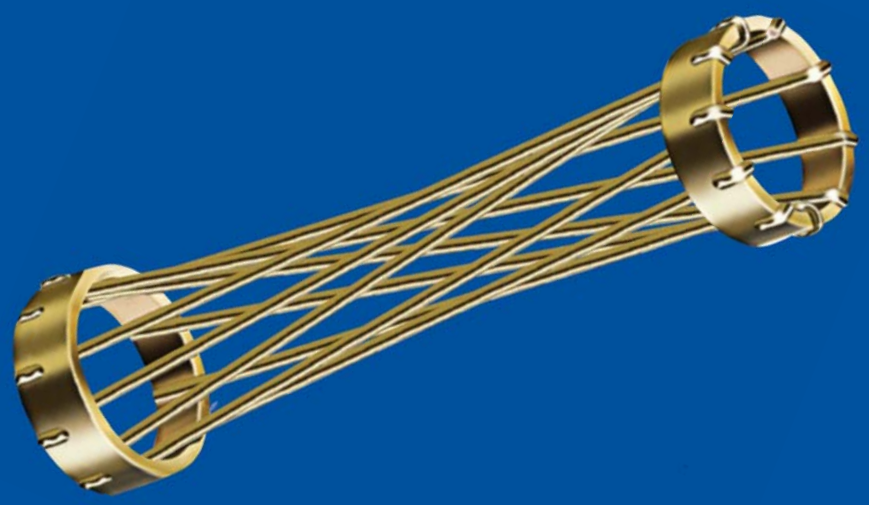
HRM .075 x .075 HYPERBOLOID SERIES

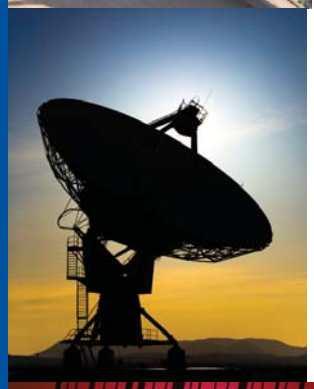
HYPERBOLOID CONNECTORS

FOR SUPERIOR PERFORMANCE IN ALL APPLICATIONS

IEH CORPORATION ISO 9001:2000

SMALL BUSINESS-HUB-ZONE CERTIFIED





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3 - ROW CONNECTORS [011-206 CONTACTS]

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16 FEE - Receptacle, Dip Solder, Right Angle
17 MAE - Plug, Stacking
18 MBE, MDE, MSE, MVE, MWE - Plug, Straight (Flex Cable, Dip Solder, Solder Cup, Compliant, Wire Wrap)
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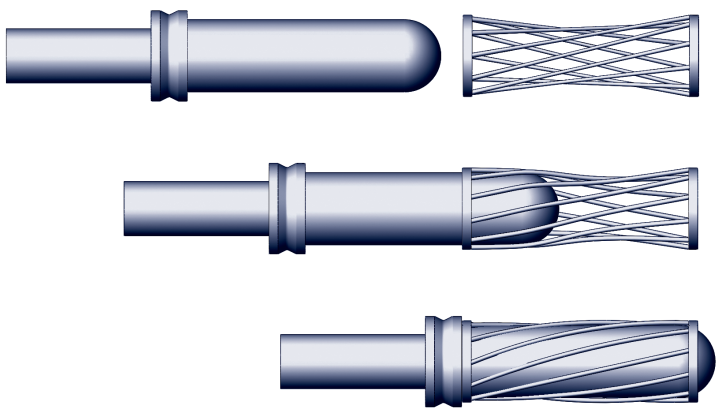
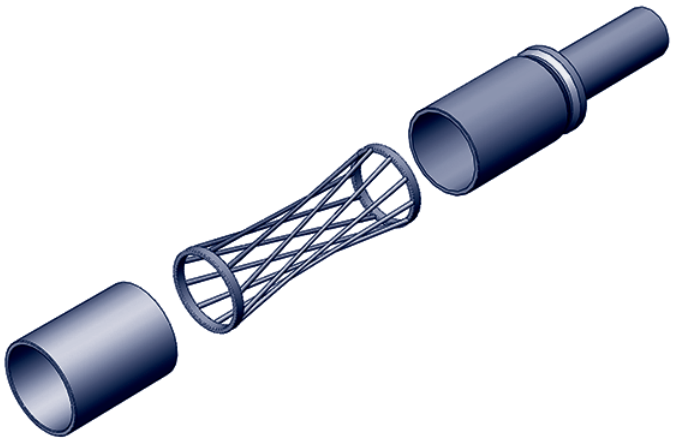
The HYPERBOLOID contact is an advanced design that satisfies performance requirements previously considered impossible. Radically different in concept, it is used in connectors having the highest standards of performance. The distinguishing feature of the HYPERBOLOID socket is the hyper-boloid-shaped sleeve formed by straight wires strung at an angle to the longitudinal axis. Viewed from the side, you see a curve defined by a series of apparent short straight line segments which are tangent lines to points along a hyperbolic curve. This geometry provides for a design which has a decreasing circumscribed circle when viewed from the entry. It begins larger than the pin acceptance diameter and is less than this same diameter at the center. When the pin is inserted into this sleeve, the wires stretch, well within elastic limits, to accommodate it. In so doing, the wires wrap themselves around the pin providing a number of continuous line contact paths. The illustration below will assist in visualization.



The actual physical construction of the contact involves several components. The wires are strung on an internal wire carrier (inner sleeve) which is subsequently capped or enclosed by a front outer ring (front sleeve) and rear ring which includes the termination configuration (terminal). All components to the assembly are completely finished with the specified electroplating prior to assembly. The wires are continuous process plated on reel before use. In this manner, interface finish requirements can be controlled very closely without the common problems of gradient, shadow, or other finish imperfections often appearing in alternative designs. Very often, this processing feature permits the specifier to reduce precious metal content with resultant savings. Joints are calculated interference fits, insuring gas tight interfaces between all elements of the HYPERBOLOID construction. An exploded view is provided next.

The unique geometry, precision processing, and careful attention to quality result in a highly desirable contact design which provides:



- **VLIF (Very Low Insertion Force):** Common sizes #22 and less average under one ounce per contact.
- **Extraordinary Resistance to Shock & Vibration:** Tests exceeding 300 g's without discontinuity.
- **Duty Cycle Exceeding 100,000 Mate/Demate:** The burnishing action of the wires on the pin surface is non-destructive. Unlike the "plow" and scrape action of common designs, HYPERBOLOID's gentle mating action enhances life.
- **Low, Low Contact Resistance:** The multiplicity of line contact, as opposed to point contact in other designs, provides an excellent interface exhibiting low contact resistance (often less than 1/2 of MIL spec. allowances). This characteristic also provides for a cooler running contact under load.
- **Improved Current Carrying Capacity:** The low contact resistance gives a lower °C rise from ambient under load. This feature often allows the user to operate the same size contact under higher load.
- **Highest Reliability:** In use for over 40 years under the most demanding conditions HYPERBOLOID has proven itself to be the leading design for integrity and reliability. On space platforms, ships and boats at sea, land vehicles, fighter and transport aircraft, missiles, torpedoes, medical and transplant electronics, industrial and environmental controls, rail, construction, ATE and test equipment, PGA sockets, test interface stations, and other applications, HYPERBOLOID has lived up to its promise of the highest reliability connector available.

SPECIFICATIONS

MATERIALS:

Pin Contacts:	PhBr per ASTM B139, BeCu per ASTM B196 or B197, or CU alloy
Socket Contacts:	
Contact Wires:	BeCu per ASTM B196, or B197
Termination:	PhBr per ASTM B139 or Cu alloy
Support Elements:	Cu alloy
SMT Leads:	PhBr per ASTM B139
Hardware:	Corrosion resistant steel per ASTM A582 ('D' shaped guide receptacles are BeCu per ASTM B196 or B197) or Cu alloy
Insulator:	Modified polyphenylene sulfide per MIL-M-24519, Type GST-40F

FINISHES:

Pin Contacts:	Gold per ASTM B488 Type II, Class 1.27, Code C over Nickel, 0.000050 min., per MIL-DTL-55302 over Copper per SAE AMS 2418 or ASTM B734
Socket Contacts:	
Contact Wires:	Gold per ASTM B488 Type II, Class 1.27, Code C over Nickel, 0.000050 min., per MIL-DTL-55302 over Copper per SAE AMS 2418 or ASTM B734
Termination:	Gold per ASTM B488, Class 0.50, Grade C over Nickel, 0.000050 min., per MIL-DTL-55302 over Copper per SAE AMS 2418 or ASTM B734 or solder dip over Nickel, 0.000050 min., per MIL-DTL-55302 over Copper per SAE AMS 2418 or ASTM B734
Support Elements:	Nickel, 0.000050 min., over Copper per SAE AMS 2418 or ASTM B734
SMT Leads:	Tin/Lead per SAE-AMS-P-81728
Hardware:	Passivate per SAE-AMS2700 except BeCu hardware to be Nickel plate, 0.000050 min.

PERFORMANCE:

Current Rating:	3* amp continuous (higher ratings may be supported-contact factory)
Insulation Resistance:	5000 megaohms min. – EIA-364-21 & MIL-DTL-55302 (par. 4.5.8)
Contact Resistance:	5 milliohms max, - EIA-364-06 & MIL-DTL-55302 (par. 4.5.5)
Test Voltage (DWV):	750 VAC RMS @ sea level - EIA-364-20 & MIL-DTL-55302 (par. 4.5.7.1) 250 VAC RMS @ 70,000 ft.
Temperature:	-65°C to +125°C (-86°F to +257°F)
Mating Force:	0.15 lbs. x number of contacts, max. - MIL-STD-55302 (par. 4.5.4)
De-mating Force:	0.03 lbs. x number of contacts, min. - MIL-STD-55302 (par. 4.5.4)
Contact Life:	100,000 mating cycles – Exceeds MIL-DTL-55302 (par. 4.5.9)
Solderability:	IPC/EIA J-STD-002, Category 3
Humidity:	IAW EIA-364-31, Method IV, except 7A & 7B (not required)
Vibration:	IAW EIA-364-28 & MIL-DTL-55302 (par. 4.5.10)
Shock:	IAW EIA-364-27 & MIL-DTL-55302 (par. 4.5.14)
Salt Spray:	IAW EIA-364-26 & MIL-DTL-55302 (par. 4.5.11)
Temperature Cycling:	IAW EIA-364-32 & MIL-DTL-55302 (par. 4.5.13)

DIMENSIONS: Catalog product dimensions are nominal. For linear and positional tolerances, contact factory.

* Ampacity ratings shown are derated in accordance with the published military specifications. For stand-alone, full service ratings, supported by test data, please refer to IEH's Contacts Catalog, or contact the factory.

All information contained herein is believed to be reliable as of the date of publication, but is subject to change without notice. Current product drawings and specifications are available upon request from IEH.

IEH warrants its products to be free of defects affecting normal use. If any shipment is found to be defective we will accept return for repair or replacement at our option within one year of shipment. IEH is not responsible for incidental or consequential damages arising out of the use of our products.

