/6-20F	DD62F1000C-50-403.2
M24308/4-326	RD25M0F000	M24308/4-438F	RD37M1F00C-50	M24308/5-24P	HDC15F2F00S-50	M24308/6-20P	DD62F1000S-50-400.1
M24308/4-326F	RD25M0F00C	M24308/4-439	RD50M1F000-50	M24308/5-25	HDC25F2F000-50-403.0	M24308/6-21	DD78F10000-50-403.2
M24308/4-327	RD37M0F000	M24308/4-439F	RD50M1F00C-50	M24308/5-25F	HDC25F2F00C-50-403.0	M24308/6-21F	DD78F1000C-50-403.2
M24308/4-327F	RD37M0F00C	M24308/4-440	DD15M10000-50	M24308/5-25P	HDC25F2F00S-50	M24308/6-21P	DD78F1000S-50-400.1
M24308/4-328	RD50M0F000	M24308/4-440F	DD15M1000C-50	M24308/5-26	HDC37F2F000-50-403.0	M24308/6-22	DD104F10000-50-403.2
M24308/4-328F	RD50M0F00C	M24308/4-441	DD26M10000-50	M24308/5-26F	HDC37F2F00C-50-403.0	M24308/6-22F	DD104F1000C-50-403.2
M24308/4-335	RD9M10000-50-799.0	M24308/4-441F	DD26M1000C-50	M24308/5-26P	HDC37F2F00S-50	M24308/6-22P	DD104F1000S-50-400.1
M24308/4-336	RD15M10000-50-799.0	M24308/4-442	DD44M10000-50	M24308/5-27	HDC50F2F000-50-403.0	M24308/6-281	RD9F00000-403.0
M24308/4-337	RD25M10000-50-799.0	M24308/4-442F	DD44M1000C-50	M24308/5-27F	HDC50F2F00C-50-403.0	M24308/6-281F	RD9F0000C-403.0
M24308/4-338	RD37M10000-50-799.0	M24308/4-443	DD62M10000-50	M24308/5-27P	HDC50F2F00S-50	M24308/6-281P	RD9F0000S
M24308/4-339	RD50M10000-50-799.0	M24308/4-443F	DD62M1000C-50	M24308/5-34	HDC9F20000-50-403.3	M24308/6-282	RD15F00000-403.0
M24308/4-340	RD9M10000-50-799.1	M24308/4-444	DD78M10000-50	M24308/5-35	HDC15F20000-50-403.3	M24308/6-282F	RD15F0000C-403.0
M24308/4-341	RD15M10000-50-799.1	M24308/4-444F	DD78M1000C-50	M24308/5-36	HDC25F20000-50-403.3	M24308/6-282P	RD15F0000S
M24308/4-342	RD25M10000-50-799.1	M24308/4-445	DD104M10000-50	M24308/5-37	HDC37F20000-50-403.3	M24308/6-283	RD25F00000-403.0
M24308/4-343	RD37M10000-50-799.1	M24308/4-445F	DD104M1000C-50	M24308/5-38	HDC50F20000-50-403.3	M24308/6-283F	RD25F0000C-403.0
M24308/4-344	RD50M10000-50-799.1	M24308/4-446	RD9M1F000-50-400.0	M24308/5-56	HDC9F2F000-50-403.4	M24308/6-283P	RD25F0000S
M24308/4-345	DD15M10000-50-799.0	M24308/4-446F	RD9M1F00C-50-400.0	M24308/5-57	HDC15F2F000-50-403.4	M24308/6-284	RD37F00000-403.0
M24308/4-346	DD26M10000-50-799.0	M24308/4-447	RD15M1F000-50-400.0	M24308/5-58	HDC25F2F000-50-403.4	M24308/6-284F	RD37F0000C-403.0
M24308/4-347	DD44M10000-50-799.0	M24308/4-447F	RD15M1F00C-50-400.0	M24308/5-59	HDC37F2F000-50-403.4	M24308/6-284P	RD37F0000S
M24308/4-348	DD62M10000-50-799.0	M24308/4-448	RD25M1F000-50-400.0	M24308/5-60	HDC50F2F000-50-403.4	M24308/6-285	RD50F00000-403.0
M24308/4-349	DD78M10000-50-799.0	M24308/4-448F	RD25M1F00C-50-400.0	M24308/6-1	RD9F10000-50-403.0	M24308/6-285F	RD50F0000C-403.0
M24308/4-350	DD104M10000-50-799.0	M24308/4-449	RD37M1F000-50-400.0	M24308/6-1F	RD9F1000C-50-403.0	M24308/6-285P	RD50F0000S
M24308/4-351	DD15M10000-50-799.1	M24308/4-449F	RD37M1F00C-50-400.0	M24308/6-1P	RD9F1000S-50	M24308/6-286	DD15F00000-403.0
M24308/4-352	DD26M10000-50-799.1	M24308/4-450	RD50M1F000-50-400.0	M24308/6-2	RD15F10000-50-403.0	M24308/6-286F	DD15F0000C-403.0
M24308/4-353	DD44M10000-50-799.1	M24308/4-450F	RD50M1F00C-50-400.0	M24308/6-2F	RD15F1000C-50-403.0	M24308/6-286P	DD15F0000S
M24308/4-354	DD62M10000-50-799.1	M24308/4-451	DD15M1F000-50-400.1	M24308/6-2P	RD15F1000S-50	M24308/6-287	DD26F00000-403.0
M24308/4-355	DD78M10000-50-799.1	M24308/4-451F	DD15M1F00C-50-400.1	M24308/6-3	RD25F10000-50-403.0	M24308/6-287F	DD26F0000C-403.0
M24308/4-356	DD104M10000-50-799.1	M24308/4-452	DD26M1F000-50-400.1	M24308/6-3F	RD25F1000C-50-403.0	M24308/6-287P	DD26F0000S
M24308/4-357	RD9M00000-799.0	M24308/4-452F	DD26M1F00C-50-400.1	M24308/6-3P	RD25F1000S-50	M24308/6-288	DD44F00000-403.0
M24308/4-358	RD15M00000-799.0	M24308/4-453	DD44M1F000-50-400.1	M24308/6-4	RD37F10000-50-403.0	M24308/6-288F	DD44F0000C-403.0
M24308/4-359	RD25M00000-799.0	M24308/4-453F	DD44M1F00C-50-400.1	M24308/6-4F	RD37F1000C-50-403.0	M24308/6-288P	DD44F0000S
M24308/4-360	RD37M00000-799.0	M24308/4-454	DD62M1F000-50-400.1	M24308/6-4P	RD37F1000S-50	M24308/6-289	DD62F00000-403.0
M24308/4-361	RD50M00000-799.0	M24308/4-454F	DD62M1F00C-50-400.1	M24308/6-5	RD50F10000-50-403.0	M24308/6-289F	DD62F0000C-403.0
M24308/4-362	DD15M00000-799.0	M24308/4-455	DD78M1F000-50-400.1	M24308/6-5F	RD50F1000C-50-403.0	M24308/6-289P	DD62F0000S
M24308/4-363	DD26M00000-799.0	M24308/4-455F	DD78M1F00C-50-400.1	M24308/6-5P	RD50F1000S-50	M24308/6-290	DD78F00000-403.0
M24308/4-364	DD44M00000-799.0	M24308/4-456	DD104M1F000-50-400.1	M24308/6-6	RD9F10000-50-403.1	M24308/6-290F	DD78F0000C-403.0
M24308/4-365	DD62M00000-799.0	M24308/4-456F	DD104M1F00C-50-400.1	M24308/6-6F	RD9F1000C-50-403.1	M24308/6-290P	DD78F0000S
M24308/4-366	DD78M00000-799.0	M24308/4-457	RD9M0F000	M24308/6-6P	RD9F1000S-50-400.0	M24308/6-291	DD104F00000-403.0
M24308/4-367	DD104M00000-799.0	M24308/4-457F	RD9M0F00C	M24308/6-7	RD15F10000-50-403.1	M24308/6-291F	DD104F0000C-403.0
M24308/4-401	RD9M1F000-50-799.2	M24308/4-458	RD15M0F000	M24308/6-7F	RD15F1000C-50-403.1	M24308/6-291P	DD104F0000S
M24308/4-402	RD15M1F000-50-799.2	M24308/4-458F	RD15M0F00C	M24308/6-7P	RD15F1000S-50-400.0	M24308/6-453	RD9F1F000-50-403.0
M24308/4-403	RD25M1F000-50-799.2	M24308/4-459	RD25M0F000	M24308/6-8	RD25F10000-50-403.1	M24308/6-453F	RD9F1F00C-50-403.0
M24308/4-404	RD37M1F000-50-799.2	M24308/4-459F	RD25M0F00C	M24308/6-8F	RD25F1000C-50-403.1	M24308/6-453P	RD9F1F00S-50
M24308/4-405	RD50M1F000-50-799.2	M24308/4-460	RD37M0F000	M24308/6-8P	RD25F1000S-50-400.0	M24308/6-454	RD15F1F000-50-403.0
M24308/4-406	DD15M1F000-50-799.2	M24308/4-460F	RD37M0F00C	M24308/6-9	RD37F10000-50-403.1	M24308/6-454F	RD15F1F00C-50-403.0
M24308/4-407	DD26M1F000-50-799.2	M24308/4-461	RD50M0F000	M24308/6-9F	RD37F1000C-50-403.1	M24308/6-454P	RD15F1F00S-50
M24308/4-408	DD44M1F000-50-799.2	M24308/4-461F	RD50M0F00C	M24308/6-9P	RD37F1000S-50-400.0	M24308/6-455	RD25F1F000-50-403.0
M24308/4-409	DD62M1F000-50-799.2	M24308/4-462	DD15M0F000	M24308/6-10	RD50F10000-50-403.1	M24308/63	

