

**molex**



# AirBorn N Series

Nano-D Connectors — 0.025" (0.64mm)

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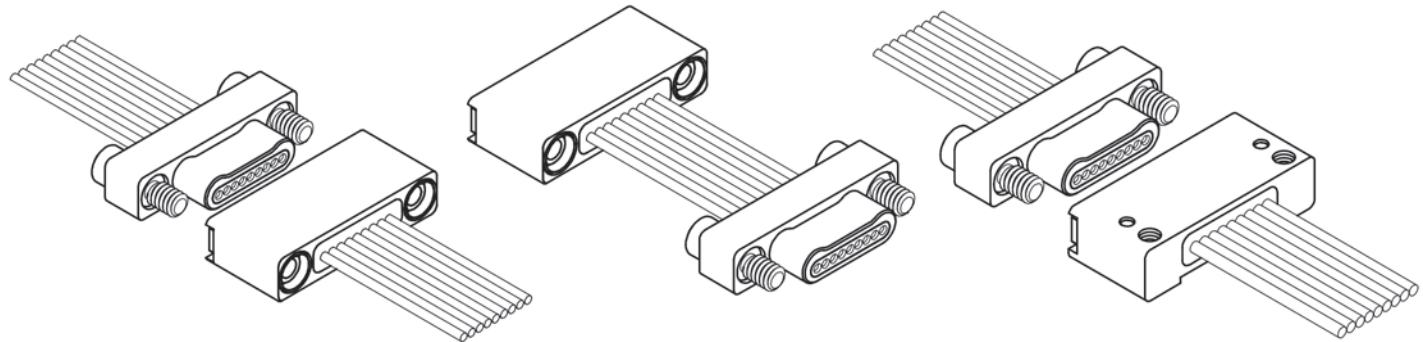
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# AIRBORN N SERIES

## NANO CONNECTORS CABLE-TO-CABLE ONE ROW

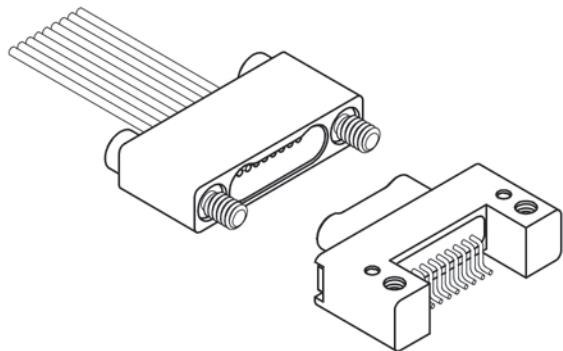


**Cable to Cable**  
Sizes: 9 thru 51  
Page: N-8

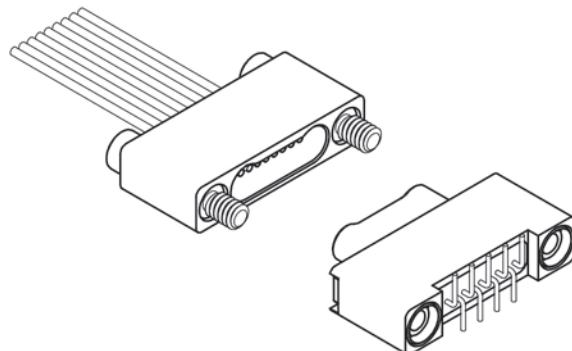
**Cable to Cable, Jumpers**  
Sizes: 9 thru 51  
Page: N-10

**Cable to Cable, with Mounting Holes**  
Sizes: 9 thru 51  
Page: N-12 – N-14

## NANO CONNECTORS BOARD-TO-CABLE ONE ROW



**Cable to Horizontal SMT**  
Sizes: 9 thru 51  
Page: N-16 – N-18

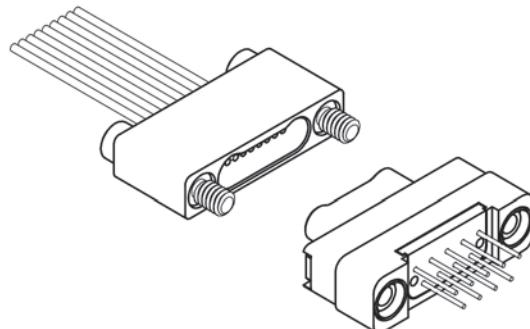
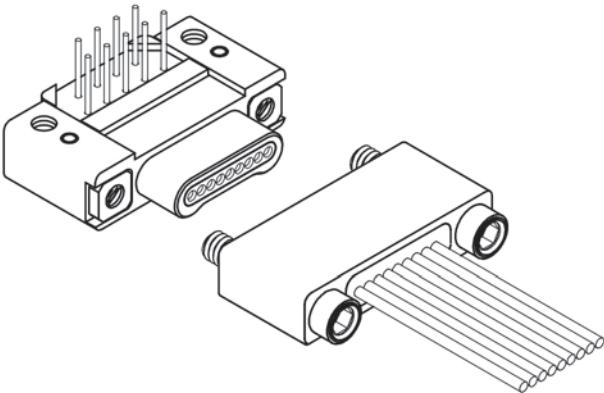


**Cable to Vertical SMT**  
Sizes: 9 thru 51  
Page: N-22 – N-24

# AIRBORN N SERIES

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## NANO CONNECTORS BOARD-TO-CABLE ONE ROW



### Cable to Right Angle PTH

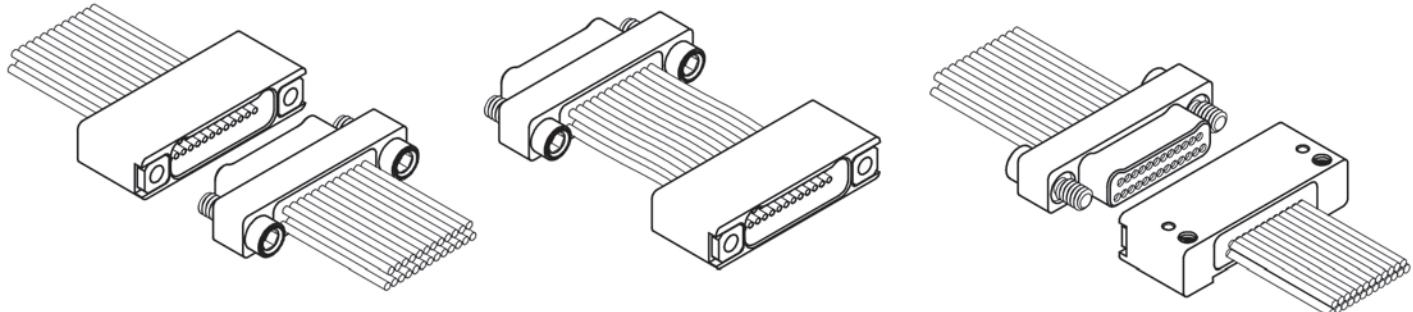
Sizes: 9 thru 51  
Page: N-28 – N-30

### Cable to Vertical PTH

Sizes: 9 thru 51  
Page: N-34 – N-36

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## NANO CONNECTORS CABLE-TO CABLE-TWO ROW



### Cable to Cable

Sizes: 9 thru 91  
Page: N-43

### Cable to Cable, Jumpers

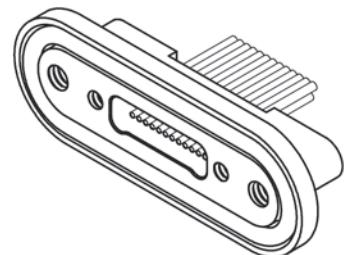
Sizes: 9 thru 91  
Page: N-45

### Cable to Cable, with Mounting Holes

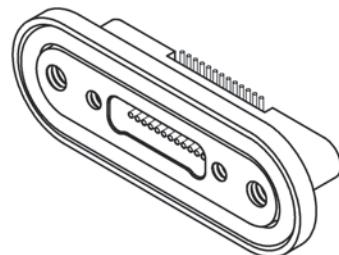
Sizes: 9 thru 91  
Page: N-47 – N-49

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## NANO CONNECTORS REAR PANEL MOUNT TWO ROW



**I/O**  
Sizes: 9 thru 85  
Page: N-134



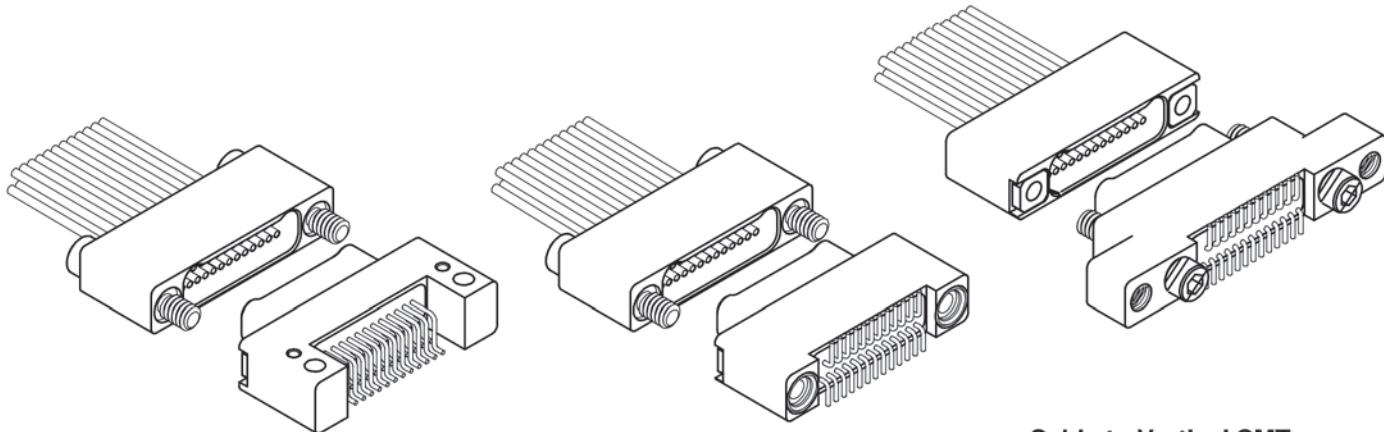
**Vertical SMT**  
Sizes: 9 thru 85  
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**Replacement O-Rings**  
Page: N-149

# AIRBORN N SERIES

## NANO CONNECTORS BOARD-TO-CABLE TWO ROW



### Cable to Horizontal SMT

Sizes: 9 thru 91  
Page: N-51 - N-53

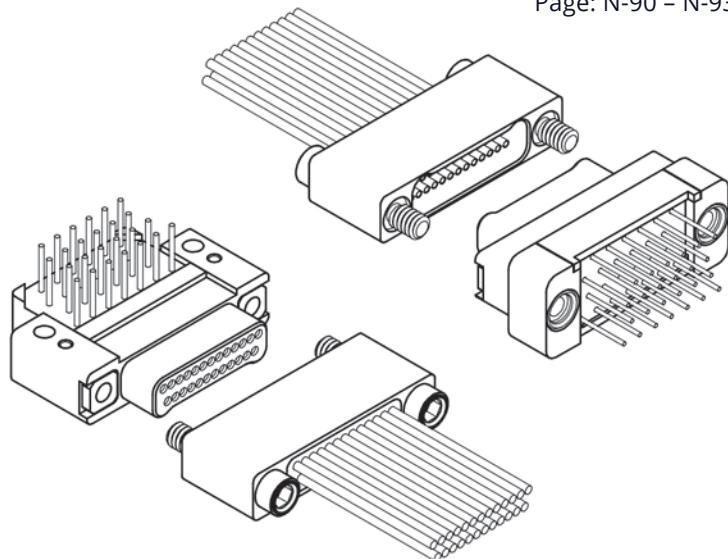
### Cable to Vertical SMT

Sizes: 9 thru 91  
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### Cable to Vertical SMT with Mounting Holes

Sizes: 9 thru 91  
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## NANO CONNECTORS BOARD-TO-CABLE TWO ROW



### Cable to Right Angle PTH

Sizes: 9 thru 91  
Page: N-82 - N-84

## NANO CONNECTORS BOARD-TO-CABLE TWO ROW

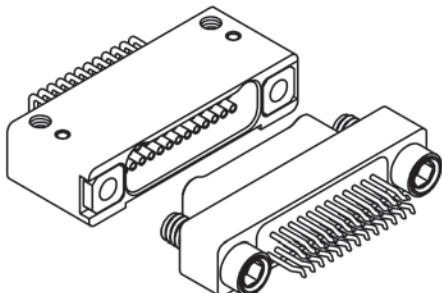
### Shorting Connectors

Sizes: 9 thru 91  
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# AIRBORN N SERIES

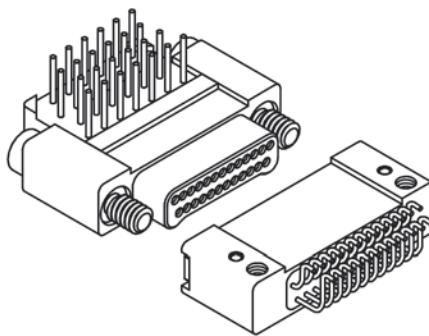
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## NANO CONNECTORS FLEX-TO-BOARD ONE AND TWO ROW



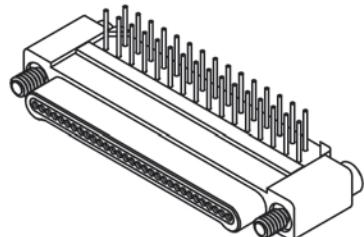
**Straddle Mount Flex**

Sizes: 9 thru 91  
Page: N-114 – N-116



**Right Angle Flex Mount**

Sizes: 9 thru 91  
Page: N-122

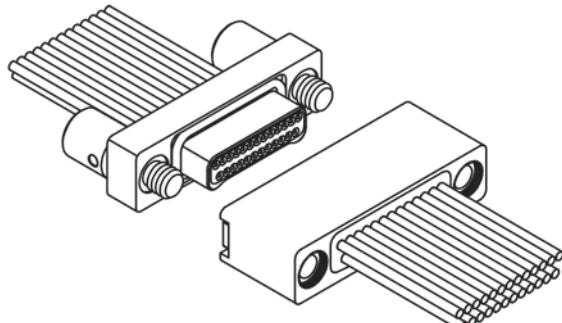


**Right Angle Flex Mount**

Sizes: 9 thru 51  
Page: N-40

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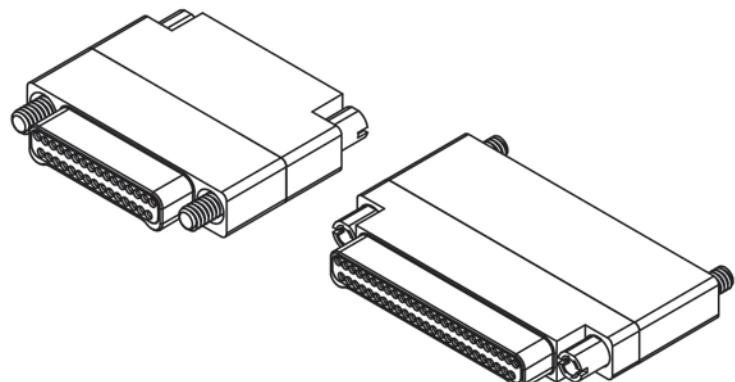
## NANO CONNECTORS SPLASHPROOF TWO ROW



**Cable to Cable, Splashproof**

Sizes: 9 thru 91  
Page: N-130

## NANO TWO ROW CONNECTORS SAVER



**Plug w/Threaded Hdw**

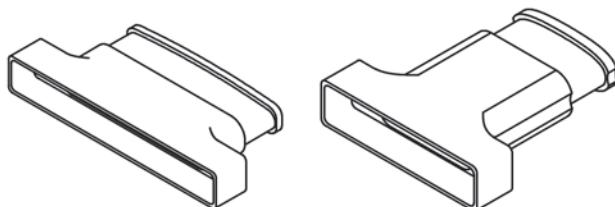
Sizes: 9 to 91  
Page: N-162

**Plug w/Fixed Hdw**

Sizes: 9 to 91  
Page: N-163

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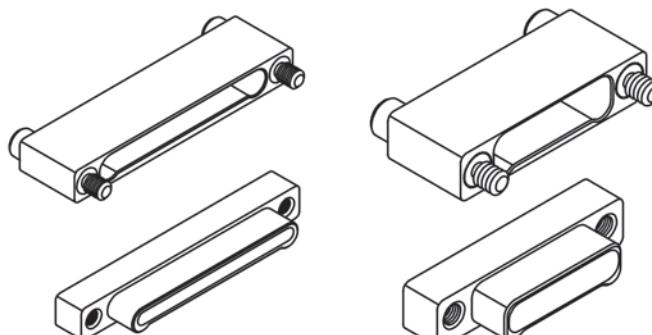
## NANO BACKSHELLS ONE AND TWO ROW



**One & Two Row Backshells**

Sizes: 9 thru 51 (one row)  
9 thru 91 (two row)  
Page: N-153 – N-154

## NANO DUST COVERS



**One Row Dust Covers**

Sizes: 9 thru 51  
Page: N-155

**Two Row Dust Covers**

Sizes: 9 thru 91  
Page: N-157

# SPECIFICATIONS – MATERIALS AND FINISHES\*

<b>CONTACTS:</b>	Pins: Beryllium-copper(BeCu) alloy strip per ASTM B194 Sockets: BeCu per ASTM-B-194 or nickel-silver (NiAg) per ASTM B-122
<b>EMBEDMENT:</b>	Insulating compound per MIL-I-16923
<b>CONTACT FINISHES:</b>	Gold plate per ASTM B488, SAE AMS 2422
<b>MOLDED INSULATORS:</b>	Glass filled liquid crystal polymer (LCP) per ASTM D5138 or MIL-M-24519
<b>SHELLS:</b>	Aluminum 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8 OR 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M Passivated per SAE AMS-2700 OR Titanium per SAE-AMS-T-9046 Passivated per ASTM-B-600
<b>ALUMINUM SHELL FINISHES:</b>	Electroless nickel per SAE AMS2404 OR Electrodeposited cadmium per SAE AMS-QQ-P-416
<b>MOLDED INSULATORS:</b>	Glass filled polyphenylene sulfide per MIL-M-24519 Glass filled liquid crystal polymer per ASTM D5138 (one row only)
<b>HARDWARE:</b>	Corrosion resistant steel per ASTM A320/A320M or ASTM A484 and ASTM A582/A582M Passivated per SAE AMS2700
<b>TOLERANCES:**</b> <i>(Unless otherwise specified)</i>	Angles: $\pm 2^\circ$ Decimals: .XXX = $\pm 0.005"$ .XXXX = $\pm 0.0050"$

## NOTES

Molex can manufacture special configurations for your exact specifications.

\*Reference the above listed specifications or an equivalent industry standard when applicable.

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# PERFORMANCE REFERENCE M32139

AirBorn N Series meets or exceeds MIL-DTL-32139 performance specifications.

<b>CONTACT RATING:</b>	1-amperes maximum
<b>SOLDERABILITY:</b>	Terminals (except crimp) tested in accordance with MIL-STD-202, method 208
<b>WIRE SIZE:</b>	Stranded #30 and #32 AWG or solid #30 AWG standard ( <i>consult factory for other sizes and types</i> )
<b>TEST VOLTAGE:</b>	250V (RMS), 60 Hz
<b>OPERATING TEMPERATURE:</b>	-55° C to +125° C
<b>INSULATION RESISTANCE:</b>	5,000 megaohms minimum at 100 VDC
<b>DURABILITY:</b>	200 connector mating cycles tested in accordance with EIA-364-09
<b>VIBRATION:</b>	Tested in accordance with EIA-364-28, condition IV
<b>SHOCK:</b>	Tested in accordance with EIA-364-27, condition G
<b>SALT SPRAY:</b>	Mated connectors tested in accordance with EIA-364-26, condition B
<b>HUMIDITY:</b>	Mated connectors tested in accordance with EIA-364-31, condition A ( <i>except steps 7a and 7b</i> )
<b>THERMAL SHOCK:</b>	Tested to the temperature extremes of EIA-364-32, condition I
<b>CONTACT RESISTANCE:</b>	0.021 volt maximum drop at 1.0 amps (.021 Ohms)
<b>CONTACT ENGAGING FORCE:</b>	5.0 oz maximum, with minimum diameter test sleeve
<b>CONTACT SEPARATING:</b>	0.4 oz minimum, with maximum diameter test sleeve

# PART NUMBER DESCRIPTION

Each connector part number consists of at least five elements: series, body description, size (number of contacts), type of contacts, and type of hardware. A sixth element is added whenever special modifications or options are available.

Each catalog page shows the choices available for each of these elements. By selecting one option from each category on the page, you can build a set of connectors to meet your requirements.

Each element is identified by a combination of letters and/or numbers in fixed field lengths and separated by a hyphen (-). Each space must be filled in to complete the number. When the size, for example, is less than 100, indicate as 009, 051, etc.

## **SERIES:**

This will always be a two-letter designator and will identify the connector series. All 0.025" connectors begin with the letter "N". The second letter designates the various styles of 0.025" connectors.

## **BODY:**

Each digit of the Body Designator will normally identify (1) the number of rows, (2) the style of body, and (3) the body materials. The three digit number to identify the body consists of one digit from each group.

## **SIZE:**

The size is determined by the number of contacts in the connector and is an integral part of the part number. Order only sizes shown on the catalog page unless otherwise noted.

## **CONTACTS:**

Each page also identifies all contact options for a given connector. Mating contacts are shown on the page opposite from the description. The first two digits designate the type of contacts and terminations; the third digit designates the plating option.

## **HARDWARE:**

The hardware designator is four digits; two for style of hardware and two for polarization or wiring instruction. Follow the choices for each connector.

## **SPECIAL INSTRUCTIONS (OPTIONS):**

Special instructions are referenced by a three-digit number added to the end of the part number. The last three digits are included only when applicable. Molex will provide individual code numbers as needed.

## **NOTES:**

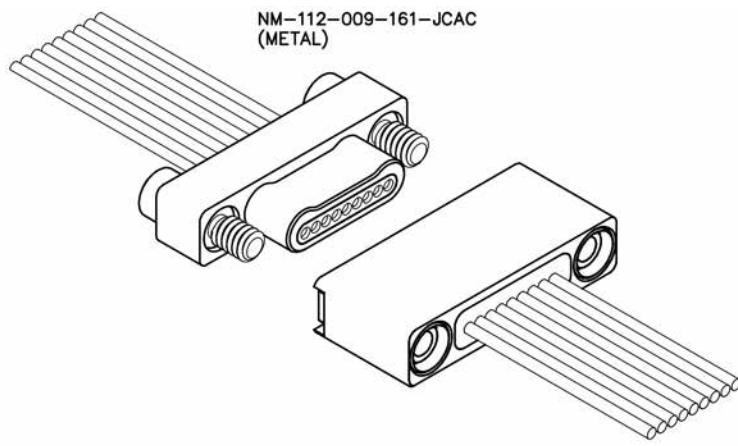
Each page is as comprehensive as possible. However, if you are unable to find a particular connector size or option, please contact the factory for further assistance.

**[x]** Option **not** RoHS compliant.

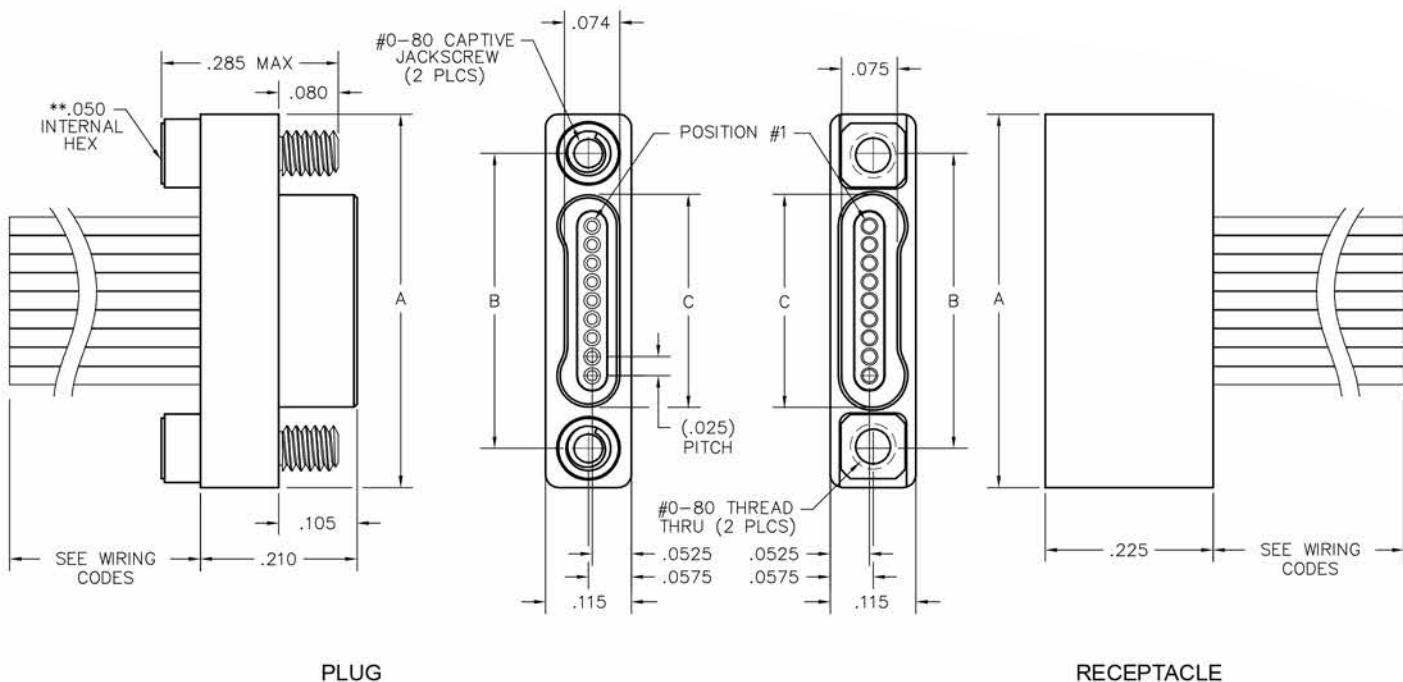
# ONE ROW - CABLE-TO-CABLE

NM & NM

0.025" | 9 THROUGH 51 CONTACTS

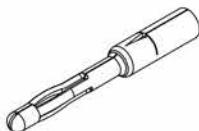


NM-122-009-261-THAC  
(METAL)



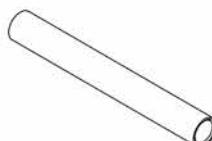
PLUG

RECEPTACLE



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS	
			PLUG	RCPT
9	.500	.395	.284	.285
15	.650	.545	.434	.435
21	.800	.695	.584	.585
25	.900	.795	.684	.685
31	1.050	.945	.834	.835
37	1.200	1.095	.984	.985
51	1.550	1.445	1.334	1.335



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NM-112-009-161-JCAC  
 RECEPTACLE: NM-122-009-261-THAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE						
<b>SERIES</b>							
NM .025" Metal I/O Connector	NM .025" Metal I/O Connector						
<b>BODY</b>							
1 1-Row	1 1-Row						
BODY STYLE:							
1 Plug, straight	2 Receptacle, straight						
5 Plug, straight with factory installed backshell (See page NA-4)	6 Receptacle, straight with factory installed backshell (See page NA-4)						
BODY MATERIAL:							
2 Liquid Crystal Polymer w/ electroless nickel shell	2 Liquid Crystal Polymer w/ electroless nickel shell						
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>						
4 Liquid Crystal Polymer w/ stainless steel shell ***	4 Liquid Crystal Polymer w/ stainless steel shell ***						
5 Liquid Crystal Polymer w/ titanium shell ***	5 Liquid Crystal Polymer w/ titanium shell ***						
<b>SIZE</b>							
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)						
<b>CONTACTS</b>							
TYPE CONTACTS/TERMINATIONS:	TYPE CONTACTS/TERMINATIONS:						
16 Pin, straight, crimped wire	26 Socket, straight, crimped wire						
PLATING OPTIONS:							
1 50 u" Au contacts	1 50 u" Au contacts						
<b>HARDWARE</b>							
STYLE OF HARDWARE:	STYLE OF HARDWARE:						
00 None ***	00 None ***						
JC Turning jackscrews, captivated #0-80 UNF*	JC Turning jackscrews, captivated #0-80 UNF*						
TH Threaded hole**, #0-80 UNF	TH Threaded hole**, #0-80 UNF						
WIRING OPTIONS:							
XX See wiring codes, Page N-151	XX See wiring codes, Page N-151						

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

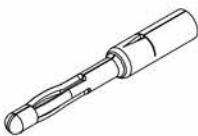
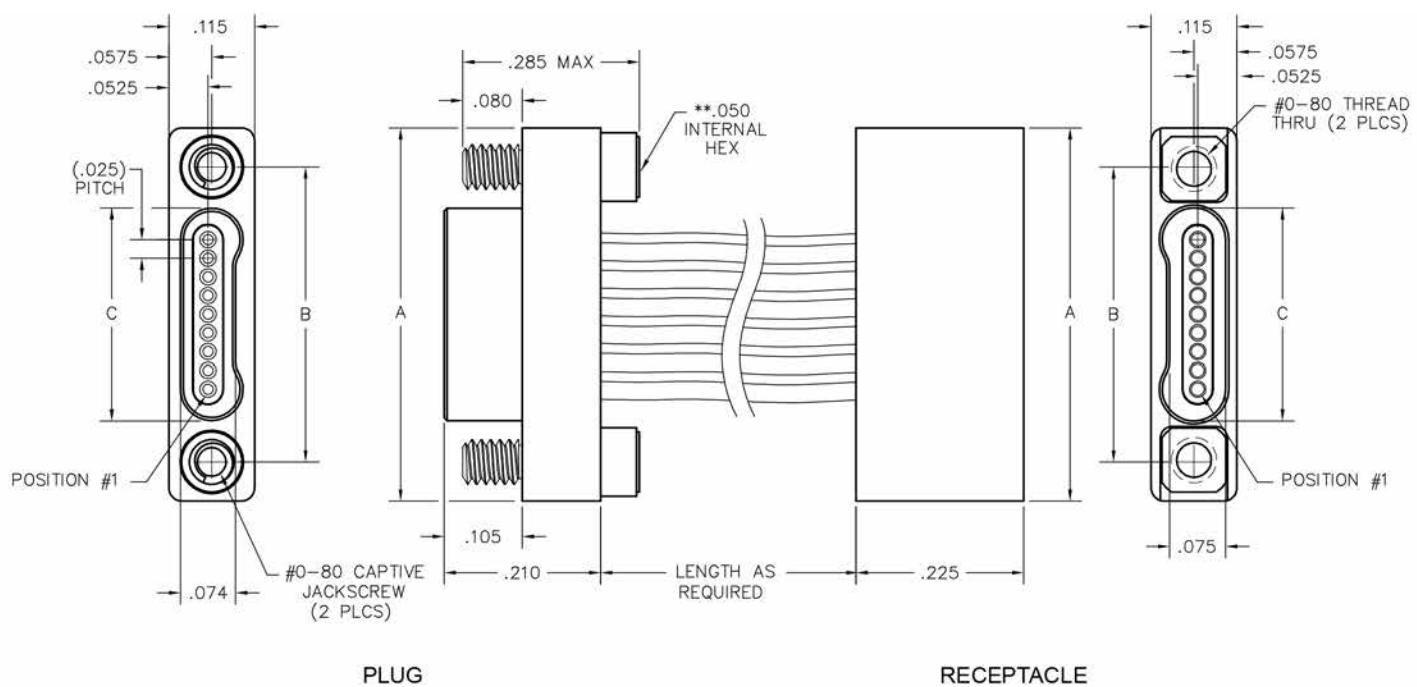
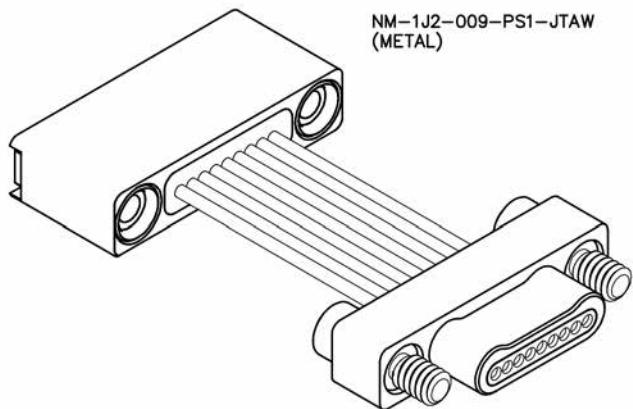
\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

= Option not RoHS compliant

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# ONE ROW - CABLE-TO-CABLE (JUMPER ASSEMBLY)



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	C	
			PLUG	RCPT
9	.500	.395	.284	.285
15	.650	.545	.434	.435
21	.800	.695	.584	.585
25	.900	.795	.684	.685
31	1.050	.945	.834	.835
37	1.200	1.095	.984	.985
51	1.550	1.445	1.334	1.335



