

PRODUCT DESCRIPTION

HOLMBERG® D-Subminiature connectors are all plastic or metal-shielded for printed circuit board applications in the telecommunications, data processing, instrumentation, industrial control and other industries where low cost and high performance are required. They are fully intermatable with all D-Subminiature connectors - including crimp, solder and insulation displacement types.

The connector housing is molded in black glass-filled polyester, UL rates 94V-0. Contacts are high strength copper alloy and are selectively plated-gold-overnickel in the contact area with solder plating on the tails. This assures contact reliability, superior solderability and long shelf life at a lower cost.

The metal shielded connector is designed specifically for mating with EMI-RFI qualified cables, the H4 metal shell connectors incorporate a grounding bulkhead mount, or can be supplied with a grounding strap for grounding to the topside, underside or both, of PC boards. The bright tin-plated steel metal shell provides a cost-effective medium for grounding - which can also be accomplished through the mounting hardware.

Available in 9, 15, 25 and 37 positions, the unique design of the HOLMBERG® D-Subminiature connectors ensures excellent contact retention and precisely located, rigid contact tails for easy assembly.

DESIGN FEATURES

LARGE LEAD-IN PROVIDES EASY MATING, Allows male plug to be off true position as much as ± .040" and still mate. Corner radii around "D" outline also aids pin alignment. SMOOTH LEAD ON TIP OF PINS. Allows easy mating and low insertion force with mating receptacle.

RIGID TAILS NEED NO SUPPORT. Right angle tails have channel cross-section for exceptional strength and rigidity. They are precisely positioned for easy mounting. Since no plastic inserts or spacers are required for alignment or support, nothing obstructs cleaning after soldering.

60/40 TIN/LEAD SELECTIVE PLATING ON THE TAIL ENHANCES SOLDERABILITY. Nickel-plated tail surface above the board forms effective solder mask. Large cross-section of the above board tail portion provides good heat sink to further control solder application.

METAL SHELL provides electrical ground path continuity and magnetic shielding, from the mating receptacle metal shell through the grounding bumps on the male shell. The steel shell with bright tin-plating also provides for grounding through the factory installed mounting hardware.

PERFORMANCE CHARACTERISTICS

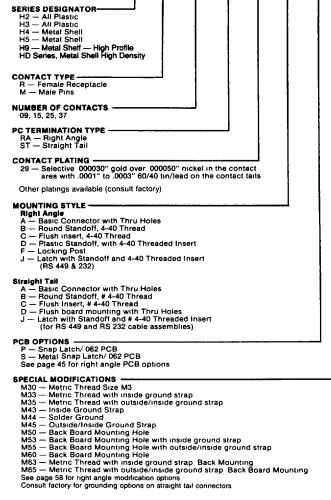
Operating voltage:	600VDC (sea level)			
Current rating:	5 Amperes			
Operating temperature:	-55°C to +125°C			
Contact resistance: 10 milliohms max @ rated current				
Insulation resistance:	5000 megohms minimum			
Dielectric withstanding voltage	1000 VAC minimum			
Durability:	up to 500 insertions and withdrawals without degradation of performance, dependent upon contact plating thickness selected			

MATERIALS

insulator body:	Glass filled polyester, UL rating 94V-0, color-black			
Contact:	High yield strength copper alloy			
Metal Shell:	Steel, bright tin plate			

UL Recognized and CSA Certified

PART NUMBER DESCRIPTION AND ORDERING INFORMATION



H2 SERIES

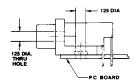
9, 15, 25 AND 37 POSITIONS ALL PLASTIC RIGHT ANGLE **FEMALE RECEPTACLES FOR** PRINTED CIRCUIT BOARD MOUNTING





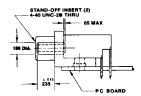
MOUNTING STYLES

This configuration is the basic connector with mounting holes only. It comes with no permanent hardware, but a separate hardware kit (part number 98039) is available

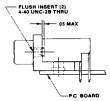


STYLE B

This configuration includes a #4-40 threaded standoff-which provides 6 in-lb torque retention, for mating to RS 232 cable assemblies. One-piece construction of the factory-installed insert eliminates need for separate hardware

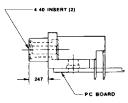


Style C mounting provides a flush, #4-40 threaded insert of nickel-plated brass. The insert has rows of knurling that capture it in the plastic, preventing rotation or push-out. It provides 6 in-lb torque retention.