**MIL-DTL-24308/MIL-C-39029/MIL-C-85049
QUALIFIED PRODUCTS LISTING**

Positronic HDC Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-618-79/24308-1210-85.
Positronic RD Series hoods are Q.P.L. approved to MIL-C-85049 per test report number 85049-870-84.
Positronic DD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-1209-85/24308-1210-85/24308-117-89.
Positronic RD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-211-79/24308-1210-85.
Positronic RD Series contacts are Q.P.L. approved to MIL-C-39029 per test report number 39029-694-79.

MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER
M24308/6-458P	DD15F1F00S-50	M24308/6-501P	DD104F0F00S	M24308/7-5P	HDC50M2000S-50	M24308/8-14F	DD62M1000C-50-403.0
M24308/6-459	DD26F1F000-50-403.0	M24308/6-502	RD99F10000-50-403.3	M24308/7-12	HDC9M2F000-50-403.0	M24308/8-14P	DD62M1000S-50
M24308/6-459P	DD26F1F00C-50-403.0	M24308/6-503	RD15F10000-50-403.3	M24308/7-12F	HDC9M2F00C-50-403.0	M24308/8-15	DD78M10000-50-403.0
M24308/6-459P	DD26F1F00S-50	M24308/6-504	RD25F10000-50-403.3	M24308/7-12P	HDC9M2F00S-50	M24308/8-15F	DD78M1000C-50-403.0
M24308/6-460	DD44F1F000-50-403.0	M24308/6-505	RD37F10000-50-403.3	M24308/7-13	HDC15M2F000-50-403.0	M24308/8-15P	DD78M1000S-50
M24308/6-460F	DD44F1F00C-50-403.0	M24308/6-506	RD50F10000-50-403.3	M24308/7-13F	HDC15M2F00C-50-403.0	M24308/8-16	DD104M10000-50-403.0
M24308/6-460P	DD44F1F00S-50	M24308/6-507	RD99F10000-50-403.5	M24308/7-13P	HDC15M2F00S-50	M24308/8-16F	DD104M1000C-50-403.0
M24308/6-461	DD62F1F000-50-403.0	M24308/6-508	RD15F10000-50-403.5	M24308/7-14	HDC25M2F000-50-403.0	M24308/8-16P	DD104M1000S-50
M24308/6-461F	DD62F1F00C-50-403.0	M24308/6-509	RD25F10000-50-403.5	M24308/7-14F	HDC25M2F00C-50-403.0	M24308/8-17	DD15M10000-50-403.2
M24308/6-461P	DD62F1F00S-50	M24308/6-510	RD37F10000-50-403.5	M24308/7-14P	HDC25M2F00S-50	M24308/8-17F	DD15M1000C-50-403.2
M24308/6-462	DD78F1F000-50-403.0	M24308/6-511	RD50F10000-50-403.5	M24308/7-15	HDC37M2F000-50-403.0	M24308/8-17P	DD15M1000S-50-400.1
M24308/6-462F	DD78F1F00C-50-403.0	M24308/6-512	DD15F10000-50-403.3	M24308/7-15F	HDC37M2F00C-50-403.0	M24308/8-18	DD26M10000-50-403.2
M24308/6-462P	DD78F1F00S-50	M24308/6-513	DD26F10000-50-403.3	M24308/7-15P	HDC37M2F00S-50	M24308/8-18F	DD26M1000C-50-403.2
M24308/6-463	DD104F1F000-50-403.0	M24308/6-514	DD44F10000-50-403.3	M24308/7-16	HDC50M2F000-50-403.0	M24308/8-18P	DD26M1000S-50-400.1
M24308/6-463F	DD104F1F00C-50-403.0	M24308/6-515	DD62F10000-50-403.3	M24308/7-16F	HDC50M2F00C-50-403.0	M24308/8-19	DD44M10000-50-403.2
M24308/6-463P	DD104F1F00S-50	M24308/6-516	DD78F10000-50-403.3	M24308/7-16P	HDC50M2F00S-50	M24308/8-19F	DD44M1000C-50-403.2
M24308/6-464	RD9F1F000-50-403.1	M24308/6-517	DD104F10000-50-403.3	M24308/7-17	HDC9M2F000-50-403.0	M24308/8-19P	DD44M1000S-50-400.1
M24308/6-464F	RD9F1F00C-50-403.1	M24308/6-518	DD15F10000-50-403.5	M24308/7-17F	HDC9M2F00C-50-403.0	M24308/8-20	DD62M10000-50-403.2
M24308/6-464P	RD9F1F00S-50-400.0	M24308/6-519	DD26F10000-50-403.5	M24308/7-17P	HDC9M2F00S-50	M24308/8-20F	DD62M1000C-50-403.2
M24308/6-465	RD15F1F000-50-403.1	M24308/6-520	DD44F10000-50-403.5	M24308/7-18	HDC15M2F000-50-403.0	M24308/8-20P	DD62M1000S-50-400.1
M24308/6-465F	RD15F1F00C-50-403.1	M24308/6-521	DD62F10000-50-403.5	M24308/7-18F	HDC15M2F00C-50-403.0	M24308/8-21	DD78M10000-50-403.2
M24308/6-465P	RD15F1F00S-50-400.0	M24308/6-522	DD78F10000-50-403.5	M24308/7-18P	HDC15M2F00S-50	M24308/8-21F	DD78M1000C-50-403.2