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

NM-1J2-009-PS1-JTAW  
XX-XXX-XXX-XXX-XXXX

<b>SERIES</b>	
NM .025" Metal I/O Connector	
<b>BODY</b>	
1	1-Row
BODY STYLE:	
J	Jumper assembly
BODY MATERIAL:	
2	Liquid Crystal Polymer with electroless nickel shell
3	Liquid Crystal Polymer with electrodeposited cadmium shell <input checked="" type="checkbox"/>
4	Liquid Crystal Polymer with stainless steel shell
5	Liquid Crystal Polymer with titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS:	
PP	Plug to plug
PS	Plug to receptacle
SS	Receptacle to receptacle
PLATING OPTIONS:	
1	50 $\mu$ " Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE:	
00	None
JJ	Four #0-80 UNF* turning jackscrews, captivated, two on each connector
JT	Two #0-80 UNF* turning jackscrews, captivated, on plug & two #0-80 UNF threaded holes** on receptacle
JP	Two #0-80 UNF* turning jackscrews, captivated, on plug & two #0-80 UNF threaded holes** on plug
TJ	Two #0-80 UNF threaded holes** on plug & two #0-80 UNF* turning jackscrews, captivated, on receptacle
JR	Two #0-80 UNF* turning jackscrews, captivated, on receptacle & two #0-80 UNF threaded holes** on receptacle
TT	Four #0-80 UNF threaded holes**, two on each connector
POLARIZATION / WIRING:	
XX	For wiring codes, see page N-151

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

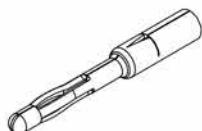
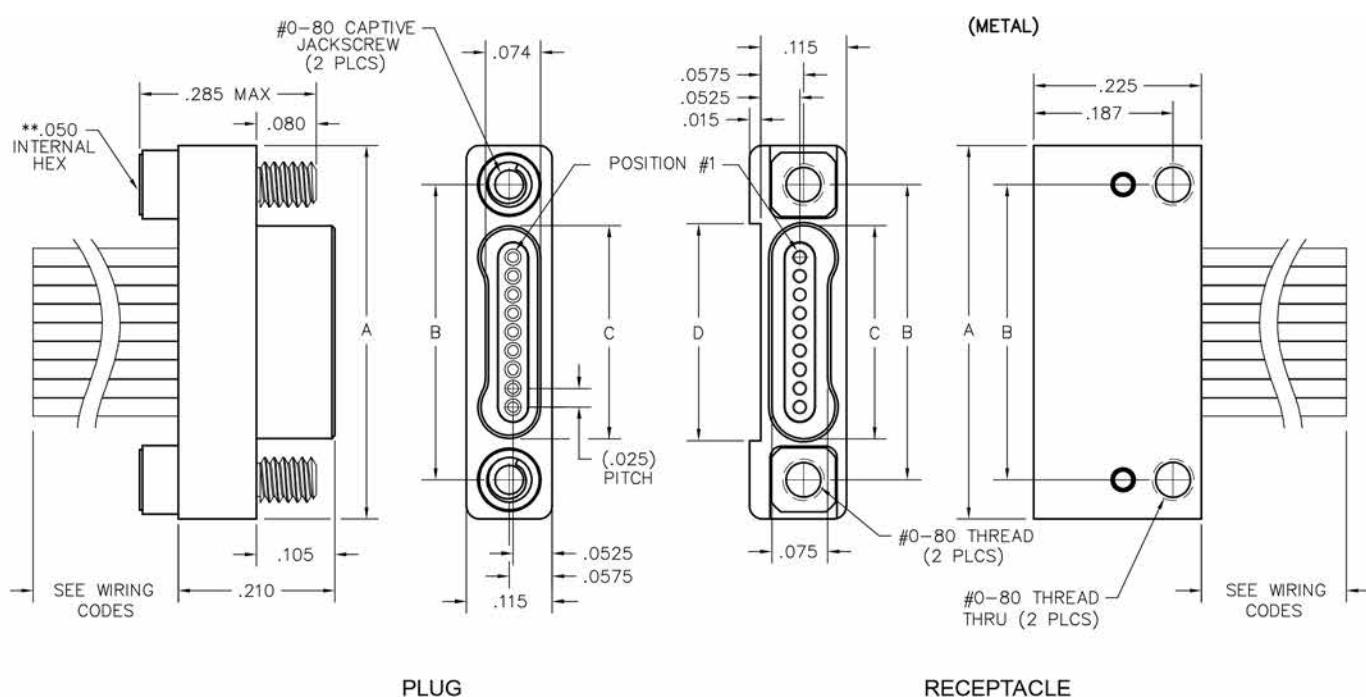
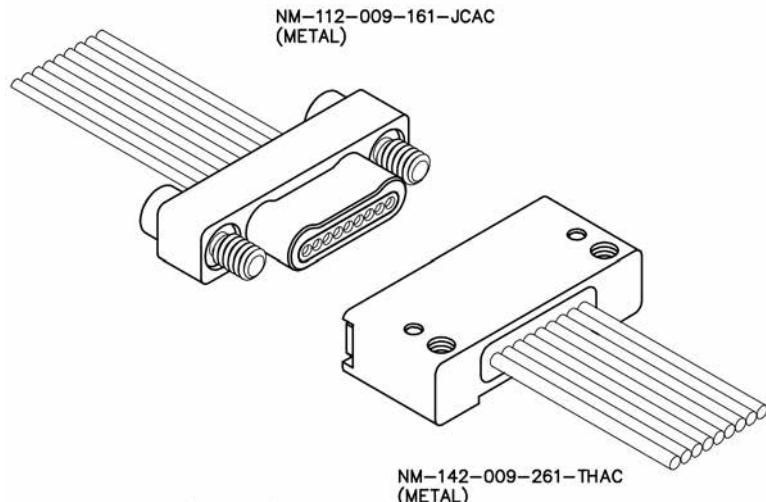
.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

● Consult factory if jumpers require other than direct one to one connections.

= Option not RoHS compliant

## ONE ROW - CABLE-TO-CABLE



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.290
15	.650	.545	.434	.435	.440
21	.800	.695	.584	.585	.590
25	.900	.795	.684	.685	.690
31	1.050	.945	.834	.835	.840
37	1.200	1.095	.984	.985	.990
51	1.550	1.445	1.334	1.335	1.340

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NM-112-009-161-JCAC  
 RECEPTACLE: NM-142-009-261-THAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
1 1-Row	1 1-Row
BODY STYLE: 1 Plug, straight 5 Plug, straight with factory installed backshell (See page NA-4)	BODY STYLE: 4 Receptacle, straight with mounting holes
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 26 Socket, straight, crimped wire
PLATING OPTIONS: 1 50 u" Au contacts	PLATING OPTIONS: 1 50 u" Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None *** JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF **
WIRING OPTIONS: XX See wiring codes, Page N-151	WIRING OPTIONS: XX See wiring codes, Page N-151

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

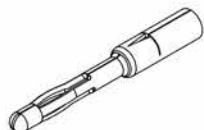
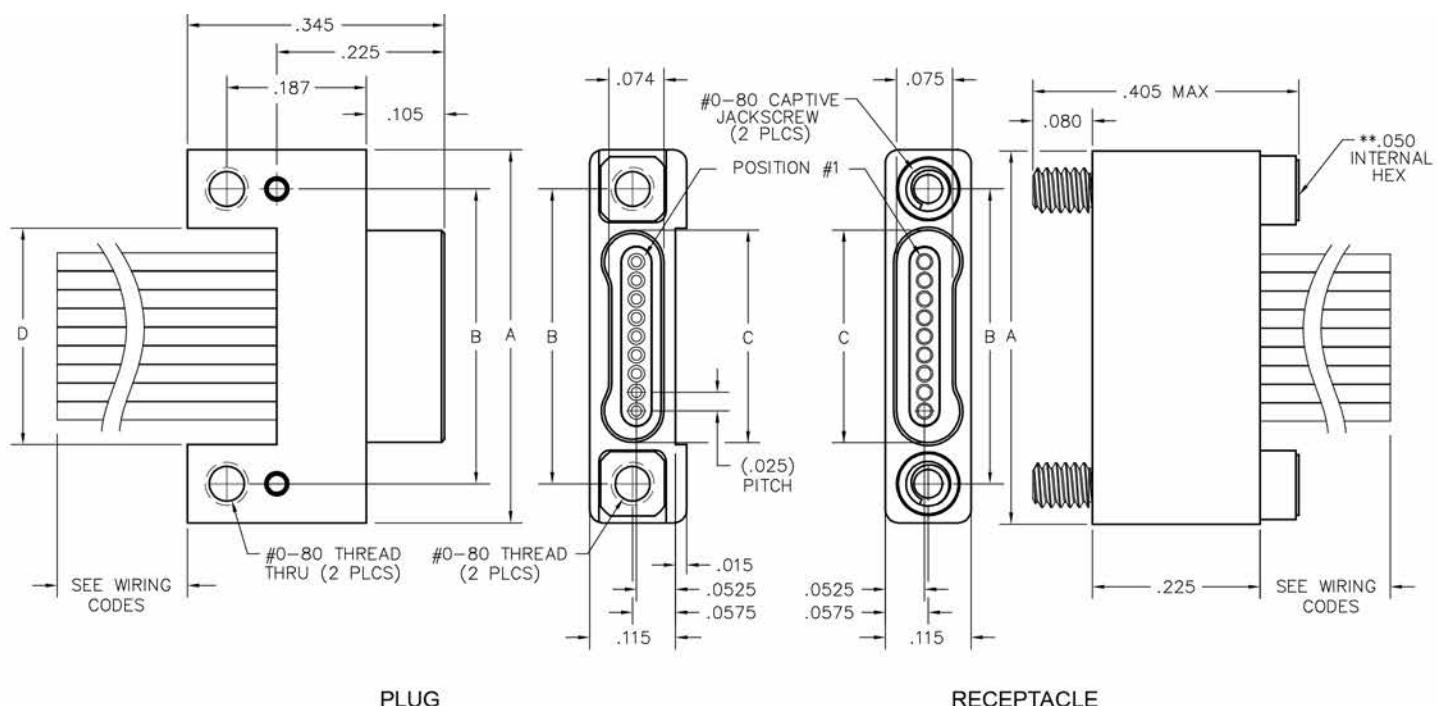
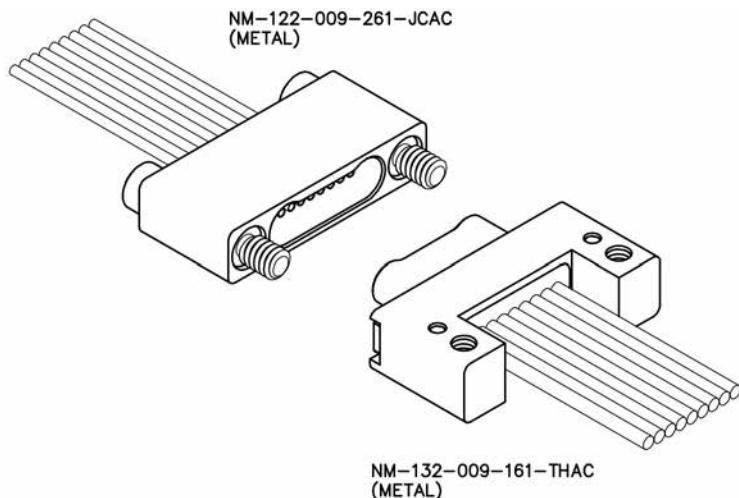
.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

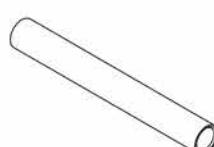
= Option not RoHS compliant

## ONE ROW - CABLE-TO-CABLE



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	C		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.290
15	.650	.545	.434	.435	.440
21	.800	.695	.584	.585	.590
25	.900	.795	.684	.685	.690
31	1.050	.945	.834	.835	.840
37	1.200	1.095	.984	.985	.990
51	1.550	1.445	1.334	1.335	1.340



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG: NM-132-009-161-THAC  
 RECEPTACLE: NM-122-009-261-JCAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
1 1-Row	1 1-Row
BODY STYLE:	
3 Plug, straight with mounting holes	2 Receptacle, straight 6 Receptacle, straight with factory installed backshell (See page NA-4)
BODY MATERIAL:	
2 Liquid Crystal Polymer w/ electroless nickel shell	2 Liquid Crystal Polymer w/ electroless nickel shell
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4 Liquid Crystal Polymer w/ stainless steel shell	4 Liquid Crystal Polymer w/ stainless steel shell ***
5 Liquid Crystal Polymer w/ titanium shell	5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS:	
16 Pin, straight, crimped wire	26 Socket, straight, crimped wire
PLATING OPTIONS:	
1 50 $\mu$ " Au contacts	1 50 $\mu$ " Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE:	
00 None	00 None ***
TH Threaded hole, #0-80 UNF **	JC Turning jackscrews, captivated #0-80 UNF*
WIRING OPTIONS:	
XX See wiring codes, Page N-151	XX See wiring codes, Page N-151

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

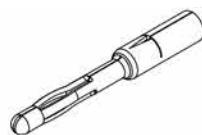
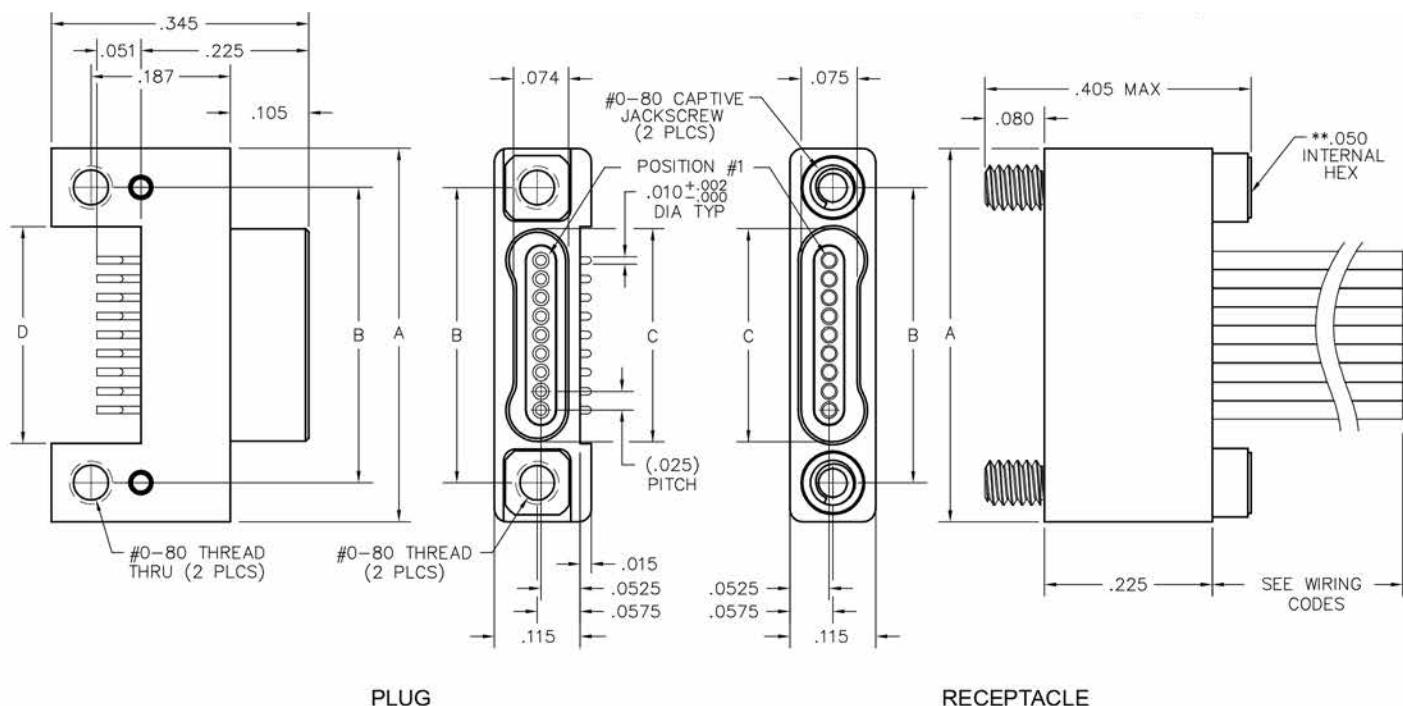
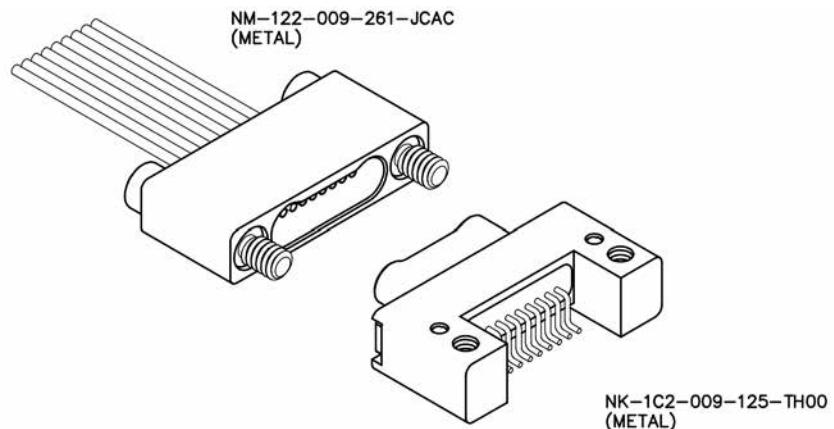
= Option not ROHS compliant

**molex**

# ONE ROW - CABLE-TO-BOARD HORIZONTAL SMT

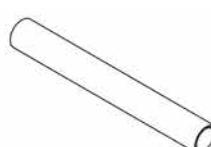
## NM & NK

0.025" | 9 THROUGH 51 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.290
15	.650	.545	.434	.435	.440
21	.800	.695	.584	.585	.590
25	.900	.795	.684	.685	.690
31	1.050	.945	.834	.835	.840
37	1.200	1.095	.984	.985	.990
51	1.550	1.445	1.334	1.335	1.340



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NK-1C2-009-125-TH00  
 RECEPTACLE: NM-122-009-261-JCAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
1 1-Row	1 1-Row
BODY STYLE: C Plug, horizontal mount SMT	BODY STYLE: 2 Receptacle, straight 6 Receptacle, straight with factory installed backshell (See page NA-4)
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 12 Pin, SMT	TYPE CONTACTS/TERMINATIONS: 26 Socket, straight, crimped wire
PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations	PLATING OPTIONS: 1 50 u" Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF **	STYLE OF HARDWARE: 00 None *** JC Turning jackscrews, captivated #0-80 UNF*
WIRING OPTIONS: 00 None	WIRING OPTIONS: XX See wiring codes, Page N-151

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

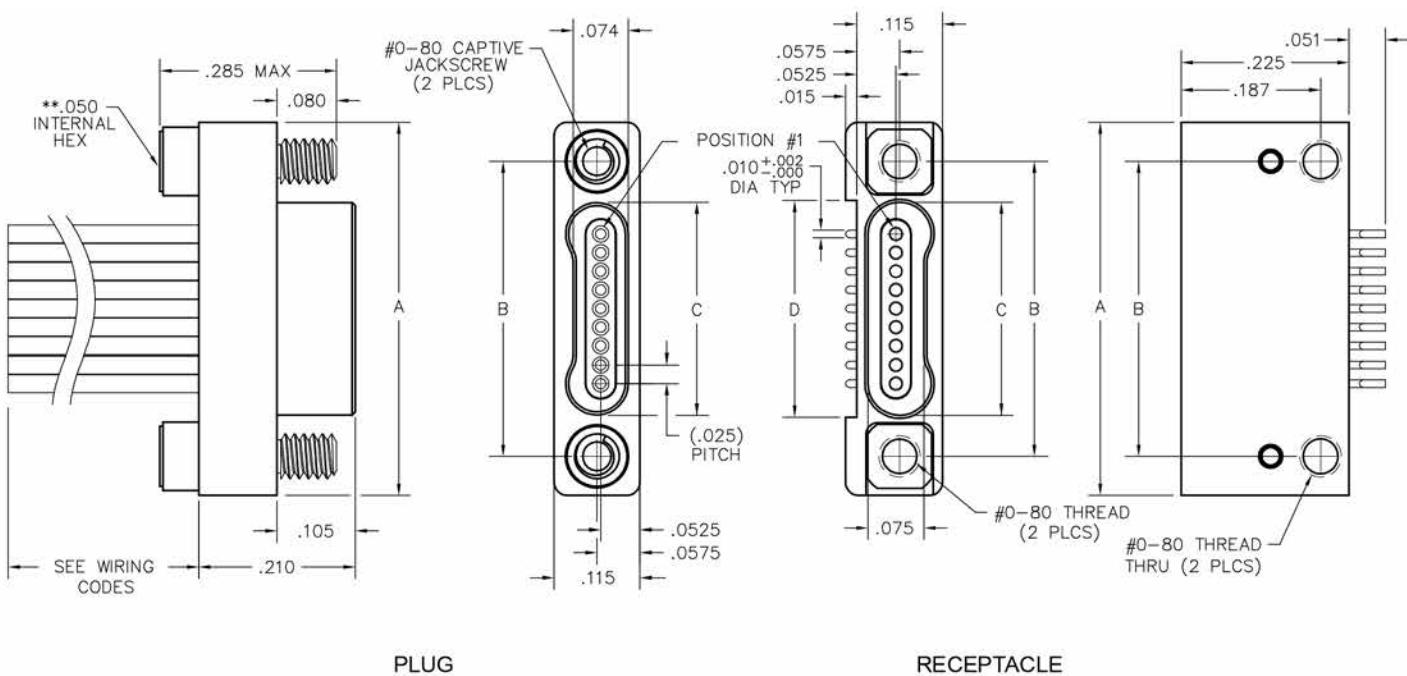
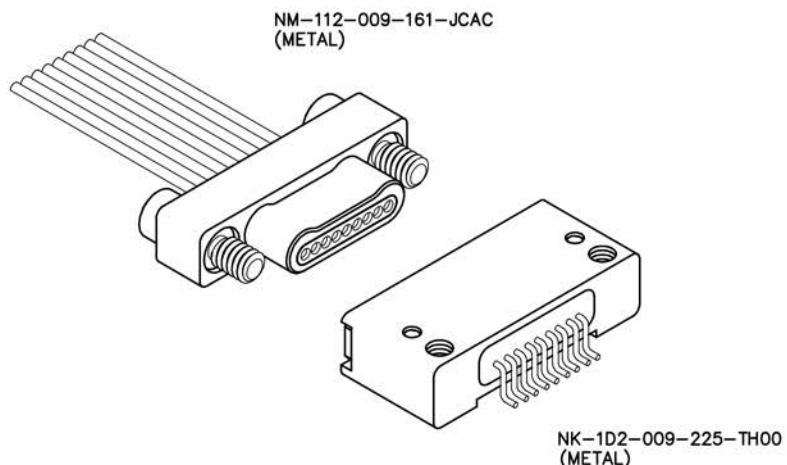
\*\*\* = Not available option if specifying factory installed backshell.

= Option not RoHS compliant

# ONE ROW - CABLE-TO-BOARD HORIZONTAL SMT

## NM & NK

0.025" | 9 THROUGH 51 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.290
15	.650	.545	.434	.435	.440
21	.800	.695	.584	.585	.590
25	.900	.795	.684	.685	.690
31	1.050	.945	.834	.835	.840
37	1.200	1.095	.984	.985	.990
51	1.550	1.445	1.334	1.335	1.340



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

## LEAD CONFIGURATION OPTIONS

PLUG: NM-112-009-161-JCAC  
 RECEPTACLE: NK-1D2-009-225-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG		RECEPTACLE	
<b>SERIES</b>			
NM .025" Metal I/O Connector		NK .025" Metal PC Board Mounted Connector	
<b>BODY</b>			
1 1-Row		1 1-Row	
BODY STYLE:		BODY STYLE:	
1 Plug, straight		D Receptacle, horizontal mount SMT	
5 Plug, straight with factory installed backshell (See page NA-4)			
BODY MATERIAL:		BODY MATERIAL:	
2 Liquid Crystal Polymer w/ electroless nickel shell	2 Liquid Crystal Polymer w/ electroless nickel shell		
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>		
4 Liquid Crystal Polymer w/ stainless steel shell ***	4 Liquid Crystal Polymer w/ stainless steel shell		
5 Liquid Crystal Polymer w/ titanium shell ***	5 Liquid Crystal Polymer w/ titanium shell		
<b>SIZE</b>			
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)		XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
16 Pin, straight, crimped wire		22 Socket, SMT	
PLATING OPTIONS:		PLATING OPTIONS:	
1 50 $\mu$ " Au contacts	5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>		
	8 50 $\mu$ " Au contacts; Tin plated terminations		
<b>HARDWARE</b>			
STYLE OF HARDWARE:		STYLE OF HARDWARE:	
00 None ***		00 None	
JC Turning jackscrews, captivated #0-80 UNF*		TH Threaded hole, #0-80 UNF **	
WIRING OPTIONS:		WIRING OPTIONS:	
XX See wiring codes, Page N-151		00 None	

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page)

\*\*\* = Not available option if specifying factory installed backshell.

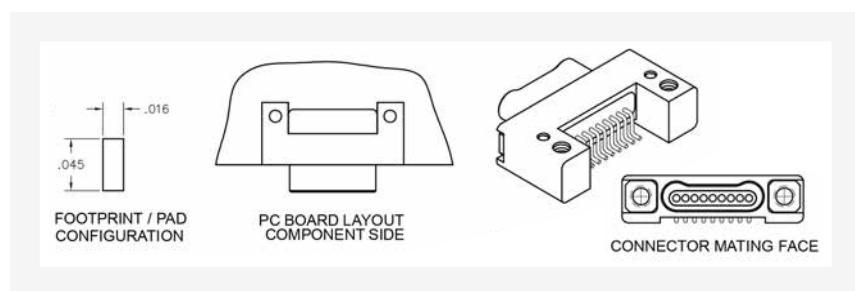
= Option not RoHS compliant

**molex**

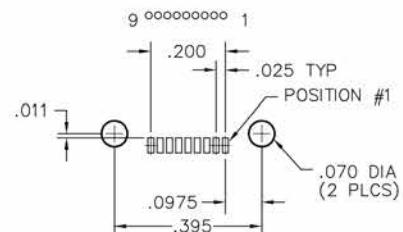
## RECOMMENDED PC BOARD LAYOUTS

### HORIZONTAL SMT PLUG

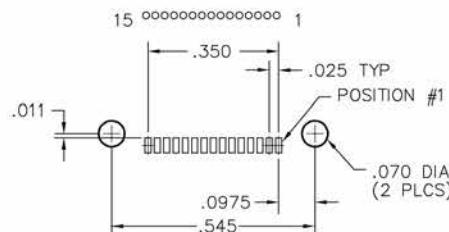
FOR REFERENCE ONLY



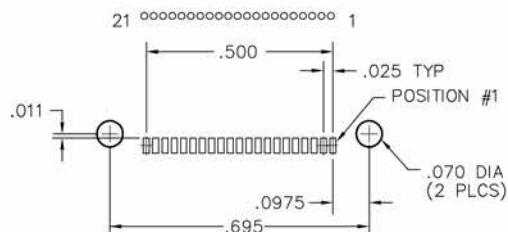
#### 9 POSITION



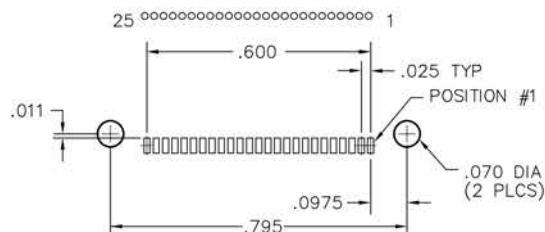
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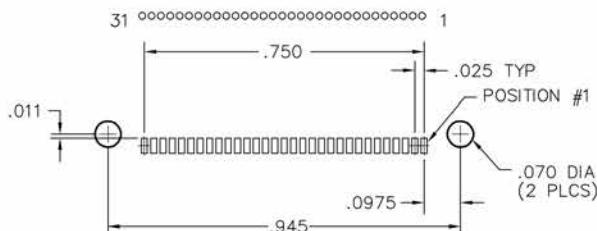
#### 21 POSITION



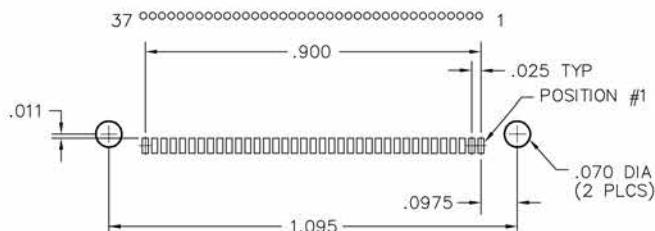
#### 25 POSITION



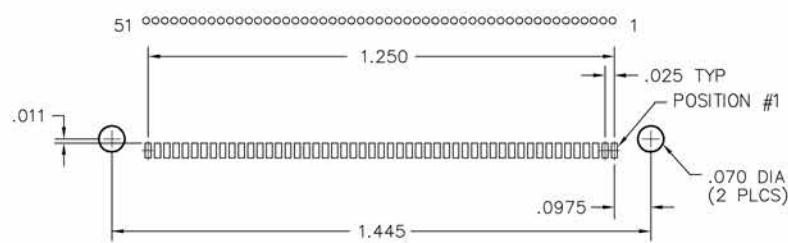
#### 31 POSITION



#### 37 POSITION



#### 51 POSITION

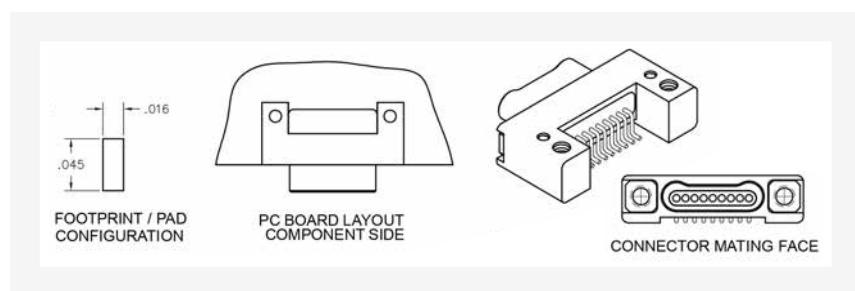


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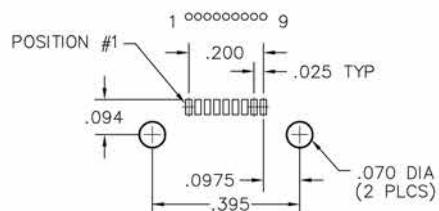
## RECOMMENDED PC BOARD LAYOUTS

### HORIZONTAL SMT PLUG

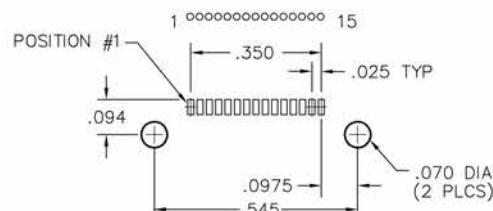
FOR REFERENCE ONLY



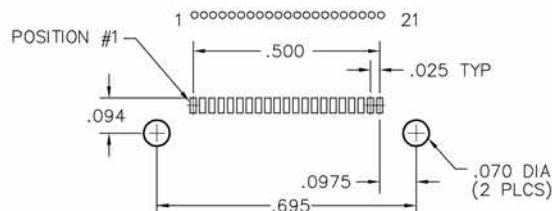
#### 9 POSITION



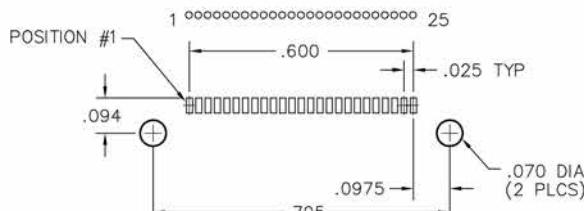
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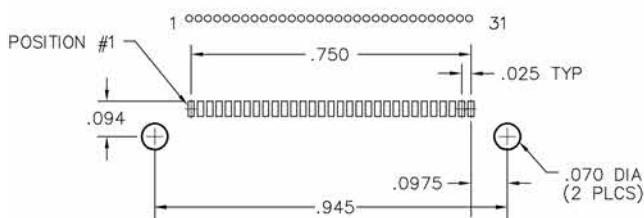
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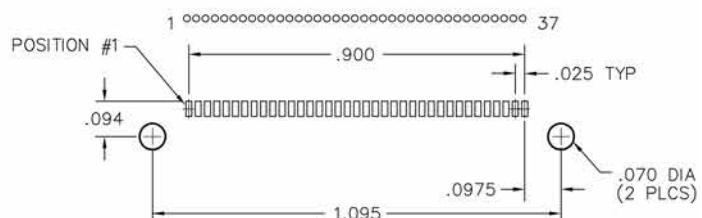
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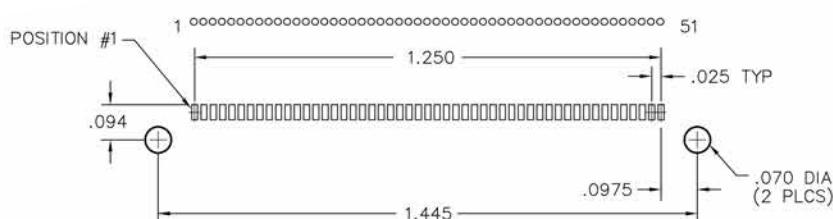
#### 31 POSITION