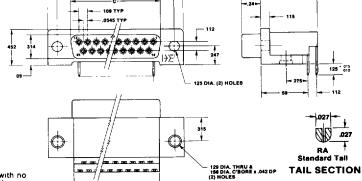


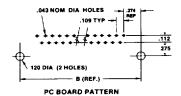
STYLE D

Unique Style D configuration has molded-in plastic standoff with factory-installed nickel-plated brass hex-headed, #4-40 threaded insert. Specifically designed for RS 232 cable assemblies. Insert is threaded all the way through. Hexagonal shape positively locks insert in place to provide 6 in-lb torque retention and eliminate rotation. Style D is functionally equivalent to Style B.



DIMENSIONS (Shown in inches)



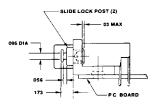


NOTE:

- Receptacle position numbers begin top row, RIGHT to LEFT, continue bottom row, RIGHT to LEFT.
- Maximum tail will fit .038" diameter gauge hole.
- Maximum recomm thickness is .093".

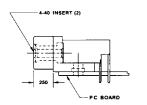
NUMBER OF CONTACTS	Α	В	С	D
9	1.224	.984	.646	.624
15	1.552	1.312	.974	.952
25	2.092	1.852	1.514	1.492
37	2.740	2.500	2.162	2.140

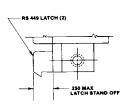
Style F has brass locking posts designed to mate with AMP's slide-latch clip assembly. Positronic's slide-lock assembly and equivalent connectors



STYLE J

Style J provides a unique connector which mates to both RS 232 and RS 449 cable assemblies





Thomas@Betts

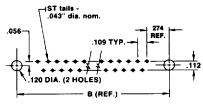
H2 SERIES

9, 15, 25 AND 37 POSITIONS STRAIGHT TAIL ALL PLASTIC FEMALE RECEPTACLES FOR PRINTED CIRCUIT BOARD MOUNTING



DIMENSIONS (Shown in Inches)

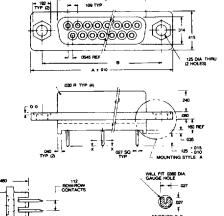
NUMBER OF CONTACTS	A	В	C
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15	1.552	1.312	.974
25	2.092	1.852	1.514
37	2.740	2.500	2.162



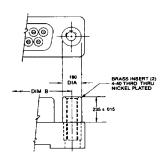
PC BOARD PATTERN

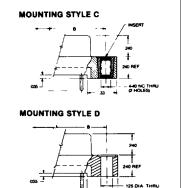
DIMENSIONS (Shown In Inches)

MOUNTING STYLE A

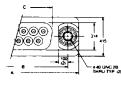


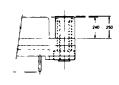
MOUNTING STYLE 8

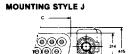


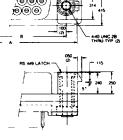


MOUNTING STYLE H

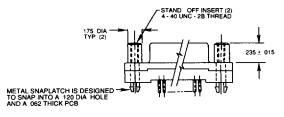




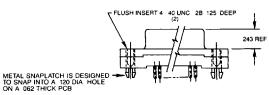




MOUNTING STYLE BS



MOUNTING STYLE CS



.027 RA

dard Tail

TAIL SECTION

Solder Type

H2 SERIES

9. 15, 25 AND 37 POSITIONS ALL PLASTIC RIGHT ANGLE **MALE PINS FOR** PRINTED CIRCUIT BOARD MOUNTING



NOTE:

- Pin position numbers begin top row, LEFT to RIGHT, continue bottom row, LEFT to RIGHT.
- Maximum tail will fit .038" diameter gauge hole.