ORDERING CHART
.075 X .075 SPACING

HRM	050	FAE	2	Y	69	A	000

Series - 2 Row

Contact Capacity
(Use All 3 Places)

Body Style	
Receptacle	
FAE	Stacking
FBE	Flex Cable
FDE	Dip Solder Straight
FSE	Solder Cup
FVE	Compliant
FWE	Wire Wrap
FEE	Dip Solder Right Angle
FRE	Surface Mount
Plug	
RAE	Stacking
RBE	Flex Cable
RDE	Dip Solder Straight
RSE	Solder Cup
RVE	Compliant
RWE	Wire Wrap
MEE	Dip Solder Right Angle
MLE	Compliant Right Angle
MRE	Surface Mount

Termination Length - "L"			
Code	Dip Solder	Wire Wrap	Flex
1	.109	.375	.050
2	.140	.500	.098
3	.172	.625	-
4	.234	-	-
9	User Defined		
0	Use for Solder Cup & Compliant Without Extension		

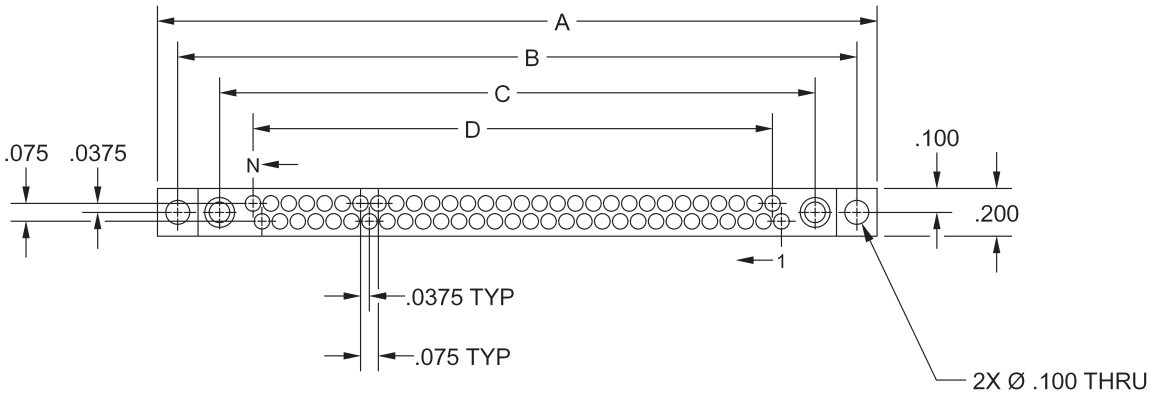
Variation Code - Factory Assigned	
Not Required When MIL-C-55302 Ordered	
020	Solder Dip Terminals
0C0	Epoxy Termination Sealed
0C2	Epoxy Sealed & Solder Dipped

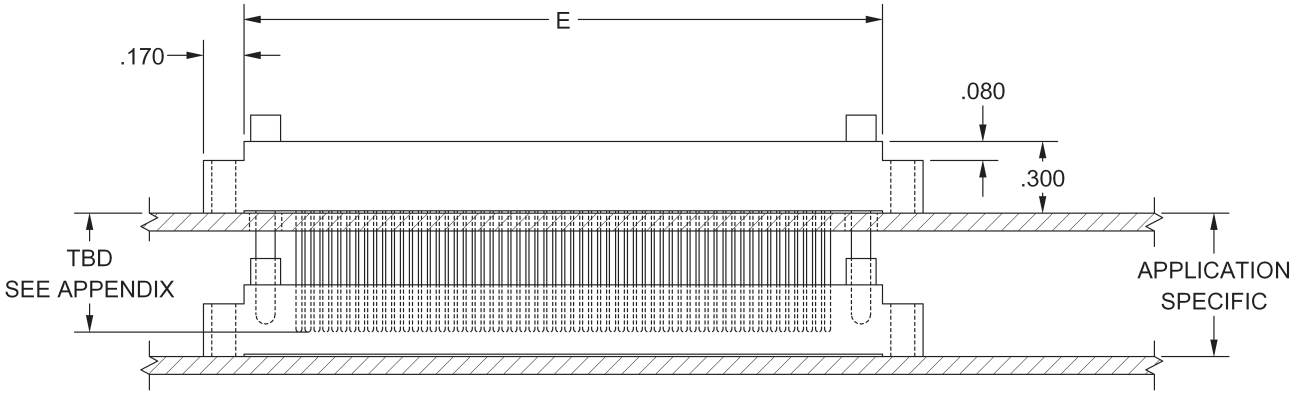
Mounting Style	
A	Thru Hole Mtg.
C	Threaded Insert
D	Remove Mtg. Ears (Subtract .010 From Connector Height)

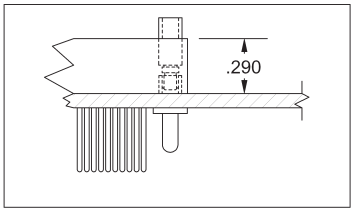
Hardware Arrangement	
00	Assembled as "01" without Loctite
01 - 64*	Y - "D" Shaped Guides (Loctite)
65 - 68	Universal
69	IEH Standard Loctite Applied
70 - 72	See Appendix
97	2 Male Guides Unassembled
98	2 Female Guides Unassembled
99	1 Male & Female Unassembled
*Use with MIL-C-55302 Callout	

Hardware Style	
A	Round Guide with Mtg. Stud
B	"D" Shaped with Mtg. Stud (Polarizing)
H	Short Rotating (.078 Hex)
K	Fixed Locking
L	Long Rotating (Slotted)
M	Medium Rotating (Slotted)
N	Medium Rotating (Hex)
P	Medium Rotating (.109 Hex)
T	Fixed Locking with Stud
X	Round Guides
Y	"D" Shaped Guides (Polarizing)
0	No Hardware Supplied

RECEPTACLE, STACKING
STYLE FAE





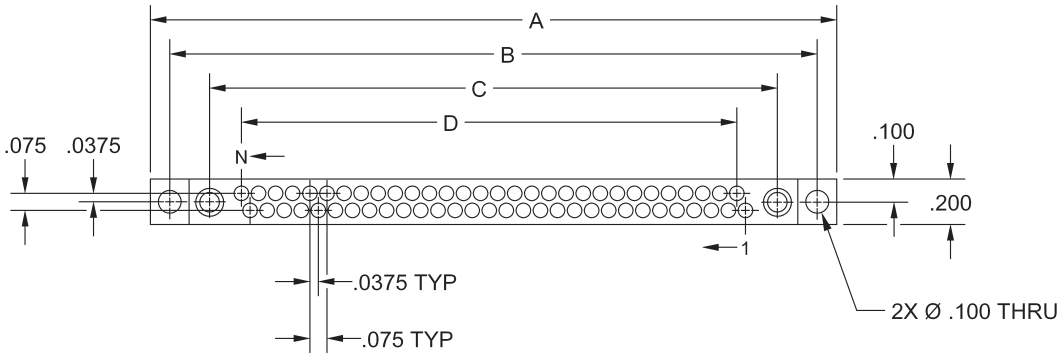


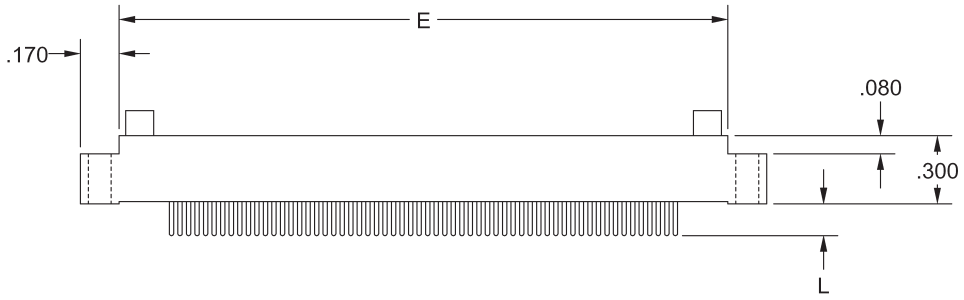
ALTERNATE PWB MOUNTING VIA HARDWARE (MOUNTING EARS REMOVED)

	DIMENSIONS				
'N' Contacts	A	B	C	D	E
010	1.138	.968	.618	.300	.798
020	1.513	1.343	.993	.675	1.173
030	1.888	1.718	1.368	1.050	1.548
040	2.263	2.093	1.743	1.425	1.923
050	2.638	2.468	2.118	1.800	2.298
060	3.013	2.843	2.493	2.175	2.673
070	3.388	3.218	2.868	2.550	3.048
080	3.763	3.593	3.243	2.925	3.423
090	4.138	3.968	3.618	3.300	3.798
100	4.513	4.343	3.993	3.675	4.173

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

RECEPTACLE, STRAIGHT
STYLE FBE, FDE, FSE, FVE, FWE





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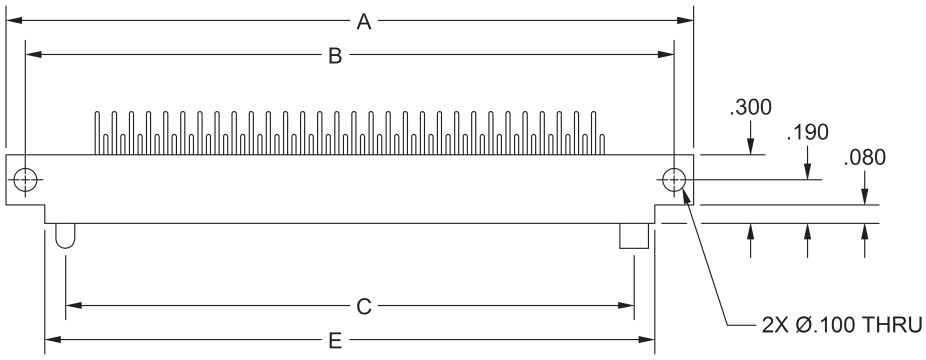
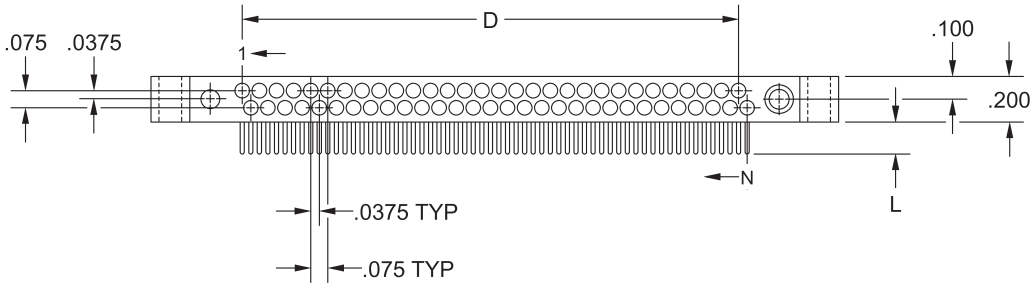
RECEPTACLE, RIGHT ANGLE
STYLE FEE





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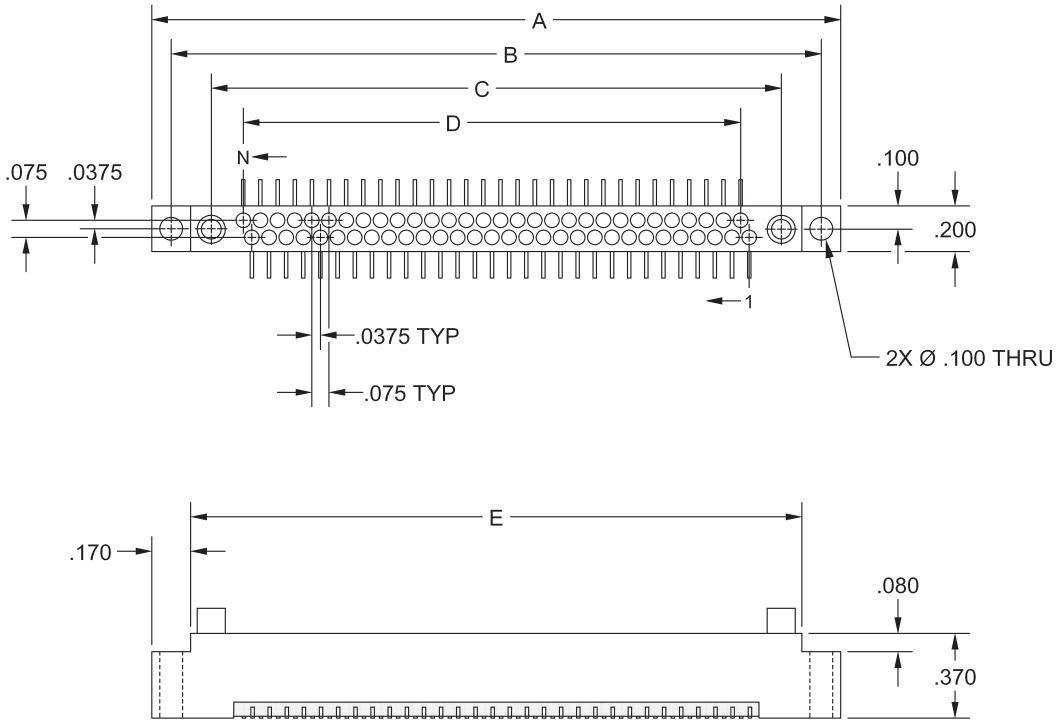
RECEPTACLE, SURFACE MOUNT
STYLE FRE