M24308/6-466	RD25F1F000-50-403.1	M24308/6-523	DD104F10000-50-403.5	M24308/7-19	HDC25M2F000-50-403.0	M24308/8-21P	DD78M1000S-50-400.1
M24308/6-466F	RD25F1F00C-50-403.1	M24308/6-540	RD9F00000-403.3	M24308/7-19F	HDC25M2F00C-50-403.0	M24308/8-22	DD104M10000-50-403.2
M24308/6-466P	RD25F1F00S-50-400.0	M24308/6-541	RD15F00000-403.3	M24308/7-19P	HDC25M2F00S-50	M24308/8-22F	DD104M1000C-50-403.2
M24308/6-467	RD37F1F000-50-403.1	M24308/6-542	RD25F00000-403.3	M24308/7-20	HDC37M2F000-50-403.0	M24308/8-22P	DD104M1000S-50-400.1
M24308/6-467F	RD37F1F00C-50-403.1	M24308/6-543	RD37F00000-403.3	M24308/7-20F	HDC37M2F00C-50-403.0	M24308/8-259	RD9M00000-403.0
M24308/6-467P	RD37F1F00S-50-400.0	M24308/6-544	RD50F00000-403.3	M24308/7-20P	HDC37M2F00S-50	M24308/8-259F	RD9M0000C-403.0
M24308/6-468	RD50F1F000-50-403.1	M24308/6-545	DD15F00000-403.3	M24308/7-21	HDC50M2F000-50-403.0	M24308/8-259P	RD9M0000S
M24308/6-468F	RD50F1F00C-50-403.1	M24308/6-546	DD26F00000-403.3	M24308/7-21F	HDC50M2F00C-50-403.0	M24308/8-260	RD15M00000-403.0
M24308/6-468P	RD50F1F00S-50-400.0	M24308/6-547	DD44F00000-403.3	M24308/7-21P	HDC50M2F00S-50	M24308/8-260F	RD15M0000C-403.0
M24308/6-469	DD15F1F000-50-403.2	M24308/6-548	DD62F00000-403.3	M24308/7-23	HDC9M20000-50-403.3	M24308/8-260P	RD15M0000S
M24308/6-469F	DD15F1F00C-50-403.2	M24308/6-549	DD78F00000-403.3	M24308/7-24	HDC15M20000-50-403.3	M24308/8-261	RD25M00000-403.0
M24308/6-469P	DD15F1F00S-50-400.1	M24308/6-550	DD104F00000-403.3	M24308/7-25	HDC25M20000-50-403.3	M24308/8-261F	RD25M0000C-403.0
M24308/6-470	DD26F1F000-50-403.2	M24308/6-551	RD9F1F000-50-403.4	M24308/7-26	HDC37M20000-50-403.3	M24308/8-261P	RD25M0000S
M24308/6-470F	DD26F1F00C-50-403.2	M24308/6-552	RD15F1F000-50-403.4	M24308/7-27	HDC50M20000-50-403.3	M24308/8-262	RD37M00000-403.0
M24308/6-470P	DD26F1F00S-50-400.1	M24308/6-553	DD26F1F000-50-403.4	M24308/7-34	HDC9M2F000-50-403.4	M24308/8-262F	RD37M0000C-403.0
M24308/6-471	DD44F1F000-50-403.2	M24308/6-554	RD37F1F000-50-403.4	M24308/7-35	HDC15M2F000-50-403.4	M24308/8-262P	RD37M0000S
M24308/6-471F	DD44F1F00C-50-403.2	M24308/6-555	RD50F1F000-50-403.4	M24308/7-36	HDC25M2F000-50-403.4	M24308/8-263	RD50M00000-403.0
M24308/6-471P	DD44F1F00S-50-400.1	M24308/6-556	DD15F1F000-50-403.4	M24308/7-37	HDC37M2F000-50-403.4	M24308/8-263F	RD50M0000C-403.0
M24308/6-472	DD62F1F000-50-403.2	M24308/6-557	DD26F1F000-50-403.4	M24308/7-38	HDC50M2F000-50-403.4	M24308/8-263P	RD50M0000S
M24308/6-472F	DD62F1F00C-50-403.2	M24308/6-558	DD44F1F000-50-403.4	M24308/8-1	RD9M10000-50-403.0	M24308/8-264	DD15M00000-403.0
M24308/6-472P	DD62F1F00S-50-400.1	M24308/6-559	DD62F1F000-50-403.4	M24308/8-1F	RD9M1000C-50-403.0	M24308/8-264F	DD15M0000C-403.0
M24308/6-473	DD78F1F000-50-403.2	M24308/6-560	DD78F1F000-50-403.4	M24308/8-1P	RD9M1000S-50	M24308/8-264P	DD15M0000S
M24308/6-473F	DD78F1F00C-50-403.2	M24308/6-561	DD104F1F000-50-403.4	M24308/8-2	RD15M10000-50-403.0	M24308/8-265	DD26M00000-403.0
M24308/6-473P	DD78F1F00S-50-400.1	M24308/6-562	RD9F1F000-50-403.6	M24308/8-2F	RD15M1000C-50-403.0	M24308/8-265F	DD26M0000C-403.0
M24308/6-474	DD104F1F000-50-403.2	M24308/6-563	DD15F1F000-50-403.6	M24308/8-2P	RD15M1000S-50	M24308/8-265P	DD26M0000S
M24308/6-474F	DD104F1F00C-50-403.2	M24308/6-564	RD25F1F000-50-403.6	M24308/8-3	RD25M10000-50-403.0	M24308/8-266	DD44M00000-403.0
M24308/6-474P	DD104F1F00S-50-400.1	M24308/6-565	RD37F1F000-50-403.6	M24308/8-3F	RD25M1000C-50-403.0	M24308/8-266F	DD44M0000C-403.0