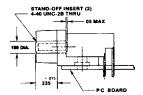
MOUNTING STYLES

STYLE A

This configuration is the basic connector with mounting holes only. It comes with no permanent hardware, but a separate hardware kit (part number 98039) is available. Style A is a new design which is produced in a cammed mold, eliminating top and bottom grooves around board mounting holes. This style is easier to rivet to the board because the rivet head is completely supported by solid plastic. It is also recommended for installations having board traces running under the connector — since there are no sharp edges to damage traces.

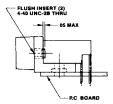
STYLE B

This configuration includes a #4-40 threaded standoff which provides 6 in-lb torque retention, for mating to RS 232 cable assemblies. One-piece construction of the factory-installed insert eliminates need for separate hardware.

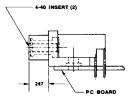


STYLE C

Style C mounting provides a flush, molded-in, #4-40 threaded insert of nickel-plated brass. The insert has rows of knurling that capture it in the plastic, preventing rotation or push-out.

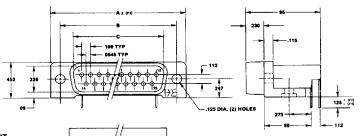


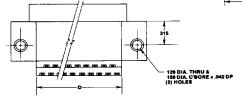
Unique Style D configuration has molded-in plastic standoff with factory-installed tin-plated brass hex-headed, #4-40 threaded insert. Specifically designed for RS 232 cable assemblies. Insert is threaded all the way through Hexagonal shape positively locks insert in place providing 6 in-ib torque retention. Style D is functionally equivalent to Style B



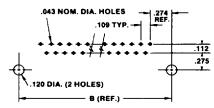
DIMENSIONS (Shown in Inches)

MOUNTING STYLE A



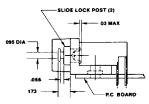


NUMBER OF CONTACTS	A	В	С	D
9	1.224	.984	.666	.624
15	1.552	1.312	.994	.952
25	2.092	1.852	1.534	1.492
37	2.740	2.500	2.183	2.140



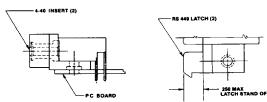
PC BOARD PATTERN

This configuration has brass locking posts designed to mate with AMP's slide-latch assembly Positronics' slide-lock assembly and equivalent connectors



STYLE J

Style J provides a unique connector which mates to both RS 232 and RS 449 cable assemblies.



H2 SERIES

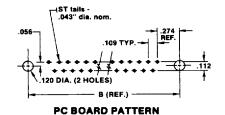
Thomas&Betts

9, 15, 25 AND 37 POSITIONS STRAIGHT TAIL ALL PLASTIC **MALE PINS FOR** PRINTED CIRCUIT BOARD MOUNTING



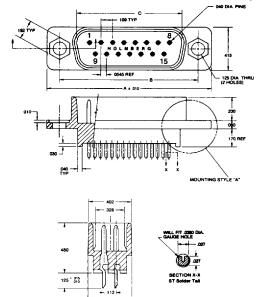
DIMENSIONS (Shown In Inches)

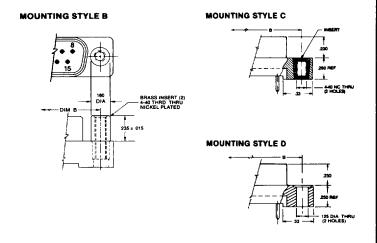
NUMBER OF CONTACTS	A	8	С
9	1.224	.984	.666
15	1.552	1.312	.994
25	2.092	1.852	1.534
37	2.740	2.500	2.183

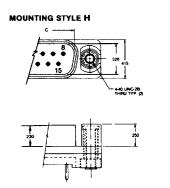


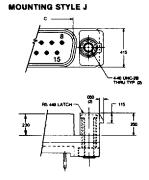
DIMENSIONS (Shown in Inches)