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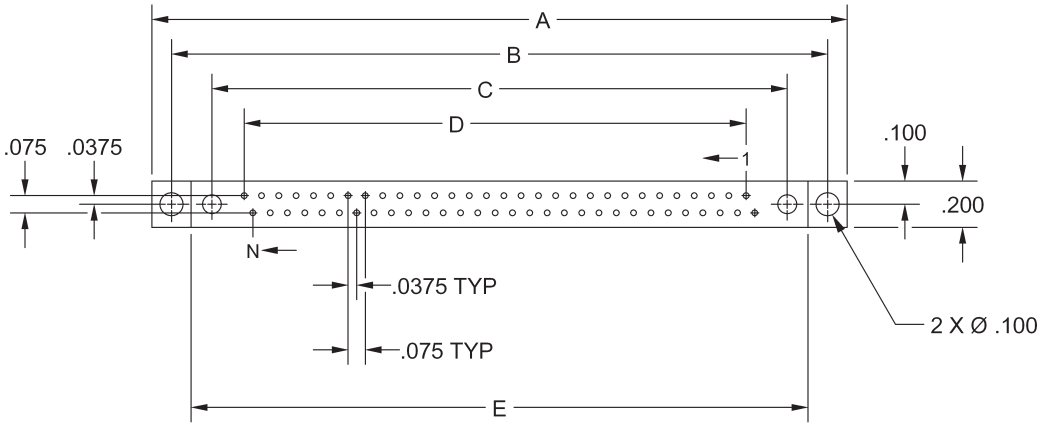
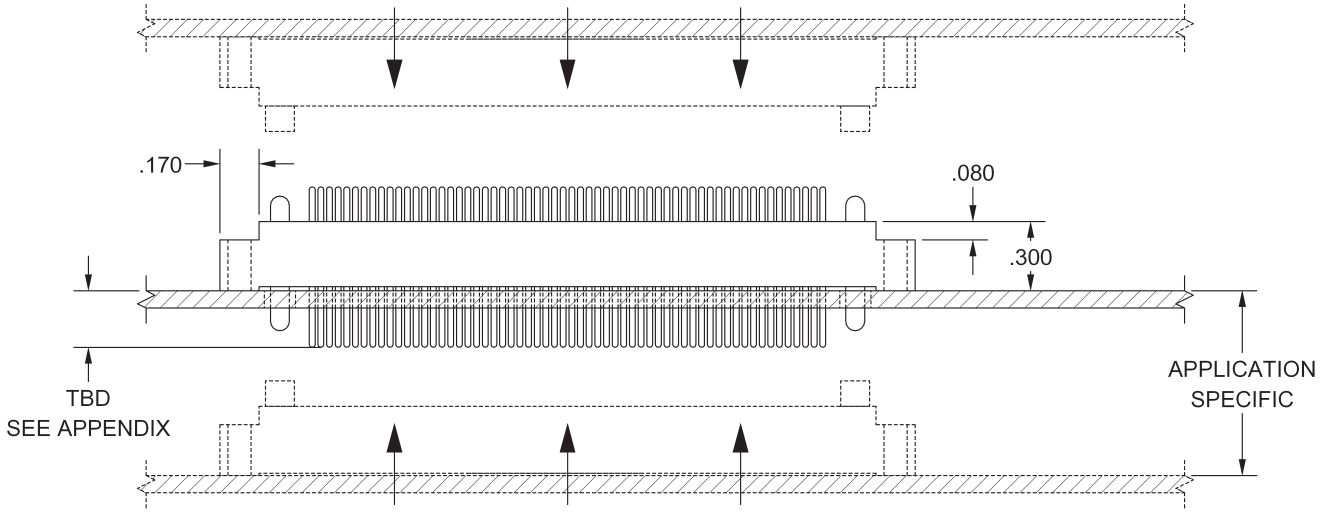
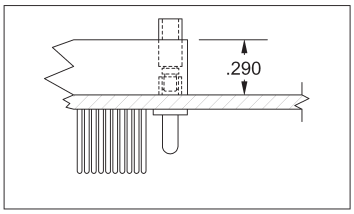
PLUG, STACKING
STYLE RAE







ALTERNATE PWB MOUNTING VIA HARDWARE (MOUNTING EARS REMOVED)

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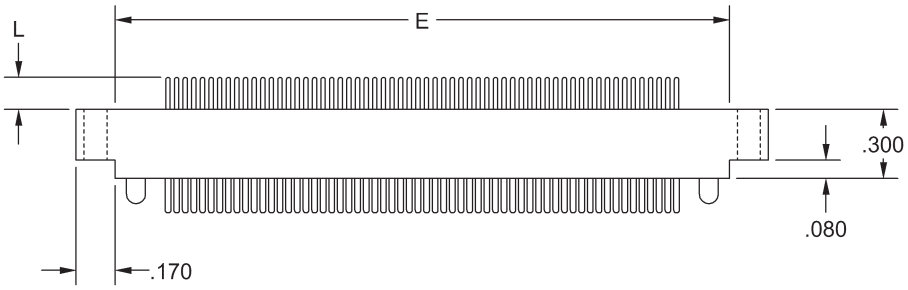
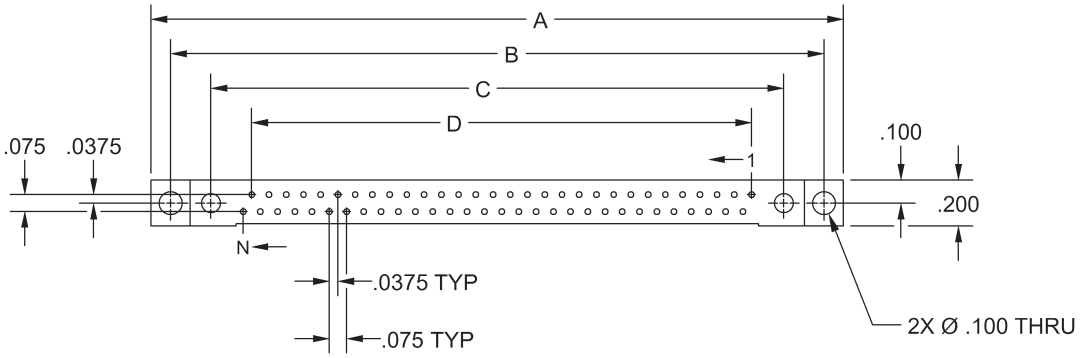
PLUG, STRAIGHT
STYLE RBE, RDE, RSE, RVE, RWE





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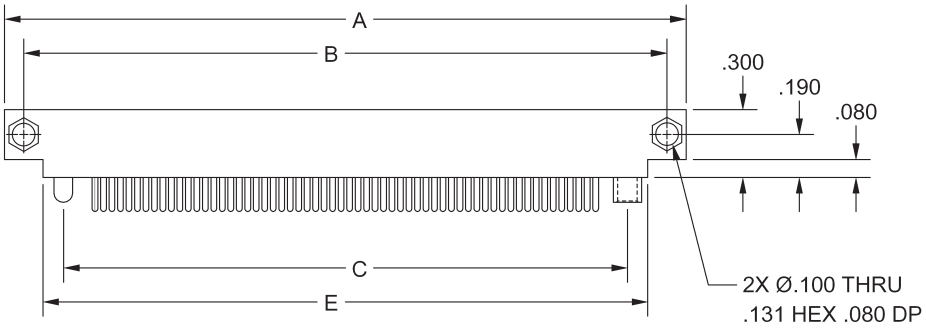
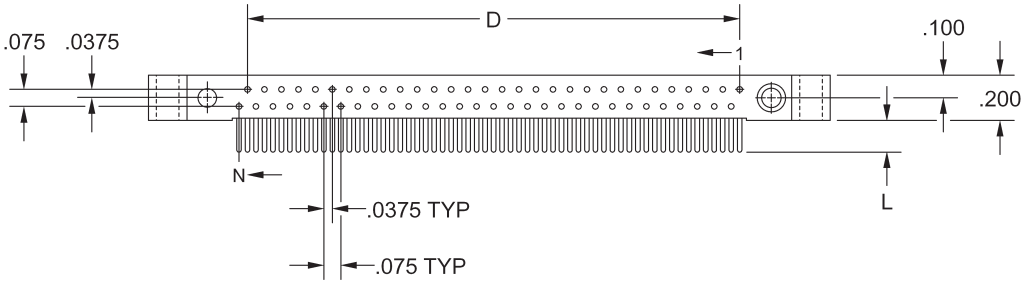
REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

PLUG, RIGHT ANGLE
STYLE MEE, MLE





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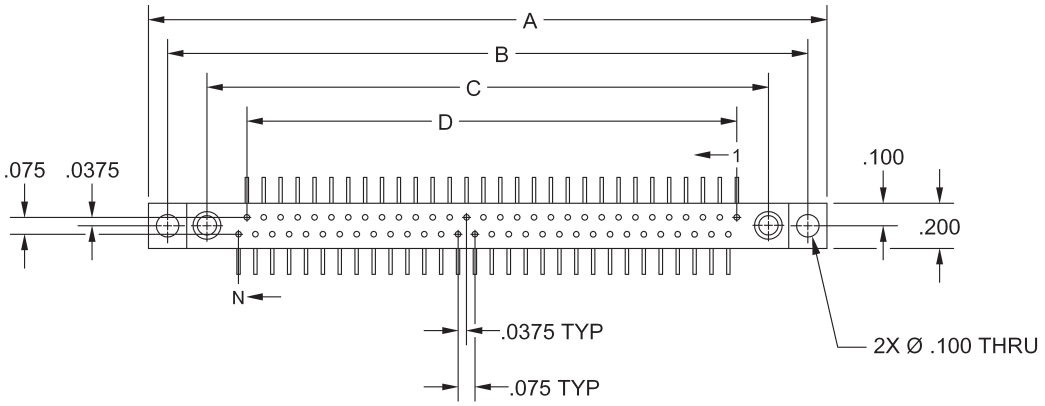
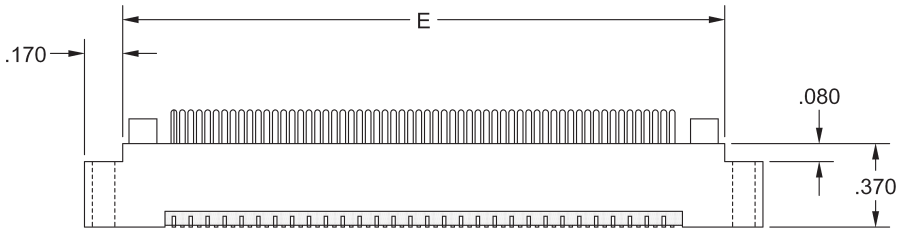
PLUG, SURFACE MOUNT
STYLE MRE