M24308/6-491	RD9F0F000-403.0	M24308/6-566	RD50F1F000-50-403.6	M24308/8-3P	RD25M1000S-50	M24308/8-266P	DD44M0000S
M24308/6-491F	RD9F0F00C-403.0	M24308/6-567	DD15F1F000-50-403.6	M24308/8-4	RD37M10000-50-403.0	M24308/8-267	DD62M00000-403.0
M24308/6-491P	RD9F0F00S	M24308/6-568	DD26F1F000-50-403.6	M24308/8-4F	RD37M1000C-50-403.0	M24308/8-267F	DD62M0000C-403.0
M24308/6-492	RD15F0F000-403.0	M24308/6-569	DD44F1F000-50-403.6	M24308/8-4P	RD37M1000S-50	M24308/8-267P	DD62M0000S
M24308/6-492F	RD15F0F00C-403.0	M24308/6-570	DD62F1F000-50-403.6	M24308/8-5	RD50M10000-50-403.0	M24308/8-268	DD78M00000-403.0
M24308/6-492P	RD15F0F00S	M24308/6-571	DD78F1F000-50-403.6	M24308/8-5F	RD50M1000C-50-403.0	M24308/8-268F	DD78M0000C-403.0
M24308/6-493	RD25F0F000-403.0	M24308/6-572	DD104F1F000-50-403.6	M24308/8-5P	RD50M1000S-50	M24308/8-268P	DD78M0000S
M24308/6-493F	RD25F0F00C-403.0	M24308/6-573	RD9F0F000-403.4	M24308/8-6	RD9M10000-50-403.1	M24308/8-269	DD104M00000-403.0
M24308/6-493P	RD25F0F00S	M24308/6-574	RD15F0F000-403.4	M24308/8-6F	RD9M1000C-50-403.1	M24308/8-269F	DD104M0000C-403.0
M24308/6-494	RD37F0F000-403.0	M24308/6-575	RD25F0F000-403.4	M24308/8-6P	RD9M1000S-50-400.0	M24308/8-269P	DD104M0000S
M24308/6-494F	RD37F0F00C-403.0	M24308/6-576	RD37F0F000-403.4	M24308/8-7	RD15M10000-50-403.1	M24308/8-335	RD9M10000-50-403.3
M24308/6-494P	RD37F0F00S	M24308/6-577	RD50F0F000-403.4	M24308/8-7F	RD15M1000C-50-403.1	M24308/8-336	RD15M10000-50-403.3
M24308/6-495	RD50F0F000-403.0	M24308/6-578	DD15F0F000-403.4	M24308/8-7P	RD15M1000S-50-400.0	M24308/8-337	RD25M10000-50-403.3
M24308/6-495F	RD50F0F00C-403.0	M24308/6-579	DD26F0F000-403.4	M24308/8-8	RD25M10000-50-403.1	M24308/8-338	RD37M10000-50-403.3
M24308/6-495P	RD50F0F00S	M24308/6-580	DD44F0F000-403.4	M24308/8-8F	RD25M1000C-50-403.1	M24308/8-339	RD50M10000-50-403.3
M24308/6-496	DD15F0F000-403.0	M24308/6-581	DD62F0F000-403.4	M24308/8-8P	RD25M1000S-50-400.0	M24308/8-340	RD9M10000-50-403.5
M24308/6-496F	DD15F0F00C-403.0	M24308/6-582	DD78F0F000-403.4	M24308/8-9	RD37M10000-50-403.1	M24308/8-341	RD15M10000-50-403.5
M24308/6-496P	DD15F0F00S	M24308/6-583	DD104F0F000-403.4	M24308/8-9F	RD37M1000C-50-403.1	M24308/8-342	RD25M10000-50-403.5
M24308/6-497	DD26F0F000-403.0	M24307/7-1	HDC9M20000-50-403.0	M24308/8-9P	RD37M1000S-50-400.0	M24308/8-343	RD37M10000-50-403.5
M24308/6-497F	DD26F0F00C-403.0	M24308/7-1F	HDC9M2000C-50-403.0	M24308/8-10	RD50M10000-50-403.1	M24308/8-344	RD50M10000-50-403.5
M24308/6-497P	DD26F0F00S	M24307/7-1P	HDC9M2000S-50	M24308/8-10F	RD50M1000C-50-403.1	M24308/8-345	DD15M10000-50-403.3
M24308/6-498	DD44F0F000-403.0	M24307/7-2	HDC15M20000-50-403.0	M24308/8-10P	RD50M1000S-50-400.0	M24308/8-346	DD26M10000-50-403.3
M24308/6-498F	DD44F0F00C-403.0	M24307/7-2F	HDC15M2000C-50-403.0	M24308/8-11	DD15M10000-50-403.0	M24308/8-347	DD44M10000-50-403.5
M24308/6-498P	DD44F0F00S	M24307/7-2P	HDC15M2000S-50	M24308/8-11F	DD15M1000C-50-403.0	M24308/8-348	DD62M10000-50-403.3
M24308/6-499	DD62F0F000-403.0	M24307/7-3	HDC25M20000-50-403.0	M24308/8-11P	DD26M10000-50-403.0	M24308/8-349	DD78M10000-50-403.3
M24308/6-499F	DD62F0F00C-403.0	M24307/7-3F	HDC25M2000C-50-403.0	M24308/8-12	DD26M10000-50-403.0	M24308/8-350	DD104M10000-50-403.3
M24308/6-499P	DD62F0F00S	M24307/7-3P	HDC25M2000S-50	M24308/8-12F	DD26M1000C-50-403.0	M24308/8-351	DD15M10000-50-403.5
M24308/6-500	DD78F0F000-403.0	M24307/7-4	HDC37M20000-50-403.0	M24308/8-12P	DD26M1000S-50	M24308/8-352	DD26M10000-50-403.5