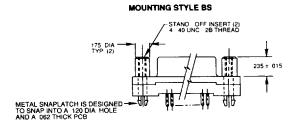
MOUNTING STYLE A

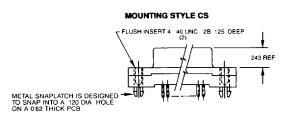












H4 SERIES

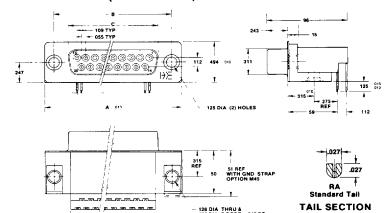
MOUNTING STYLES

9, 15, 25 AND 37 POSITIONS
METAL SHELL RIGHT ANGLE
FEMALE RECEPTACLES FOR
PRINTED CIRCUIT BOARD MOUNTING



DIMENSIONS (Shown in Inches)

-- p- -



NUMBER OF CONTACTS	A	В	С	D
9	1.224	.984	646	624
15	1.552	1.312	974	.952
25	2 092	1.852	1 514	1.492
37	2 740	2 500	2.162	2.140

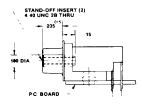
126 DIA THRU & 156 DIA C BORE x 042 DP (2) HOLES

PC BOARD PATTERN

STYLE B

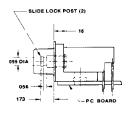
Style B designates a round standoff which has #4-40 threads. This provides 6 in-1b torque retention, for mating to R.S. 232 cable assemblies. One-piece construction of the factory installed insert estimates need for separate hardware. Also, outside or inside grounding straps are available, factory installed, for grounding to the P.C. board (see part number description for ordering).

This configuration is the basic connector with mounting holes only. It comes with no permanent hardware, but a separate hardware kit (part number 98039-01) is available. For grounding to the PC board there are outside and inside grounding straps available, factory installed (see part number description for ordering). Grounding straps are copper alloy tin plate.



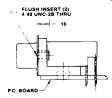
STYLE F

Style F designates locking posts. This configuration has factory installed brass locking posts, designed to mate with AMP's slide-lock assembly and equivalent connectors. Also, available with outside or inside grounding straps.



STYLE C

Style C mounting provides a flush #4-40 threaded insert with 6 in-lb torque retention for bulkhead mounting. The factory installed inserts eliminates the need to install jamb nuts in back of the panel. Also, available with inside or outside grounding straps.



STYLE J

Style J provides a unique connector which mates to both RS 232 and RS 449 cable assemblies



C

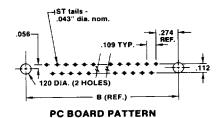
H4 SERIES

9, 15, 25 AND 37 POSITIONS STRAIGHT TAIL METAL SHELL FEMALE RECEPTACLES FOR PRINTED CIRCUIT BOARD MOUNTING



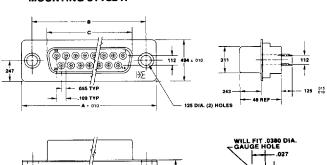
DIMENSIONS (Shown in Inches)

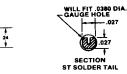
NUMBER OF CONTACTS	A	В	C
9	1.224	.984	.646
15	1.552	1.312	.974
25	2.092	1.852	1.514
37	2.740	2.500	2.162



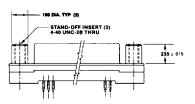
DIMENSIONS (Shown In Inches)

MOUNTING STYLE A

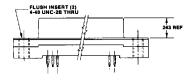




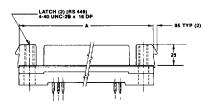
MOUNTING STYLE B



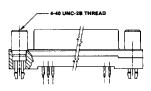
MOUNTING STYLE C



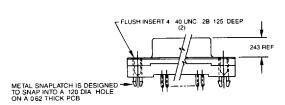
MOUNTING STYLE J



MOUNTING STYLE BS

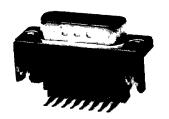


MOUNTING STYLE CS

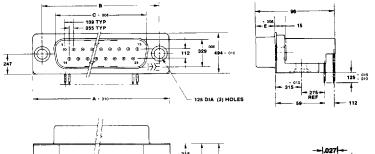


H4 SERIES

9, 15, 25 AND 37 POSITIONS **METAL SHELL RIGHT ANGLE MALE PINS FOR** PRINTED CIRCUIT BOARD MOUNTING



DIMENSIONS (Shown in Inches)

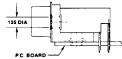






MOUNTING STYLES

This configuration is the basic connector with mounting holes only. It comes with no permanent hardware, but a separate hardware kit (part number 98039-01) is available. For grounding to the PC board there are outside and inside grounding straps available, factory installed (see part number description for ordering). Grounding straps are copper alloy tin plate.