	DIMENSIONS				
'N' Contacts	A	B	C	D	E
010	1.138	.968	.618	.300	.798
020	1.513	1.343	.993	.675	1.173
030	1.888	1.718	1.368	1.050	1.548
040	2.263	2.093	1.743	1.425	1.923
050	2.638	2.468	2.118	1.800	2.298
060	3.013	2.843	2.493	2.175	2.673
070	3.388	3.218	2.868	2.550	3.048
080	3.763	3.593	3.243	2.925	3.423
090	4.138	3.968	3.618	3.300	3.798
100	4.513	4.343	3.993	3.675	4.173

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

ORDERING CHART
.075 X .075 SPACING

HRM	050	FAE	2	Y	69	A	300

Series - 3 Row

Contact Capacity
(Use All 3 Places)

BODY STYLE	
RECEPTACLE	
FAE	Stacking
FBE	Flex Cable
FDE	Dip Solder Straight
FSE	Solder Cup
FVE	Compliant
FWE	Wire Wrap
FEE	Dip Solder Right Angle
PLUG	
MAE	Stacking
MBE	Flex Cable
MDE	Dip Solder Straight
MSE	Solder Cup
MVE	Compliant
MWE	Wire Wrap
MEE	Dip Solder Right Angle
MLE	Compliant Right Angle

Termination Length - "L"			
Code	Dip Solder	Wire Wrap	Flex
1	.109	.375	.050
2	.140	.500	.098
3	.172	.625	-
4	.234	-	-
9	User Defined		
0	Use for Solder Cup & Compliant without Extension		

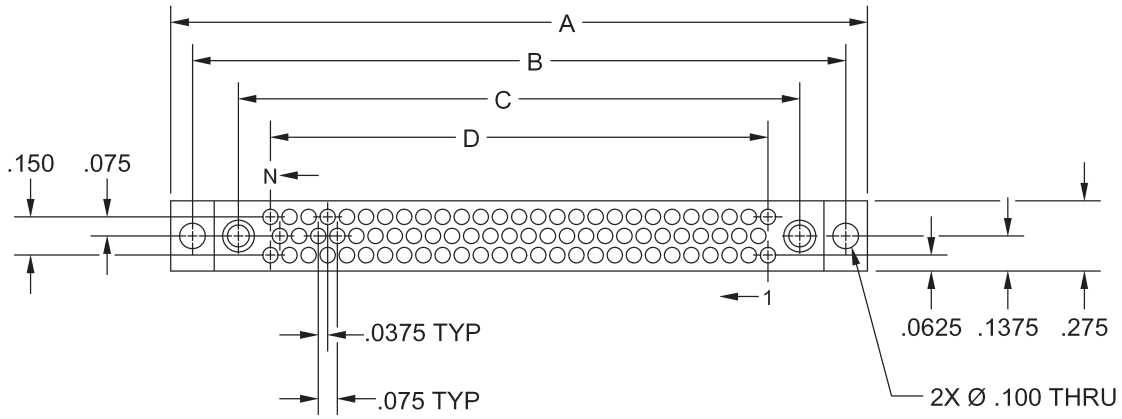
Variation Code - Factory Assigned	
Not Required When MIL-C-55302 Ordered	
320	Solder Dip Terminals
3C0	Epoxy Termination Sealed
3C2	Epoxy Sealed & Solder Dipped

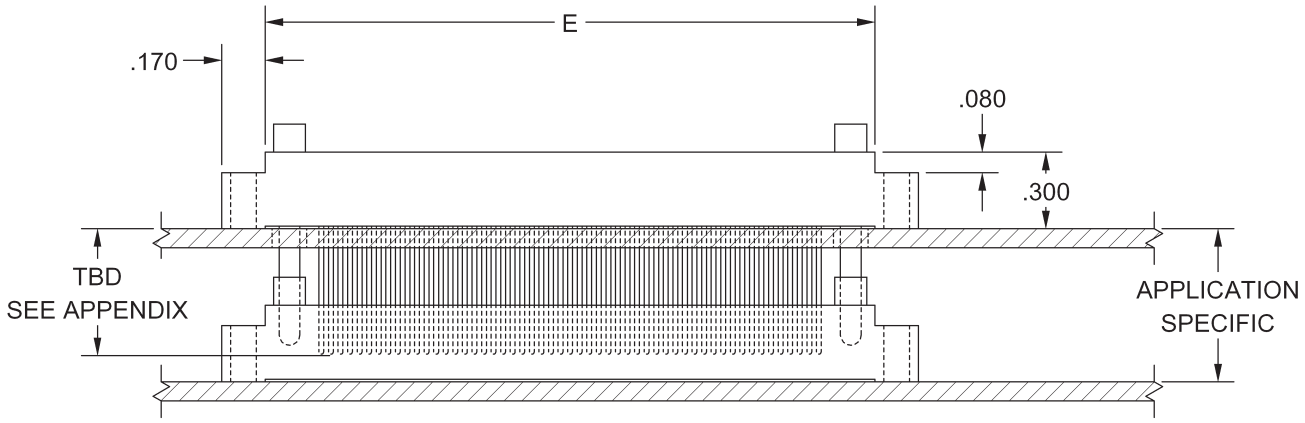
Mounting Style	
A	Thru Hole Mtg.
C	Threaded Insert
D	Remove Mtg. Ears (Subtract .010 From Connector Height)

Hardware Arrangement		
Code	*Page*	*Description*
00	25	Assembled as "01" without Loctite
01 - 64*	25	Y, B - "D" Shaped Guides (Loctite)
65 - 68	25	Universal
69	25	IEH Standard Loctite Applied
70 - 72	25	See Appendix
97	N/A	2 Male Guides Unassembled
98	N/A	2 Female Guides Unassembled
99	N/A	1 Male & Female Unassembled
01 - 36	27	F & G Polarization
*Use with MIL-C-55302 Callout		

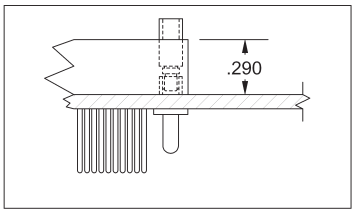
Hardware Style	
A	Round Guide with Mtg. Stud
B	"D" Shaped with Mtg. Stud (Polarizing)
F	Jackless Keyable Locking Screw
G	Jackless Keyable Locking Socket
H	Short Rotating (.078 Hex)
K	Fixed Locking
L	Long Rotating (Slotted)
M	Medium Rotating (Slotted)
N	Medium Rotating (Hex)
P	Medium Rotating (.109 Hex)
T	Fixed Locking with Stud
X	Round Guides
Y	"D" Shaped Guides (Polarizing)
0	No Hardware Supplied

RECEPTACLE, STACKING
STYLE FAE





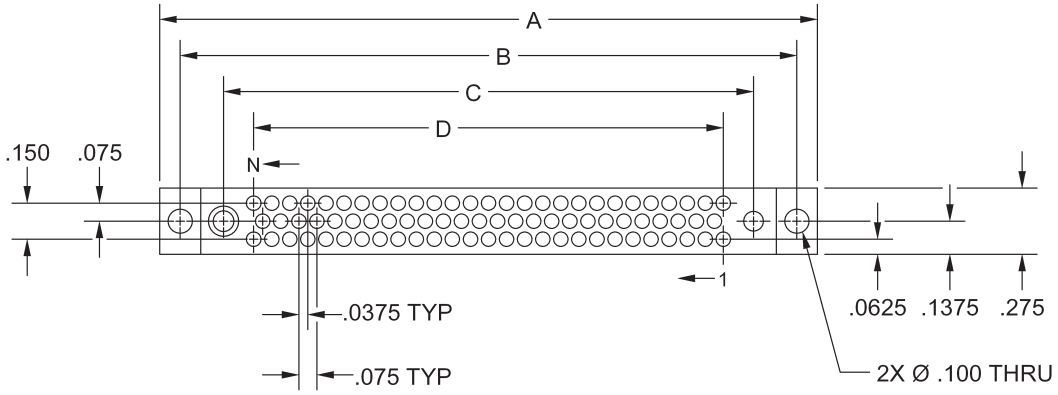
	DIMENSIONS				
'N' Contacts	A	B	C	D	E
011	1.005	.835	.475	.225	.665
023	1.305	1.135	.775	.525	.965
035	1.605	1.435	1.075	.825	1.265
047	1.905	1.735	1.375	1.125	1.565
059	2.205	2.035	1.675	1.425	1.865
071	2.505	2.335	1.975	1.725	2.165
080	2.730	2.560	2.200	1.950	2.390
089	2.955	2.785	2.425	2.175	2.615
092	3.030	2.860	2.500	2.250	2.690
104	3.330	3.160	2.800	2.55	2.990
122	3.780	3.610	3.250	3.000	3.440
152	4.530	4.360	4.000	3.750	4.190
206	5.880	5.710	5.350	5.100	5.540

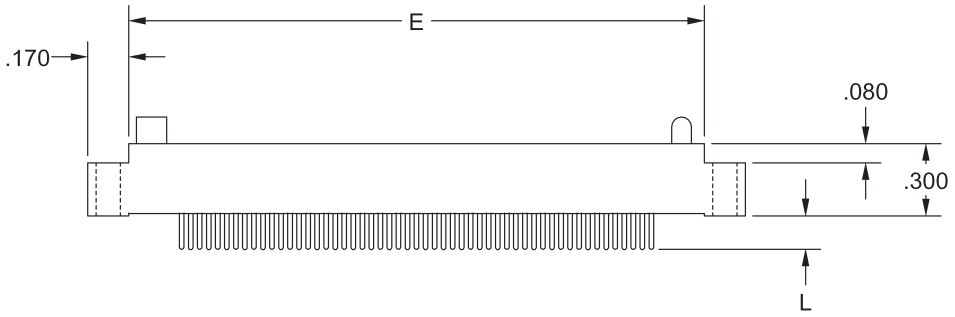


ALTERNATE PWB MOUNTING VIA HARDWARE (MOUNTING EARS REMOVED)

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

RECEPTACLE, STRAIGHT
STYLE FBE, FDE, FSE, FVE, FWE

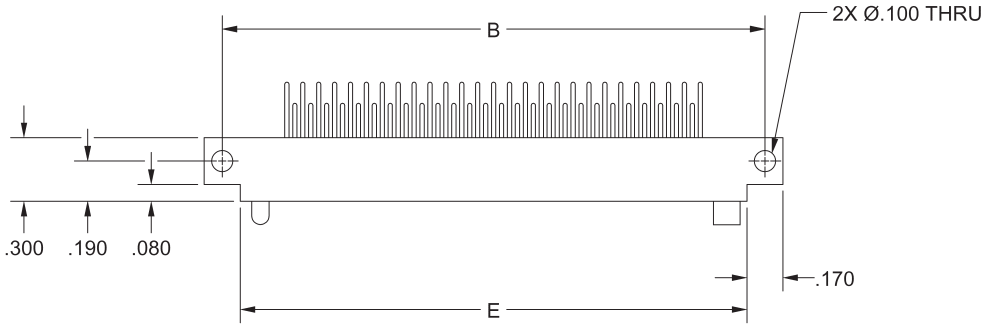


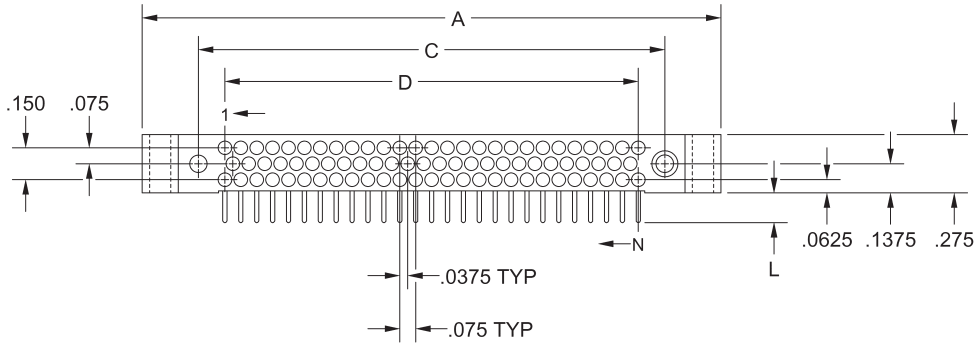


	DIMENSIONS				
'N' Contacts	A	B	C	D	E
011	1.005	.835	.475	.225	.665
023	1.305	1.135	.775	.525	.965
035	1.605	1.435	1.075	.825	1.265
047	1.905	1.735	1.375	1.125	1.565
059	2.205	2.035	1.675	1.425	1.865
071	2.505	2.335	1.975	1.725	2.165
080	2.730	2.560	2.200	1.950	2.390
089	2.955	2.785	2.425	2.175	2.615
092	3.030	2.860	2.500	2.250	2.690
104	3.330	3.160	2.800	2.55	2.990
122	3.780	3.610	3.250	3.000	3.440
152	4.530	4.360	4.000	3.750	4.190
206	5.880	5.710	5.350	5.100	5.540