Q.P.L. CONNECTORS

MIL-DTL-24308/MIL-C-39029/MIL-C-85049 QUALIFIED PRODUCTS LISTING

Positronic HDC Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-618-79/24308-1210-85.

Positronic RD Series hoods are Q.P.L. approved to MIL-C-85049 per test report number 85049-870-84.

Positronic DD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-1209-85/24308-1210-85/24308-117-89.

Positronic RD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-211-79/24308-1210-85.

Positronic RD Series contacts are Q.P.L. approved to MIL-C-39029 per test report number 39029-694-79.

MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER
M24308/8-357	RD9M00000-403.3	M24308/8-447	RD15M1F000-50-403.1	M24308/23-7P	HDC9F3P00S-50-375.10	M24308/23-39F	HDC25F5B800C-50-376.5
M24308/8-358	RD15M00000-403.3	M24308/8-447F	RD15M1F00C-50-403.1	M24308/23-8	HDC15F3P00S-50-375.10	M24308/23-39P	HDC25F5B800S-50-376.5
M24308/8-359	RD25M00000-403.3	M24308/8-447P	RD15M1F00S-50-400.0	M24308/23-8F	HDC15F3P00C-50-375.10	M24308/23-40	HDC37F5B8000-50-376.5
M24308/8-360	RD37M00000-403.3	M24308/8-448	RD25M1F000-50-403.1	M24308/23-8P	HDC15F3P00S-50-375.10	M24308/23-40F	HDC37F5B800C-50-376.5
M24308/8-361	RD50M00000-403.3	M24308/8-448F	RD25M1F00C-50-403.1	M24308/23-9	HDC25F3P00S-50-375.10	M24308/23-40P	HDC37F5B800S-50-376.5
M24308/8-362	DD15M00000-403.3	M24308/8-448P	RD25M1F00S-50-400.0	M24308/23-9F	HDC25F3P00C-50-375.10	M24308/23-41	HDC50F5B8000-50-376.5
M24308/8-363	DD26M00000-403.3	M24308/8-449	RD37M1F000-50-403.1	M24308/23-9P	HDC25F3P00S-50-375.10	M24308/23-41F	HDC50F5B800C-50-376.5
M24308/8-364	DD44M00000-403.3	M24308/8-449F	RD37M1F00C-50-403.1	M24308/23-10	HDC37F3P00S-50-375.10	M24308/23-41P	HDC50F5B800S-50-376.5
M24308/8-365	DD62M00000-403.3	M24308/8-449P	RD37M1F00S-50-400.0	M24308/23-10F	HDC37F3P00C-50-375.10	M24308/23-43	HDC9F5B8000-50-376.2
M24308/8-366	DD78M00000-403.3	M24308/8-450	RD50M1F000-50-403.1	M24308/23-10P	HDC37F3P00S-50-375.10	M24308/23-43F	HDC9F5B800C-50-376.2
M24308/8-367	DD104M00000-403.3	M24308/8-450F	RD50M1F00C-50-403.1	M24308/23-11	HDC50F3P00S-50-375.10	M24308/23-43P	HDC9F5B800S-50-376.2
M24308/8-401	RD9M1F000-50-403.4	M24308/8-450P	RD50M1F00S-50-400.0	M24308/23-11F	HDC50F3P00C-50-375.10	M24308/23-44	HDC15F5B8000-50-376.2
M24308/8-402	RD15M1F000-50-403.4	M24308/8-451	DD15M1F000-50-403.2	M24308/23-11P	HDC50F3P00S-50-375.10	M24308/23-44F	HDC15F5B800C-50-376.2
M24308/8-403	RD25M1F000-50-403.4	M24308/8-451F	DD15M1F00C-50-403.2	M24308/23-13	HDC9F3P00S-50-375.2	M24308/23-44P	HDC15F5B800S-50-376.2
M24308/8-404	RD37M1F000-50-403.4	M24308/8-451P	DD15M1F00S-50-400.1	M24308/23-13F	HDC9F3P00C-50-375.2	M24308/23-45	HDC25F5B8000-50-376.2
M24308/8-405	RD50M1F000-50-403.4	M24308/8-452	DD26M1F000-50-403.2	M24308/23-13P	HDC9F3P00S-50-375.2	M24308/23-45F	HDC25F5B800C-50-376.2
M24308/8-406	DD15M1F000-50-403.4	M24308/8-452F	DD26M1F00C-50-403.2	M24308/23-14	HDC15F3P00S-50-375.2	M24308/23-45P	HDC25F5B800S-50-376.2
M24308/8-407	DD26M1F000-50-403.4	M24308/8-452P	DD26M1F00S-50-400.1	M24308/23-14F	HDC15F3P00C-50-375.2	M24308/23-46	HDC37F5B8000-50-376.2
M24308/8-408	DD44M1F000-50-403.4	M24308/8-453	DD44M1F000-50-403.2	M24308/23-14P	HDC15F3P00S-50-375.2	M24308/23-46F	HDC37F5B800C-50-376.2
M24308/8-409	DD62M1F000-50-403.4	M24308/8-453F	DD44M1F00C-50-403.2	M24308/23-15	HDC25F3P00S-50-375.2	M24308/23-46P	HDC37F5B800S-50-376.2
M24308/8-410	DD78M1F000-50-403.4	M24308/8-453P	DD44M1F00S-50-400.1	M24308/23-15F	HDC25F3P00C-50-375.2	M24308/23-47	HDC50F5B8000-50-376.2
M24308/8-411	DD104M1F000-50-403.4	M24308/8-454	DD62M1F000-50-403.2	M24308/23-15P	HDC25F3P00S-50-375.2	M24308/23-47F	HDC50F5B800C-50-376.2
M24308/8-412	RD9M1F000-50-403.6	M24308/8-454F	DD62M1F00C-50-403.2	M24308/23-16	HDC37F3P00S-50-375.2	M24308/23-47P	HDC50F5B800S-50-376.2
M24308/8-413	RD15M1F000-50-403.6	M24308/8-454P	DD62M1F00S-50-400.1	M24308/23-16F	HDC37F3P00C-50-375.2	M24308/23-49	HDC9F5B8000-50-376.8
M24308/8-414	RD25M1F000-50-403.6	M24308/8-455	DD78M1F000-50-403.2	M24308/23-16P	HDC37F3P00S-50-375.2	M24308/23-49F	HDC9F5B800C-50-376.8
M24308/8-415	RD37M1F000-50-403.6	M24308/8-455F	DD78M1F00C-50-403.2	M24308/23-17	HDC50F3P00S-50-375.2	M24308/23-49P	HDC9F5B800S-50-376.8
M24308/8-416	RD50M1F000-50-403.6	M24308/8-455P	DD78M1F00S-50-400.1	M24308/23-17F	HDC50F3P00C-50-375.2	M24308/23-50	HDC15F5B8000-50-376.8
M24308/8-417	DD15M1F000-50-403.6	M24308/8-456	DD104M1F000-50-403.2	M24308/23-17P	HDC50F3P00S-50-375.2	M24308/23-50F	HDC15F5B800C-50-376.8
M24308/8-418	DD26M1F000-50-403.6	M24308/8-456F	DD104M1F00C-50-403.2	M24308/23-19	HDC9F3P00S-50-375.9	M24308/23-50P	HDC15F5B800S-50-376.8