#### 37 POSITION



#### 51 POSITION

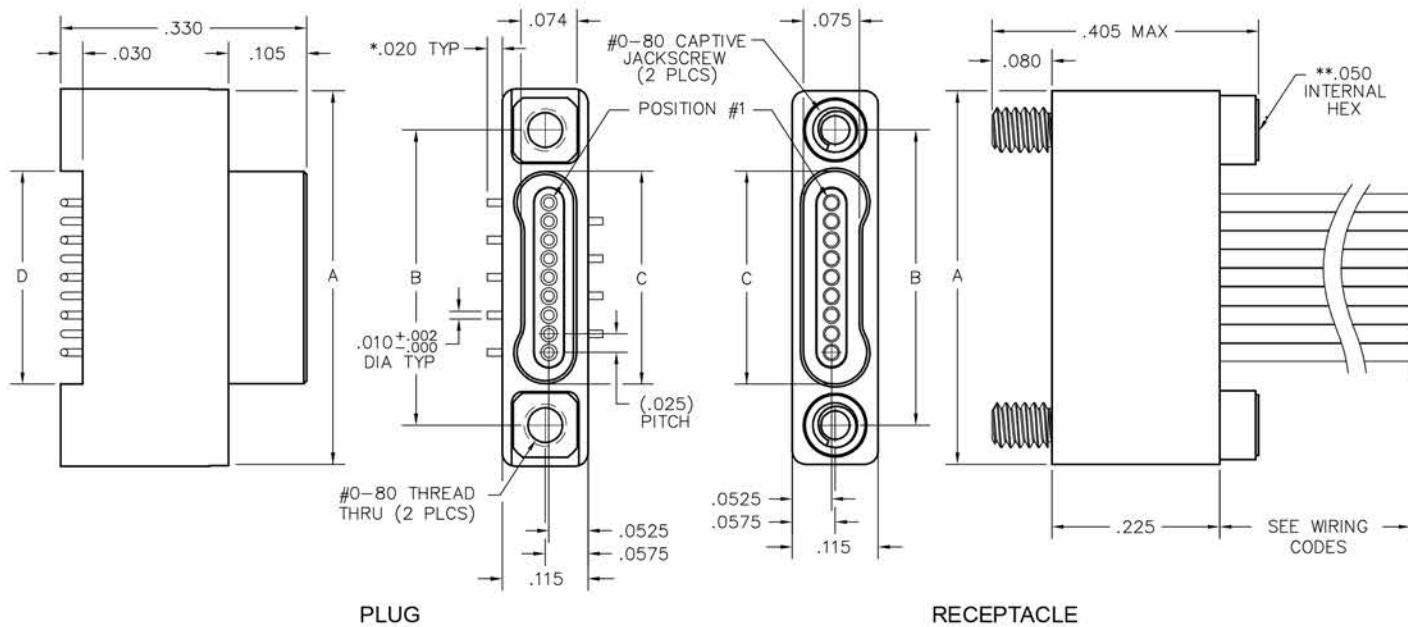
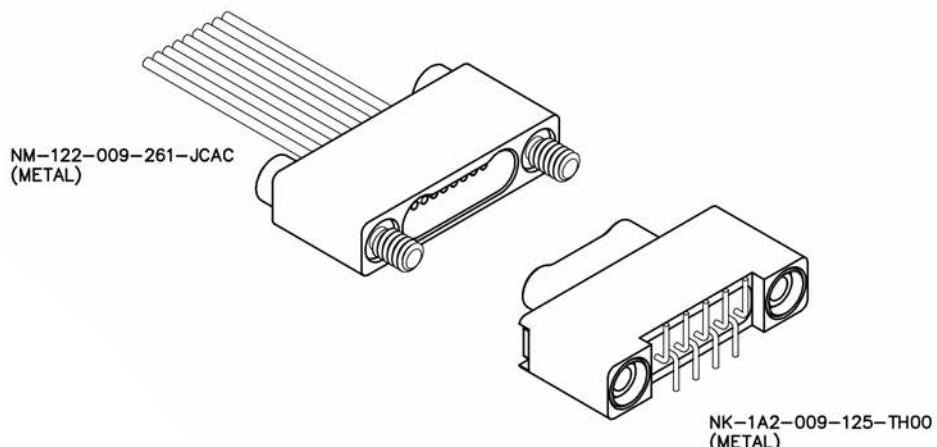


**molex**

# ONE ROW - CABLE-TO-BOARD VERTICAL SMT

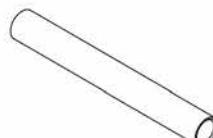
## NM & NK

0.025" | 9 THROUGH 51 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.287
15	.650	.545	.434	.435	.437
21	.800	.695	.584	.585	.587
25	.900	.795	.684	.685	.687
31	1.050	.945	.834	.835	.837
37	1.200	1.095	.984	.985	.987
51	1.550	1.445	1.334	1.335	1.337



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\* = DIMENSION CHANGES TO .040" FOR  
"010" OPTION. SEE PAGE N-20.  
\*\* = HEX MEASUREMENT TAKEN ACROSS FLATS.

## LEAD CONFIGURATION OPTIONS

PLUG: NK-1A2-009-125-TH00

RECEPTACLE: NM-122-009-261-JCAC

XX-XXX-XXX-XXX-XXXX-XXX

### PLUG

### RECEPTACLE

#### SERIES

NK .025" Metal PC Board Mounted Connector | NM .025" Metal I/O Connector

#### BODY

1	1-Row	1	1-Row
A	BODY STYLE: Plug, vertical mount SMT	2	BODY STYLE: Receptacle, straight
		6	Receptacle, straight with factory installed backshell (See page NA-4)
2	BODY MATERIAL: Liquid Crystal Polymer w/ electroless nickel shell	2	BODY MATERIAL: Liquid Crystal Polymer w/ electroless nickel shell
3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4	Liquid Crystal Polymer w/ stainless steel shell	4	Liquid Crystal Polymer w/ stainless steel shell ***
5	Liquid Crystal Polymer w/ titanium shell	5	Liquid Crystal Polymer w/ titanium shell ***

#### SIZE

XXX Number of contacts (009, 015, 021, 025, 031,  
037 or 051) | XXX Number of contacts (009, 015, 021, 025, 031,  
037 or 051)

#### CONTACTS

12	TYPE CONTACTS/TERMINATIONS: Pin, SMT (.020 lead envelope)	26	TYPE CONTACTS/TERMINATIONS: Socket, straight, crimped wire
5	PLATING OPTIONS: 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	1	PLATING OPTIONS: 50 u" Au contacts
8	50 u" Au contacts; Tin plated terminations		

#### HARDWARE

00	STYLE OF HARDWARE: None	00	STYLE OF HARDWARE: None ***
TH	Threaded hole, #0-80 UNF **	JC	Turning jackscrews, captivated #0-80 UNF*
00	WIRING OPTIONS: None	XX	WIRING OPTIONS: See wiring codes, Page N-151
010	.040 lead envelope		

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

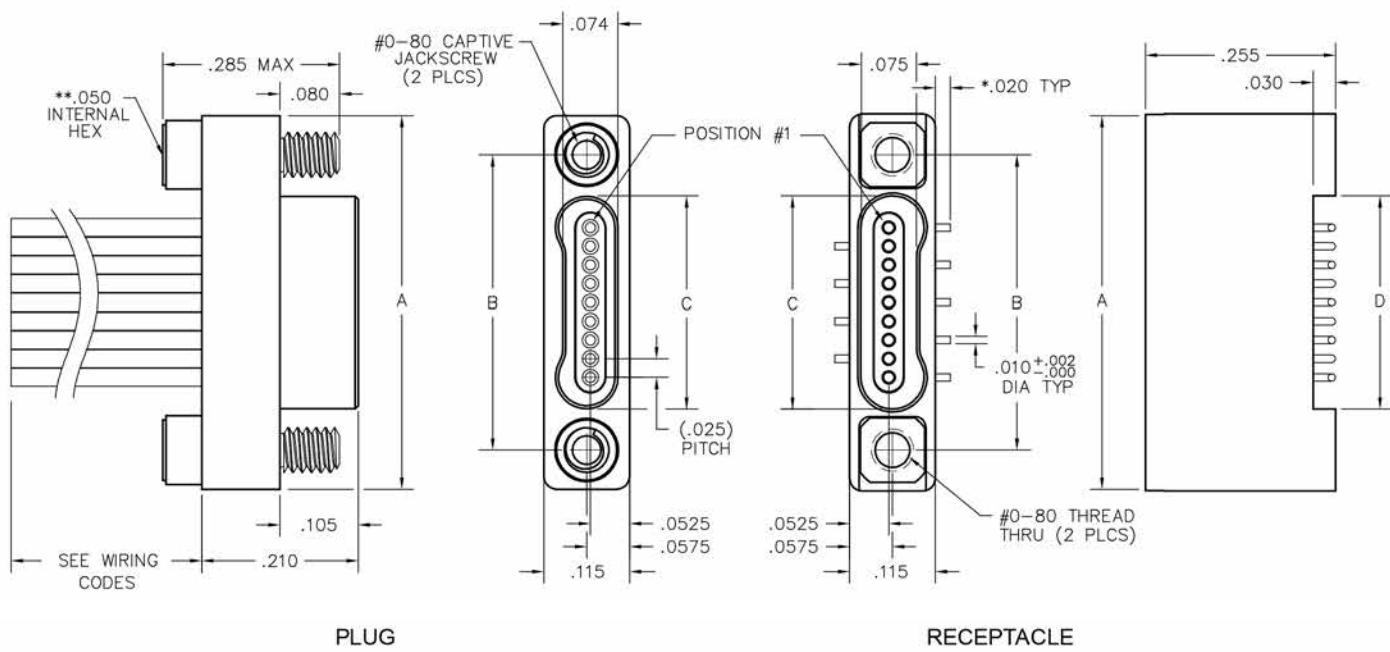
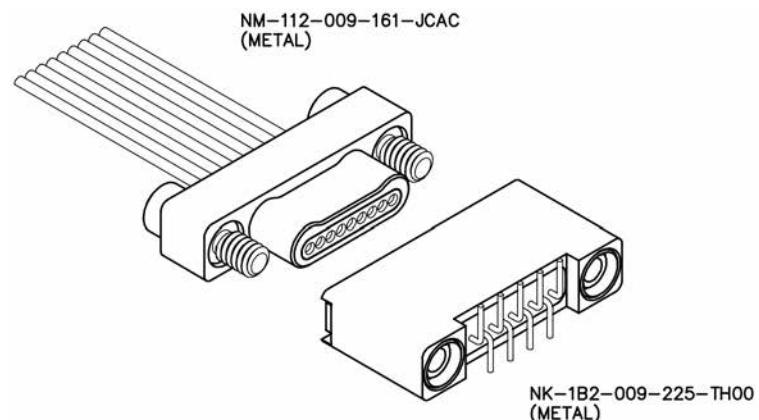
= Option not RoHS compliant

**molex**

# ONE ROW - CABLE-TO-BOARD VERTICAL SMT

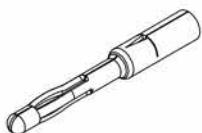
## NM & NK

0.025" | 9 THROUGH 51 CONTACTS



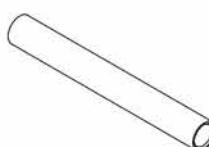
PLUG

RECEPTACLE



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.287
15	.650	.545	.434	.435	.437
21	.800	.695	.584	.585	.587
25	.900	.795	.684	.685	.687
31	1.050	.945	.834	.835	.837
37	1.200	1.095	.984	.985	.987
51	1.550	1.445	1.334	1.335	1.337



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\* = DIMENSION CHANGES TO .040" FOR  
"010" OPTION. SEE PAGE N-22.  
\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

## LEAD CONFIGURATION OPTIONS

PLUG: NM-112-009-161-JCAC  
 RECEPTACLE: NK-1B2-009-225-TH00  
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG		RECEPTACLE	
<b>SERIES</b>			
NM .025" Metal I/O Connector		NK .025" Metal PC Board Mounted Connector	
<b>BODY</b>			
1 1-Row		1 1-Row	
BODY STYLE:		BODY STYLE:	
1 Plug, straight		B Receptacle, vertical mount SMT	
5 Plug, straight with factory installed backshell (See page NA-4)			
BODY MATERIAL:		BODY MATERIAL:	
2 Liquid Crystal Polymer w/ electroless nickel shell		2 Liquid Crystal Polymer w/ electroless nickel shell	
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>		3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	
4 Liquid Crystal Polymer w/ stainless steel shell ***		4 Liquid Crystal Polymer w/ stainless steel shell	
5 Liquid Crystal Polymer w/ titanium shell ***		5 Liquid Crystal Polymer w/ titanium shell	
<b>SIZE</b>			
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)		XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
16 Pin, straight, crimped wire		22 Socket, SMT (.020 lead envelope)	
PLATING OPTIONS:		PLATING OPTIONS:	
1 50 $\mu$ " Au contacts		5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	
		8 50 $\mu$ " Au contacts; Tin plated terminations	
<b>HARDWARE</b>			
STYLE OF HARDWARE:		STYLE OF HARDWARE:	
00 None ***		00 None	
JC Turning jackscrews, captivated #0-80 UNF*		TH Threaded hole, #0-80 UNF **	
WIRING OPTIONS:		WIRING OPTIONS:	
XX See wiring codes, Page N-151		00 None	
<b>OPTIONS</b>			
010 .040 lead envelope			

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

= Option not RoHS compliant

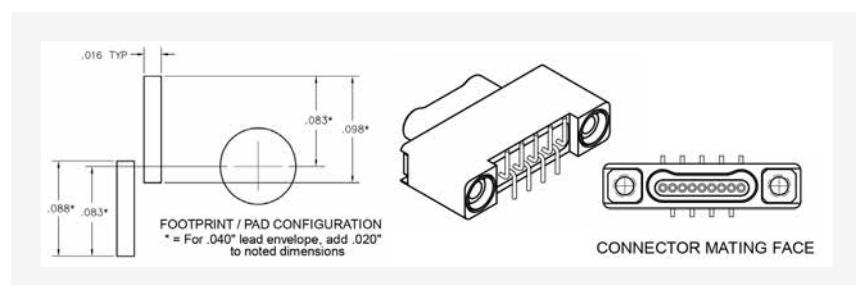
**molex**

## RECOMMENDED PC BOARD LAYOUTS

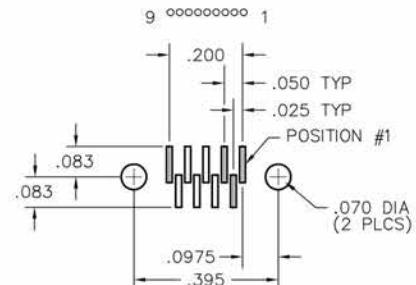
VERTICAL SMT RECEPTACLE

0.020" & 0.040" LEAD ENVELOPES

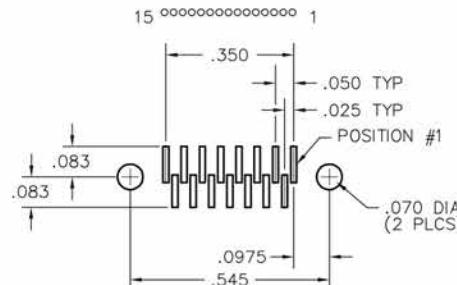
FOR REFERENCE ONLY



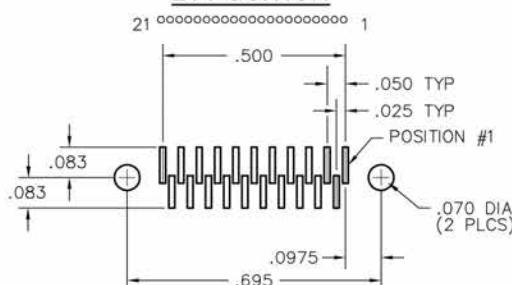
### 9 POSITION



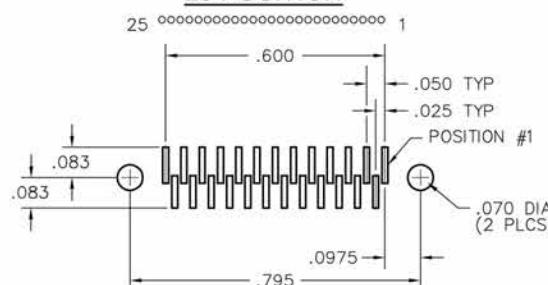
### 15 POSITION



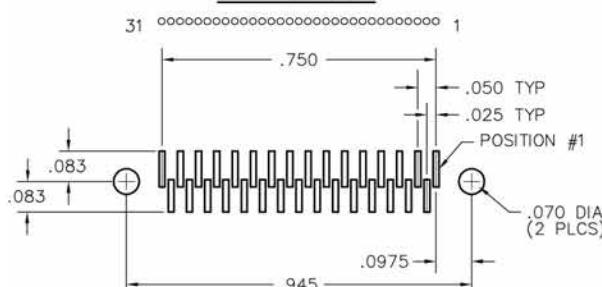
### 21 POSITION



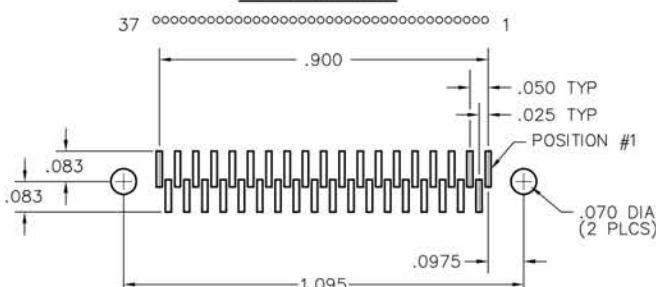
### 25 POSITION



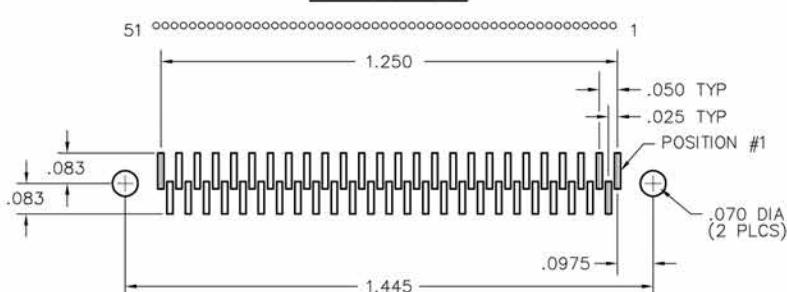
### 31 POSITION



### 37 POSITION



### 51 POSITION

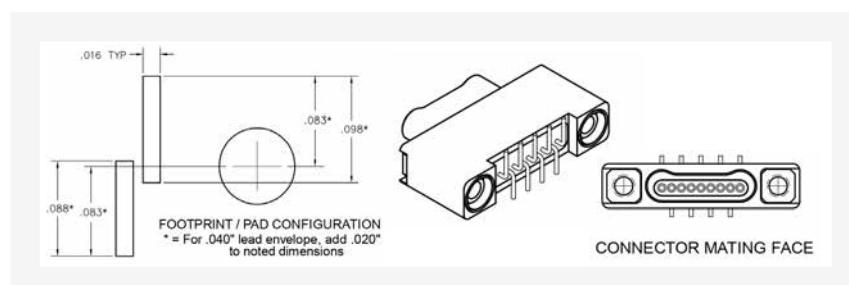


## RECOMMENDED PC BOARD LAYOUTS

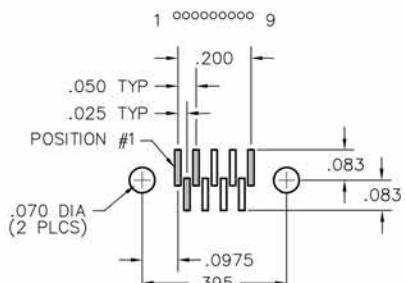
VERTICAL SMT RECEPTACLE

0.020" & 0.040" LEAD ENVELOPES

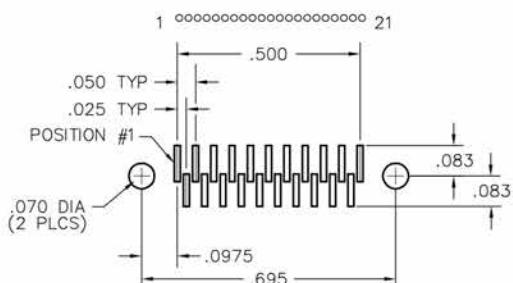
FOR REFERENCE ONLY



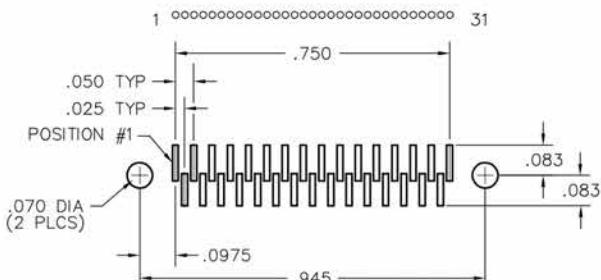
### 9 POSITION



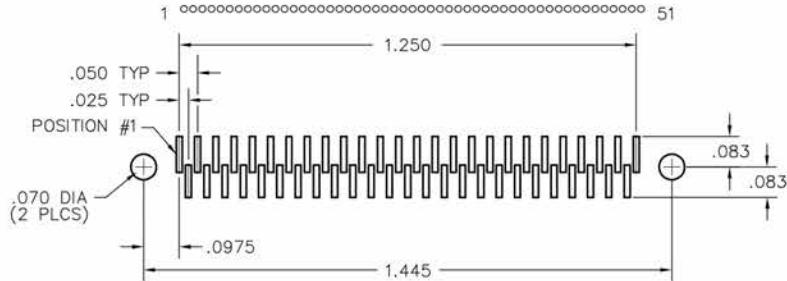
### 21 POSITION



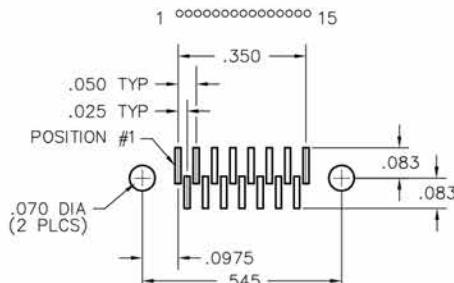
### 31 POSITION



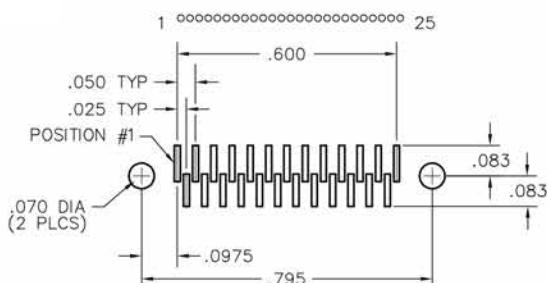
### 51 POSITION



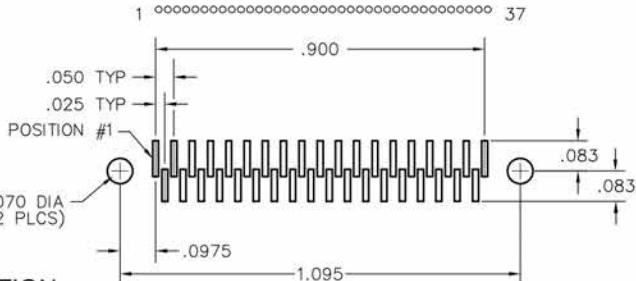
### 15 POSITION



### 25 POSITION



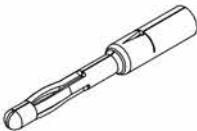
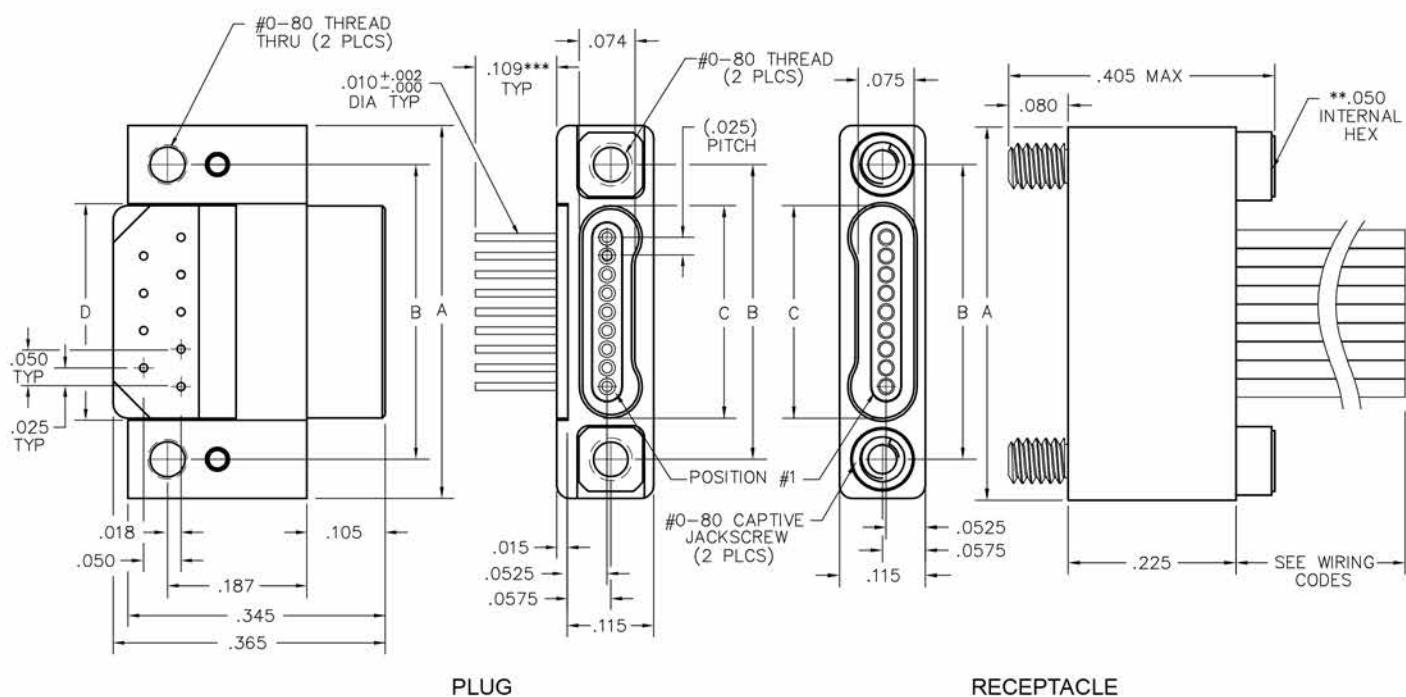
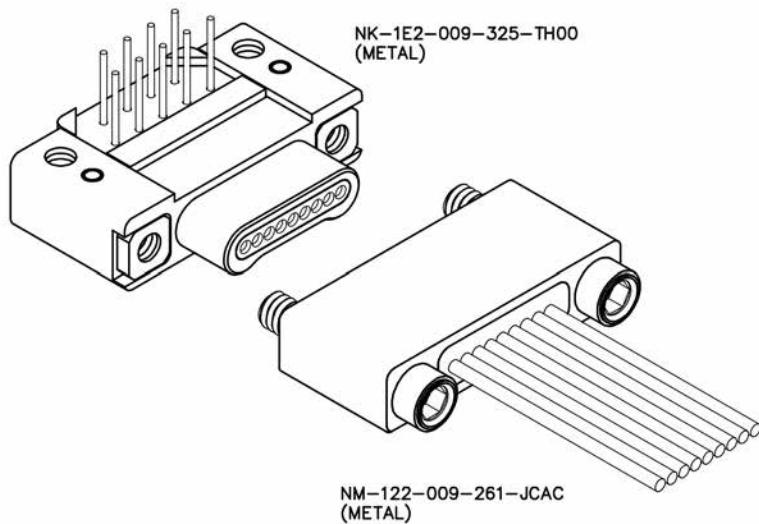
### 37 POSITION



## ONE ROW - CABLE-TO-BOARD RIGHT-ANGLE PTH

NM & NK

0.025" | 9 THROUGH 51 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

DIMENSIONS					
SIZE	A	B	C		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.290
15	.650	.545	.434	.435	.440
21	.800	.695	.584	.585	.590
25	.900	.795	.684	.685	.690
31	1.050	.945	.834	.835	.840
37	1.200	1.095	.984	.985	.990
51	1.550	1.445	1.334	1.335	1.340



**SOCKET CONTACT  
DRAWN TUBE, CRIMP**

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

\*\*\* = OTHER LENGTHS AS REQUIRED

## LEAD CONFIGURATION OPTIONS

PLUG: NK-1E2-009-325-TH00  
 RECEPTACLE: NM-122-009-261-JCAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
1 1-Row	1 1-Row
BODY STYLE:	
E Plug, right angle, plated thru hole (PTH)	2 Receptacle, straight 6 Receptacle, straight with factory installed backshell (See page NA-4)
BODY MATERIAL:	
2 Liquid Crystal Polymer w/ electroless nickel shell	2 Liquid Crystal Polymer w/ electroless nickel shell
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4 Liquid Crystal Polymer w/ stainless steel shell	4 Liquid Crystal Polymer w/ stainless steel shell ***
5 Liquid Crystal Polymer w/ titanium shell	5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS:	
32 Pin, right angle, .109"	26 Socket, straight, crimped wire
33 Pin, right angle, .140"	
34 Pin, right angle, .172"	
PLATING OPTIONS:	
5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	1 50 u" Au contacts
8 50 u" Au contacts; Tin plated terminations	
<b>HARDWARE</b>	
STYLE OF HARDWARE:	
00 None	00 None ***
TH Threaded hole, #0-80 UNF **	JC Turning jackscrews, captivated #0-80 UNF*
WIRING OPTIONS:	
00 None	XX See wiring codes, Page N-151

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

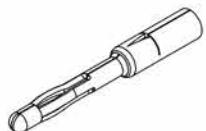
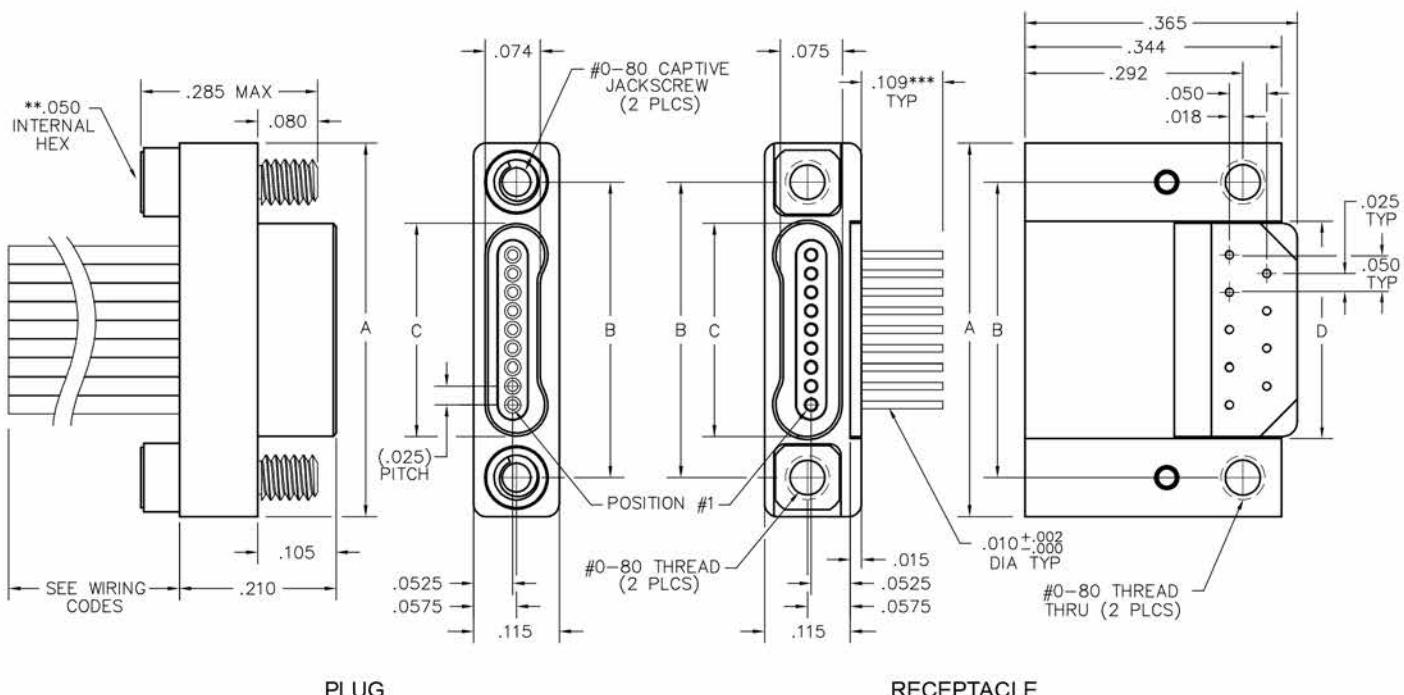
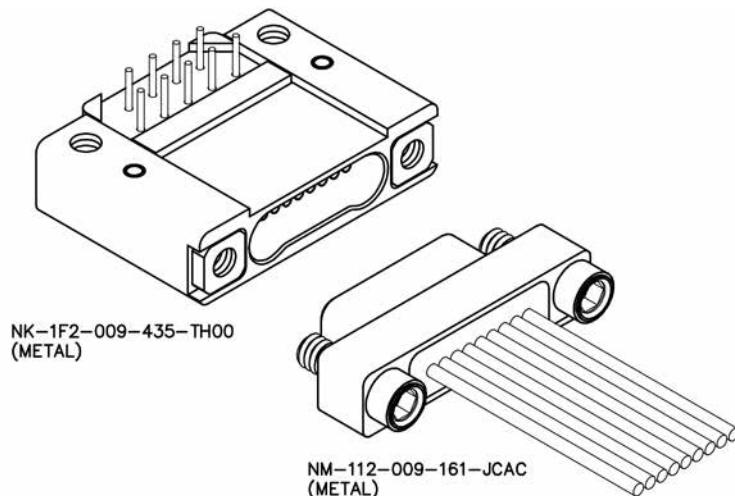
= Option not RoHS compliant