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

RECEPTACLE, RIGHT ANGLE
STYLE FEE





	DIMENSIONS				
'N' Contacts	A	B	C	D	E
011	1.005	.835	.475	.225	.665
023	1.305	1.135	.775	.525	.965
035	1.605	1.435	1.075	.825	1.265
047	1.905	1.735	1.375	1.125	1.565
059	2.205	2.035	1.675	1.425	1.865
071	2.505	2.335	1.975	1.725	2.165
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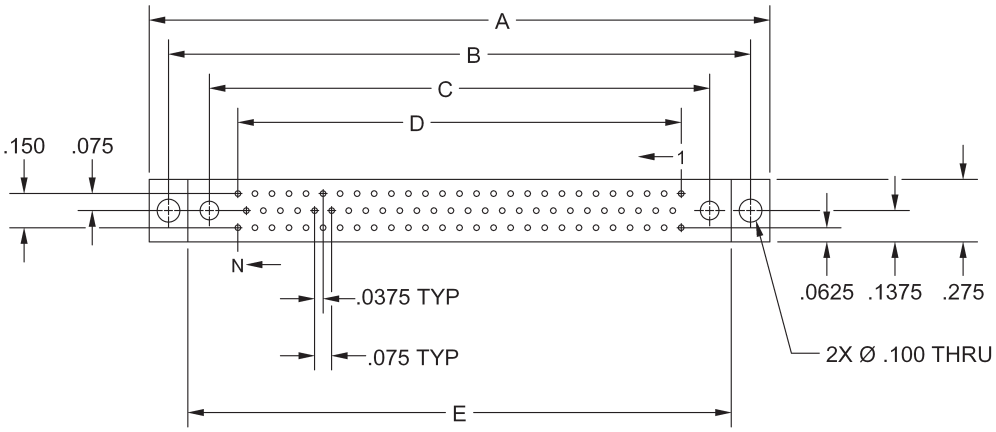
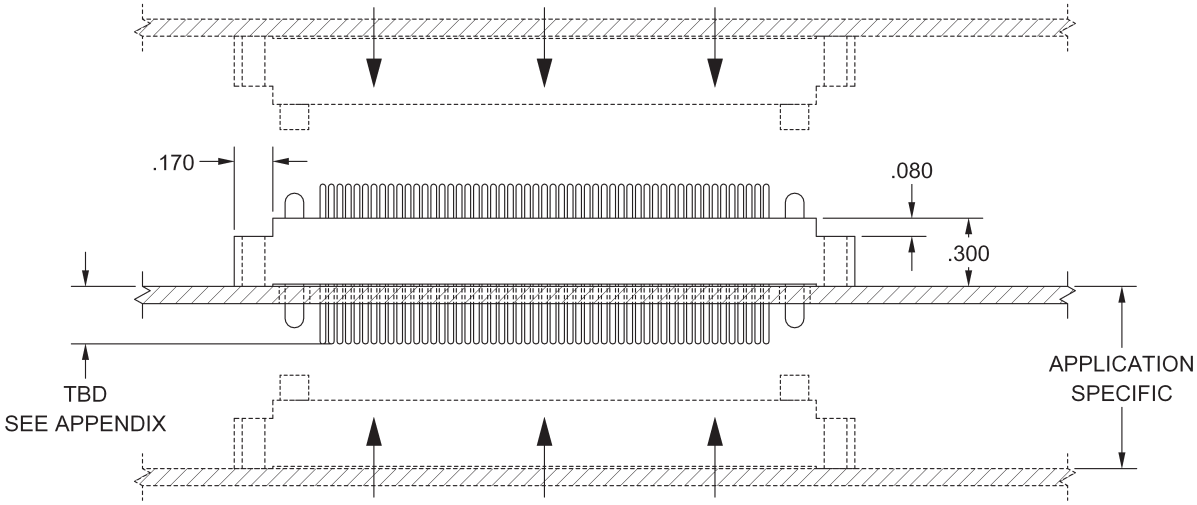
122	3.780	3.610	3.250	3.000	3.440
152	4.530	4.360	4.000	3.750	4.190
206	5.880	5.710	5.350	5.100	5.540

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

PLUG, STACKING
STYLE MAE





	DIMENSIONS				
'N' Contacts	A	B	C	D	E
011	1.005	.835	.475	.225	.665
023	1.305	1.135	.775	.525	.965
035	1.605	1.435	1.075	.825	1.265
047	1.905	1.735	1.375	1.125	1.565
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071	2.505	2.335	1.975	1.725	2.165
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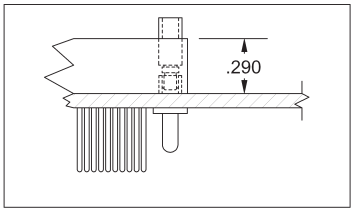
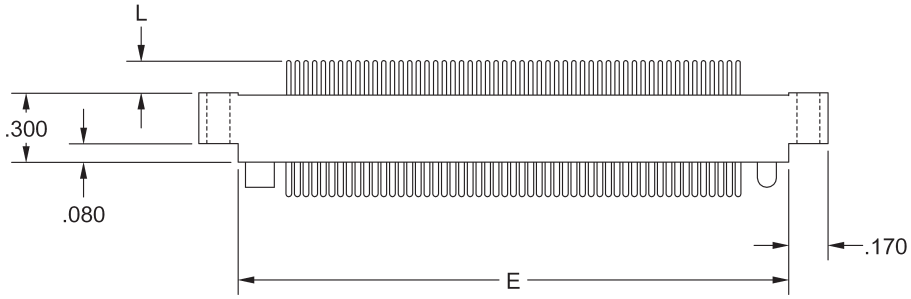
104	3.330	3.160	2.800	2.55	2.990
122	3.780	3.610	3.250	3.000	3.440
152	4.530	4.360	4.000	3.750	4.190
206	5.880	5.710	5.350	5.100	5.540

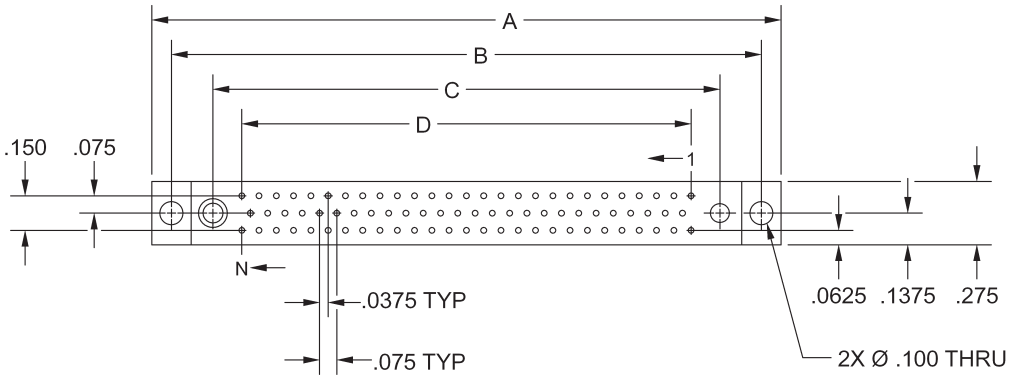


ALTERNATE PWB MOUNTING VIA HARDWARE (MOUNTING EARS REMOVED)

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

PLUG, STRAIGHT
STYLE MBE, MDE, MSE, MVE, MWE

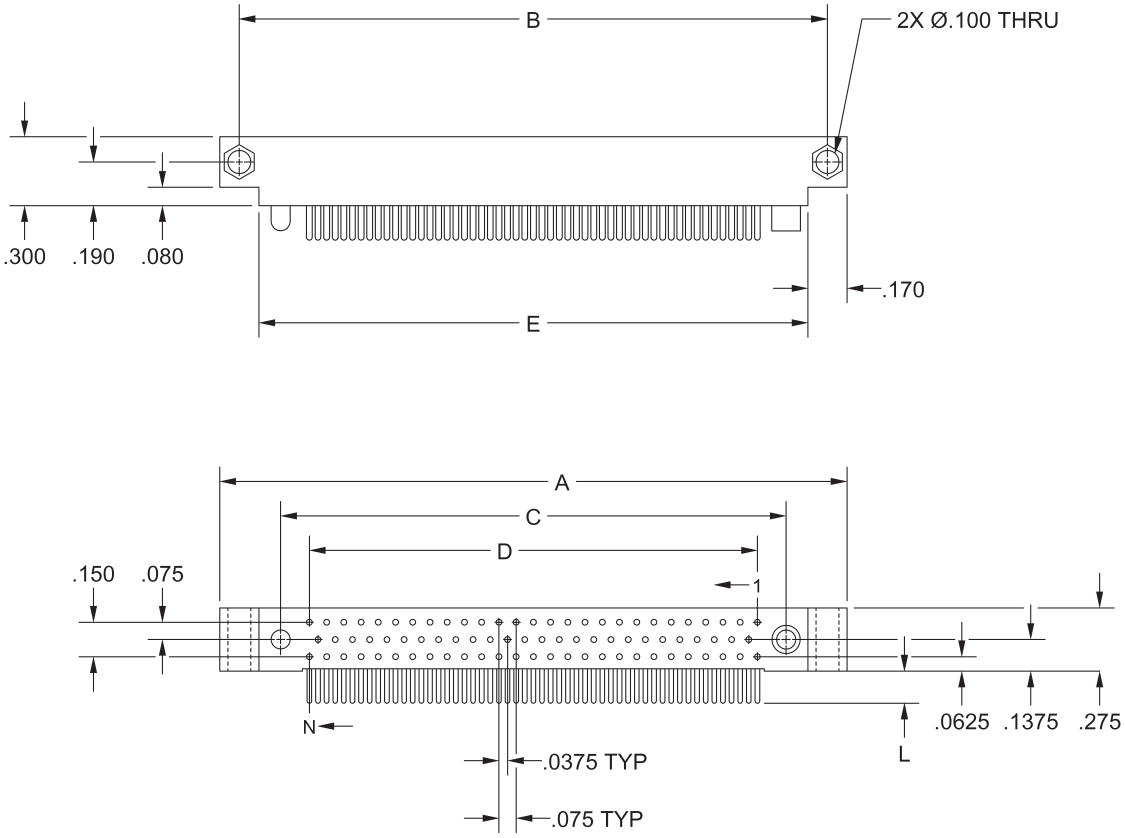




	DIMENSIONS				
'N' Contacts	A	B	C	D	E
011	1.005	.835	.475	.225	.665
023	1.305	1.135	.775	.525	.965
035	1.605	1.435	1.075	.825	1.265
047	1.905	1.735	1.375	1.125	1.565
059	2.205	2.035	1.675	1.425	1.865
071	2.505	2.335	1.975	1.725	2.165
080	2.730	2.560	2.200	1.950	2.390
089	2.955	2.785	2.425	2.175	2.615
092	3.030	2.860	2.500	2.250	2.690
104	3.330	3.160	2.800	2.55	2.990
122	3.780	3.610	3.250	3.000	3.440
152	4.530	4.360	4.000	3.750	4.190
206	5.880	5.710	5.350	5.100	5.540