NUMBER OF CONTACTS C F .666 .624 .235 1.224 .984 15 1 552 1.312 994 .952 .235 1.852 1.534 1.492 .230 25 2 092 .230 2 740 2 183 2.140 37 2.500

.274 REF

.112 .275

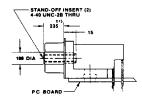
.043 NOM. DIA. HOLES

- B (REF.) PC BOARD PATTERN

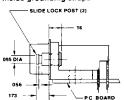
.120 DIA. (2 HOLES)

STYLE B

Style B designates a round standoff which has #4-40 threads. This provides 6 in-1b torque retention, for mating to R. S. 232 cable assemblies. One-piece construction of the factory installed insert estimates need for separate hardware. Also, outside or inside grounding straps are available, factory installed, for grounding to the PC board (see part number description for ordering).

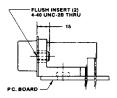


Style F designates locking posts. This configuration has factory installed brass locking posts, designed to mate with AMP's slide-lock assembly and equivalent connectors. Also, available with outside or inside grounding straps



STYLE C

Style C mounting provides a flush #4-40 threaded insert with 6 in-lb torque retention for bulkhead mounting. The factory installed inserts eliminates the need to install jamb nuts in back of the panel. Also, available with inside or outside grounding straps.



Style J provides a unique connector which mates to both RS 232 and RS 449 cable assemblies.



H4 SERIES

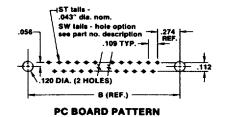
Thomas&Betts

9, 15, 25 AND 37 POSITIONS STRAIGHT TAIL METAL SHELL MALE PINS FOR PRINTED CIRCUIT BOARD MOUNTING



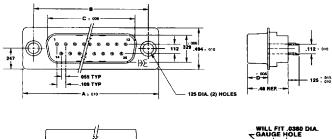
DIMENSIONS (Shown in Inches)

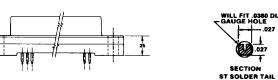
NUMBER OF CONTACTS	A	В	С	D
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37	2.740	2.500	2.182	.230



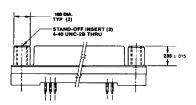
DIMENSIONS (Shown In Inches)

MOUNTING STYLE A

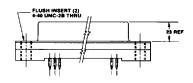




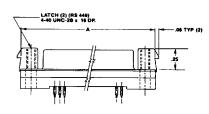
MOUNTING STYLE B



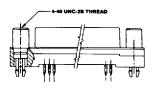
MOUNTING STYLE C



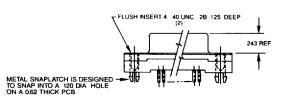
MOUNTING STYLE J



MOUNTING STYLE BS



MOUNTING STYLE CS

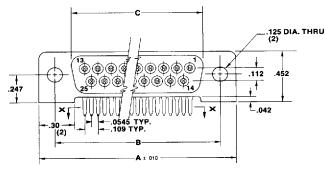


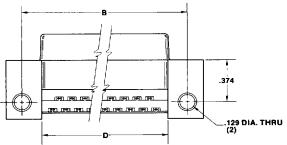
H3 SERIES, .318 FOOTPRINT

9, 15, 25 AND 37 POSITIONS ALL PLASTIC RIGHT ANGLE **FEMALE RECEPTACLES FOR** PRINTED CIRCUIT BOARD MOUNTING



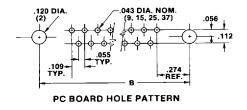








TAIL SECTION (X-X)

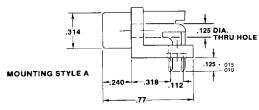


DIMENSIONS (Shown in Inches)

NUMBER OF CONTACTS	A	В	С	D
9	1 224	984	646	.624
15	1 552	1.312	974	.952
25	2.092	1 852	1 514	1 492
37	2.740	2.500	2.162	2.140

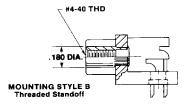
MOUNTING STYLES

This configuration is the basic connector with mounting holes only. It comes with no permanent hardware but a separate hardware kit (part number 98039-01) is available.