M24308/8-419	DD44M1F000-50-403.6	M24308/8-456P	DD104M1F00S-50-400.1	M24308/23-19F	HDC9F3P00C-50-375.9	M24308/23-51	HDC25F5B8000-50-376.8
M24308/8-420	DD62M1F000-50-403.6	M24308/8-457	RD9M0F000-403.0	M24308/23-19P	HDC9F3P00S-50-375.9	M24308/23-51F	HDC25F5B800C-50-376.8
M24308/8-421	DD78M1F000-50-403.6	M24308/8-457F	RD9M0F00C-403.0	M24308/23-20	HDC15F3P00S-50-375.9	M24308/23-51P	HDC25F5B800S-50-376.8
M24308/8-422	DD104M1F000-50-403.6	M24308/8-457P	RD9M0F00S	M24308/23-20F	HDC15F3P00C-50-375.9	M24308/23-52	HDC37F5B8000-50-376.8
M24308/8-423	RD9M0F000-403.4	M24308/8-458	RD15M0F000-403.0	M24308/23-20P	HDC15F3P00S-50-375.9	M24308/23-52F	HDC37F5B800C-50-376.8
M24308/8-424	RD15M0F000-403.4	M24308/8-458F	RD15M0F00C-403.0	M24308/23-21	HDC25F3P00S-50-375.9	M24308/23-52P	HDC37F5B800S-50-376.8
M24308/8-425	RD25M0F000-403.4	M24308/8-458P	RD15M0F00S	M24308/23-21F	HDC25F3P00C-50-375.9	M24308/23-53	HDC50F5B8000-50-376.8
M24308/8-426	RD37M0F000-403.4	M24308/8-459	RD25M0F000-403.0	M24308/23-21P	HDC25F3P00S-50-375.9	M24308/23-53F	HDC50F5B800C-50-376.8
M24308/8-427	RD50M0F000-403.4	M24308/8-459F	RD25M0F00C-403.0	M24308/23-22	HDC37F3P00S-50-375.9	M24308/23-53P	HDC50F5B800S-50-376.8
M24308/8-428	DD15M0F000-403.4	M24308/8-459P	RD25M0F00S	M24308/23-22F	HDC37F3P00C-50-375.9	M24308/23-55	HDC9F5B8000-50-376.7
M24308/8-429	DD26M0F000-403.4	M24308/8-460	RD37M0F000-403.0	M24308/23-22P	HDC37F3P00S-50-375.9	M24308/23-55F	HDC9F5B800C-50-376.7
M24308/8-430	DD44M0F000-403.4	M24308/8-460F	RD37M0F00C-403.0	M24308/23-23	HDC50F3P00S-50-375.9	M24308/23-55P	HDC9F5B800S-50-376.7
M24308/8-431	DD62M0F000-403.4	M24308/8-460P	RD37M0F00S	M24308/23-23F	HDC50F3P00C-50-375.9	M24308/23-56	HDC15F5B8000-50-376.7
M24308/8-432	DD78M0F000-403.4	M24308/8-461	RD50M0F000-403.0	M24308/23-23P	HDC50F3P00S-50-375.9	M24308/23-56F	HDC15F5B800C-50-376.7
M24308/8-433	DD104M0F000-403.4	M24308/8-461F	RD50M0F00C-403.0	M24308/23-25	HDC9F5B8000-50-376.6	M24308/23-56P	HDC15F5B800S-50-376.7
M24308/8-435	RD9M1F000-50-403.0	M24308/8-461P	RD50M0F00S	M24308/23-25F	HDC9F5B800C-50-376.6	M24308/23-57	HDC25F5B8000-50-376.7
M24308/8-435F	RD9M1F00C-50-403.0	M24308/8-462	DD15M0F000-403.0	M24308/23-25P	HDC9F5B800S-50-376.6	M24308/23-57F	HDC25F5B800C-50-376.7
M24308/8-435P	RD9M1F00S-50	M24308/8-462F	DD15M0F00C-403.0	M24308/23-26	HDC15F5B8000-50-376.6	M24308/23-57P	HDC25F5B800S-50-376.7
M24308/8-436	RD15M1F000-50-403.0	M24308/8-462P	DD15M0F00S	M24308/23-26F	HDC15F5B800C-50-376.6	M24308/23-58	HDC37F5B8000-50-376.7
M24308/8-436F	RD15M1F00C-50-403.0	M24308/8-463	DD26M0F000-403.0	M24308/23-26P	HDC15F5B800S-50-376.6	M24308/23-58F	HDC37F5B800C-50-376.7
M24308/8-436P	RD15M1F00S-50	M24308/8-463F	DD26M0F00C-403.0	M24308/23-27	HDC25F5B8000-50-376.6	M24308/23-58P	HDC37F5B800S-50-376.7
M24308/8-437	RD25M1F000-50-403.0	M24308/8-463P	DD26M0F00S	M24308/23-27F	HDC25F5B800C-50-376.6	M24308/23-59	HDC50F5B8000-50-376.7
M24308/8-437F	RD25M1F00C-50-403.0	M24308/8-464	DD44M0F000-403.0	M24308/23-27P	HDC25F5B800S-50-376.6	M24308/23-59F	HDC50F5B800C-50-376.7
M24308/8-437P	RD25M1F00S-50	M24308/8-464F	DD44M0F00C-403.0	M24308/23-28	HDC37F5B8000-50-376.6	M24308/23-59P	HDC50F5B800S-50-376.7
M24308/8-438	RD37M1F000-50-403.0	M24308/8-464P	DD44M0F00S	M24308/23-28F	HDC37F5B800C-50-376.6	M24308/23-61	DD15F3P00S-50
M24308/8-438F	RD37M1F00C-50-403.0	M24308/8-465	DD62M0F000-403.0	M24308/23-28P	HDC37F5B800S-50-376.6	M24308/23-61F	DD15F3P00C-50
M24308/8-438P	RD37M1F00S-50	M24308/8-465F	DD62M0F00C-403.0	M24308/23-29	HDC50F5B8000-50-376.6	M24308/23-61P	DD15F3P00S-50
M24308/8-439	RD50M1F000-50-403.0	M24308/8-465P	DD62M0F00S	M24308/23-29F	HDC50F5B800C-50-376.6	M24308/23-62	DD26F3P00S-50
M24308/8-439F	RD50M1F00C-50-403.0	M24308/8-466	DD78M0F000-403.0	M24308/23-29P	HDC50F5B800S-50-376.6	M24308/23-62F	DD26F3P00C-50
M24308/8-439P	RD50M1F00S-50	M24308/8-466F	DD78M0F00C-403.0	M24308/23-31	HDC9F5B8000-50	M24308/23-62P	DD26F3P00S-50
M24308/8-440	DD15M1F000-50-403.0	M24308/8-466P	DD78M0F00S	M24308/23-31F	HDC9F5B800C-50	M24308/23-63	DD44F3P00S-50
M24308/8-440F	DD15M1F00C-50-403.0	M24308/8-467	DD104M0F000-403.0	M24308/23-31P	HDC9F5B800S-50	M24308/23-63F	DD44F3P00C-50
M24308/8-440P	DD15M1F00S-50	M24308/8-467F	DD104M0F00C-403.0	M24308/23-32	HDC15F5B8000-50	M24308/23-63P	DD44F3P00S-50
M24308/8-441	DD26M1F000-50-403.0	M24308/8-467P	DD104M0F00S	M24308/23-32F	HDC15F5B800C-50	M24308/23-64	DD62F3P00S-50
M24308/8-441F	DD26M1F00C-50-403.0	M24308/23-1	HDC9F3P00S-50	M24308/23-32P	HDC15F5B800S-50	M24308/23-64F	DD62F3P00C-50
M24308/8-441P	DD26M1F00S-50	M24308/23-1F	HDC9F3P00C-50	M24308/23-33	HDC25F5B8000-50	M24308/23-64P	DD62F3P00S-50
M24308/8-442	DD44M1F000-50-403.0	M24308/23-1P	HDC9F3P00S-50	M24308/23-33F	HDC25F5B800C-50		