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

PLUG, RIGHT ANGLE
STYLE MEE, MLE



	DIMENSIONS				
'N' Contacts	A	B	C	D	E
011	1.005	.835	.475	.225	.665
023	1.305	1.135	.775	.525	.965
035	1.605	1.435	1.075	.825	1.265
047	1.905	1.735	1.375	1.125	1.565
059	2.205	2.035	1.675	1.425	1.865
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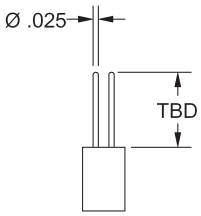
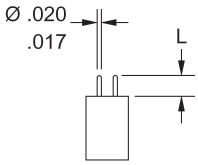
104	3.330	3.160	2.800	2.55	2.990
122	3.780	3.610	3.250	3.000	3.440
152	4.530	4.360	4.000	3.750	4.190
206	5.880	5.710	5.350	5.100	5.540

REFER TO APPENDIX FOR TERMINATION DETAILS, HARDWARE STYLES, POLARIZATION CHART, MOUNTING STYLES, VARIATION CODES, AND PWB PATTERNS

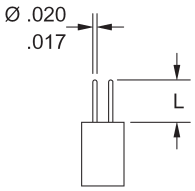
TERMINATION STYLE - 2 ROW
RECEPTACLE CONTACTS



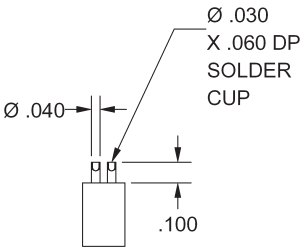
FAE
STACKING
Termination Length
is Application Specific



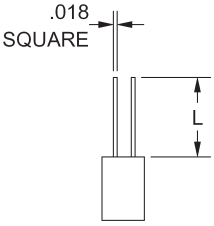
FBE
FLEX CABLE
'L'
1 = .050
2 = .098



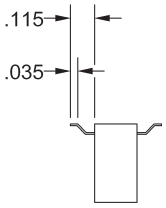
FDE
DIP SOLDER STRAIGHT
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined



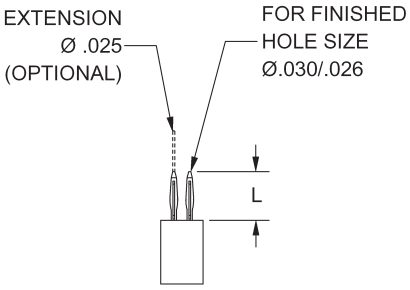
FSE0
SOLDER CUP



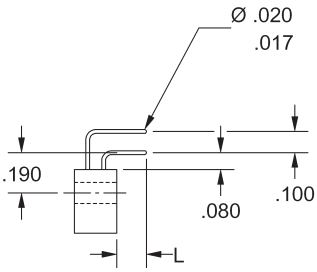
FWE
WIRE WRAP
'L'
1 = .375
2 = .500
3 = .625



FRE9
SURFACE MOUNT

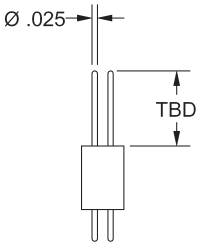


FVE
COMPLIANT
'L'
0 = Std .230
A = User Defined
Extension
(Compliant Stacking)

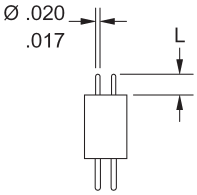


FEE
DIP SOLDER RIGHT ANGLE
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined

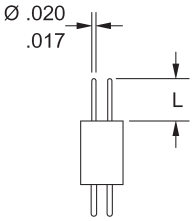
TERMINATION STYLE - 2 ROW
PLUG CONTACTS



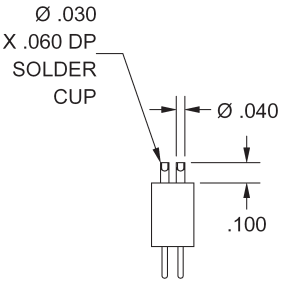
RAE
STACKING
Termination Length
is Application Specific



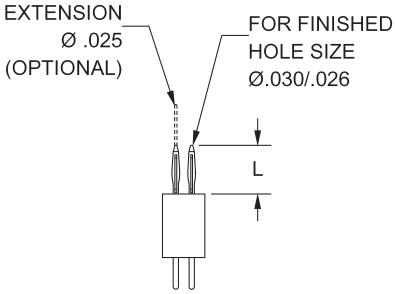
RBE
FLEX CABLE
'L'
1 = .050
2 = .098



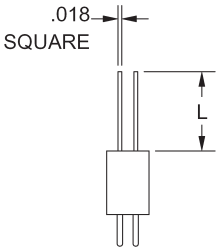
RDE
DIP SOLDER STRAIGHT
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined



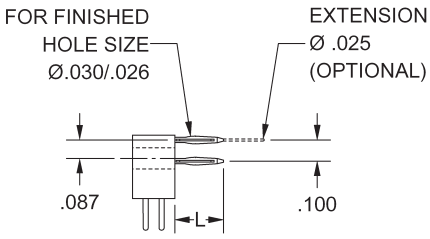
RSE0
SOLDER CUP



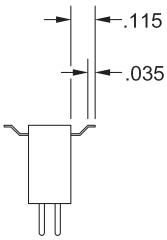
RVE
COMPLIANT
'L'
0 = Std .230
A = User Defined
Extension
(Compliant Stacking)



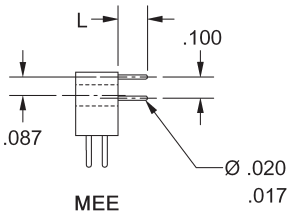
RWE
WIRE WRAP
'L'
1 = .375
2 = .500
3 = .625



MLE
RIGHT ANGLE COMPLIANT
'L'
0 = Std .230
A = User Defined
Extension
(Compliant Stacking)

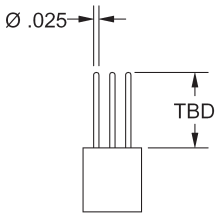


MRE9
SURFACE MOUNT

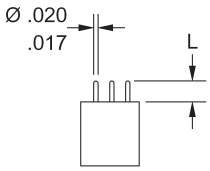


MEE
DIP SOLDER RIGHT ANGLE
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined

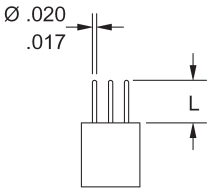
TERMINATION STYLE - 3 ROW
RECEPTACLE CONTACTS



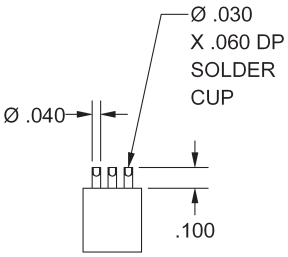
FAE
STACKING
Termination Length
is Application Specific



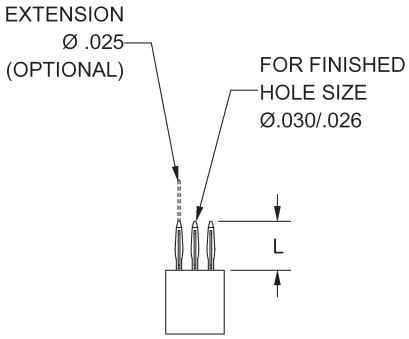
FBE
FLEX CABLE
'L'
1 = .050
2 = .098



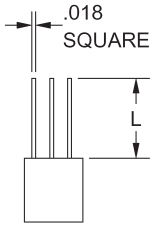
FDE
DIP SOLDER STRAIGHT
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined



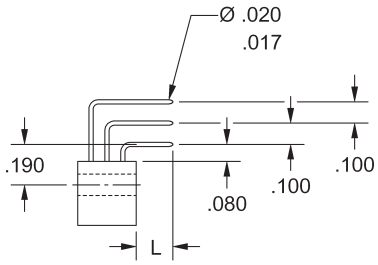
FSE0
SOLDER CUP



FVE
COMPLIANT
'L'
0 = Std .230
A = User Defined
Extension
(Compliant Stacking)

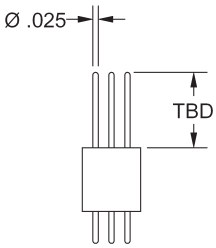


FWE
WIRE WRAP
'L'
1 = .375
2 = .500
3 = .625

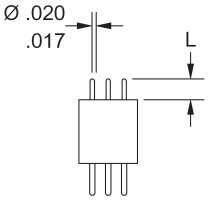


FEE
DIP SOLDER RIGHT ANGLE
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined

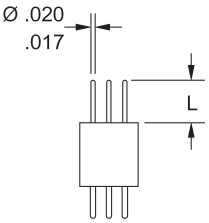
TERMINATION STYLE - 3 ROW
PLUG CONTACTS



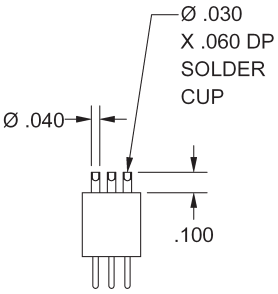
MAE
STACKING
Termination Length
is Application
Dependent



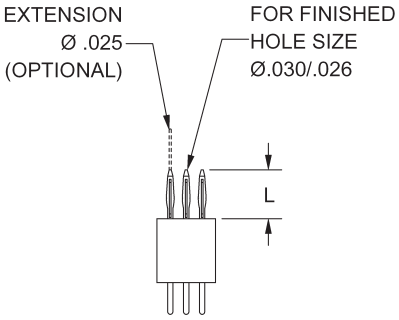
MBE
FLEX CABLE
'L'
1 = .050
2 = .098



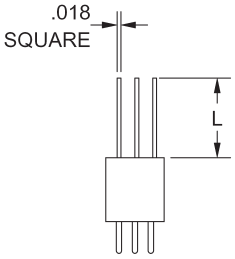
MDE
DIP SOLDER STRAIGHT
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined



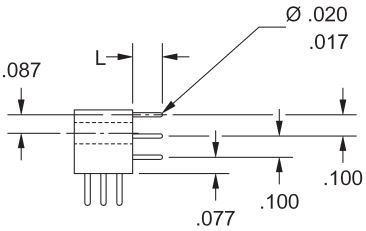
MSE0
SOLDER CUP



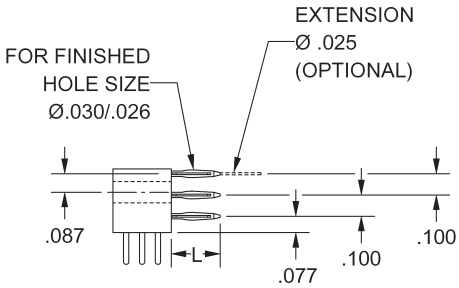
MVE
COMPLIANT
'L'
0 = Std .230
A = User Defined
Extension
(Compliant Stacking)