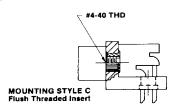
STYLE B

This configuration includes a #4-40 threaded standoff-which provides 6 in-lb torque retention, for mating to RS 232 cable assemblies. One-piece construction of the factory-installed insert eliminates need for separate hardware.



STYLE C

Style C mounting provides a flush #4-40 threaded insert. The insert has rows of knurling that capture it in the plastic preventing rotation or push-out.



Style J provides a unique connector which mates to both RS 232 and RS 449 cable assemblies

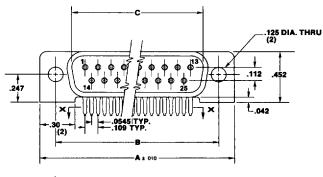


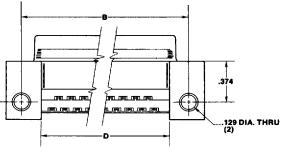
Thomas&Betts

Solder Type

H3 SERIES, .318 FOOTPRINT 9, 15, 25 AND 37 POSITIONS ALL PLASTIC RIGHT ANGLE MALE PINS FOR PRINTED CIRCUIT BOARD MOUNTING

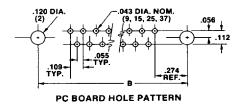








TAIL SECTION (X-X)



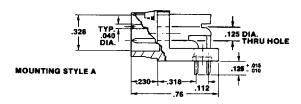
DIMENSIONS (Shown in Inches)

NUMBER OF CONTACTS	A	В	С	D
9	1.224	.984	.666	.624
15	1.552	1.312	.994	.952
25	2.092	1.852	1.534	1.492
37	2.740	2.500	2.183	2.140

MOUNTING STYLES

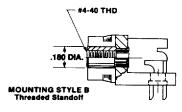
STYLE A

This configuration is the basic connector with mounting holes only. It comes with no permanent hardware, but a separate hardware kit (part number 98039-01) is available



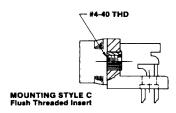
STYLE B

This configuration includes a #4-40 threaded standoff-which provides 6 in-lb torque retention, for mating to RS 232 cable assemblies. One-piece construction of the factory-installed insert eliminates need for separate hardware



STYLE C

Style C mounting provides a flush, #4-40 threaded insert. The insert has rows of knurling that capture it in the plastic, preventing rotation or push-out.



STYLE J

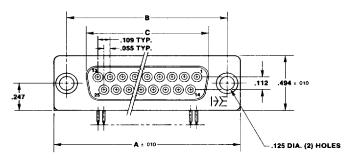
Style J provides a unique connector which mates to both RS 232 and RS 449 cable assemblies

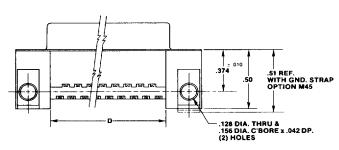


H5 SERIES, .318 FOOTPRINT

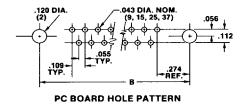
9, 15, 25 AND 37 POSITIONS **METAL SHELL RIGHT ANGLE FEMALE RECEPTACLES FOR** PRINTED CIRCUIT BOARD MOUNTING











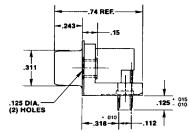
DIMENSIONS (Shown in Inches)

NUMBER OF CONTACTS	A	В	C	D
9	1.224	.984	.646	.624
15	1.552	1.312	.974	.952
25	2.092	1.852	1.514	1.492
37	2.740	2.500	2.162	2.140

MOUNTING STYLES

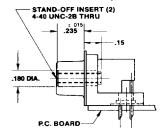
STYLE A

This configuration is the basic connector with mounting holes only. It comes with no permanent hardware, but a separate hardware kit (part number 98039-01) is available.