Q.P.L. CONNECTORS

MIL-DTL-24308/MIL-C-39029/MIL-C-85049 QUALIFIED PRODUCTS LISTING

Positronic HDC Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-618-79/24308-1210-85.
Positronic RD Series hoods are Q.P.L. approved to MIL-C-85049 per test report number 85049-870-84.
Positronic DD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-1209-85/24308-1210-85/24308-117-89.
Positronic RD Series connectors are Q.P.L. approved to MIL-DTL-24308 per test report number 24308-211-79/24308-1210-85.
Positronic RD Series contacts are Q.P.L. approved to MIL-C-39029 per test report number 39029-694-79.

MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER	MILITARY PART NUMBER	POSITRONIC * PART NUMBER
M24308/23-71	DD78F32P000-50	M24308/24-26	HDC15M5B8000-50-376.6	M24308/24-58	HDC37M5B8000-50-376.7
M24308/23-71F	DD78F32P00C-50	M24308/24-26F	HDC15M5B800C-50-376.6	M24308/24-58F	HDC37M5B800C-50-376.7
M24308/23-71P	DD78F32P00S-50	M24308/24-26P	HDC15M5B800S-50-376.6	M24308/24-58P	HDC37M5B800S-50-376.7
M24308/23-73	DD15F4B8000-50	M24308/24-27	HDC25M5B8000-50-376.6	M24308/24-59	HDC50M5B8000-50-376.7
M24308/23-73F	DD15F4B800C-50	M24308/24-27F	HDC25M5B800C-50-376.6	M24308/24-59F	HDC50M5B800C-50-376.7
M24308/23-73P	DD15F4B800S-50	M24308/24-27P	HDC25M5B800S-50-376.6	M24308/24-59P	HDC50M5B800S-50-376.7
M24308/23-74	DD26F4B8000-50	M24308/24-28	HDC37M5B8000-50-376.6	M24308/24-61	DD15M3P000-50
M24308/23-74F	DD26F4B800C-50	M24308/24-28F	HDC37M5B800C-50-376.6	M24308/24-61F	DD15M3P00C-50
M24308/23-74P	DD26F4B800S-50	M24308/24-28P	HDC37M5B800S-50-376.6	M24308/24-61P	DD15M3P00S-50
M24308/23-75	DD44F4B8000-50	M24308/24-29	HDC50M5B8000-50-376.6	M24308/24-62	DD26M3P000-50
M24308/23-75F	DD44F4B800C-50	M24308/24-29F	HDC50M5B800C-50-376.6	M24308/24-62F	DD26M3P00C-50
M24308/23-75P	DD44F4B800S-50	M24308/24-29P	HDC50M5B800S-50-376.6	M24308/24-62P	DD26M3P00S-50
M24308/23-76	DD62F4B8000-50	M24308/24-31	HDC9M5B8000-50	M24308/24-63	DD44M3P000-50
M24308/23-76F	DD62F4B800C-50	M24308/24-31F	HDC9M5B800C-50	M24308/24-63F	DD44M3P00C-50
M24308/23-76P	DD62F4B800S-50	M24308/24-31P	HDC9M5B800S-50	M24308/24-63P	DD44M3P00S-50
M24308/23-77	DD78F4B8000-50	M24308/24-32	HDC15M5B8000-50	M24308/24-64	DD62M3P000-50
M24308/23-77F	DD78F4B800C-50	M24308/24-32F	HDC15M5B800C-50	M24308/24-64F	DD62M3P00C-50
M24308/23-77P	DD78F4B800S-50	M24308/24-32P	HDC15M5B800S-50	M24308/24-64P	DD62M3P00S-50
M24308/24-1	HDC9M3P000-50	M24308/24-33	HDC25M5B8000-50	M24308/24-65	DD78M3P000-50
M24308/24-1F	HDC9M3P00C-50	M24308/24-33F	HDC25M5B800C-50	M24308/24-65F	DD78M3P00C-50
M24308/24-1P	HDC9M3P00S-50	M24308/24-33P	HDC25M5B800S-50	M24308/24-65P	DD78M3P00S-50
M24308/24-2	HDC15M3P000-50	M24308/24-34	HDC37M5B8000-50	M24308/24-67	DD15M3P000-50
M24308/24-2F	HDC15M3P00C-50	M24308/24-34F	HDC37M5B800C-50	M24308/24-67F	DD15M3P00C-50
M24308/24-2P	HDC15M3P00S-50	M24308/24-34P	HDC37M5B800S-50	M24308/24-67P	DD15M3P00S-50
M24308/24-3	HDC25M3P000-50	M24308/24-35	HDC50M5B8000-50	M24308/24-68	DD26M3P000-50
M24308/24-3F	HDC25M3P00C-50	M24308/24-35F	HDC50M5B800C-50	M24308/24-68F	DD26M3P00C-50
M24308/24-3P	HDC25M3P00S-50	M24308/24-35P	HDC50M5B800S-50	M24308/24-68P	DD26M3P00S-50
M24308/24-4	HDC37M3P000-50	M24308/24-37	HDC9M5B8000-50-376.5	M24308/24-69	DD44M3P000-50
M24308/24-4F	HDC37M3P00C-50	M24308/24-37F	HDC9M5B800C-50-376.5	M24308/24-69F	DD44M3P00C-50
M24308/24-4P	HDC37M3P00S-50	M24308/24-37P	HDC9M5B800S-50-376.5	M24308/24-69P	DD44M3P00S-50
M24308/24-5	HDC50M3P000-50	M24308/24-38	HDC15M5B8000-50-376.5	M24308/24-70	DD62M3P000-50
M24308/24-5F	HDC50M3P00C-50	M24308/24-38F	HDC15M5B800C-50-376.5	M24308/24-70F	DD62M3P00C-50
M24308/24-5P	HDC50M3P00S-50	M24308/24-38P	HDC15M5B800S-50-376.5	M24308/24-70P	DD62M3P00S-50
M24308/24-7	HDC9M3P000-50-375.10	M24308/24-39	HDC25M5B8000-50-376.5	M24308/24-71	DD78M3P000-50
M24308/24-7F	HDC9M3P00C-50-375.10	M24308/24-39F	HDC25M5B800C-50-376.5	M24308/24-71F	DD78M3P00C-50
M24308/24-7P	HDC9M3P00S-50-375.10	M24308/24-39P	HDC25M5B800S-50-376.5	M24308/24-71P	DD78M3P00S-50
M24308/24-8	HDC15M3P000-50-375.10	M24308/24-40	HDC37M5B8000-50-376.5	M24308/24-73	DD15M4B8000-50