**molex**

# ONE ROW - CABLE-TO-BOARD RIGHT-ANGLE PTH

## NM & NK

0.025" | 9 THROUGH 51 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.290
15	.650	.545	.434	.435	.440
21	.800	.695	.584	.585	.590
25	.900	.795	.684	.685	.690
31	1.050	.945	.834	.835	.840
37	1.200	1.095	.984	.985	.990
51	1.550	1.445	1.334	1.335	1.340



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

\*\*\* = OTHER LENGTHS AS REQUIRED

## LEAD CONFIGURATION OPTIONS

PLUG: NM-112-009-161-JCAC  
 RECEPTACLE: NK-1F2-009-435-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NK .025" Metal PC Board Mounted Connector
<b>BODY</b>	
1 1-Row	1 1-Row
BODY STYLE:	
1 Plug, straight	F Receptacle, right angle, plated thru hole (PTH)
5 Plug, straight with factory installed backshell (See page NA-4)	
BODY MATERIAL:	
2 Liquid Crystal Polymer w/ electroless nickel shell	2 Liquid Crystal Polymer w/ electroless nickel shell
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4 Liquid Crystal Polymer w/ stainless steel shell ***	4 Liquid Crystal Polymer w/ stainless steel shell
5 Liquid Crystal Polymer w/ titanium shell ***	5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS:	
16 Pin, straight, crimped wire	43 Socket, right angle, .109" 44 Socket, right angle, .140" 45 Socket, right angle, .172"
PLATING OPTIONS:	
1 50 $\mu$ " Au contacts	5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 $\mu$ " Au contacts; Tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE:	
00 None ***	00 None
JC Turning jackscrews, captivated #0-80 UNF*	TH Threaded hole, #0-80 UNF **
WIRING OPTIONS:	
XX See wiring codes, Page N-151	00 None

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

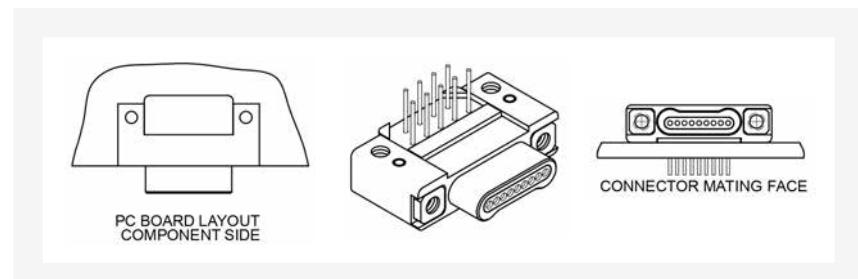
= Option not RoHS compliant

**molex**

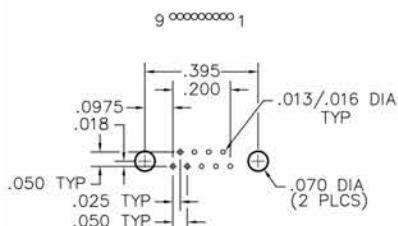
## RECOMMENDED PC BOARD LAYOUTS

### RIGHT-ANGLE PTH PLUG

FOR REFERENCE ONLY

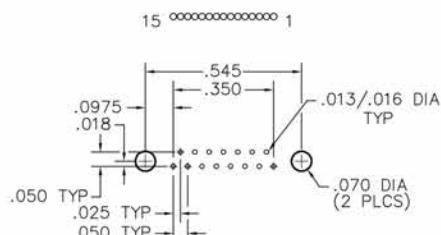


#### 9 POSITION



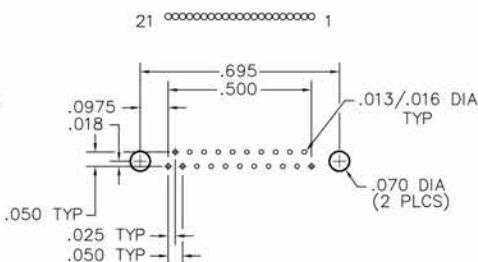
(8 6 4 2)  
(9 7 5 3 1)

#### 15 POSITION



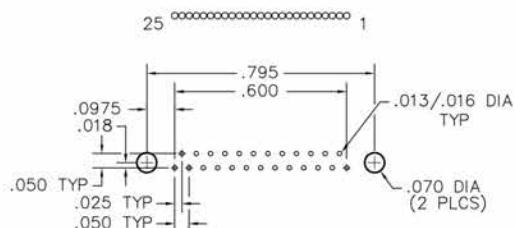
(14 12 10 8 6 4 2)  
(15 13 11 9 7 5 3 1)

#### 21 POSITION



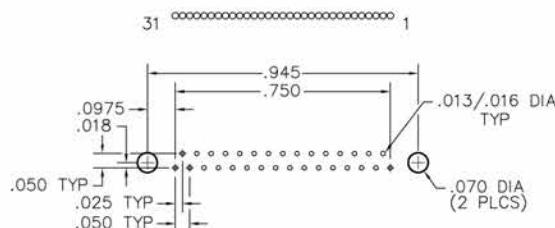
(20 18 16 14 12 10 8 6 4 2)  
(21 19 17 15 13 11 9 7 5 3 1)

#### 25 POSITION



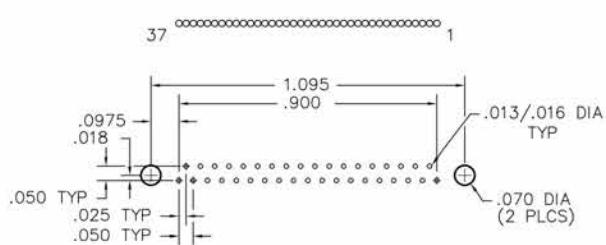
(24 22 20 18 16 14 12 10 8 6 4 2)  
(25 23 21 19 17 15 13 11 9 7 5 3 1)

#### 31 POSITION



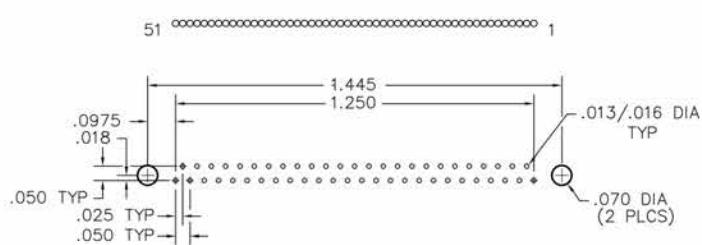
(30 28 26 24 22 20 18 16 14 12 10 8 6 4 2)  
(31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1)

#### 37 POSITION



(36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2)  
(37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1)

#### 51 POSITION

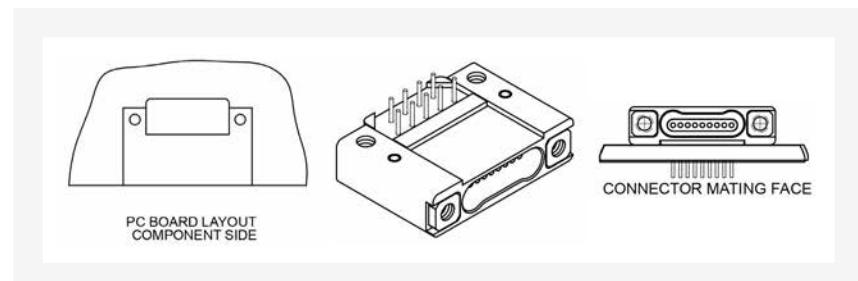


(50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2)  
(51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1)

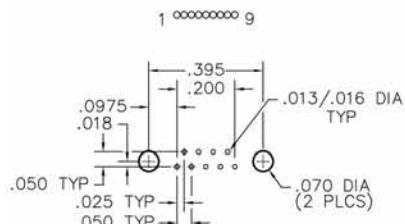
## RECOMMENDED PC BOARD LAYOUTS

### RIGHT-ANGLE PTH RECEPTACLE

FOR REFERENCE ONLY

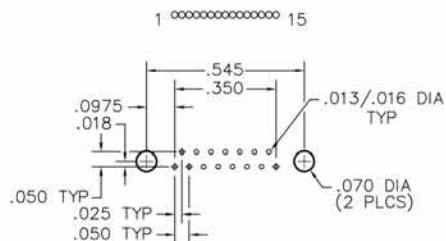


#### 9 POSITION



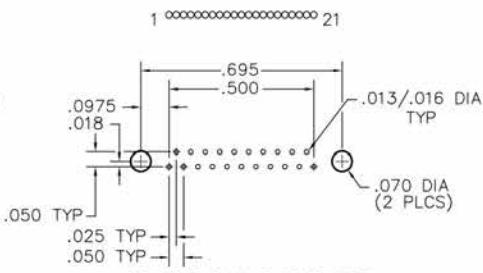
(2 4 6 8)  
(1 3 5 7 9)

#### 15 POSITION



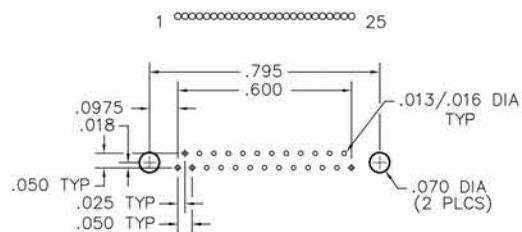
(2 4 6 8 10 12 14)  
(1 3 5 7 9 11 13 15)

#### 21 POSITION



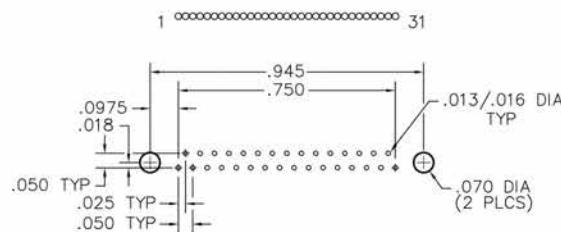
(2 4 6 8 10 12 14 16 18 20)  
(1 3 5 7 9 11 13 15 17 19 21)

#### 25 POSITION



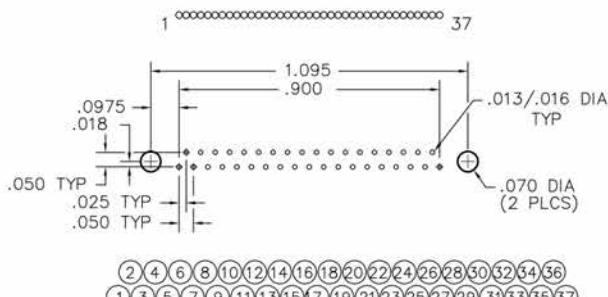
(2 4 6 8 10 12 14 16 18 20 22 24)  
(1 3 5 7 9 11 13 15 17 19 21 23 25)

#### 31 POSITION



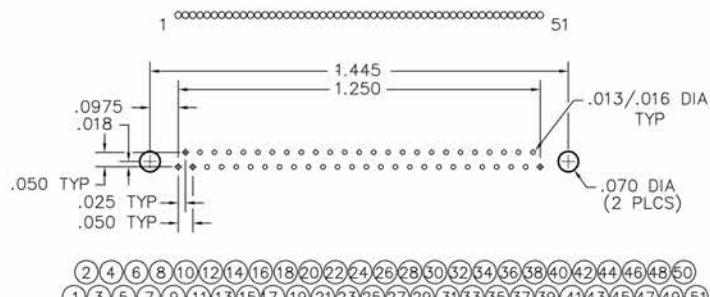
(2 4 6 8 10 12 14 16 18 20 22 24 26 28 30)  
(1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31)

#### 37 POSITION



(2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36)  
(1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37)

#### 51 POSITION



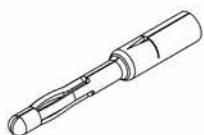
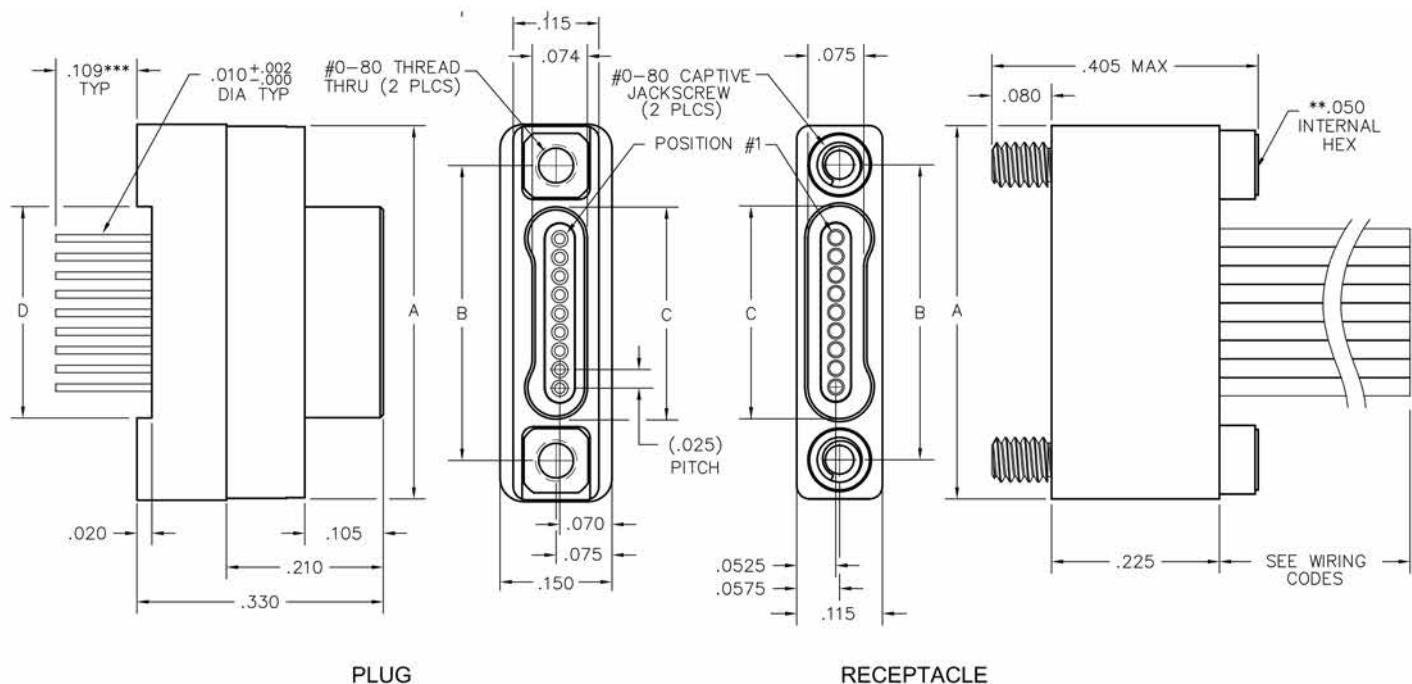
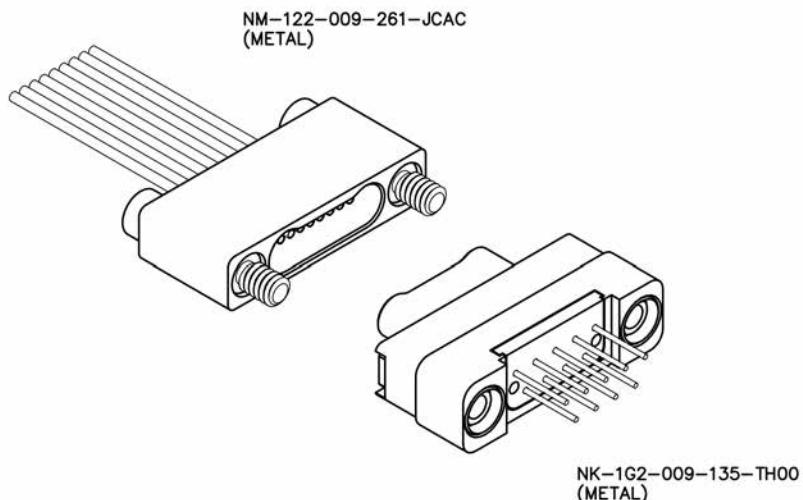
(2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50)  
(1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51)

**molex**

# ONE ROW - CABLE-TO-BOARD VERTICAL PTH

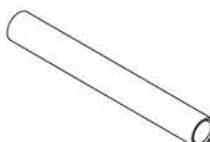
## NM & NK

0.025" | 9 THROUGH 51 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	C		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.285
15	.650	.545	.434	.435	.435
21	.800	.695	.584	.585	.585
25	.900	.795	.684	.685	.685
31	1.050	.945	.834	.835	.835
37	1.200	1.095	.984	.985	.985
51	1.550	1.445	1.334	1.335	1.335



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

\*\*\* = OTHER LENGTHS AS REQUIRED

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG: NK-1G2-009-135-TH00  
 RECEPTACLE: NM-122-009-261-JCAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE	
<b>SERIES</b>		
NK .025" Metal PC Board Mounted Connector		NM .025" Metal I/O Connector
<b>BODY</b>		
1 1-Row	1 1-Row	
<b>BODY STYLE:</b> G Plug, vertical mount, plated thru hole (PTH)		<b>BODY STYLE:</b> 2 Receptacle, straight 6 Receptacle, straight with factory installed backshell (See page NA-4)
<b>BODY MATERIAL:</b> 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell		<b>BODY MATERIAL:</b> 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>		
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	
<b>CONTACTS</b>		
<b>TYPE CONTACTS/TERMINATIONS:</b> 13 Pin, straight, .109" 14 Pin, straight, .140" 15 Pin, straight, .172"		<b>TYPE CONTACTS/TERMINATIONS:</b> 26 Socket, straight, crimped wire
<b>PLATING OPTIONS:</b> 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations		<b>PLATING OPTIONS:</b> 1 50 u" Au contacts
<b>HARDWARE</b>		
<b>STYLE OF HARDWARE:</b> 00 None TH Threaded hole, #0-80 UNF **		<b>STYLE OF HARDWARE:</b> 00 None *** JC Turning jackscrews, captivated #0-80 UNF*
<b>WIRING OPTIONS:</b> 00 None		<b>WIRING OPTIONS:</b> XX See wiring codes, Page N-151

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

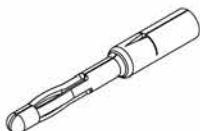
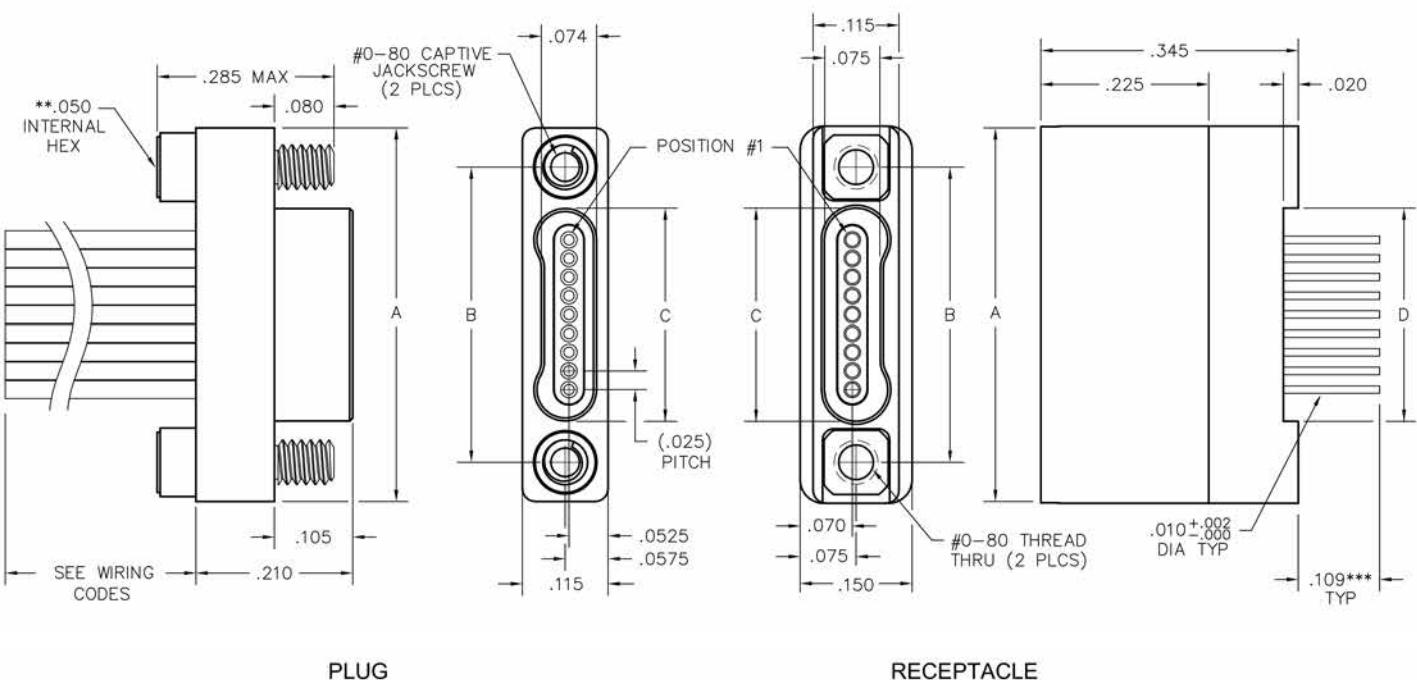
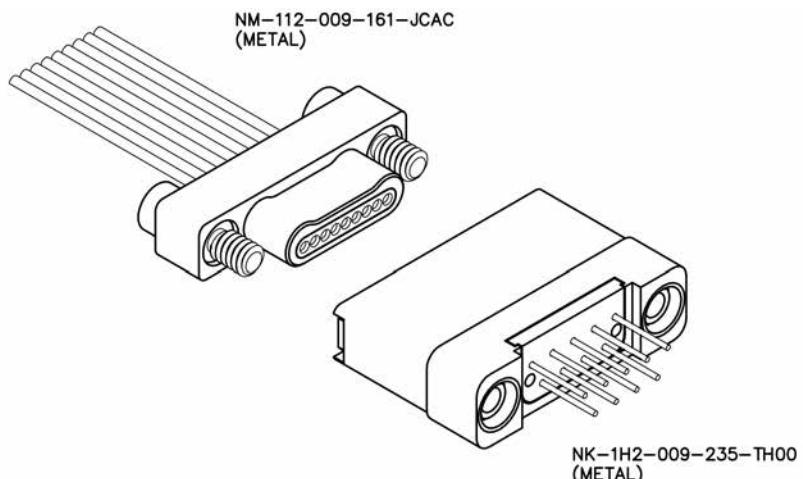
= Option not RoHS compliant

**molex**

## ONE ROW – CABLE-TO-BOARD VERTICAL PTH

**NM & NM**

0.025" | 9 THROUGH 51 CONTACTS

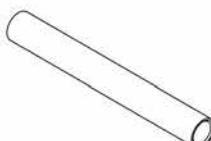


PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

DIMENSIONS					
SIZE	A	B	C		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.285
15	.650	.545	.434	.435	.435
21	.800	.695	.584	.585	.585
25	.900	.795	.684	.685	.685
31	1.050	.945	.834	.835	.835
37	1.200	1.095	.984	.985	.985
51	1.550	1.445	1.334	1.335	1.335

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.  
\*\*\* = OTHER LENGTHS AS REQUIRED

\*\*\* = OTHER LENGTHS AS REQUIRED



**SOCKET CONTACT  
DRAWN TUBE, CRIMP**

PLEASE CONSULT THE MOLEX WEBSITE FOR THE LATEST VERSION OF THIS INFORMATION PRIOR TO BEGINNING ANY DESIGN WORK.  
SOURCE: CTN076-REV D

## LEAD CONFIGURATION OPTIONS

PLUG: NM-112-009-161-JCAC  
 RECEPTACLE: NK-1H2-009-235-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NK .025" Metal PC Board Mounted Connector
<b>BODY</b>	
1 1-Row	1 1-Row
BODY STYLE: 1 Plug, straight 5 Plug, straight with factory installed backshell (See page NA-4)	BODY STYLE: H Receptacle, vertical mount, plated thru hole (PTH)
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)	XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 23 Socket, straight, .109" 24 Socket, straight, .140" 25 Socket, straight, .172"
PLATING OPTIONS: 1 50 $\mu$ " Au contacts	PLATING OPTIONS: 5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 $\mu$ " Au contacts; Tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None *** JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF
WIRING OPTIONS: XX See wiring codes, Page N-151	WIRING OPTIONS: 00 None

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

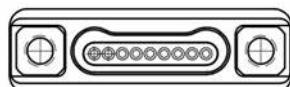
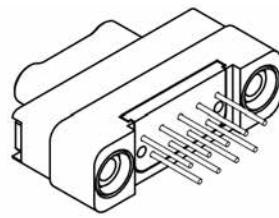
= Option not RoHS compliant

**molex**

## RECOMMENDED PC BOARD LAYOUTS

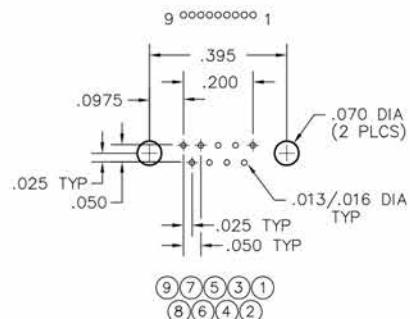
VERTICAL PTH PLUG

FOR REFERENCE ONLY

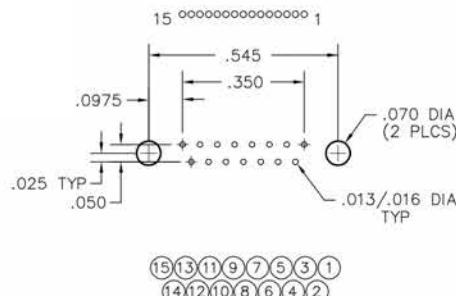


CONNECTOR MATING FACE

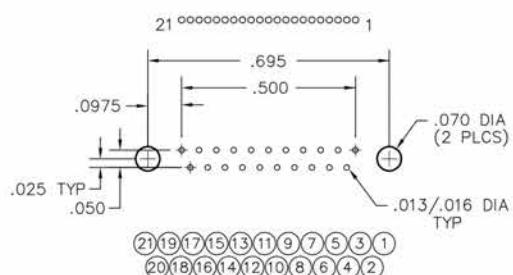
### 9 POSITION



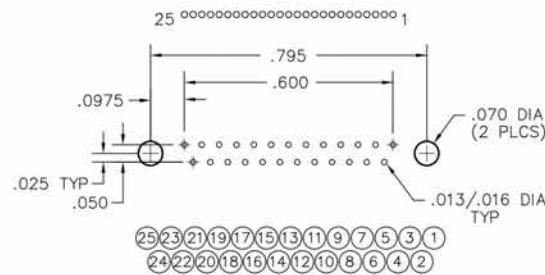
### 15 POSITION



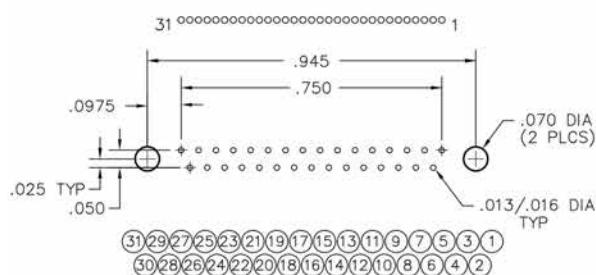
### 21 POSITION



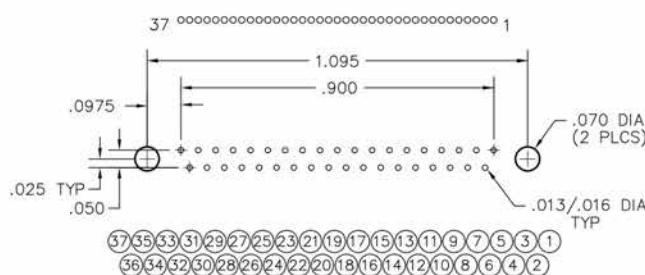
### 25 POSITION



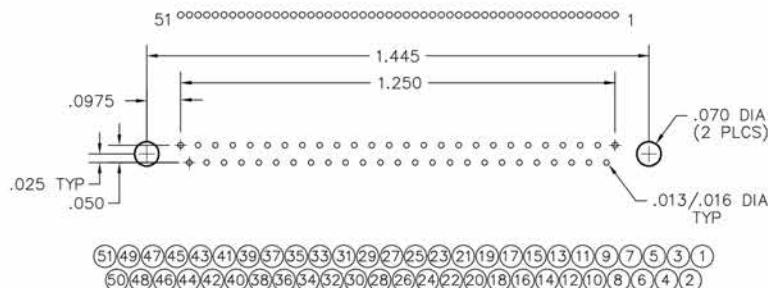
### 31 POSITION



### 37 POSITION



### 51 POSITION

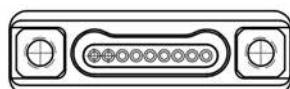
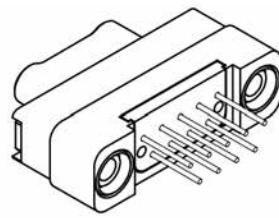