MWE
WIRE WRAP
'L'
1 = .375
2 = .500
3 = .625

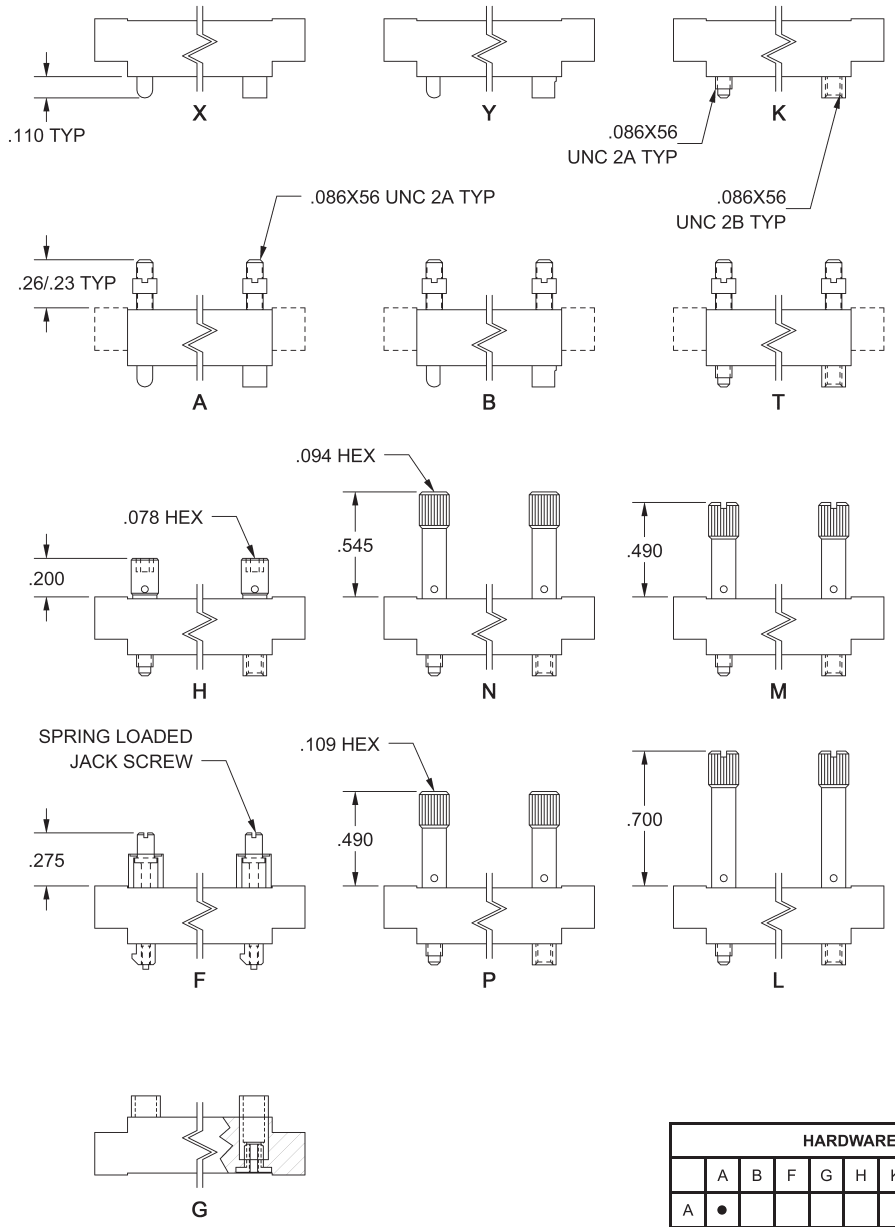


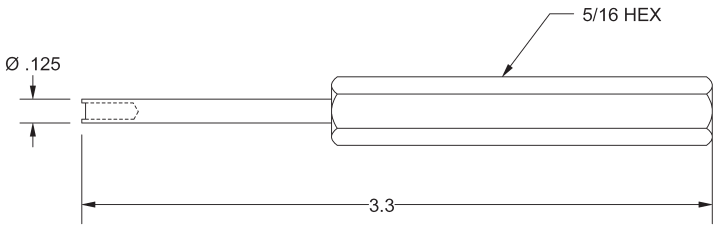
MEE
DIP SOLDER RIGHT ANGLE
'L'
1 = .109
2 = .140
3 = .172
4 = .234
9 = User Defined



MLE
COMPLIANT
'L'
0 = Std .230
A = User Defined
Extension
(Compliant Stacking)

HARDWARE STYLE





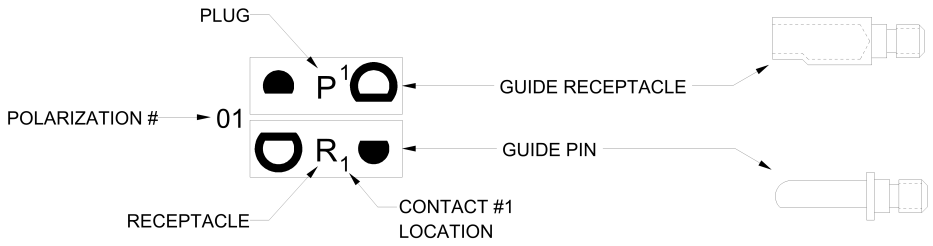
NS256 - 1 SPANNER WRENCH

HARDWARE COMPATIBILITY

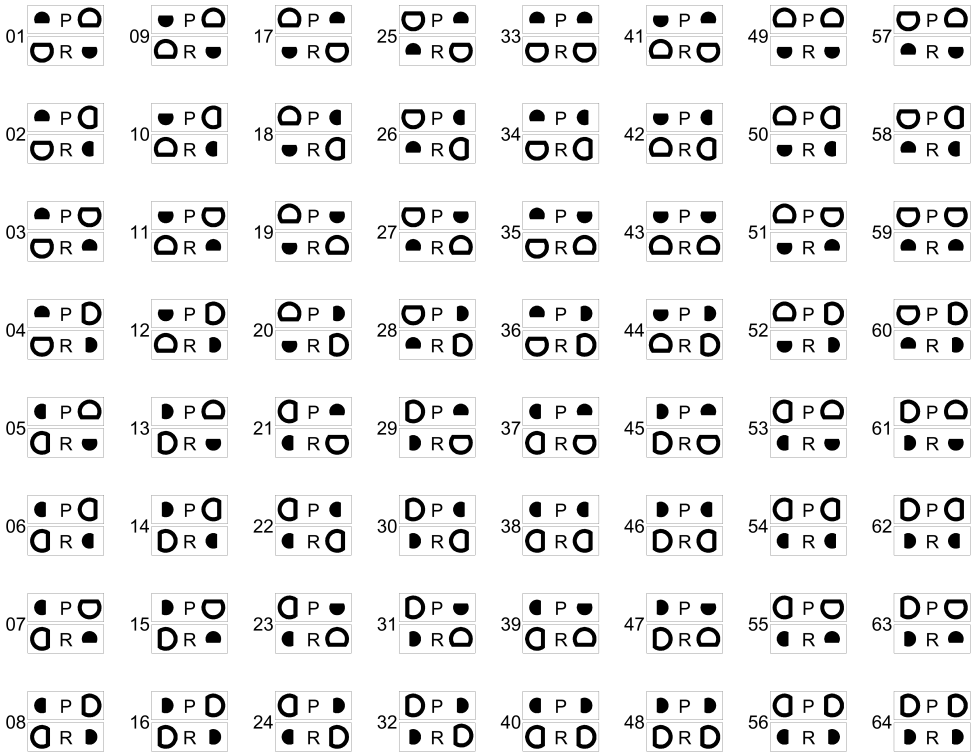
	A	B	F	G	H	K	L	M	N	P	T	X	Y
A	●											●	
B		●											●
F				●									
G			●										
H						●					●		
K					●		●	●	●	●			
L						●					●		
M						●					●		
N						●					●		
P						●					●		
T					●		●	●	●	●			
X	●											●	
Y		●											●

POLARIZATION CHART
A, B, H, K, L, M, N, P, T, X, Y HARDWARE

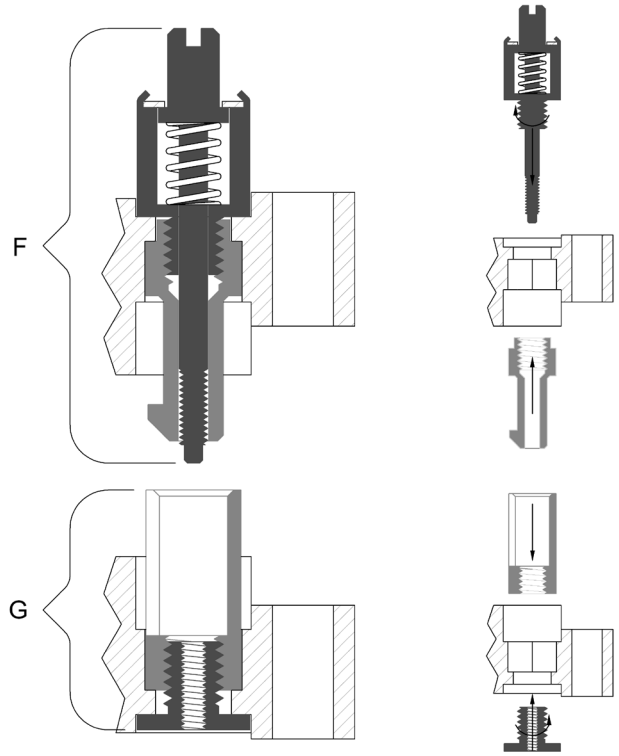
AS VIEWED FROM THE MATING FACE



01 - 64 USE FOR HARDWARE STYLE 'Y' AND 'B'



F & G HARDWARE DETAIL
JACKLESS KEYABLE LOCKING



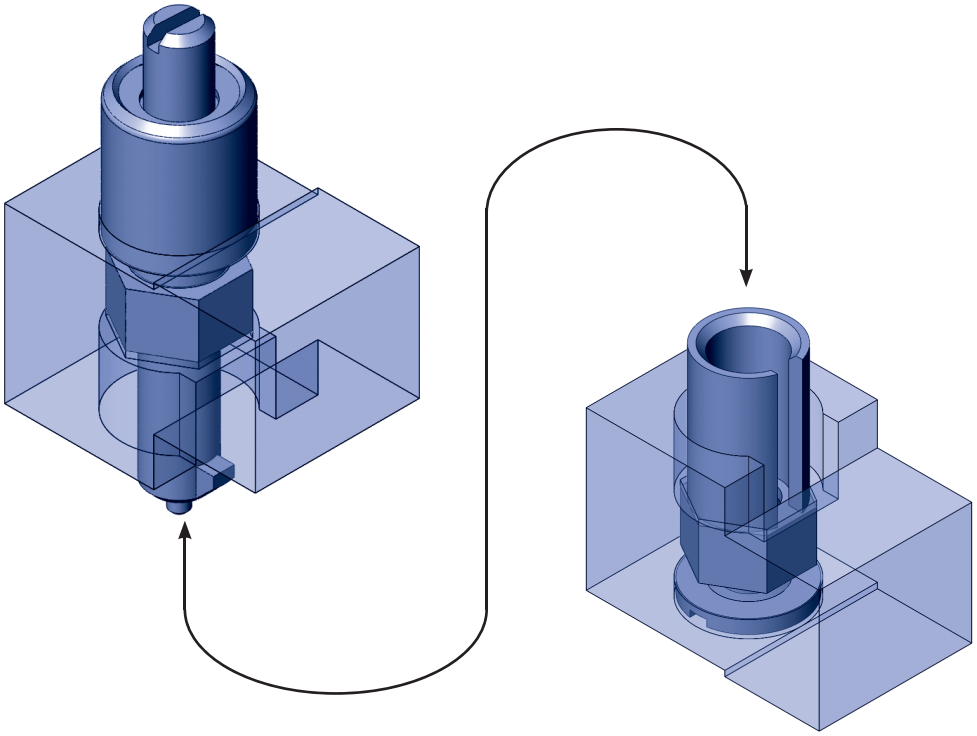
F & G Combines All of The Most Desirable Attributes of Proven Military Hardware.