M24308/24-8F	HDC15M3P00C-50-375.10	M24308/24-40F	HDC37M5B800C-50-376.5	M24308/24-73F	DD15M4B800C-50
M24308/24-8P	HDC15M3P00S-50-375.10	M24308/24-40P	HDC37M5B800S-50-376.5	M24308/24-73P	DD15M4B800S-50
M24308/24-9	HDC25M3P000-50-375.10	M24308/24-41	HDC50M5B8000-50-376.5	M24308/24-74	DD26M4B8000-50
M24308/24-9F	HDC25M3P00C-50-375.10	M24308/24-41F	HDC50M5B800C-50-376.5	M24308/24-74F	DD26M4B800C-50
M24308/24-9P	HDC25M3P00S-50-375.10	M24308/24-41P	HDC50M5B800S-50-376.5	M24308/24-74P	DD26M4B800S-50
M24308/24-10	HDC37M3P000-50-375.10	M24308/24-43	HDC9M5B8000-50-376.3	M24308/24-75	DD44M4B8000-50
M24308/24-10F	HDC37M3P00C-50-375.10	M24308/24-43F	HDC9M5B800C-50-376.3	M24308/24-75F	DD44M4B800C-50
M24308/24-10P	HDC37M3P00S-50-375.10	M24308/24-43P	HDC9M5B800S-50-376.3	M24308/24-75P	DD44M4B800S-50
M24308/24-11	HDC50M3P000-50-375.10	M24308/24-44	HDC15M5B8000-50-376.3	M24308/24-76	DD62M4B8000-50
M24308/24-11F	HDC50M3P00C-50-375.10	M24308/24-44F	HDC15M5B800C-50-376.3	M24308/24-76F	DD62M4B800C-50
M24308/24-11P	HDC50M3P00S-50-375.10	M24308/24-44P	HDC15M5B800S-50-376.3	M24308/24-76P	DD62M4B800S-50
M24308/24-13	HDC9M3P000-50-375.3	M24308/24-45	HDC25M5B8000-50-376.3	M24308/24-77	DD78M4B8000-50
M24308/24-13F	HDC9M3P00C-50-375.3	M24308/24-45F	HDC25M5B800C-50-376.3	M24308/24-77F	DD78M4B800C-50
M24308/24-13P	HDC9M3P00S-50-375.3	M24308/24-45P	HDC25M5B800S-50-376.3	M24308/24-77P	DD78M4B800S-50
M24308/24-14	HDC15M3P000-50-375.3	M24308/24-46	HDC37M5B8000-50-376.3	M24308/25-6	D00000E20
M24308/24-14F	HDC15M3P00C-50-375.3	M24308/24-46F	HDC37M5B800C-50-376.3	M24308/25-6F	D00000E20-462.31
M24308/24-14P	HDC15M3P00S-50-375.3	M24308/24-46P	HDC37M5B800S-50-376.3	M24308/25-6P	D00000E20-462.23
M24308/24-15	HDC25M3P000-50-375.3	M24308/24-47	HDC50M5B8000-50-376.3	M24308/26-1	D00000T20-462.32
M24308/24-15F	HDC25M3P00C-50-375.3	M24308/24-47F	HDC50M5B800C-50-376.3	M24308/26-1F	D00000T20-462.33
M24308/24-15P	HDC25M3P00S-50-375.3	M24308/24-47P	HDC50M5B800S-50-376.3	M24308/26-1P	D00000T20-462.7
M24308/24-16	HDC37M3P000-50-375.3	M24308/24-49	HDC9M5B8000-50-376.8	M24308/26-2	D00000T30-462.32
M24308/24-16F	HDC37M3P00C-50-375.3	M24308/24-49F	HDC9M5B800C-50-376.8	M24308/26-2F	D00000T30-462.33
M24308/24-16P	HDC37M3P00S-50-375.3	M24308/24-49P	HDC9M5B800S-50-376.8	M24308/26-2P	D00000T30-462.7
M24308/24-17	HDC50M3P000-50-375.3	M24308/24-50	HDC15M5B8000-50-376.8	CRIMP CONTACTS	
M24308/24-17F	HDC50M3P00C-50-375.3	M24308/24-50F	HDC15M5B800C-50-376.8	M39029/57-354	FC8022D-50
M24308/24-17P	HDC50M3P00S-50-375.3	M24308/24-50P	HDC15M5B800S-50-376.8	M39029/58-360	MC8022D-50
M24308/24-19	HDC9M3P000-50-375.9	M24308/24-51	HDC25M5B8000-50-376.8	M39029/63-368	FC6020D-50
M24308/24-19F	HDC9M3P00C-50-375.9	M24308/24-51F	HDC25M5B800C-50-376.8	M39029/64-369	MC6020D-50
M24308/24-19P	HDC9M3P00S-50-375.9	M24308/24-51P	HDC25M5B800S-50-376.8	METAL HOODS	
M24308/24-20	HDC15M3P000-50-375.9	M24308/24-52	HDC37M5B8000-50-376.8	M85049/48-1-3F	RD25000H00
M24308/24-20F	HDC15M3P00C-50-375.9	M24308/24-52F	HDC37M5B800C-50-376.8	M85049/48-1-4F	RD37000H00
M24308/24-20P	HDC15M3P00S-50-375.9	M24308/24-52P	HDC37M5B800S-50-376.8	M85049/48-1-5F	RD50000H00
M24308/24-21	HDC25M3P000-50-375.9	M24308/24-53	HDC50M5B8000-50-376.8		
M24308/24-21F	HDC25M3P00C-50-375.9	M24308/24-53F	HDC50M5B800C-50-376.8		
M24308/24-21P	HDC25M3P00S-50-375.9	M24308/24-53P	HDC50M5B800S-50-376.8		
M24308/24-22	HDC37M3P000-50-375.9	M24308/24-55	HDC9M5B8000-50-376.7		
M24308/24-22F	HDC37M3P00C-50-375.9	M24308/24-55F	HDC9M5B800C-50-376.7		
M24308/24-22P	HDC37M3P00S-50-375.9	M24308/24-55P	HDC9M5B800S-50-376.7		
M24308/24-23	HDC50M3P000-50-375.9	M24308/24-56	HDC15M5B8000-50-376.7		
M24308/24-23F	HDC50M3P00C-50-375.9	M24308/24-56F	HDC15M5B800C-50-376.7		
M24308/24-23P	HDC50M3P00S-50-375.9	M24308/24-56P	HDC15M5B800S-50-376.7		
M24308/24-25	HDC9M5B8000-50-376.6	M24308/24-57	HDC25M5B8000-50-376.7		
M24308/24-25F	HDC9M5B800C-50-376.6	M24308/24-57F	HDC25M5B800C-50-376.7		
M24308/24-25P	HDC9M5B800S-50-376.6	M24308/24-57P	HDC25M5B800S-50-376.7		

*NOTE: Parts are to be ordered to the military number, the Positronic part number is for reference only.