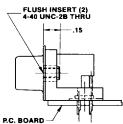


STYLE R

STYLE B
Style B designates a round standoff which has #4-40 threads. This provides 6 in-lb torque retention, for mating to RS 232 cable assemblies. One-piece construction of the factory installed insert eliminates need for separate hardware. Also, outside or inside grounding straps are available, factory installed, for grounding to the P C board (see part number description for ordering).



Style C mounting provides a flush #4-40 threaded insert with 6 in-ib torque retention for bulkhead mounting. The factory installed inserts eliminates the need to install jamb nuts in back of the panel. Also, available with inside or outside grounding straps.



Style J provides a unique connector which mates to both RS 232 and RS 449 cable assemblies



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H5 SERIES, .318 FOOTPRINT

9, 15, 25 AND 37 POSITIONS

METAL SHELL RIGHT ANGLE

MALE PINS FOR

PRINTED CIRCUIT BOARD MOUNTING

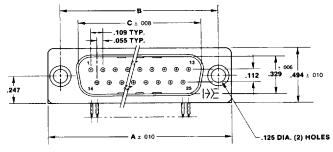
DIMENSIONS (Shown In Inches)

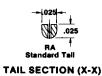


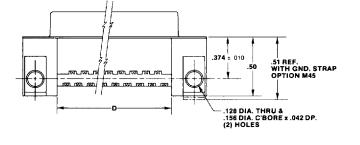
NUMBER OF CONTACTS	A	В	С	D	Ε.
9	1 224	984	666	624	235
15	1.552	1 312	.994	952	235
25	2 092	1 852	1 534	1 492	230
37	2 740	2 500	2 183	2 140	.230

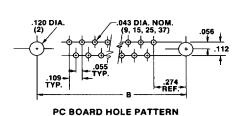
'E Dimension - See pg 56

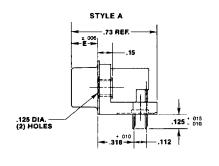


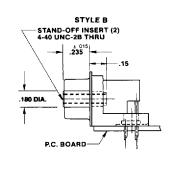




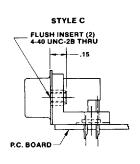


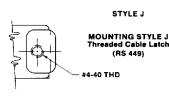






167C







9005417 0000168 365 🖿

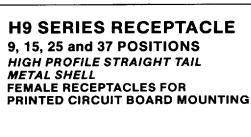
DIM. C

DIM. D-------.109 TYP.

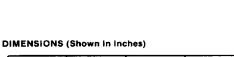
-.054 TYP.

-DIM. A ± 010

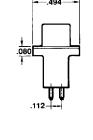
-DIM. B

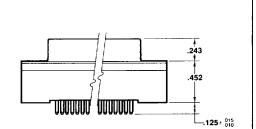






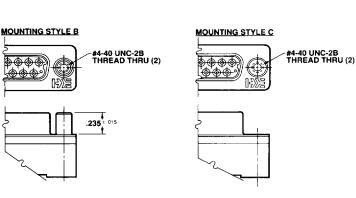
NUMBER OF CONTACTS	A	В	С	D
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15	1 552	1 312	974	763
25	2 092	1 852	1 514	1 308
37	2 740	2 500	2 162	1 962

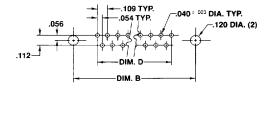


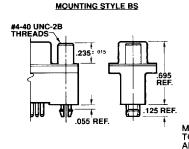


.120 DIA. (2 HOLES)

.112 .312







MOUNTING STYLE CS

FLUSH INSERT 4 - 40 UNC - 2B .125 DEEP

(2)