**molex**

## RECOMMENDED PC BOARD LAYOUTS

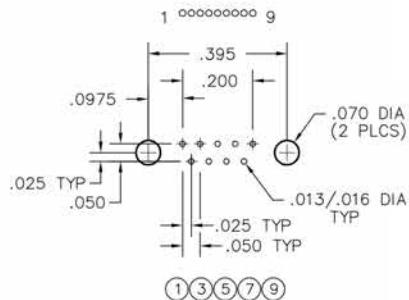
### VERTICAL PTH RECEPTACLE

FOR REFERENCE ONLY

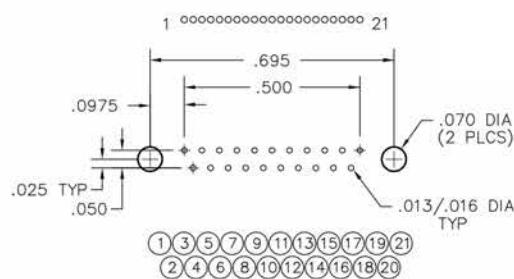


CONNECTOR MATING FACE

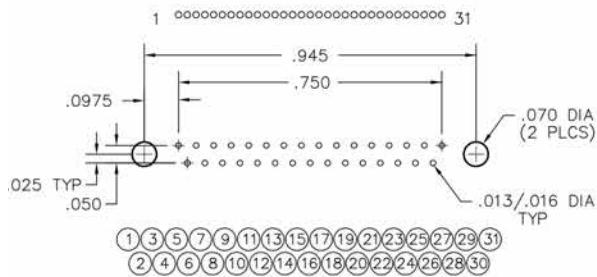
#### 9 POSITION



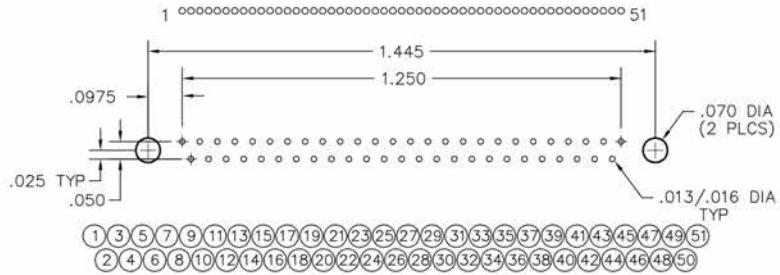
#### 21 POSITION



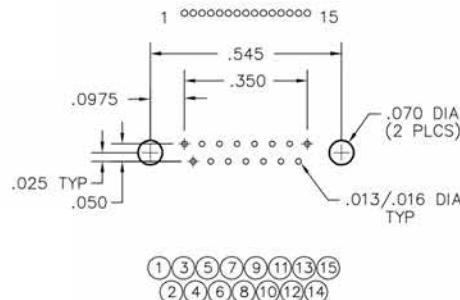
#### 31 POSITION



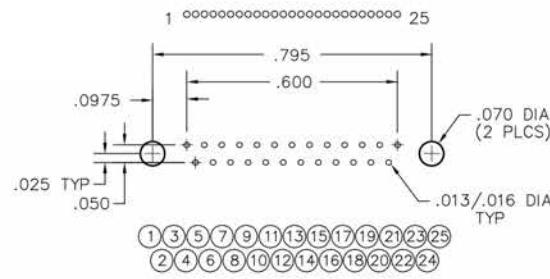
#### 51 POSITION



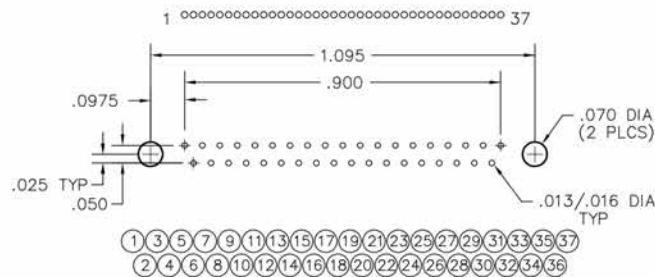
#### 15 POSITION



#### 25 POSITION



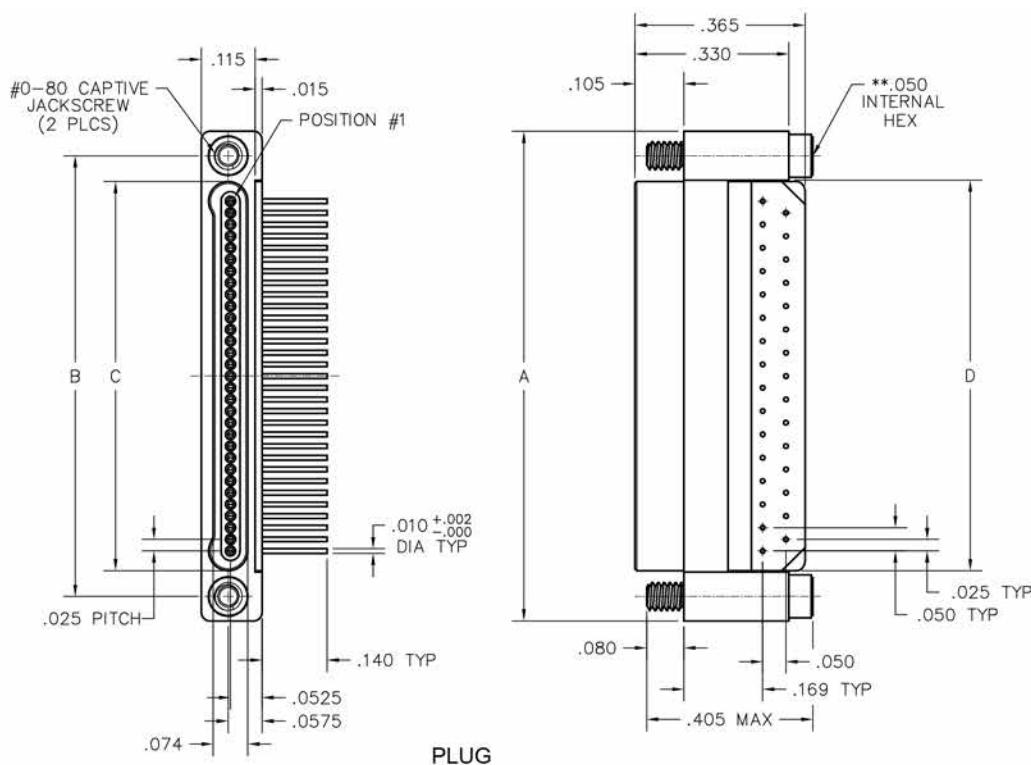
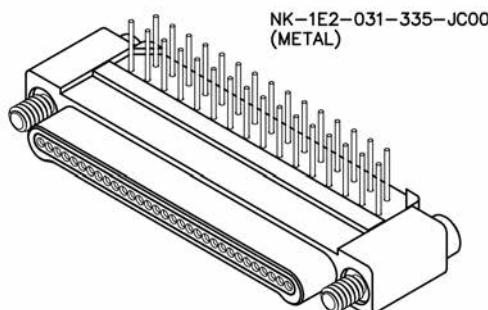
#### 37 POSITION



# ONE ROW - FLEX-TO-BOARD PLUG

NK & NK

0.025" | 9 THROUGH 51 CONTACTS



SIZE	A	B	DIMENSIONS		D
			PLUG	RCPT	
9	.500	.395	.284	.285	.290
15	.650	.545	.434	.435	.440
21	.800	.695	.584	.585	.590
25	.900	.795	.684	.685	.690
31	1.050	.945	.834	.835	.840
37	1.200	1.095	.984	.985	.990
51	1.550	1.445	1.334	1.335	1.340

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG: NK-1E2-031-335-JC00  
XX-XXX-XXX-XXX-XXXX

### PLUG

#### SERIES

NK .025" Metal PC Board Mounted Connector

#### BODY

1 1-Row

##### BODY STYLE:

E Plug, right angle, plated thru hole (PTH)

##### BODY MATERIAL:

- 2 Liquid Crystal Polymer w/ electroless nickel shell
- 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell
- 4 Liquid Crystal Polymer w/ stainless steel shell
- 5 Liquid Crystal Polymer w/ titanium shell

#### SIZE

XXX Number of contacts (009, 015, 021, 025, 031, 037 or 051)

#### CONTACTS

##### TYPE CONTACTS/TERMINATIONS:

- 32 Pin, right angle, .109"
- 33 Pin, right angle, .140"
- 34 Pin, right angle, .172"

##### PLATING OPTIONS:

- 5 50  $\mu$ " Au contacts; Sn/Pb alloy terminations
- 8 50  $\mu$ " Au contacts; Tin plated terminations

#### HARDWARE

##### STYLE OF HARDWARE:

- 00 None
- JC Turning jackscrews, captivated #0-80 UNF\*

##### WIRING OPTIONS:

- 00 None

\* = .050 hex key (#0-80 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Ball end hex wrench not recommended

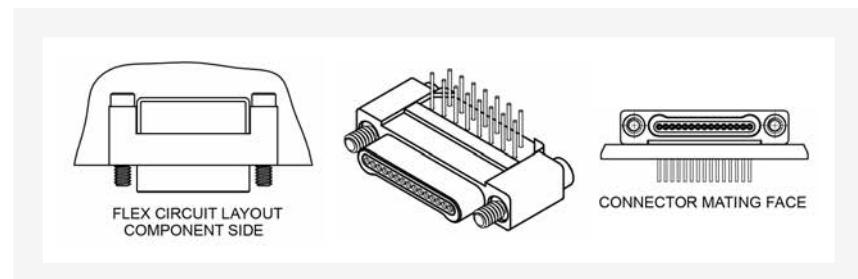
Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

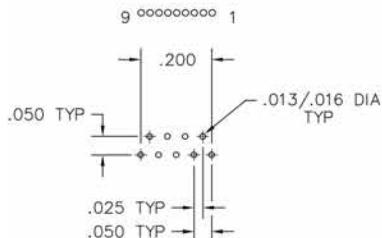
= Option not RoHS compliant

**molex**

**RECOMMENDED FLEX CIRCUIT LAYOUTS**  
**RIGHT-ANGLE FLEX MOUNT PTH PLUG**  
**FOR REFERENCE ONLY**

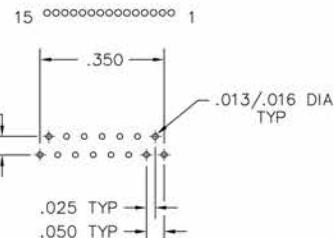


**9 POSITION**



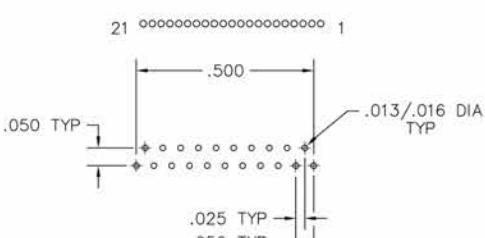
(8 6 4 2  
9 7 5 3 1)

**15 POSITION**



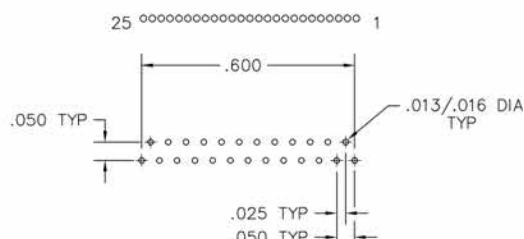
(14 12 10 8 6 4 2  
15 13 11 9 7 5 3 1)

**21 POSITION**



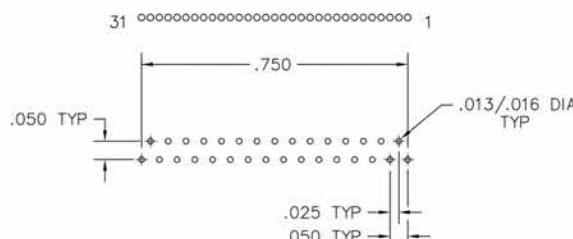
(20 18 16 14 12 10 8 6 4 2  
21 19 17 15 13 11 9 7 5 3 1)

**25 POSITION**



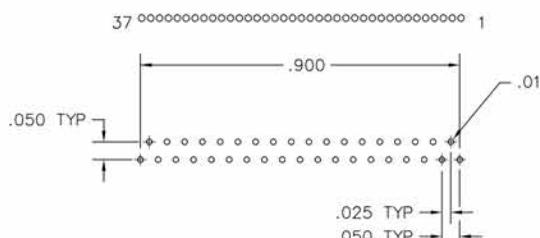
(24 22 20 18 16 14 12 10 8 6 4 2  
25 23 21 19 17 15 13 11 9 7 5 3 1)

**31 POSITION**



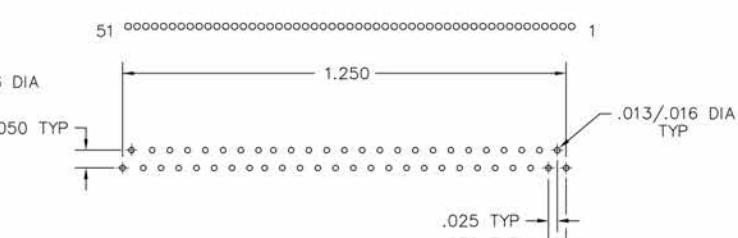
(30 28 26 24 22 20 18 16 14 12 10 8 6 4 2  
31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1)

**37 POSITION**



(36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2  
37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1)

**51 POSITION**



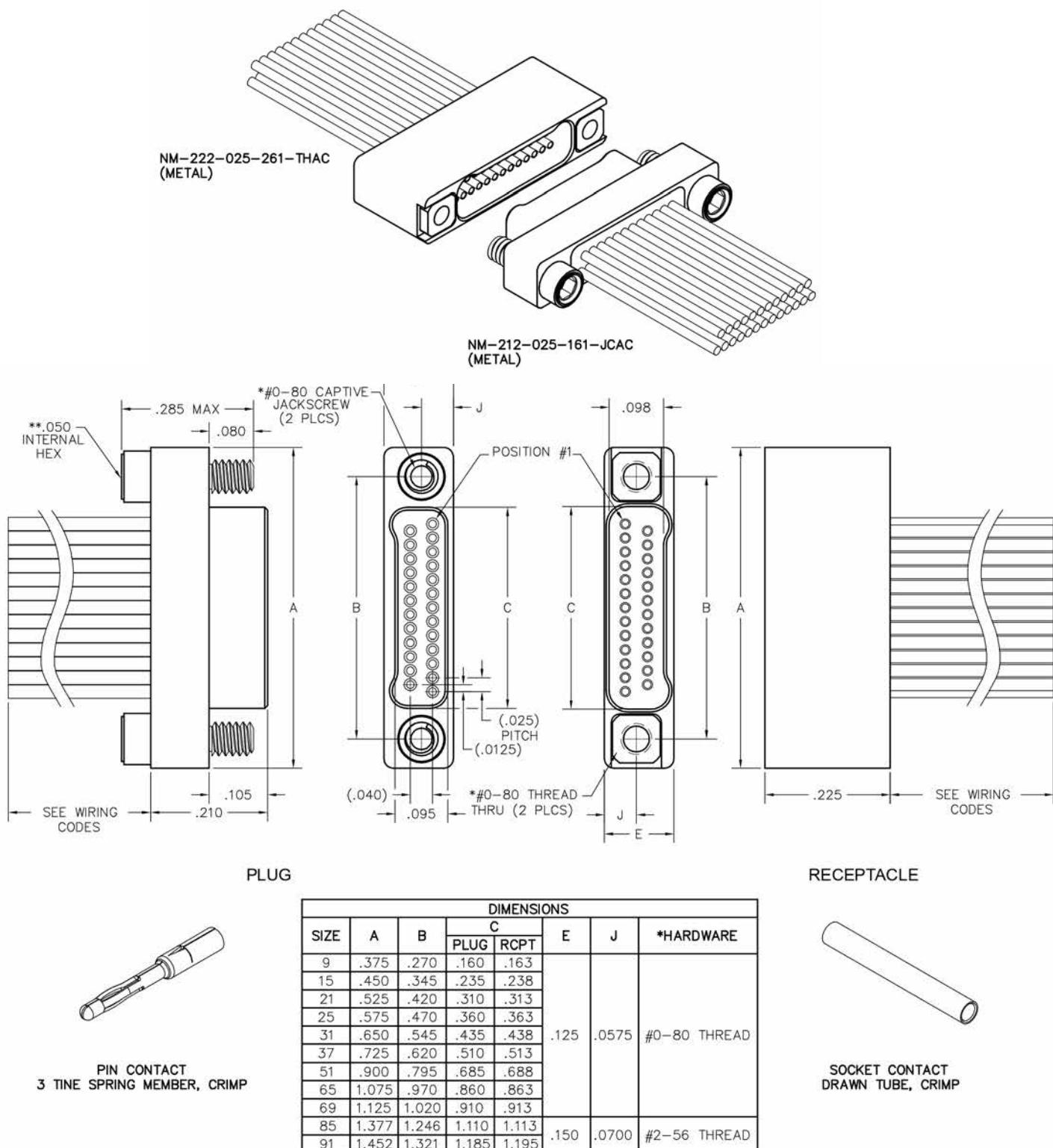
(50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2  
51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1)

**molex**

## TWO ROW - CABLE-TO-CABLE

NM & NM

0.025" | 9 THROUGH 91 CONTACTS



\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.  
\*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

## LEAD CONFIGURATION OPTIONS

PLUG: NM-212-025-161-JCAC  
 RECEPTACLE: NM-222-025-261-THAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE						
<b>SERIES</b>							
NM .025" Metal I/O Connector	NM .025" Metal I/O Connector						
<b>BODY</b>							
2 2-Row	2 2-Row						
BODY STYLE:	BODY STYLE:						
1 Plug, straight	2 Receptacle, straight						
5 Plug, straight, with factory installed backshell (See page NA-3)	6 Receptacle, straight, with factory installed backshell (See page NA-3)						
BODY MATERIAL:	BODY MATERIAL:						
2 Liquid Crystal Polymer w/ electroless nickel shell	2 Liquid Crystal Polymer w/ electroless nickel shell						
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>						
4 Liquid Crystal Polymer w/ stainless steel shell ***	4 Liquid Crystal Polymer w/ stainless steel shell ***						
5 Liquid Crystal Polymer w/ titanium shell ***	5 Liquid Crystal Polymer w/ titanium shell ***						
<b>SIZE</b>							
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085, or 091)						
<b>CONTACTS</b>							
TYPE CONTACTS/TERMINATIONS:	TYPE CONTACTS/TERMINATIONS:						
16 Pin, straight, crimped wire	26 Socket, straight, crimped wire						
PLATING OPTIONS:	PLATING OPTIONS:						
1 50 u" Au contacts	1 50 u" Au contacts						
<b>HARDWARE</b>							
STYLE OF HARDWARE:	STYLE OF HARDWARE:						
00 None ***	00 None ***						
JC Turning jackscrews, captivated #0-80 UNF*	JC Turning jackscrews, captivated #0-80 UNF* (body material 2 and 3 only)						
TH Threaded hole**, #0-80 UNF* (body material 2 and 3 only)	TH Threaded hole**, #0-80 UNF*						
WIRING OPTIONS:	WIRING OPTIONS:						
XX See wiring codes, Page N-151	XX See wiring codes, Page N-151						

\* = #2-56 UNC thread on 85 and 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel  
inserts (as shown on previous page).

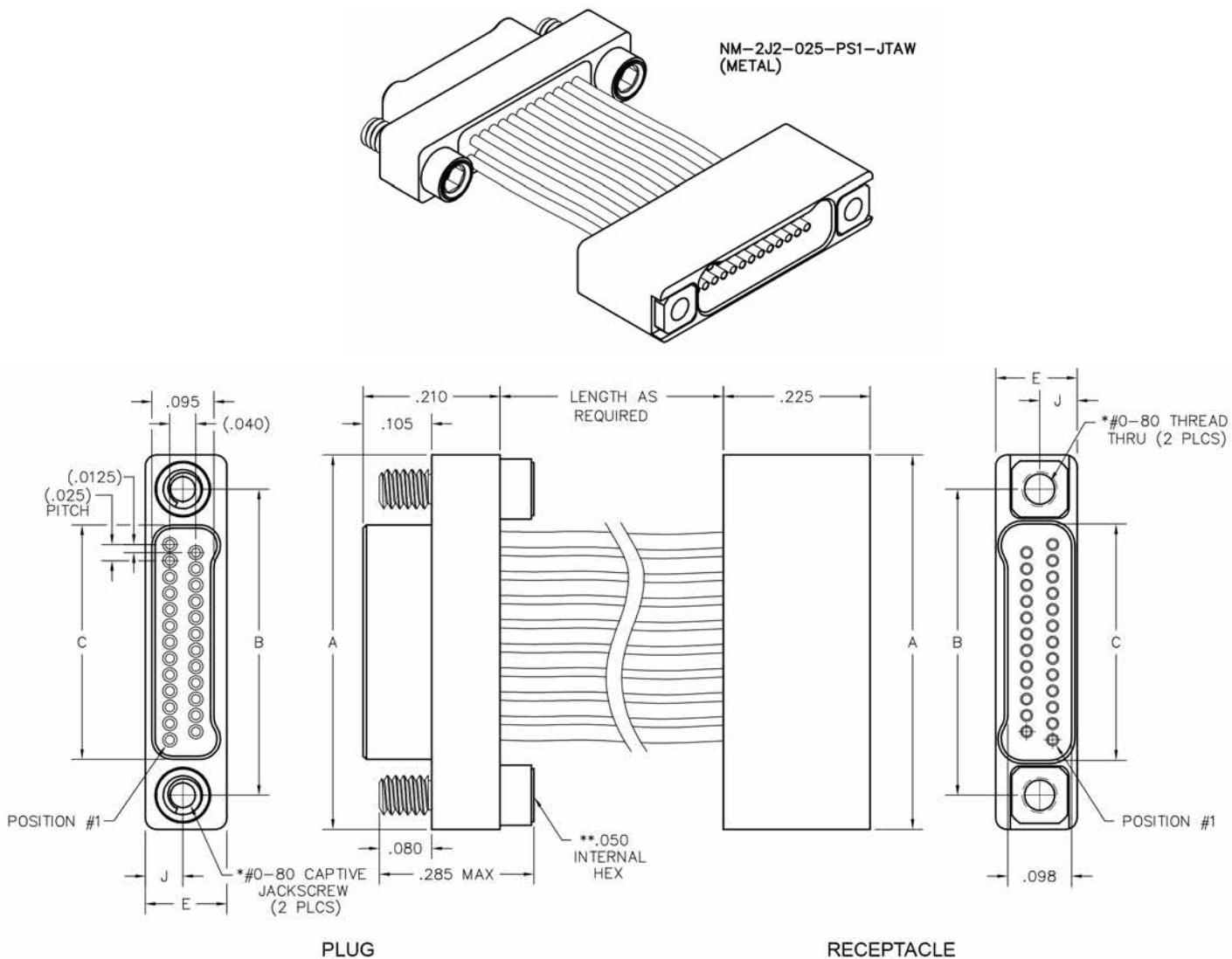
\*\*\* = Not available option if specifying factory installed backshell

= Option not RoHS compliant

## TWO ROW - CABLE-TO-CABLE (JUMPER ASSEMBLY)

### NM & NM

0.025" | 9 THROUGH 91 CONTACTS



SIZE	A	B	DIMENSIONS		E	J	*HARDWARE
			PLUG	RCPT			
9	.375	.270	.160	.163			
15	.450	.345	.235	.238			
21	.525	.420	.310	.313			
25	.575	.470	.360	.363			
31	.650	.545	.435	.438	.125	.0575	#0-80 THREAD
37	.725	.620	.510	.513			
51	.900	.795	.685	.688			
65	1.075	.970	.860	.863			
69	1.125	1.020	.910	.913			
85	1.377	1.246	1.110	1.113	.150	.0700	#2-56 THREAD
91	1.452	1.321	1.185	1.188			

\* = #2-56 UNC THREAD ON 85, 91 POSITION CONNECTORS.  
 \*\* = 1/16" HEX ON 85, 91 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

NM-2J2-025-PS1-JTAW  
XX-XXX-XXX-XXX-XXXX

SERIES						
NM .025" Metal I/O Connector						
BODY						
2	2-Row					
BODY STYLE:						
J	Jumper assembly					
BODY MATERIAL:						
2	Liquid Crystal Polymer with electroless nickel shell					
3	Liquid Crystal Polymer with electrodeposited cadmium shell	<input checked="" type="checkbox"/>				
4	Liquid Crystal Polymer with stainless steel shell					
5	Liquid Crystal Polymer with titanium shell					
SIZE						
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)						
CONTACTS						
TYPE CONTACTS/TERMINATIONS:						
PP	Plug to plug					
PS	Plug to receptacle					
SS	Receptacle to receptacle					
PLATING OPTIONS:						
1	50 $\mu$ " Au contacts					
HARDWARE						
STYLE OF HARDWARE:						
00	None					
JJ	Four #0-80 UNF* turning jackscrews, captivated, two on each connector					
JT	Two #0-80 UNF* turning jackscrews, captivated, on plug & two #0-80 UNF* threaded holes** on receptacle					
JP	Two #0-80 UNF* turning jackscrews, captivated, on plug & two #0-80 UNF* threaded holes** on plug					
TJ	Two #0-80 UNF* threaded holes** on plug & two #0-80 UNF* turning jackscrews, captivated, on receptacle					
JR	Two #0-80 UNF* turning jackscrews, captivated, on receptacle & two #0-80 UNF* threaded holes** on receptacle					
TT	Four #0-80 UNF* threaded holes**, two on each connector					
POLARIZATION / WIRING:						
XX	For wiring codes, see page N-151					

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

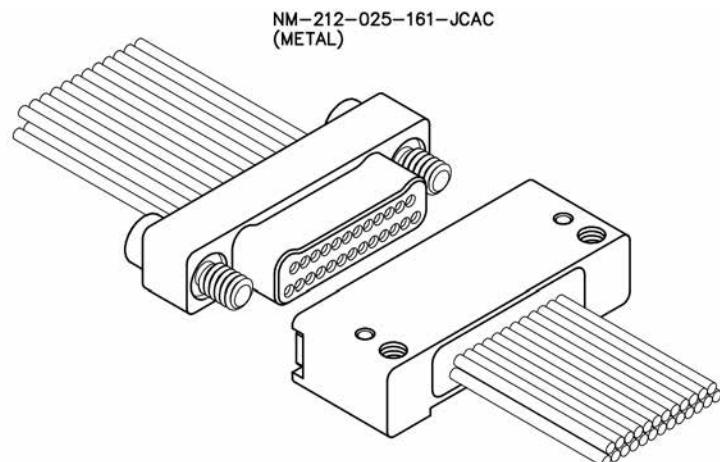
● Consult factory if jumpers require other than direct one to one connections.

= Option not RoHS compliant

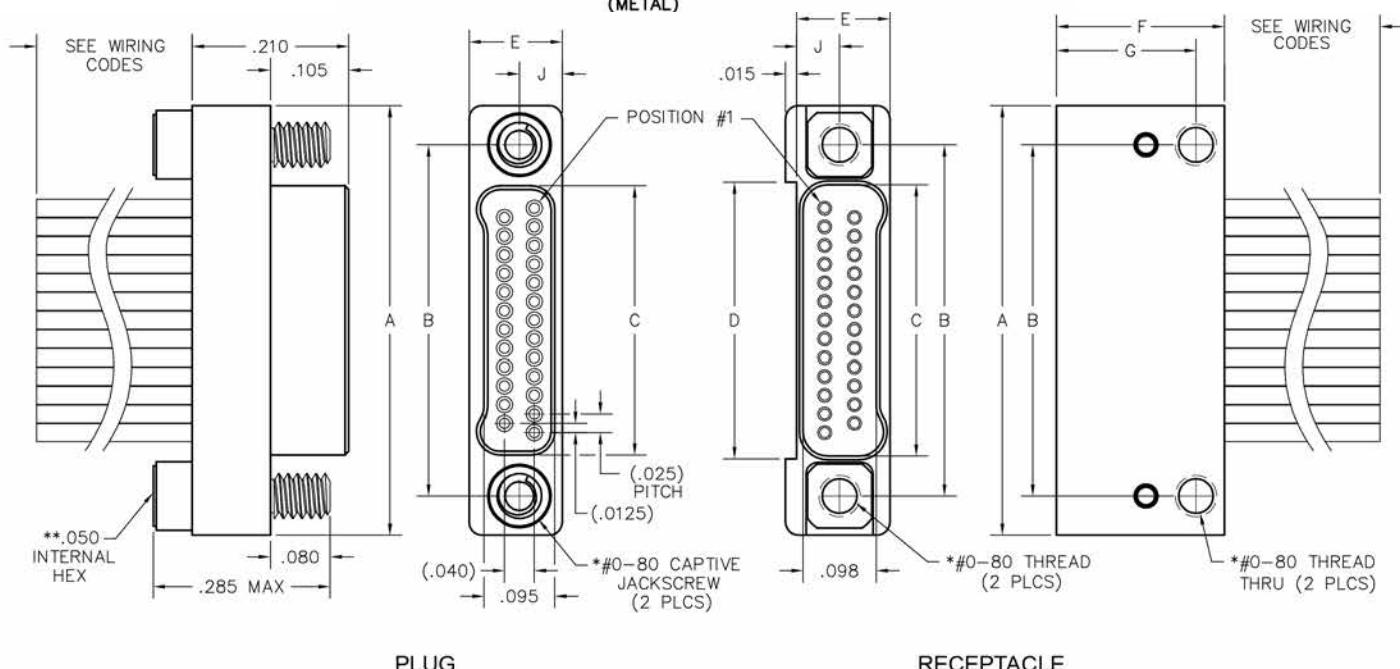
## TWO ROW - CABLE-TO-CABLE

NM & NM

0.025" | 9 THROUGH 91 CONTACTS



NM-242-025-261-THAC  
(METAL)



PLUG

RECEPTACLE

SIZE	A	B	DIMENSIONS		J	*HARDWARE	
			PLUG	RCPT			
9	.375	.270	.160	.163	.170		
15	.450	.345	.235	.238	.245		
21	.525	.420	.310	.313	.320		
25	.575	.470	.360	.363	.370		
31	.650	.545	.435	.438	.445		
37	.725	.620	.510	.513	.520		
51	.900	.795	.685	.688	.695		
65	1.075	.970	.860	.863	.870		
69	1.125	1.020	.910	.913	.920		
85	1.377	1.246	1.110	1.113	1.120		#2-56 THREAD
91	1.452	1.321	1.185	1.188	1.195		

\* = #2-56 UNC THREAD ON 85, 91 POSITION CONNECTORS.

\*\* = 1/16" HEX ON 85, 91 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NM-212-025-161-JCAC  
 RECEPTACLE: NM-242-025-261-THAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: 1 Plug, straight 5 Plug, straight, with factory installed backshell (See page NA-3)	BODY STYLE: 4 Receptacle, straight with mounting holes
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 26 Socket, straight, crimped wire
PLATING OPTIONS: 1 50 $\mu$ " Au contacts	PLATING OPTIONS: 1 50 $\mu$ " Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE: JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: TH Threaded hole, #0-80 UNF* **
WIRING OPTIONS: XX See wiring codes, Page N-151	WIRING OPTIONS: XX See wiring codes, Page N-151

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell

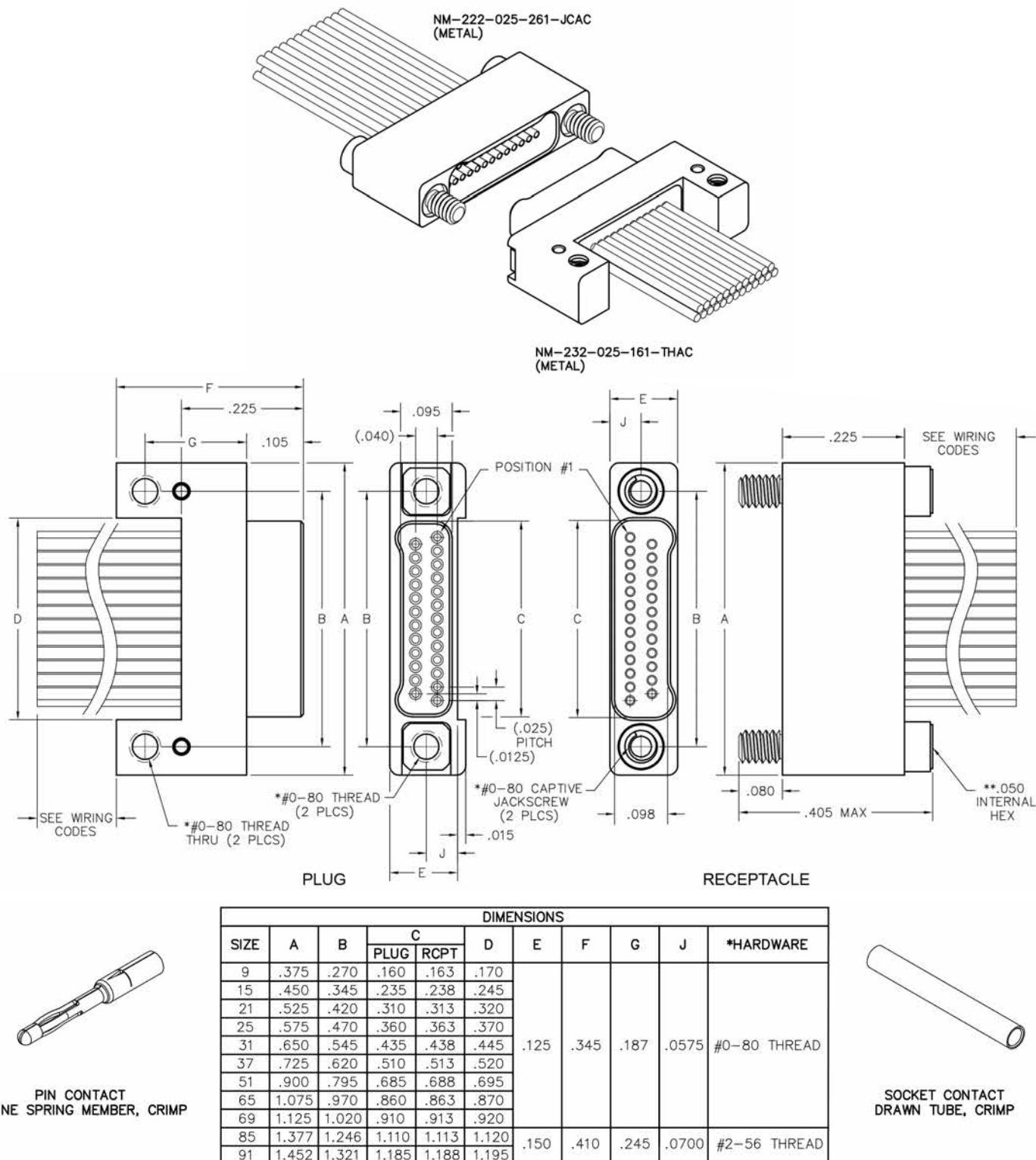
= Option not ROHS compliant

**molex**

## TWO ROW - CABLE-TO-CABLE

NM & NM

0.025" | 9 THROUGH 91 CONTACTS



\* = #2-56 UNC THREAD ON 85, 91 POSITION CONNECTORS.  
 \*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

## LEAD CONFIGURATION OPTIONS

PLUG: NM-232-025-161-THAC  
 RECEPTACLE: NM-222-025-261-JCAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: 3 Plug, straight with mounting holes	BODY STYLE: 2 Receptacle, straight 6 Receptacle, straight, with factory installed backshell (See page NA-3)
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085, 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085, 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 26 Socket, straight, crimped wire
PLATING OPTIONS: 1 50 u" Au contacts	PLATING OPTIONS: 1 50 u" Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE: TH Threaded hole, #0-80 UNF* **	STYLE OF HARDWARE: JC Turning jackscrews, captivated #0-80 UNF*
WIRING OPTIONS: XX See wiring codes, Page N-151	WIRING OPTIONS: XX See wiring codes, Page N-151