JACKLESS - A new spring loaded jackset design allows the user to fully mate the connectors before screwing down the hardware. Most traditional designs do not allow a full mate, limiting the progress to 1 turn per screw per side, repeated until locked.

KEYABLE - The interlocking pieces incorporate a hex body with a fixed slot and key. 'F' hardware contains the key and 'G' hardware contains the slot. Both insulators for F and G employ a hex recess to accommodate up to 36 polarization options for 2 pairs (see details on following page).

LOCKING - For high stress and vibration environments, connectors are fully locked for uninterruptible operation.

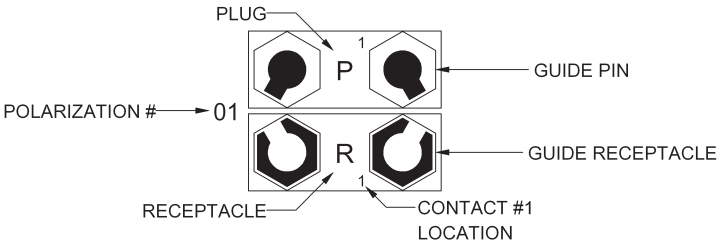
F Hardware (Assembled)

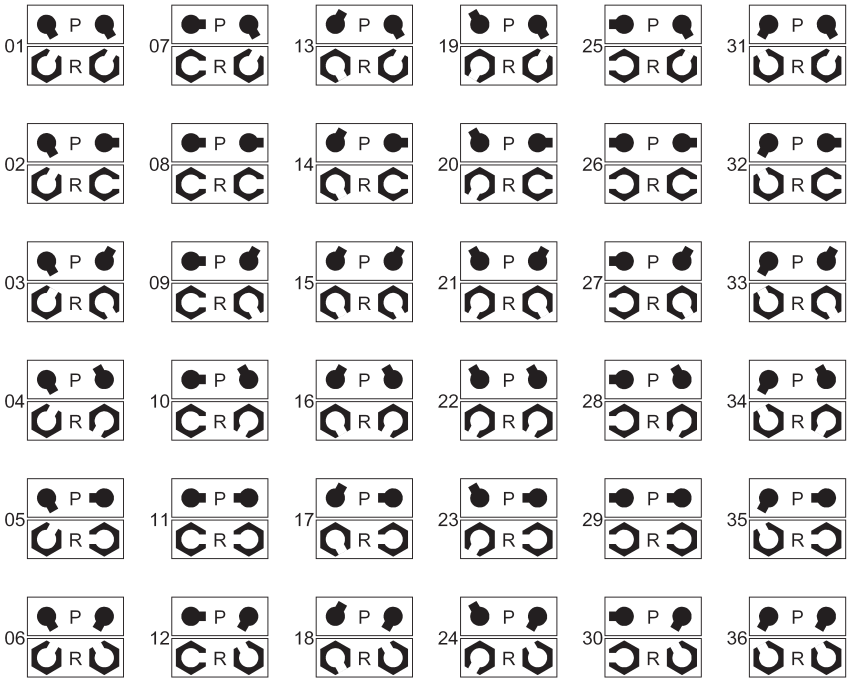


G Hardware (Assembled)

POLARIZATION CHART
F & G HARDWARE
(ONLY AVAILABLE ON 3 ROW CONNECTORS)

AS VIEWED FROM THE MATING FACE



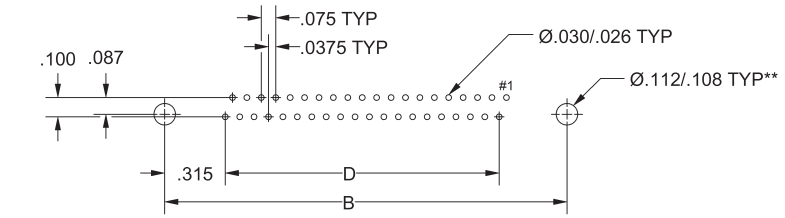


PWB PATTERNS

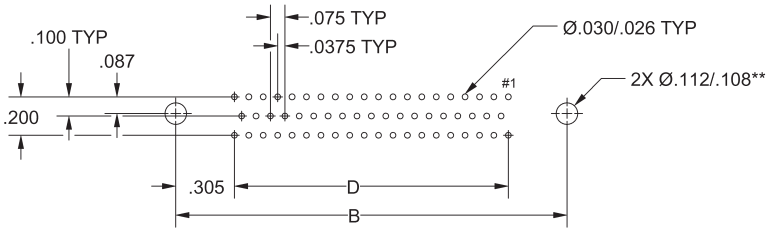
PLUG - DIP SOLDER & SURFACE MOUNT

ALL VIEWS ARE FROM COMPONENT SIDE

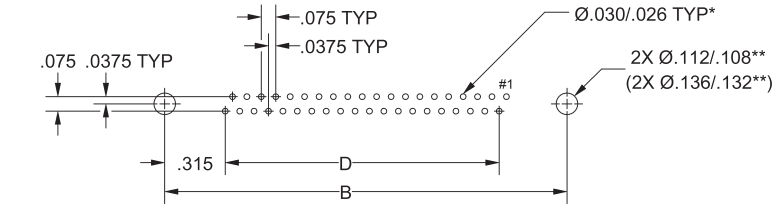
MEE 2-ROW
DIP SOLDER RIGHT ANGLE



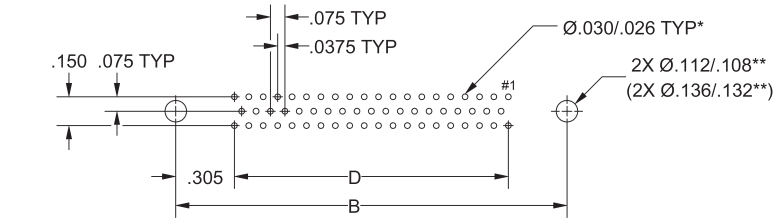
MEE 3-ROW
DIP SOLDER RIGHT ANGLE



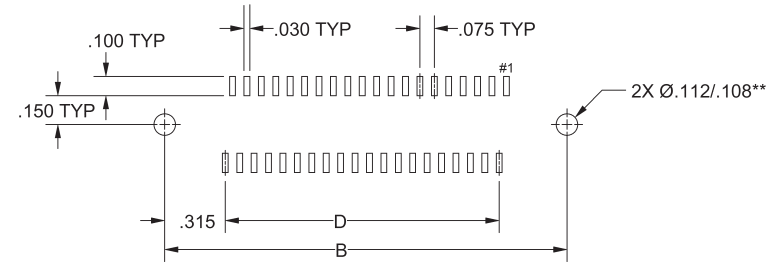
RDE 2-ROW
DIP SOLDER STRAIGHT
(RAE 2-ROW STACKING)



MDE 3-ROW
DIP SOLDER STRAIGHT
(MAE 3-ROW STACKING)



MRE 2-ROW
SURFACE MOUNT



*REQUIRED HOLE SIZE FOR COMPLIANT TERMINATION STYLE CONTACTS. FOR ALL OTHERS, HOLE SIZE SUBJECT TO USER MODIFICATION FOR APPLICATION OR ALTERNATIVE STANDARDS.

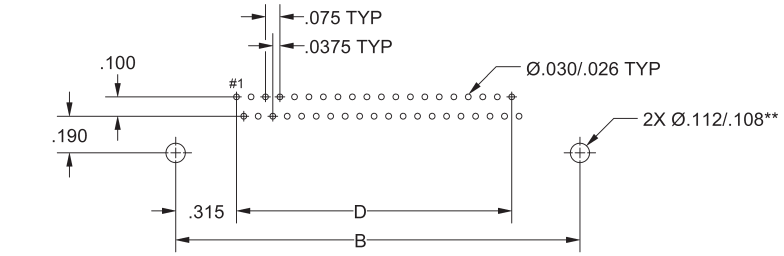
**RECOMMENDATION. MAY BE MODIFIED FOR APPLICATION OR ALTERNATIVE STANDARDS.

PWB PATTERNS

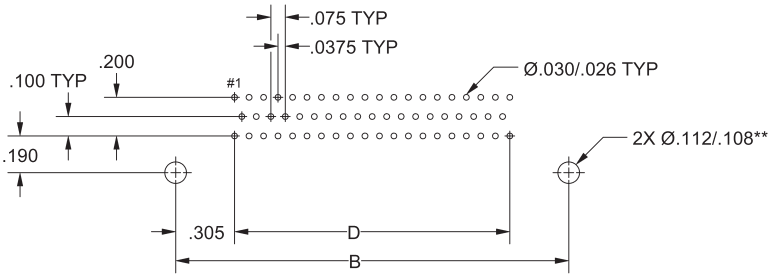
RECEPTACLE - DIP SOLDER & SURFACE MOUNT

ALL VIEWS ARE FROM COMPONENT SIDE

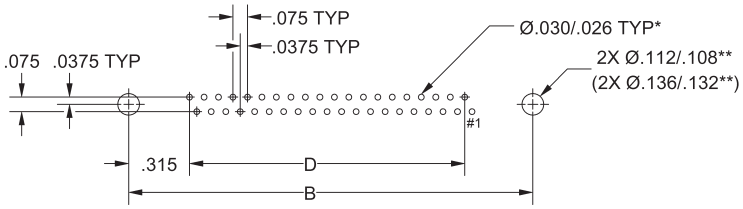
FEE 2-ROW
DIP SOLDER RIGHT ANGLE



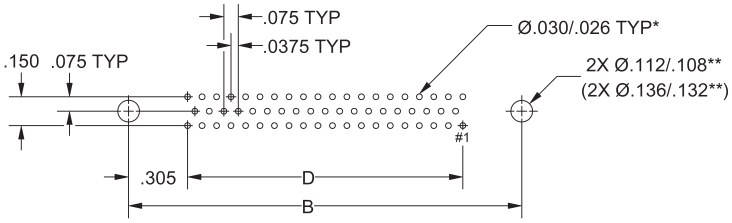
FEE 3-ROW
DIP SOLDER RIGHT ANGLE



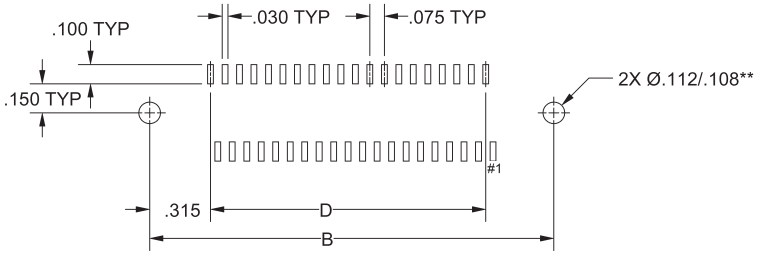
FDE 2-ROW
DIP SOLDER STRAIGHT
(FAE 2-ROW STACKING)



FDE 3-ROW
DIP SOLDER STRAIGHT
(FAE 3-ROW STACKING)



FRE 2-ROW
SURFACE MOUNT



*REQUIRED HOLE SIZE FOR COMPLIANT TERMINATION STYLE CONTACTS. FOR ALL OTHERS, HOLE SIZE SUBJECT TO USER MODIFICATION FOR APPLICATION OR ALTERNATIVE STANDARDS.

**RECOMMENDATION. MAY BE MODIFIED FOR APPLICATION OR ALTERNATIVE STANDARDS.

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