243 REF.

452

METAL SNAPLATCH IS DESIGNED
TO SNAP INTO A 120 DIA HOLE
AND A 062 THICK PCB

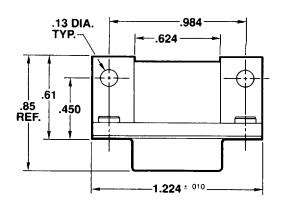
9005417 0000169 211

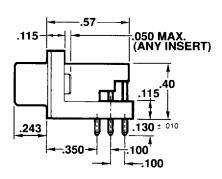
HD SERIES (HIGH DENSITY)

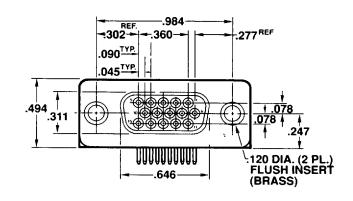
15 POSITIONS

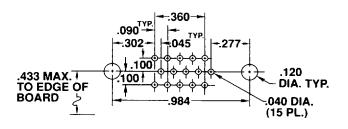
METAL SHELL RIGHT ANGLE
FEMALE RECEPTACLES FOR
PRINTED CIRCUIT BOARD MOUNTING

Thomas@Betts





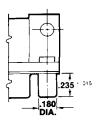


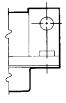


9005417 0000170 T13 **==**



HD SERIES (HIGH DENSITY)









MOUNTING STYLE B
THREADED STANDOFF

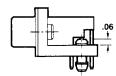


MOUNTING STYLE C FLUSH INSERT



MOUNTING STYLE J THREADED CABLE LATCH

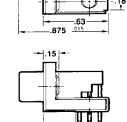




PLASTIC SNAP LATCH STYLE P

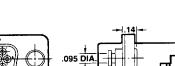






SPECIAL MOD M43
INSIDE GROUND STRAP

SPECIAL MOD M45
OUTSIDE/INSIDE GROUND STRAP



METAL SNAP LATCH STYLE S

MOUNTING STYLE F SLIDE LOCK POST

OTHER SPECIAL MODS

M30 - MOUNTING STYLE B, C, OR J WITH METRIC THREAD

M3 RATHER THAN #4-40 UNC-2B.

M33 - METRIC THREAD INSERT AND INSIDE GROUND STRAP.

M35 - METRIC THREAD INSERT AND OUTSIDE/INSIDE GROUND STRAP.



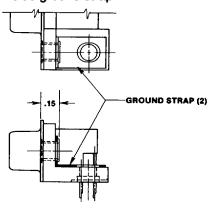
M30 — Metric thread size M3.

M33 — Metric thread with inside ground strap.

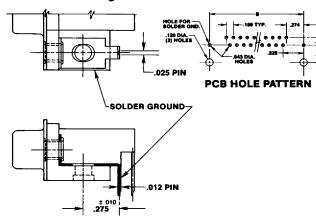
M34 — Metric thread with solder ground.

M35 — Metric thread with outside/inside ground strap.

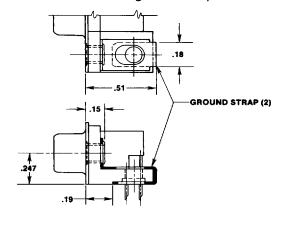
M43 — Inside ground strap.



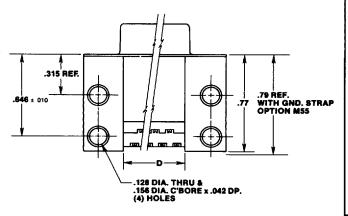
M44 — Solder ground.



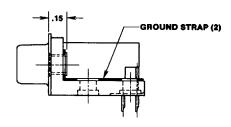
M45 — Outside/inside ground strap.



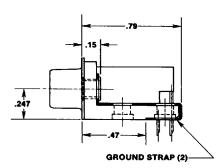
M50 — Back mounting hole.



M53 — Back mounting hole with inside ground strap.



M55 — Back mounting hole with outside/inside ground strap.



M60 — Back mounting hole, metric thread.

M63 — Back mounting hole, metric thread with inside ground strap.

M65 — Back mounting hole, metric thread with outside/inside ground strap.