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell

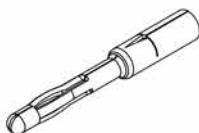
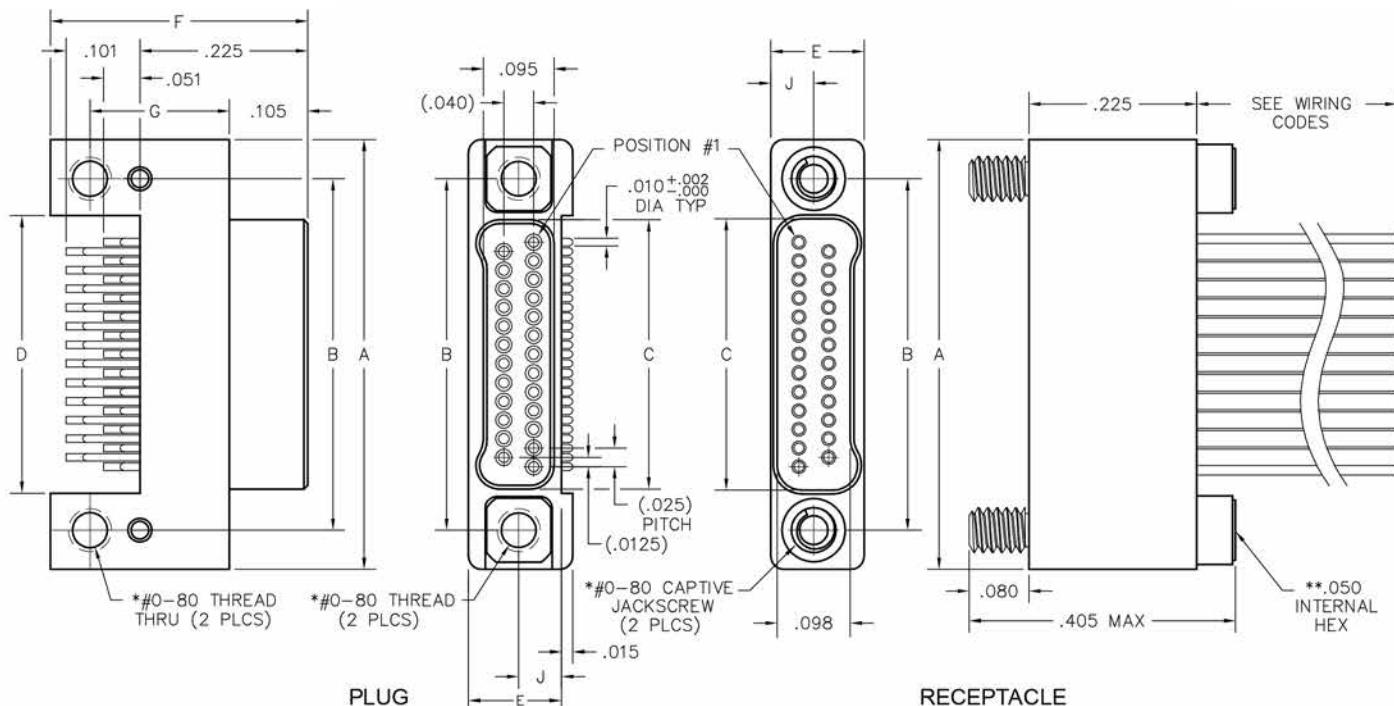
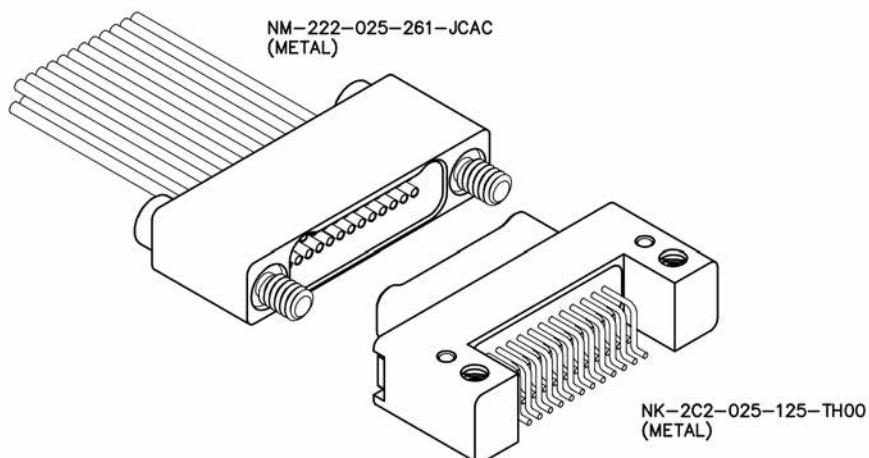
= Option not ROHS compliant

**molex**

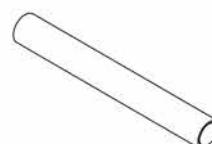
## TWO ROW - CABLE-TO-BOARD HORIZONTAL SMT

### NM & NK

0.025" | 9 THROUGH 91 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

SIZE	A	B	C		D	E	F	G	J	*HARDWARE
			PLUG	RCPT						
9	.375	.270	.160	.163	.170					
15	.450	.345	.235	.238	.245					
21	.525	.420	.310	.313	.320					
25	.575	.470	.360	.363	.370					
31	.650	.545	.435	.438	.445					
37	.725	.620	.510	.513	.520					
51	.900	.795	.685	.688	.695					
65	1.075	.970	.860	.863	.870					
69	1.125	1.020	.910	.913	.920					
85	1.377	1.246	1.110	1.113	1.120					
91	1.452	1.321	1.185	1.188	1.195					

\* = #2-56 UNC THREAD ON 85 POSITION CONNECTORS.

\*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG: NK-2C2-025-125-TH00  
 RECEPTACLE: NM-222-025-261-JCAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: C Plug, horizontal mount SMT	BODY STYLE: 2 Receptacle, straight 6 Receptacle, straight, with factory installed backshell (See page NA-3)
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 12 Pin, SMT	TYPE CONTACTS/TERMINATIONS: 26 Socket, straight, crimped wire
PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations	PLATING OPTIONS: 1 50 u" Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF* **	STYLE OF HARDWARE: 00 None *** JC Turning jackscrews, captivated #0-80 UNF*
WIRING OPTIONS: 00 None	WIRING OPTIONS: XX See wiring codes, Page N-151

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell

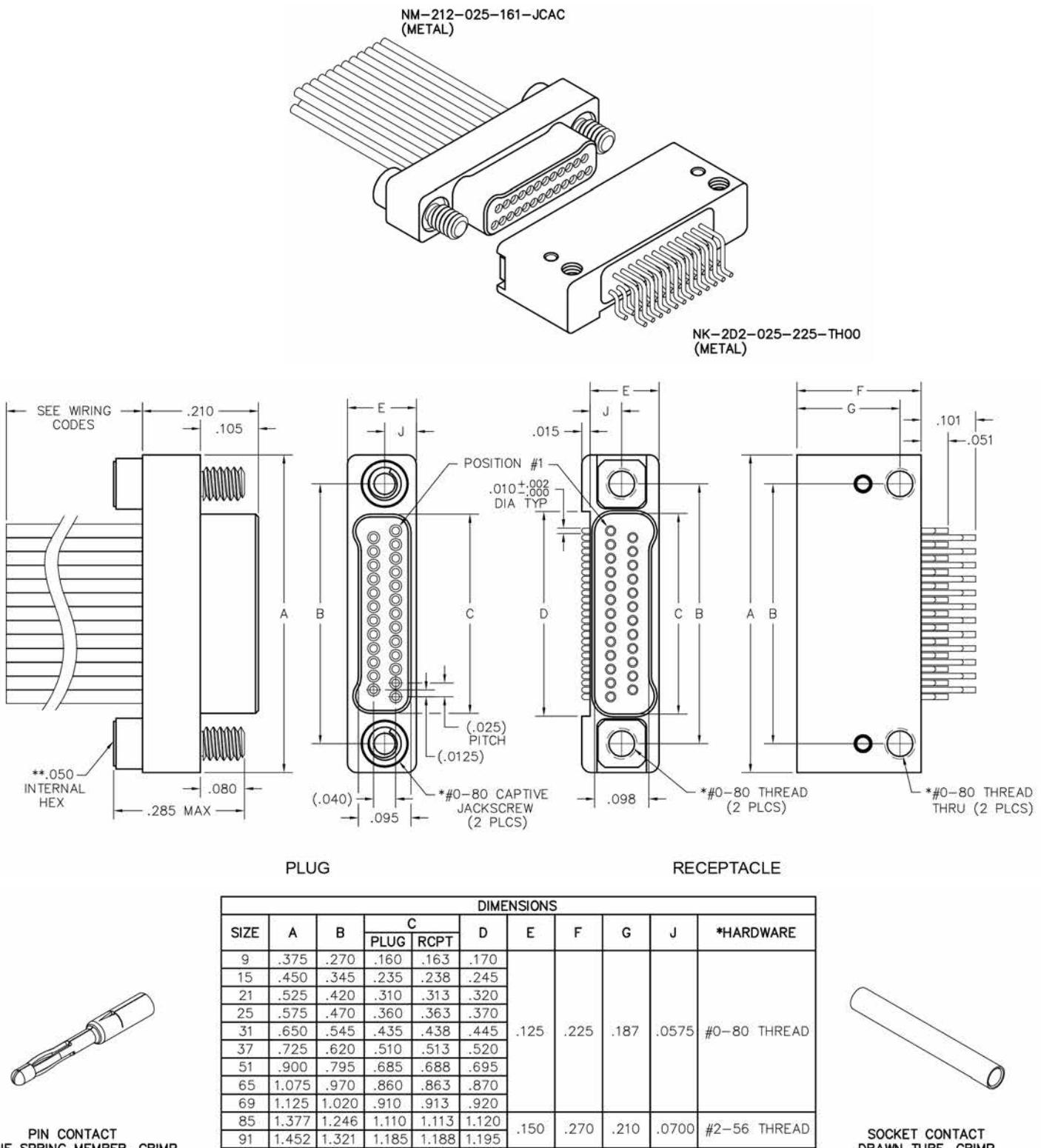
= Option not RoHS compliant

**molex**

## TWO ROW - CABLE-TO-BOARD HORIZONTAL SMT

### NM & NK

0.025" | 9 THROUGH 91 CONTACTS



## LEAD CONFIGURATION OPTIONS

PLUG: NM-212-025-161-JCAC  
 RECEPTACLE: NK-2D2-025-225-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NK .025" Metal PC Board Mounted Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: 1 Plug, straight 5 Plug, straight, with factory installed backshell (See page NA-3)	BODY STYLE: D Receptacle, horizontal mount SMT
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 22 Socket, SMT
PLATING OPTIONS: 1 50 $\mu$ " Au contacts	PLATING OPTIONS: 5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 $\mu$ " Au contacts; Tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None *** JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF* **
WIRING OPTIONS: XX See wiring codes, Page N-151	WIRING OPTIONS: 00 None

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell

= Option not RoHS compliant

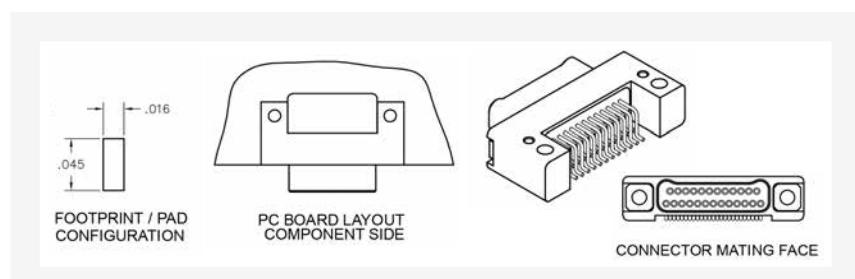
**molex**

## RECOMMENDED PC BOARD LAYOUTS

HORIZONTAL SMT PLUG

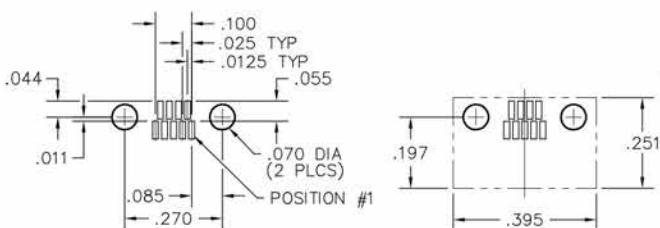
FOR REFERENCE ONLY

NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



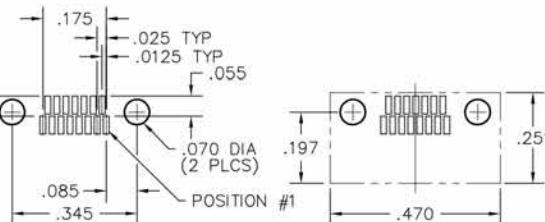
### 9 POSITION

9 0000 6  
5 00000 1



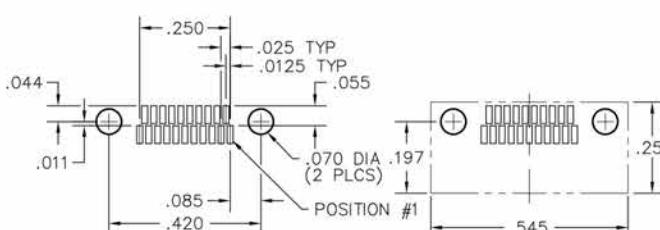
### 15 POSITION

15 0000000 9  
8 00000000 1



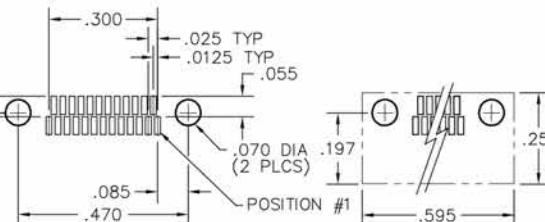
### 21 POSITION

21 000000000 12  
11 00000000000 1



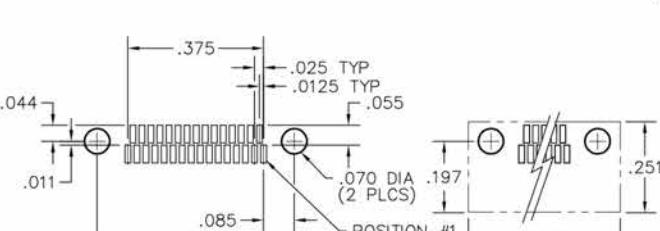
### 25 POSITION

25 0000000000000 14  
13 0000000000000 1



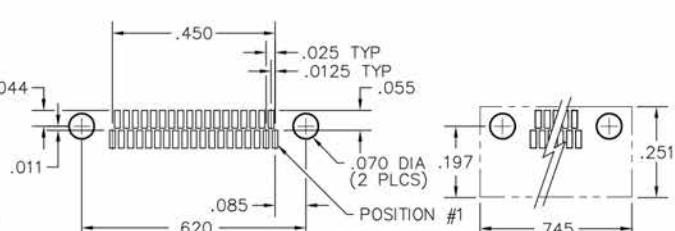
### 31 POSITION

31 000000000000000 17  
16 0000000000000000 1



### 37 POSITION

37 00000000000000000 20  
19 000000000000000000 1



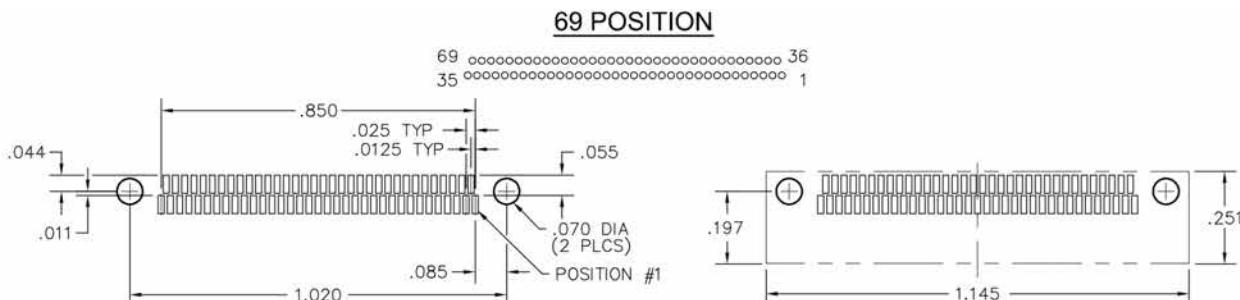
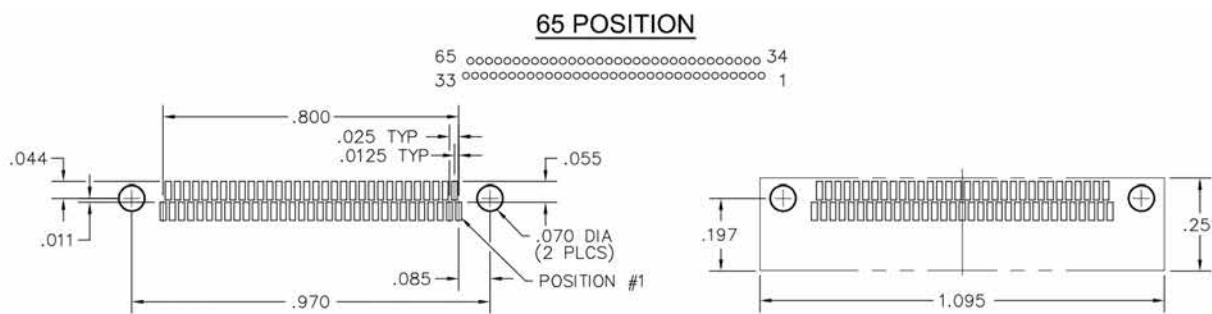
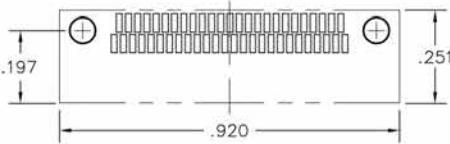
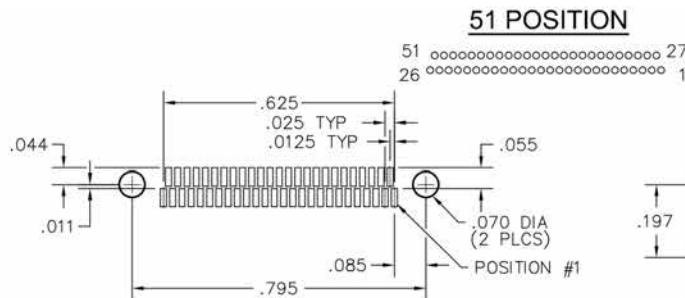
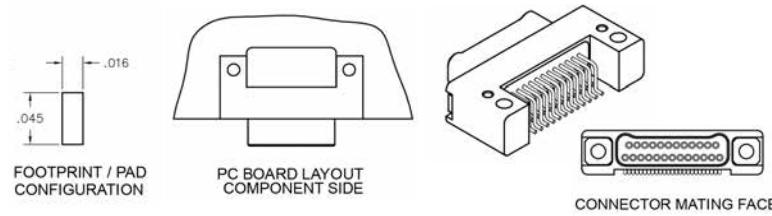
## RECOMMENDED PC BOARD LAYOUTS

HORIZONTAL SMT PLUG

0.020" & 0.040" LEAD ENVELOPES

FOR REFERENCE ONLY

NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



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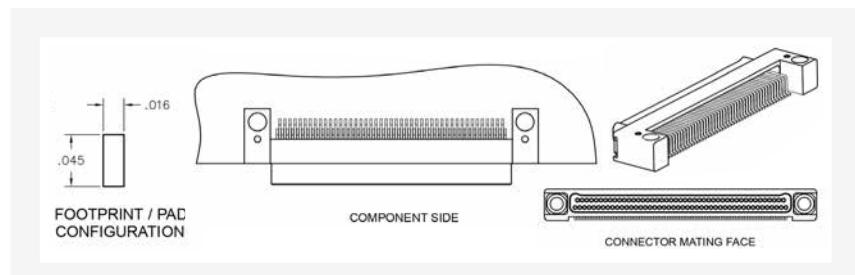
## RECOMMENDED PC BOARD LAYOUTS

## HORIZONTAL SMT PLUG

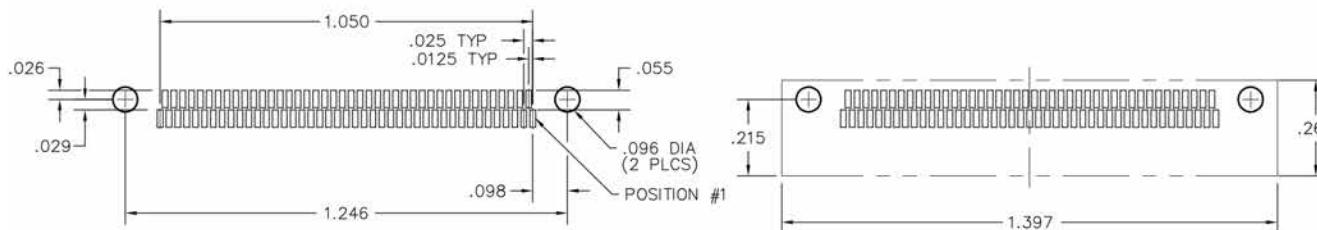
## 0.020" & 0.040" LEAD ENVELOPES

FOR REFERENCE ONLY

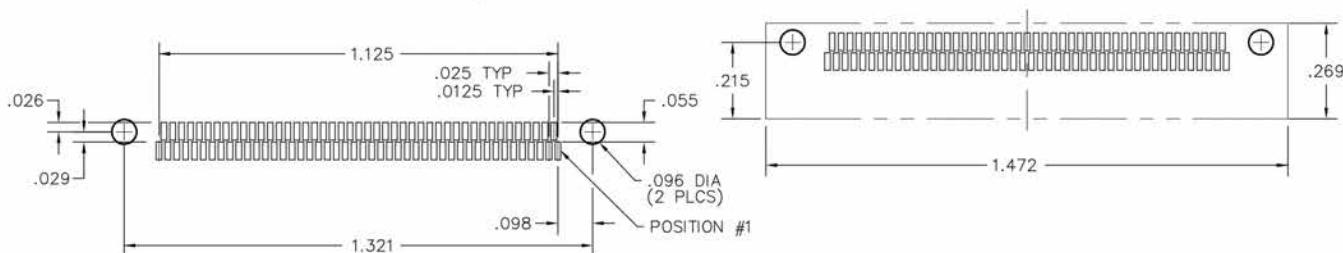
NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



## 85 POSITION



## 91 POSITION

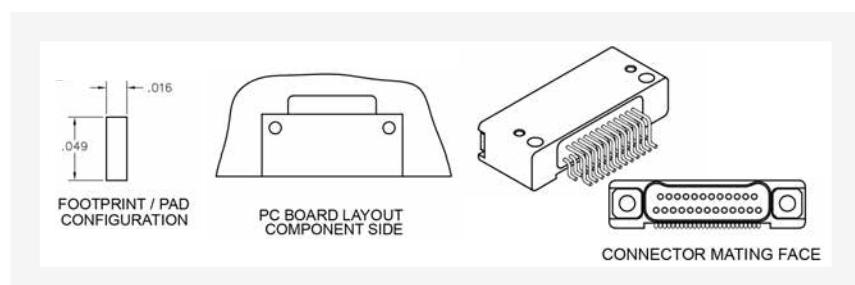


## RECOMMENDED PC BOARD LAYOUTS

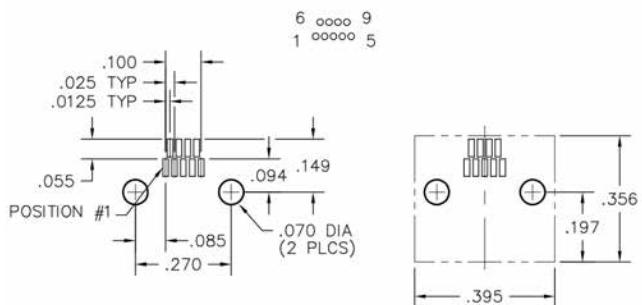
HORIZONTAL SMT PLUG

FOR REFERENCE ONLY

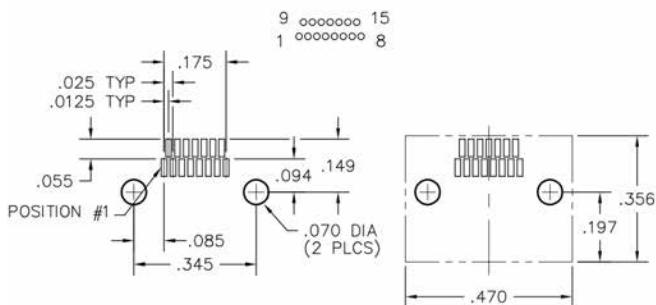
NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



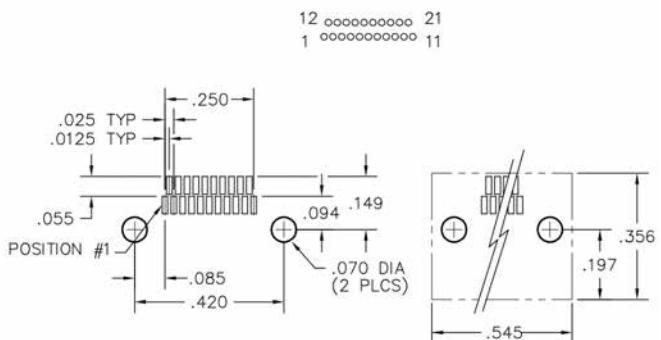
### 9 POSITION



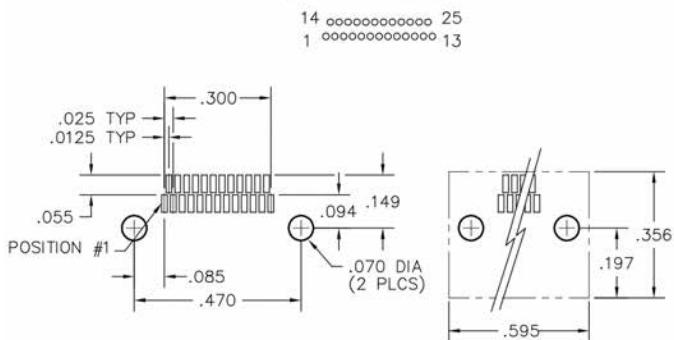
### 15 POSITION



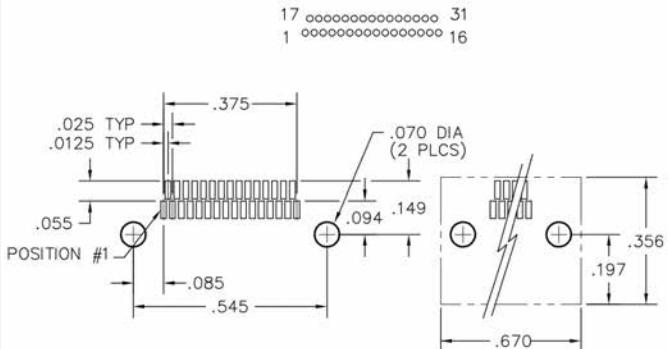
### 21 POSITION



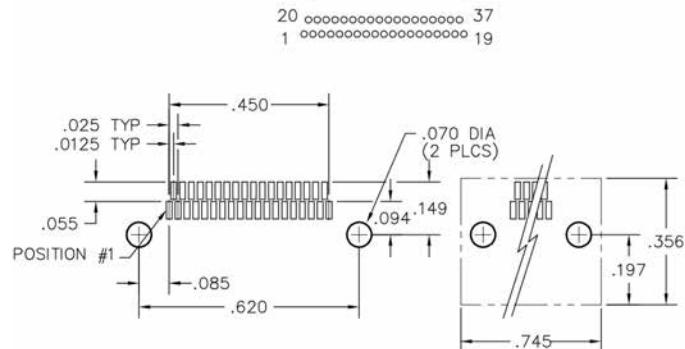
### 25 POSITION



### 31 POSITION



### 37 POSITION

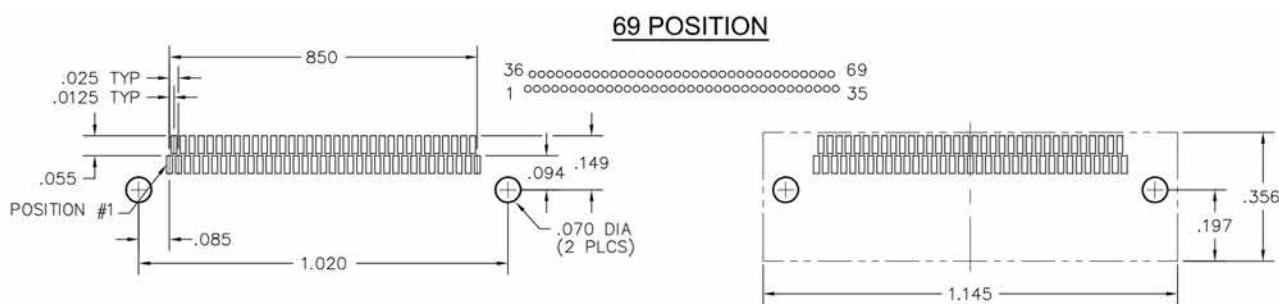
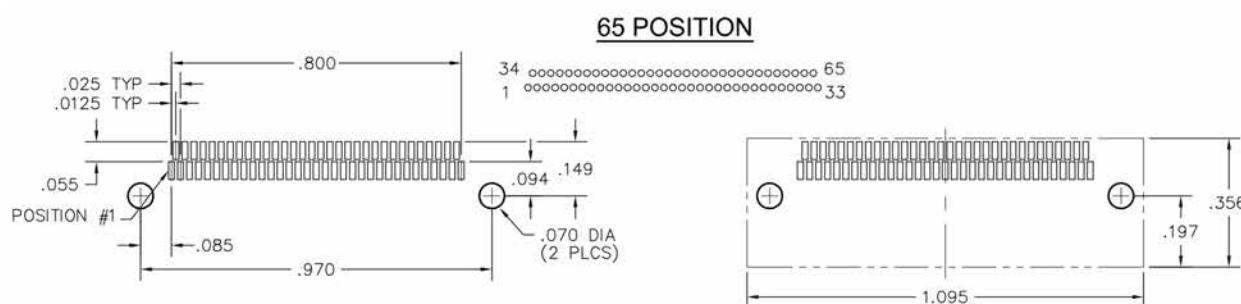
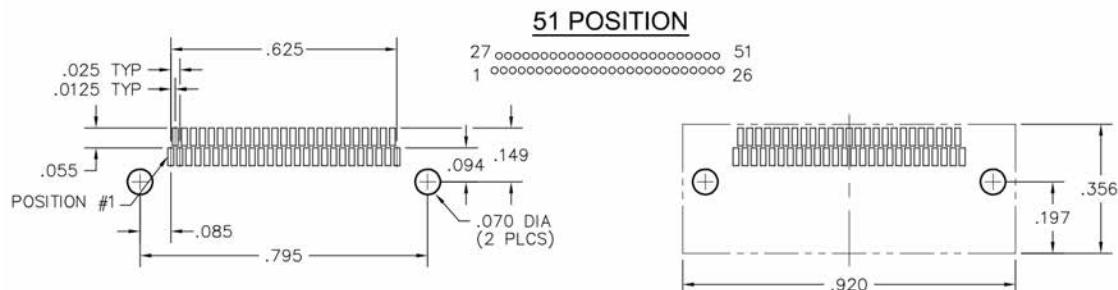
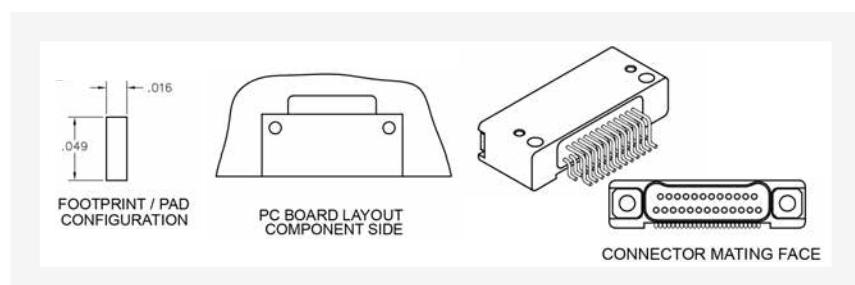


## RECOMMENDED PC BOARD LAYOUTS

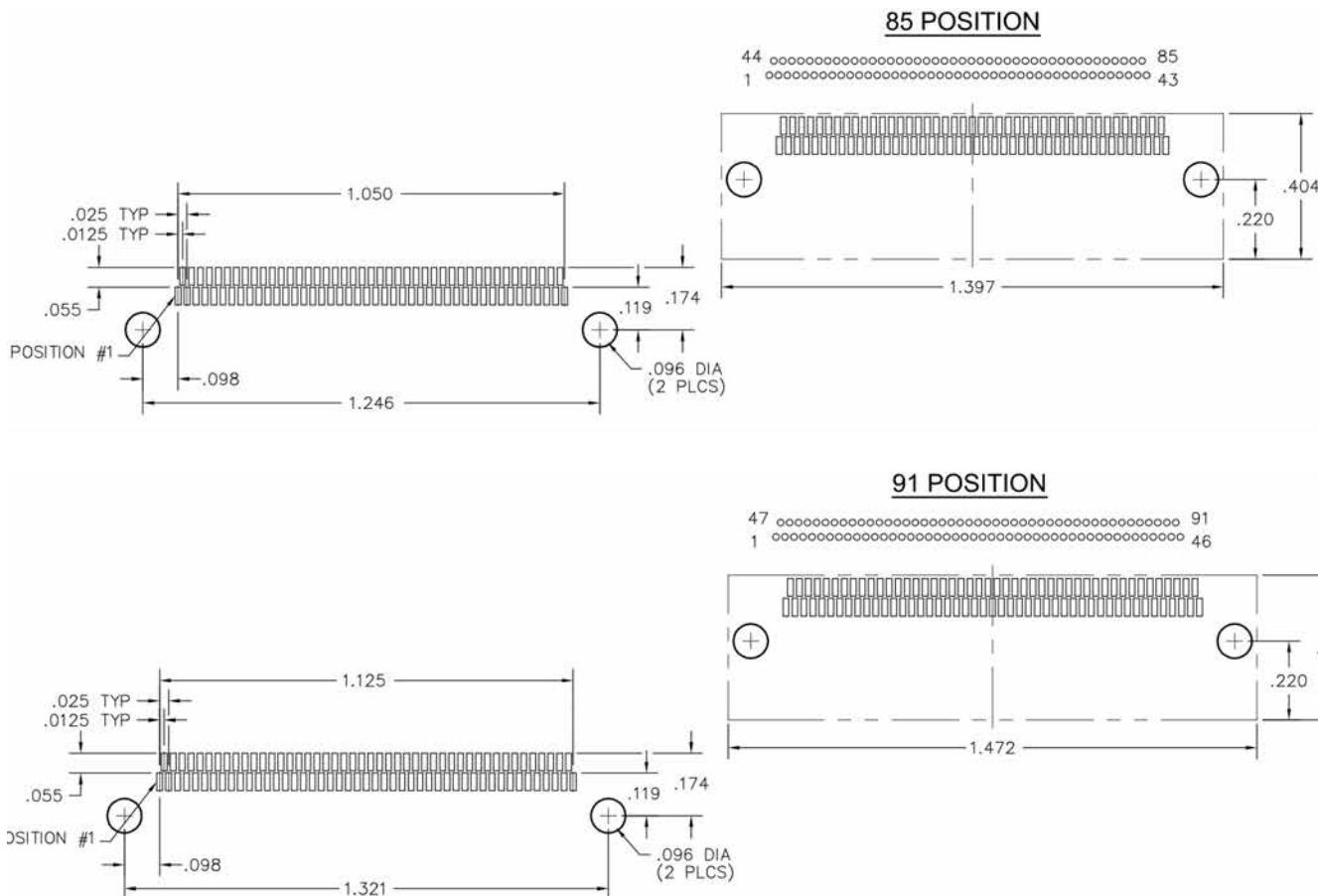
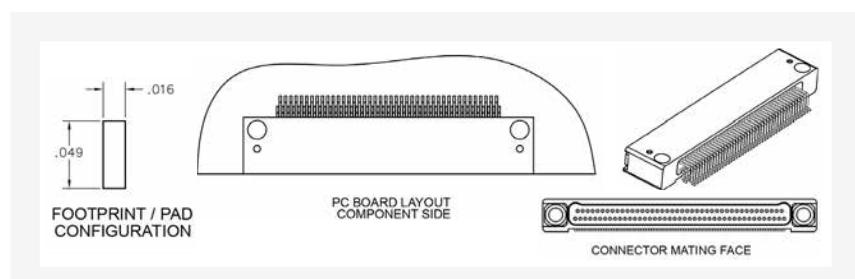
### HORIZONTAL SMT RECEPTACLE

FOR REFERENCE ONLY

NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



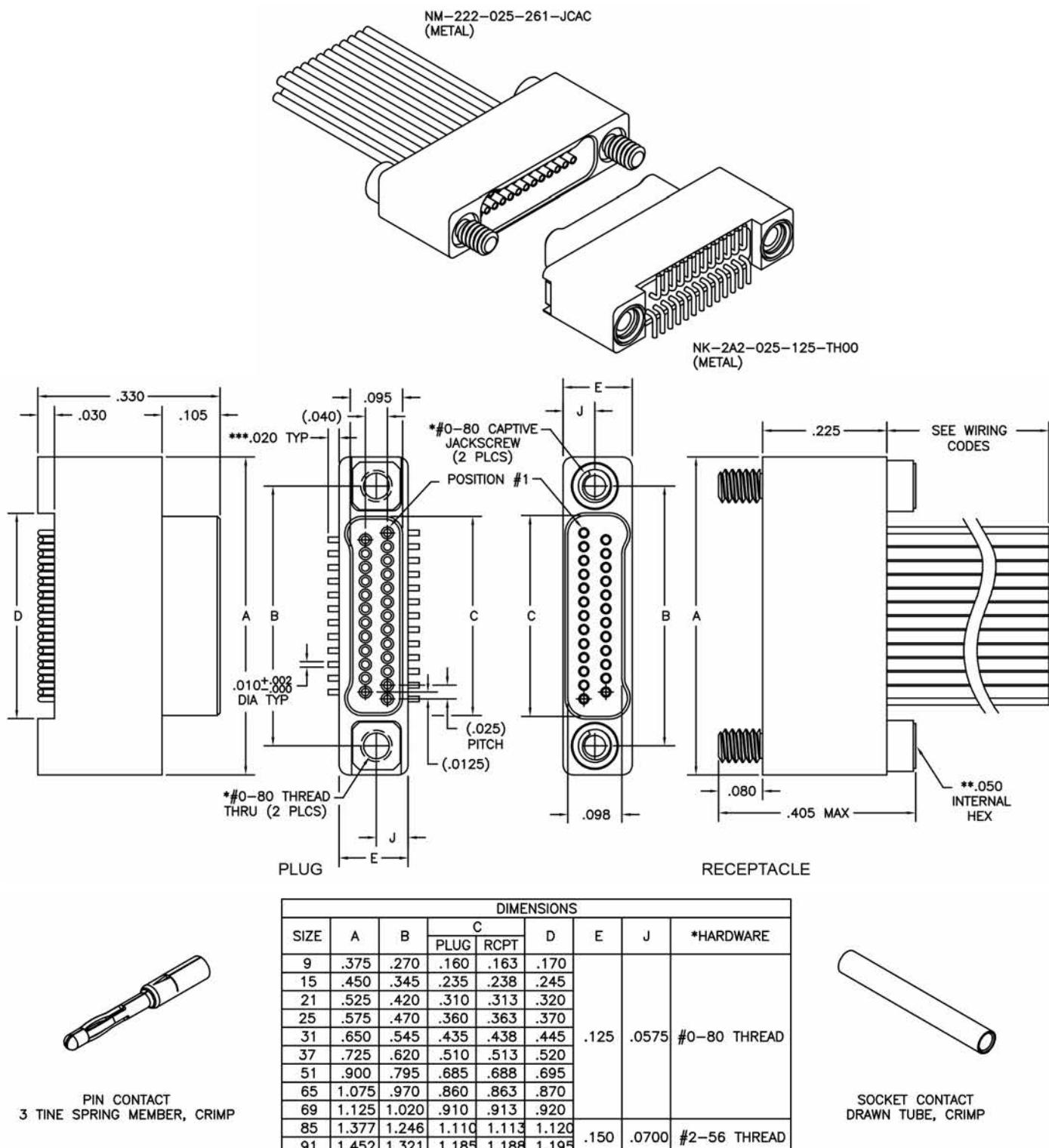
**RECOMMENDED PC BOARD LAYOUTS**  
**HORIZONTAL SMT RECEPTACLE**  
**FOR REFERENCE ONLY**  
**NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE**



## TWO ROW - CABLE-TO-BOARD VERTICAL SMT

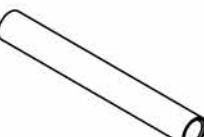
NM & NK

0.025" | 9 THROUGH 91 CONTACTS



\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.  
 \*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENT TAKEN ACROSS THE FLATS.  
 \*\*\* = DIMENSION CHANGES TO .040" FOR "010" OPTION.  
 SEE PAGE N-49.

PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NK-2A2-025-125-TH00  
 RECEPTACLE: NM-222-025-261-JCAC  
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG	RECEPTACLE											
<b>SERIES</b>												
NK .025" Metal PC Board Mounted Connector	NM .025" Metal I/O Connector											
<b>BODY</b>												
2 2-Row	2 2-Row											
BODY STYLE:		BODY STYLE:										
A Plug, vertical mount SMT		2 Receptacle, straight		6 Receptacle, straight, with factory installed backshell (See page NA-3)								
BODY MATERIAL:		BODY MATERIAL:										
2 Liquid Crystal Polymer w/ electroless nickel shell		2 Liquid Crystal Polymer w/ electroless nickel shell		3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>		3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>		4 Liquid Crystal Polymer w/ stainless steel shell ***		5 Liquid Crystal Polymer w/ titanium shell ***		
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>		4 Liquid Crystal Polymer w/ stainless steel shell ***		5 Liquid Crystal Polymer w/ titanium shell ***								
4 Liquid Crystal Polymer w/ stainless steel shell												
5 Liquid Crystal Polymer w/ titanium shell												
<b>SIZE</b>												
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)											
<b>CONTACTS</b>												
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:										
12 Pin, SMT (.020 lead envelope)		26 Socket, straight, crimped wire										
PLATING OPTIONS:		PLATING OPTIONS:										
5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>		1 50 u" Au contacts										
8 50 u" Au contacts; Tin plated terminations												
<b>HARDWARE</b>												
STYLE OF HARDWARE:		STYLE OF HARDWARE:										
00 None		00 None ***		TH Threaded hole, #0-80 UNF* **		JC Turning jackscrews, captivated #0-80 UNF*						
WIRING OPTIONS:		WIRING OPTIONS:										
00 None		XX See wiring codes, Page N-151										
<b>OPTIONS</b>												
010 .040 lead envelope												

\* = #2-56 UNC thread on 85 and 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell

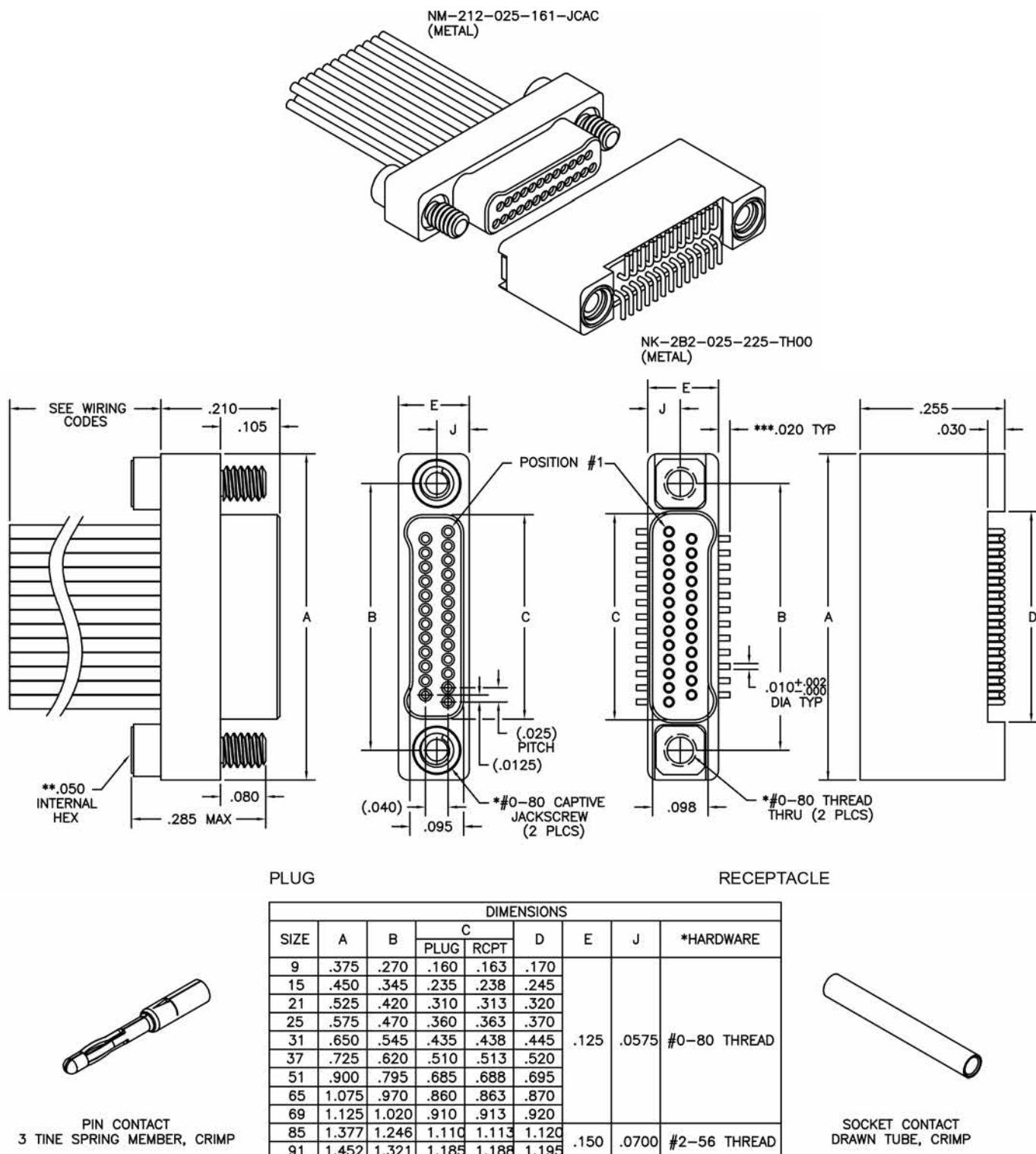
= Option not RoHS compliant

**molex**

## TWO ROW - CABLE-TO-BOARD VERTICAL SMT

NM & NK

0.025" | 9 THROUGH 91 CONTACTS



\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.

\*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENT TAKEN ACROSS THE FLATS.

\*\*\* = DIMENSION CHANGES TO .040" FOR "010" OPTION.  
SEE PAGE N-51.

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG: NM-212-025-161-JCAC  
 RECEPTACLE: NK-2B2-025-225-TH00  
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NK .025" Metal PC Board Mounted Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: 1 Plug, straight 5 Plug, straight, with factory installed backshell (See page NA-3)	
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 22 Socket, SMT (.020 lead envelope)
PLATING OPTIONS: 1 50 u" Au contacts	
PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations	
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None *** JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF* **
WIRING OPTIONS: XX See wiring codes, Page N-151	
WIRING OPTIONS: 00 None	
<b>OPTIONS</b>	
010 .040 lead envelope	

\* = #2-56 UNC thread on 85 and 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell

= Option not RoHS compliant

**molex**

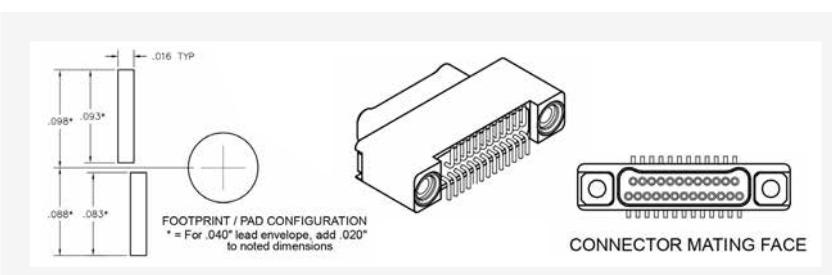
## RECOMMENDED PC BOARD LAYOUTS

VERTICAL SMT PLUG

0.020" & 0.040" LEAD ENVELOPES

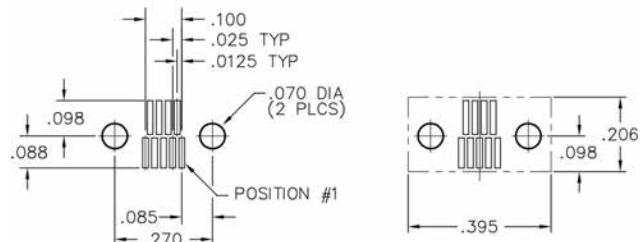
FOR REFERENCE ONLY

NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



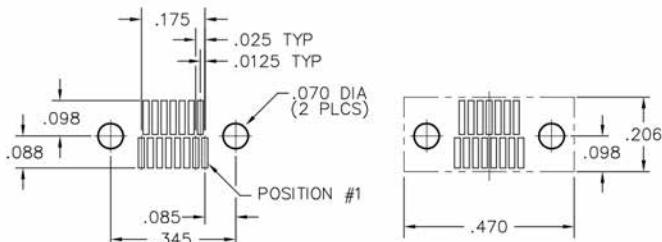
### 9 POSITION

9 ooooo 6  
5 ooooo 1



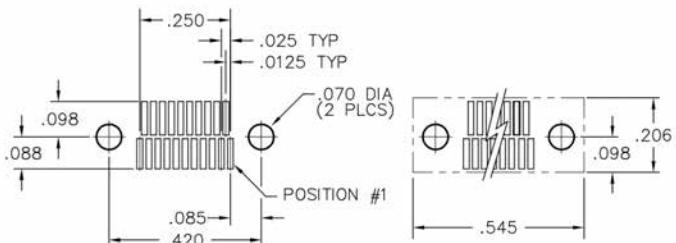
### 15 POSITION

15 oooooooo 9  
8 oooooooo 1



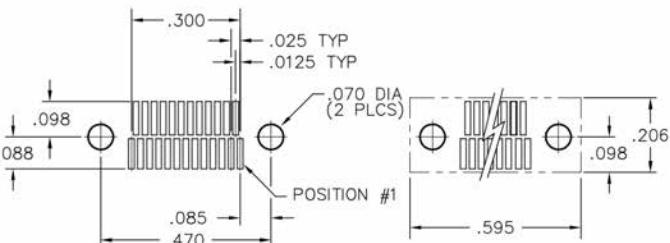
### 21 POSITION

21 oooooooooo 12  
11 oooooooooo 1



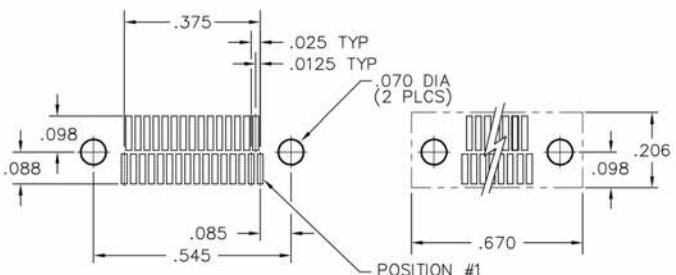
### 25 POSITION

25 ooooooooooooo 14  
13 ooooooooooooo 1



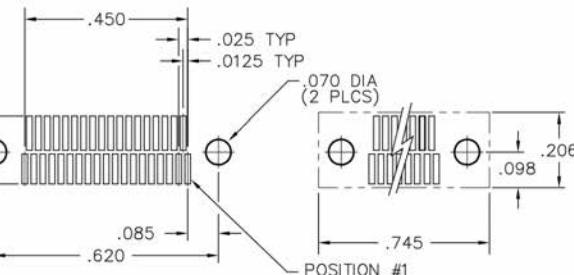
### 31 POSITION

31 ooooooooooooooooooooo 17  
16 ooooooooooooooooooooo 1



### 37 POSITION

37 ooooooooooooooooooooo 20  
19 ooooooooooooo 1



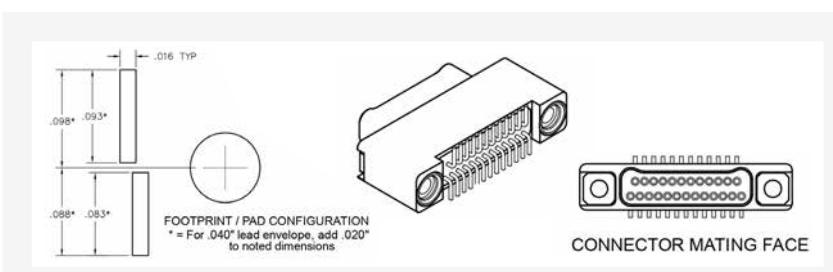
## RECOMMENDED PC BOARD LAYOUTS

## VERTICAL SMT PLUG

## 0.020" & 0.040" LEAD ENVELOPES

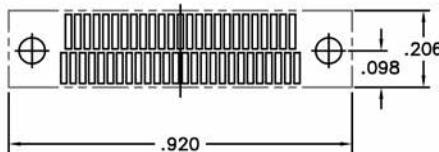
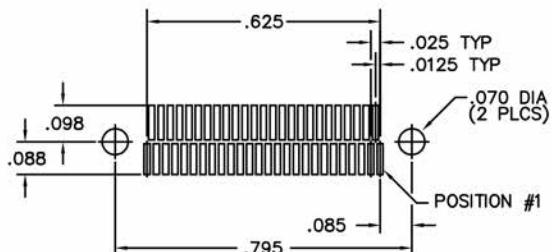
FOR REFERENCE ONLY

NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



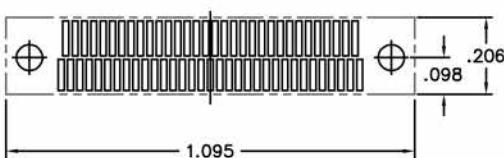
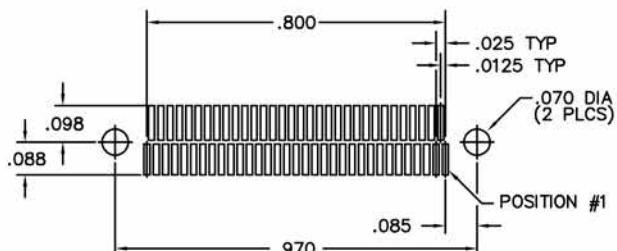
## 51 POSITION

51 ooooooooooooooooooooo 27  
26 ooooooooooooooooooooo 1

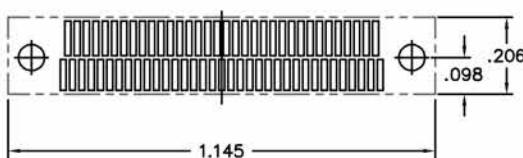
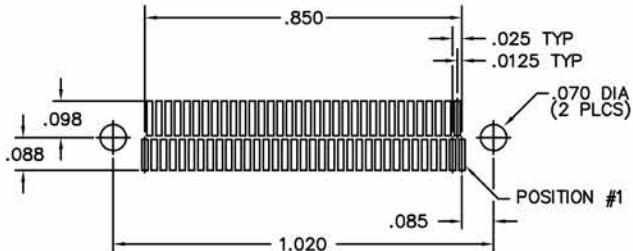


65 POSITION

65 ooooooooooooooooooooo 34  
33 ooooooooooooooooooooo 1



## 69 POSITION



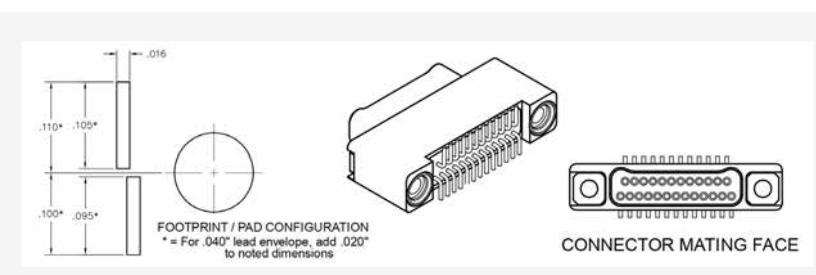
## RECOMMENDED PC BOARD LAYOUTS

VERTICAL SMT PLUG

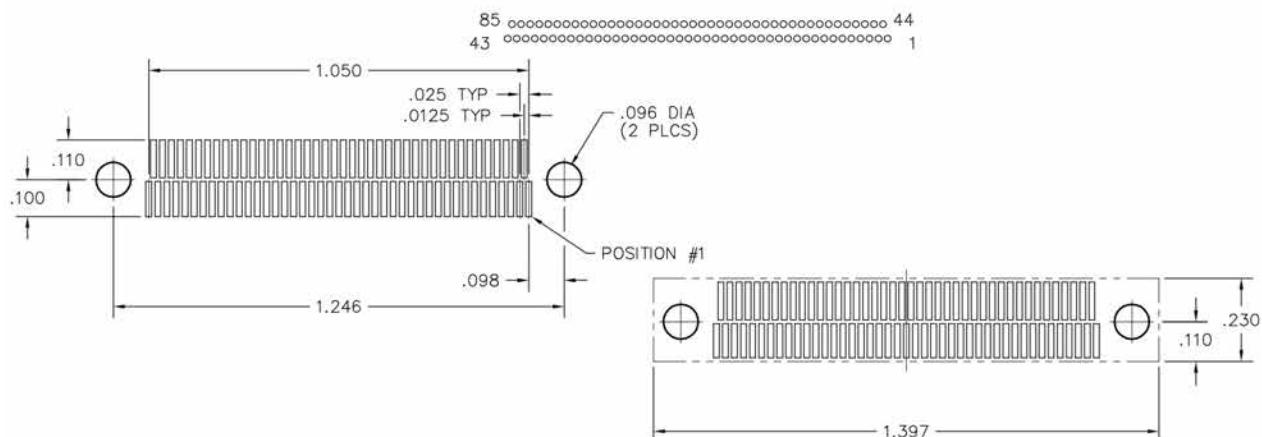
0.020" & 0.040" LEAD ENVELOPES

FOR REFERENCE ONLY

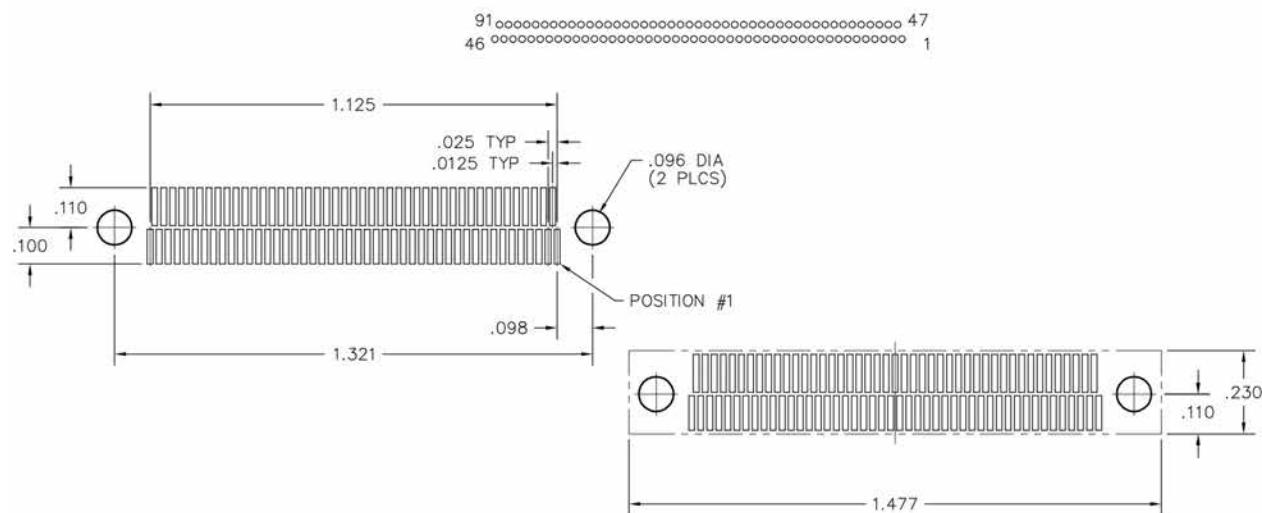
NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



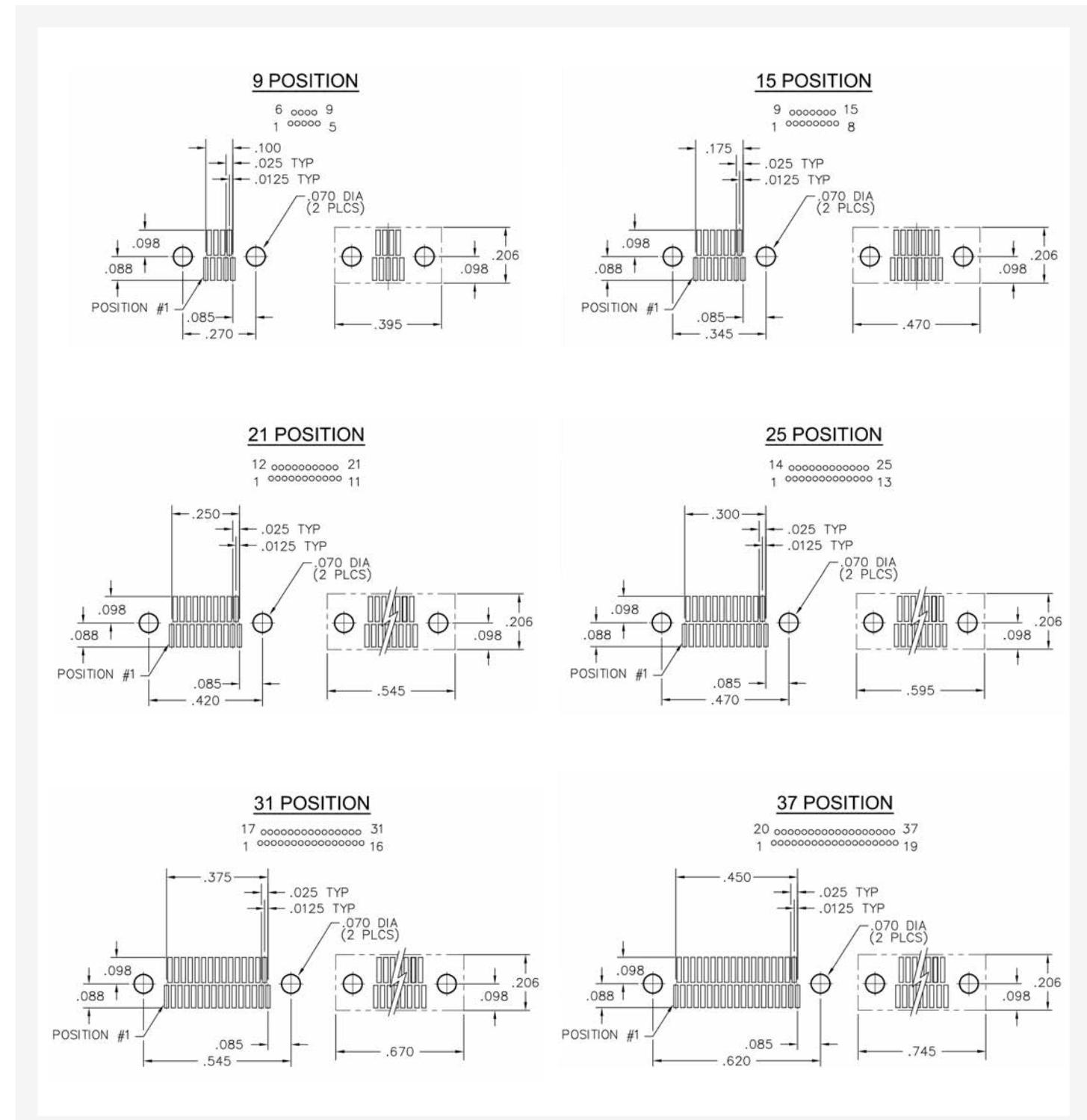
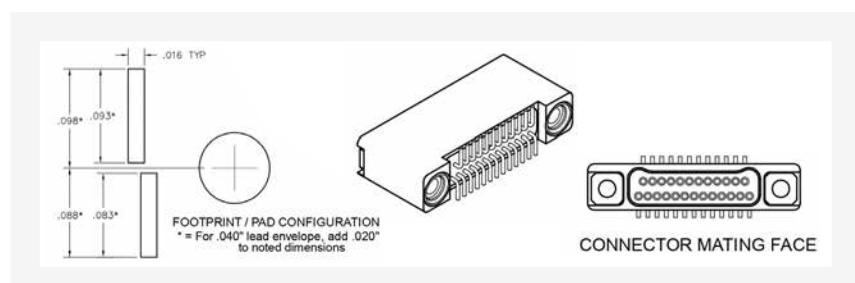
### 85 POSITION



### 91 POSITION



**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL SMT RECEPTACLE  
 0.020" & 0.040" LEAD ENVELOPES  
 FOR REFERENCE ONLY  
 NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE

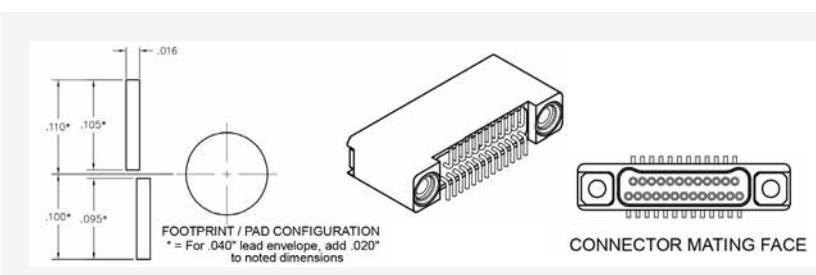


## RECOMMENDED PC BOARD LAYOUTS

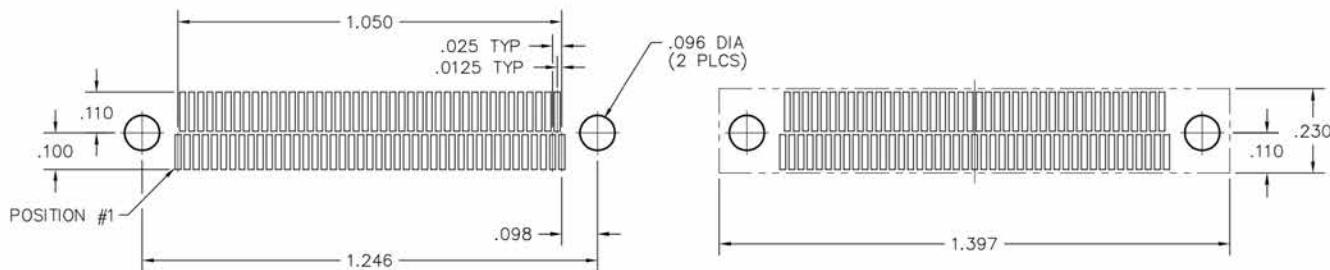
## VERTICAL SMT RECEPTACLE

## 0.020" & 0.040" LEAD ENVELOPES

FOR REFERENCE ONLY

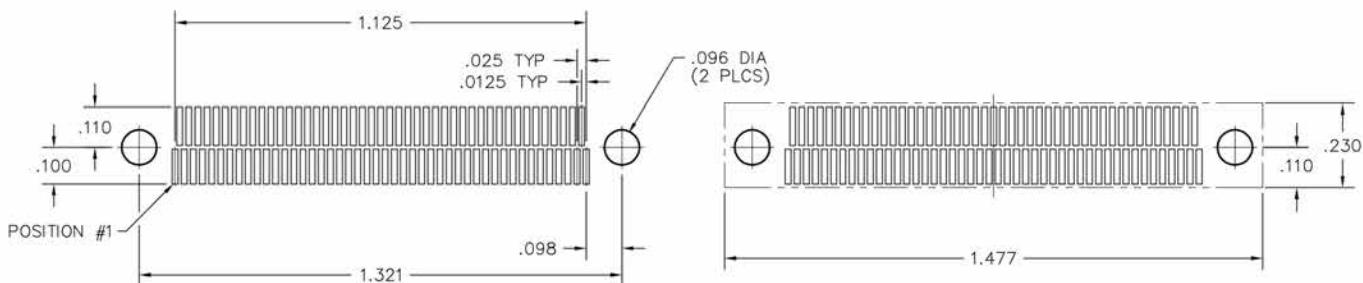


85 POSITION



### 91 POSITION

47  91  
1  46

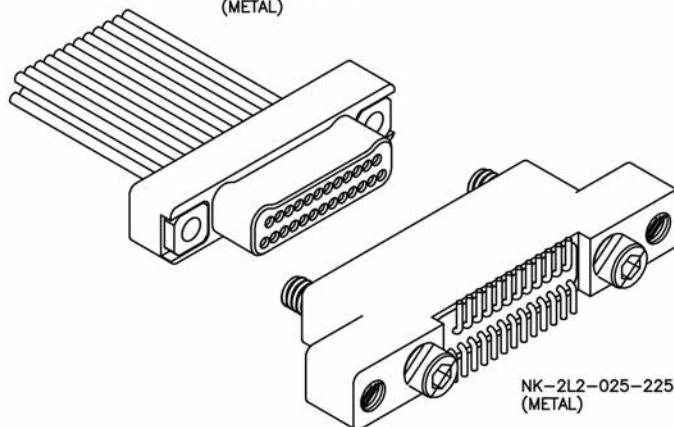


## TWO ROW - CABLE-TO-VERTICAL SMT WITH MOUNTING EARS

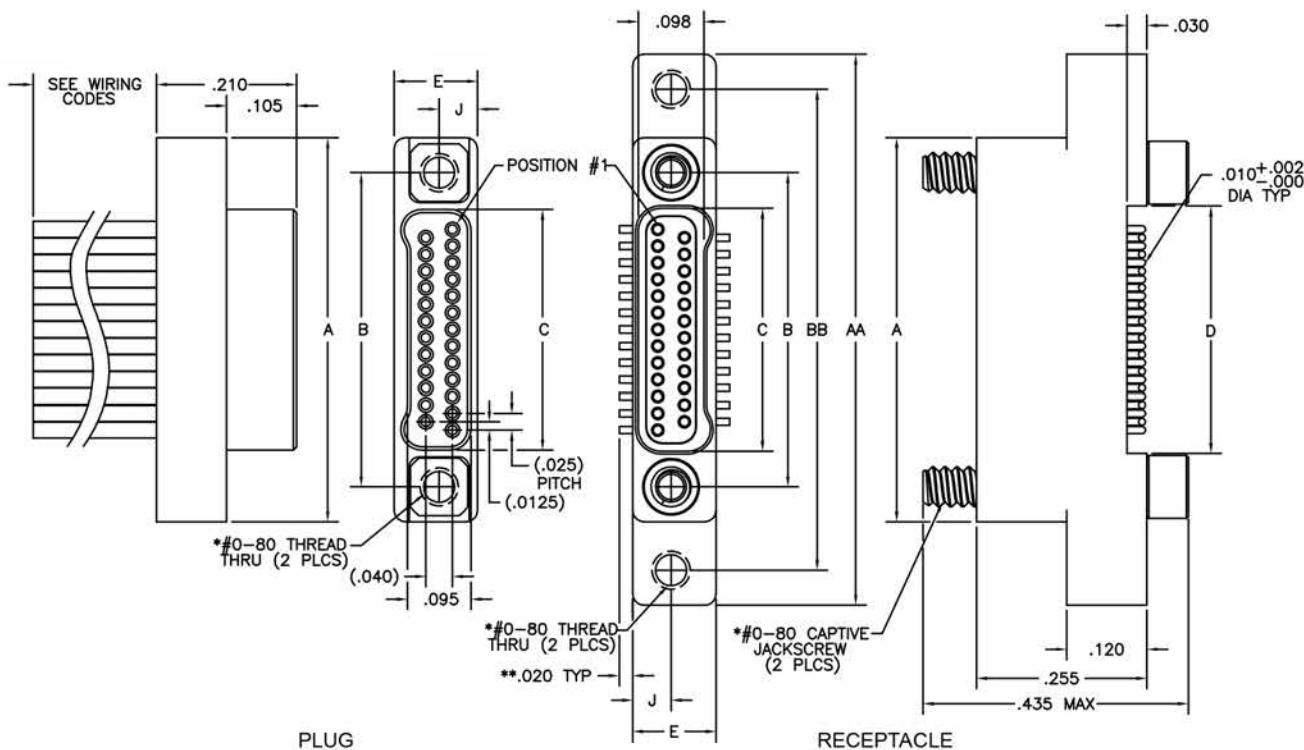
NM & NK

0.025" | 9 THROUGH 91 CONTACTS

NM-212-025-161-THAC  
(METAL)



NK-2L2-025-225-JC00  
(METAL)



PLUG

RECEPTACLE

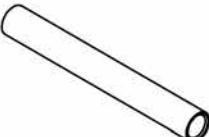
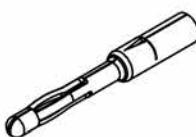
### DIMENSIONS

SIZE	A	B	C		D	E	J	AA	BB	HARDWARE*
			PLUG	RCPT						
9	.375	.270	.160	.163	.170			.625	.520	
15	.450	.345	.235	.238	.245			.700	.595	
21	.525	.420	.310	.313	.320			.775	.670	
25	.575	.470	.360	.363	.370			.825	.720	
31	.650	.545	.435	.438	.445			.900	.795	
37	.725	.620	.510	.513	.520			.975	.870	
51	.900	.795	.685	.688	.695			1.150	1.045	
65	1.075	.970	.860	.863	.870			1.325	1.220	
69	1.125	1.020	.910	.913	.920			1.375	1.270	
85	1.377	1.246	1.110	1.113	1.120	.150	.0700	1.679	1.546	#2-56 THREAD
91	1.452	1.321	1.185	1.188	1.195			1.754	1.621	

\* = #2-56 UNC THREAD ON 85 POSITION CONNECTORS

\*\* = DIMENSION CHANGES TO .040" FOR "010" OPTION.  
SEE PAGE N-55.

PIN CONTACT  
3 TINE SPRING MEMBER,  
CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NM-212-025-161-THAC  
 RECEPTACLE: NK-2L2-025-225-JC00  
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG		RECEPTACLE	
SERIES			
NM .025" Metal I/O Connector		NK .025" Metal PC Board Mounted Connector	
BODY			
2 2-Row		2 2-Row	
BODY STYLE: 1 Plug, straight 5 Plug, straight, with factory installed backshell (See page NA-3)		BODY STYLE: L Receptacle, vertical SMT w/ mounting ears	
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***		BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	
SIZE			
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)		XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 91)	
CONTACTS			
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire		TYPE CONTACTS/TERMINATIONS: 22 Socket, SMT (.020 lead envelope)	
PLATING OPTIONS: 1 50 u" Au contacts		PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations	
HARDWARE			
STYLE OF HARDWARE: 00 None *** TH Threaded hole, #0-80 UNF* **		STYLE OF HARDWARE: 00 None JC Turning jackscrews, captivated #0-80 UNF*	
WIRING OPTIONS: XX See wiring codes, Page N-151		WIRING OPTIONS: 00 None	
OPTIONS			
		010 .040 lead envelope	

\* = #2-56 UNC thread on 85, 91 position connectors  
 .050 hex key (#0-80 thread)  
 1/16" hex key (#2-56 thread)  
 Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)  
 Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)  
 Ball end hex wrench not recommended  
 Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.  
 .050" hex L-key long arm wrench - order AirBorn p/n CDG14148.  
 1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

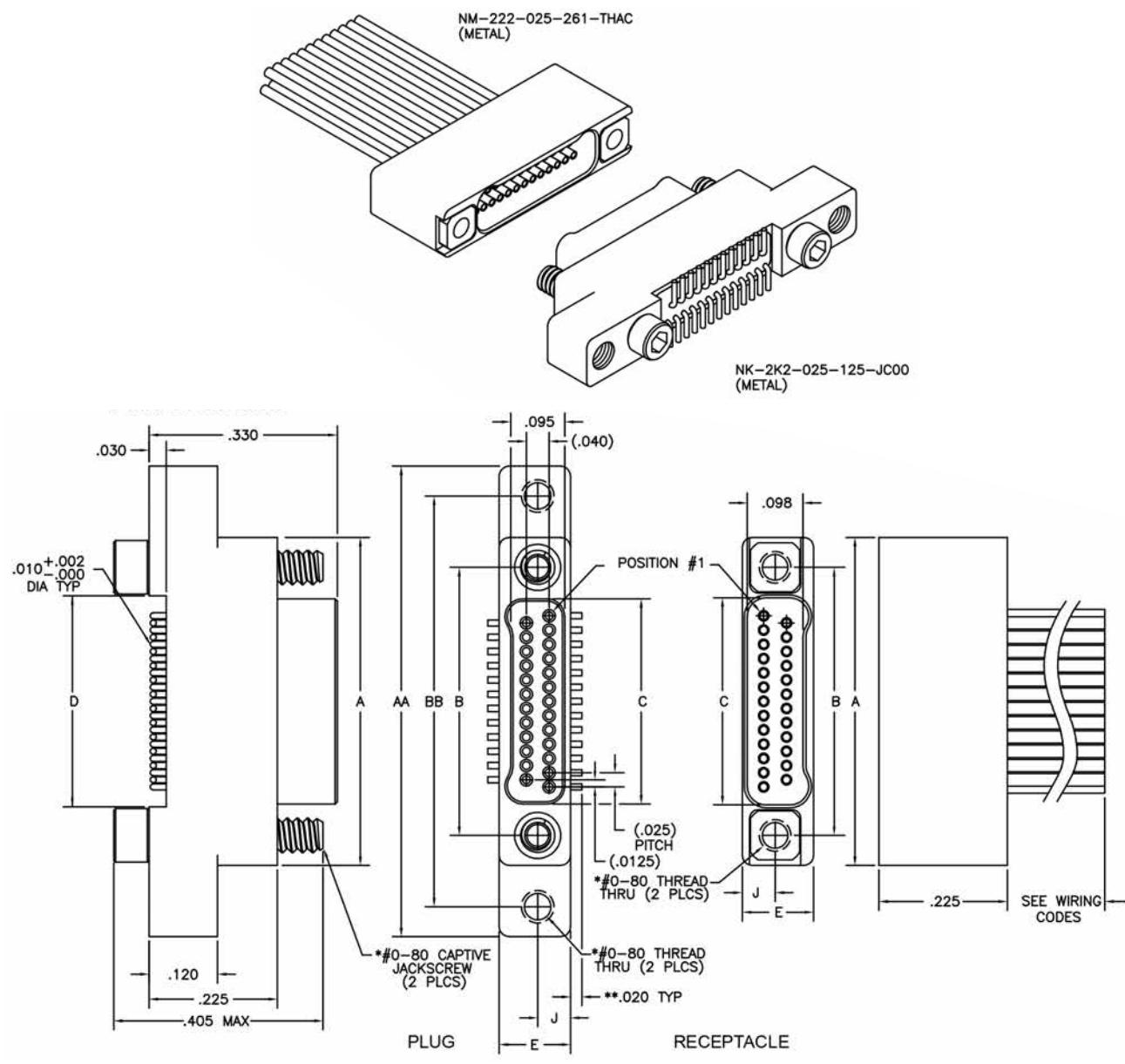
= Option not RoHS compliant

**molex**

# TWO ROW - CABLE-TO-VERTICAL SMT WITH MOUNTING EARS

NM & NK

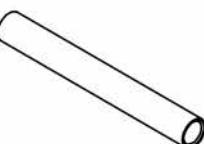
0.025" | 9 THROUGH 91 CONTACTS



SIZE	A	B	C		D	E	J	AA	BB	HARDWARE*
			PLUG	RCPT						
9	.375	.270	.160	.163	.170			.625	.520	
15	.450	.345	.235	.238	.245			.700	.595	
21	.525	.420	.310	.313	.320			.775	.670	
25	.575	.470	.360	.363	.370			.825	.720	
31	.650	.545	.435	.438	.445			.900	.795	#0-80 THREAD
37	.725	.620	.510	.513	.520			.975	.870	
51	.900	.795	.685	.688	.695			1.150	1.045	
65	1.075	.970	.860	.863	.870			1.325	1.220	
69	1.125	1.020	.910	.913	.920			1.375	1.270	
85	1.377	1.246	1.110	1.113	1.120	.150	.0700	1.679	1.546	#2-56 THREAD
91	1.452	1.321	1.185	1.188	1.195			1.754	1.625	

\* = #2-56 UNC THREAD ON 85 & 91 POSITION CONNECTORS  
 \*\* = DIMENSION CHANGES TO .040" FOR "010" OPTION.  
 SEE PAGE N-61.

PIN CONTACT  
3 TINE SPRING MEMBER,  
CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NK-2K2-025-125-JC00  
 RECEPTACLE: NM-222-025-261-THAC  
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	NM025" Metal I/O Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: K Plug, vertical SMT w/ mounting ears	BODY STYLE: 2 Receptacle, straight 6 Receptacle, straight, with factory installed backshell (See page NA-3)
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 12 Pin, SMT (.020 lead envelope)	TYPE CONTACTS/TERMINATIONS: 26 Socket, straight, crimped wire
PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations	PLATING OPTIONS: 1 50 u" Au contacts
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF* **
WIRING OPTIONS: 00 None	WIRING OPTIONS: XX See wiring codes, Page N-151
<b>OPTIONS</b>	
010 .040 lead envelope	

\* = #2-56 UNC thread on 85 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell

= Option not RoHS compliant

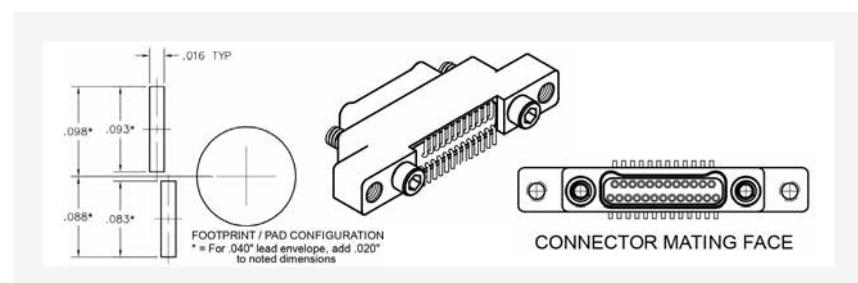
**molex**

## RECOMMENDED PC BOARD LAYOUTS

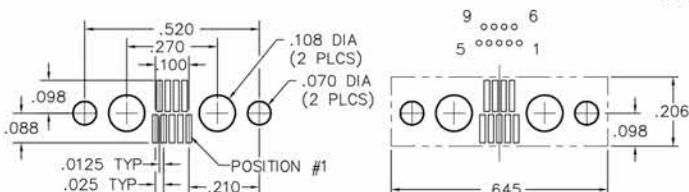
VERTICAL SMT PLUG WITH MOUNTING EARS  
0.020" & 0.040" LEAD ENVELOPES

FOR REFERENCE ONLY

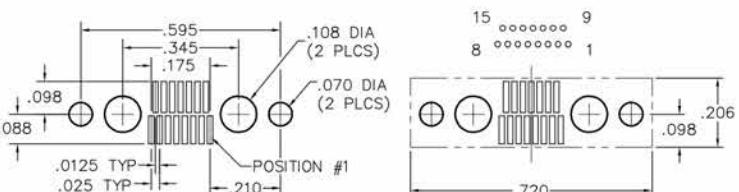
NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



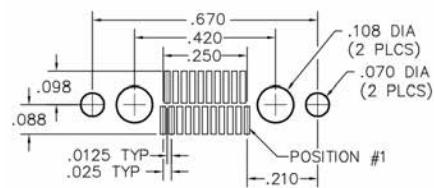
### 9 POSITION



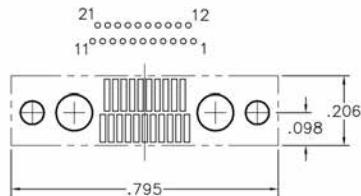
### 15 POSITION



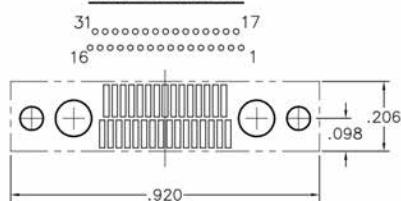
### 21 POSITION



### 25 POSITION



### 31 POSITION

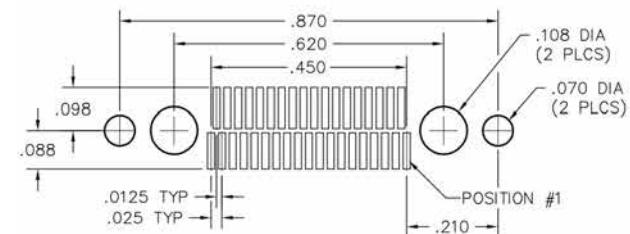
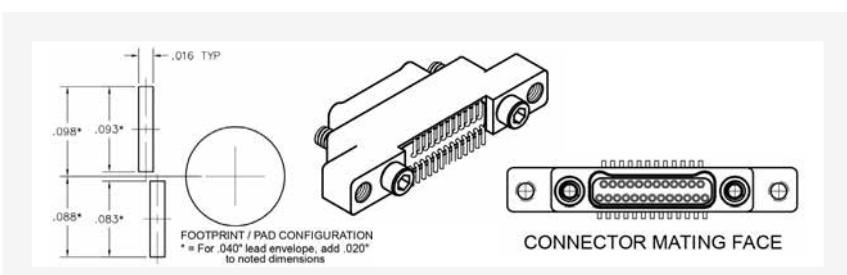


## RECOMMENDED PC BOARD LAYOUTS

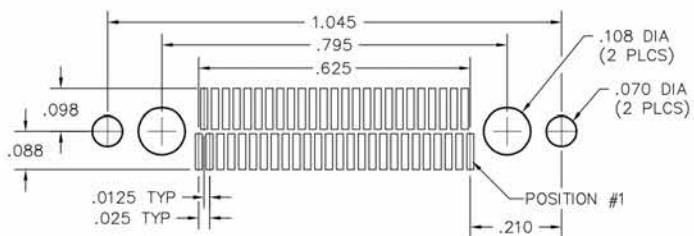
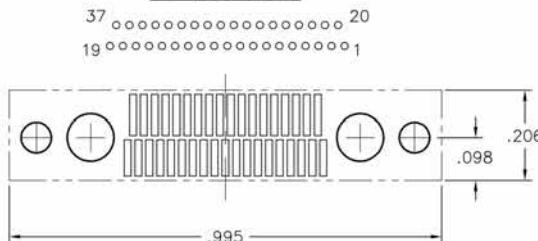
## VERTICAL SMT PLUG WITH MOUNTING EARS 0.020" & 0.040" LEAD ENVELOPES

FOR REFERENCE ONLY

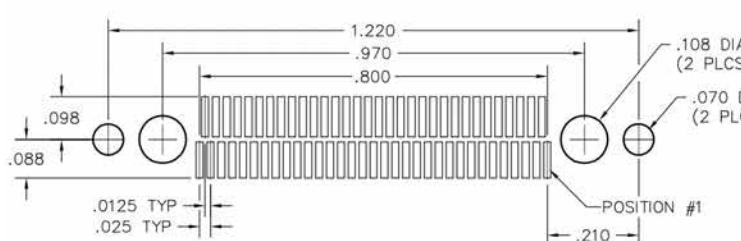
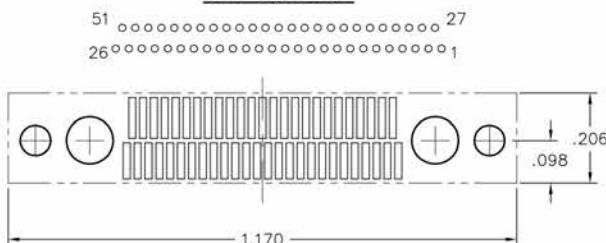
NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



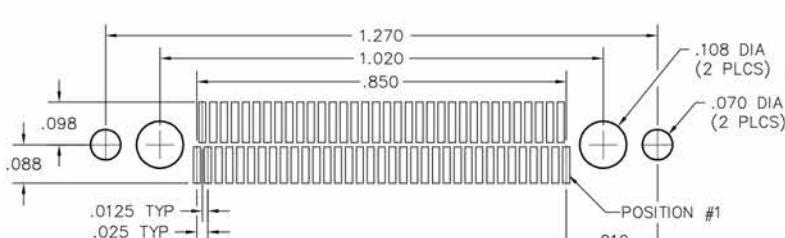
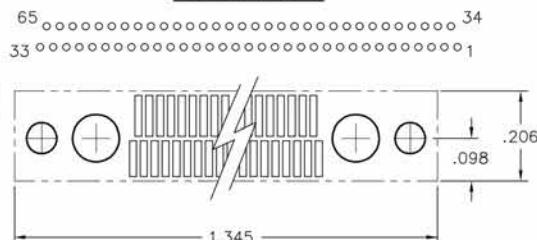
### 37 POSITION



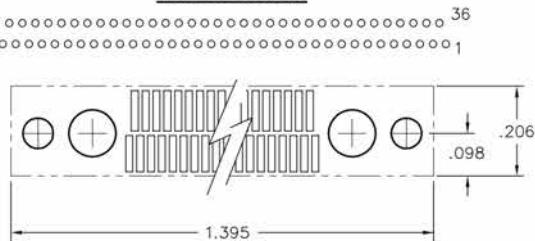
51 POSITION



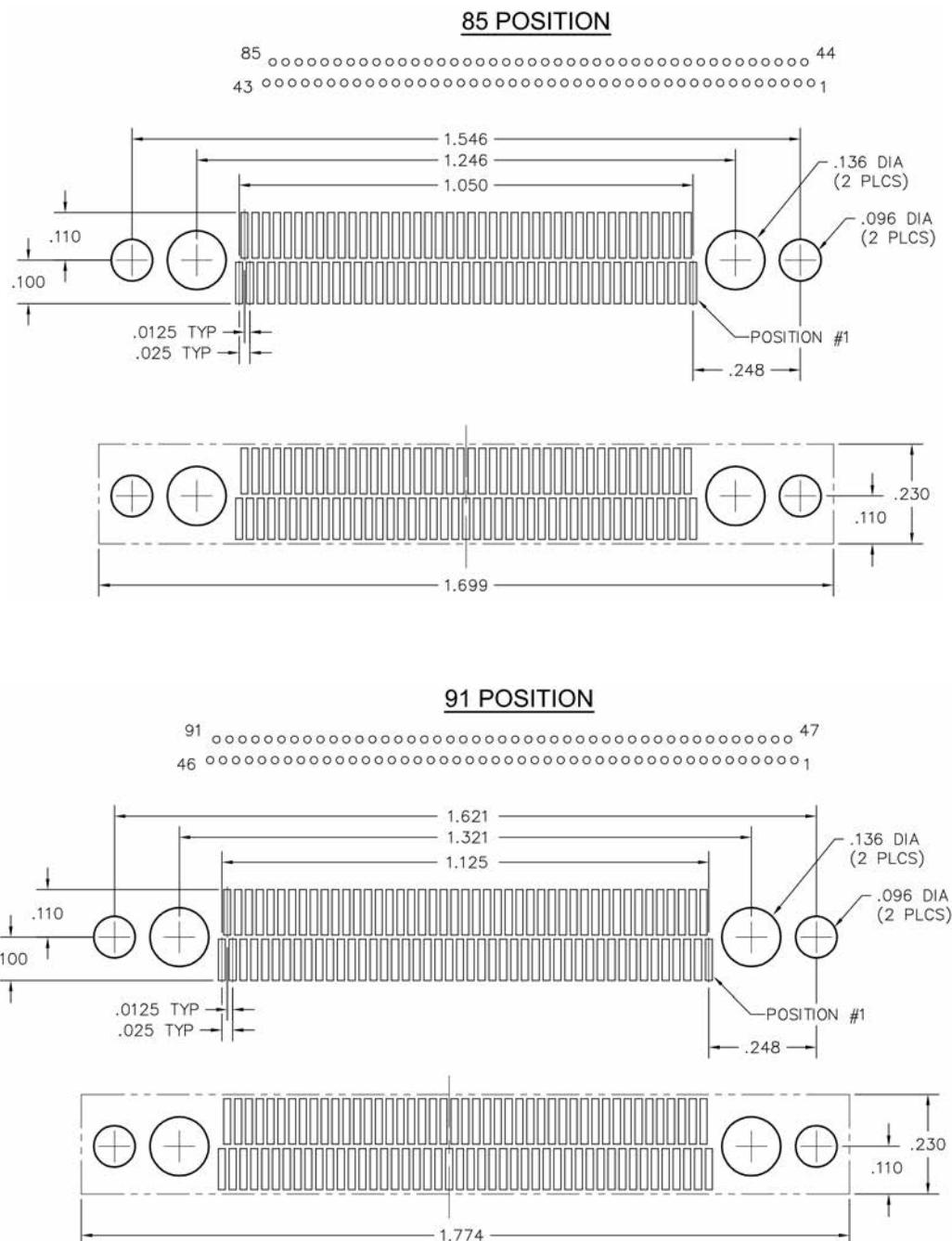
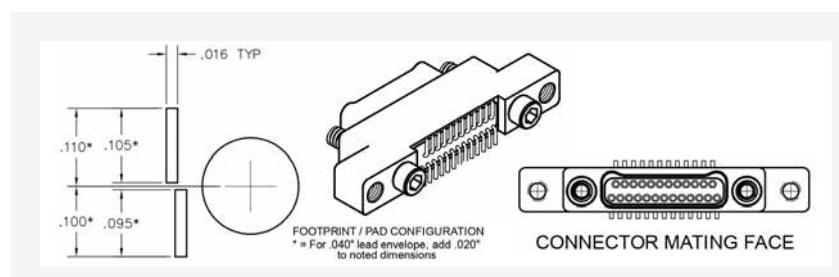
## 65 POSITION



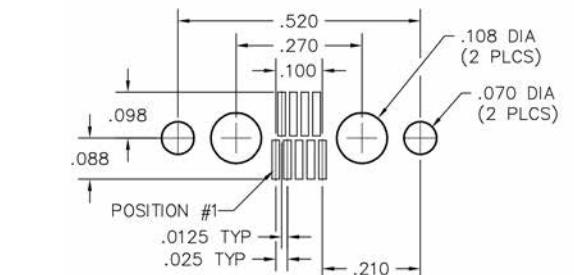
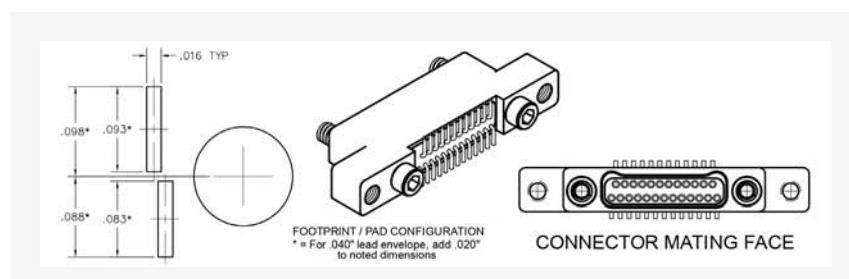
69 POSITION



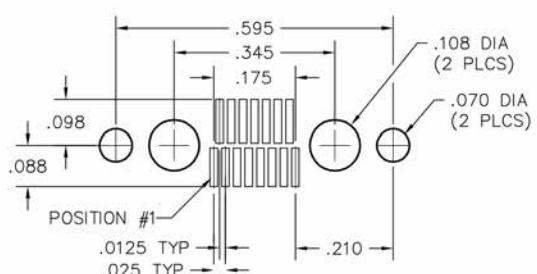
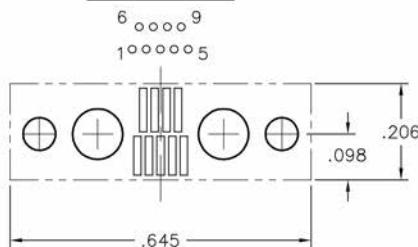
**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL SMT PLUG WITH MOUNTING EARS  
 0.020" & 0.040" LEAD ENVELOPES  
 FOR REFERENCE ONLY  
 NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



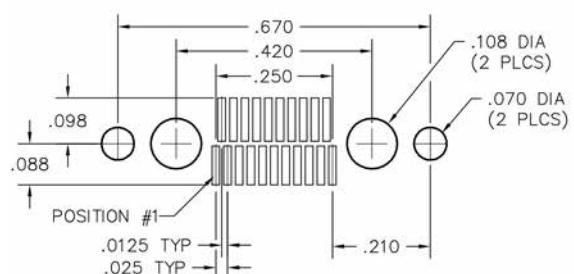
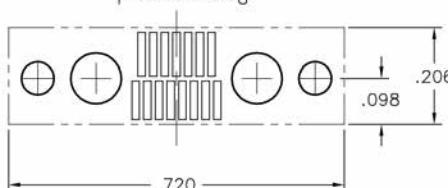
**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL SMT RECEPTACLE WITH  
 MOUNTING EARS  
 0.020" & 0.040" LEAD ENVELOPES  
 FOR REFERENCE ONLY  
 NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



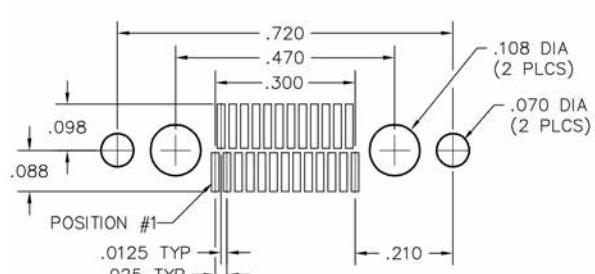
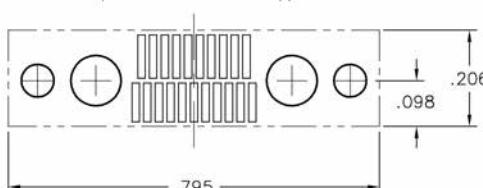
**9 POSITION**



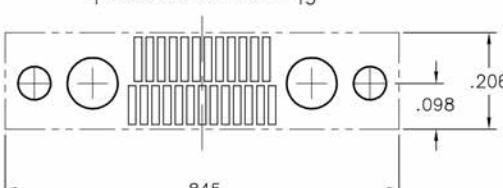
**15 POSITION**



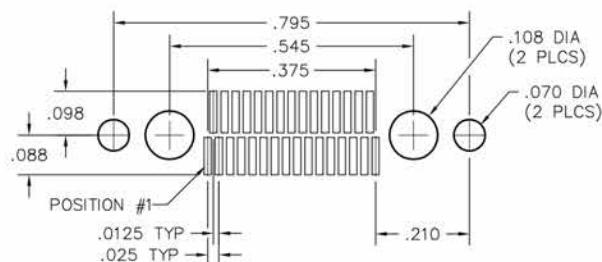
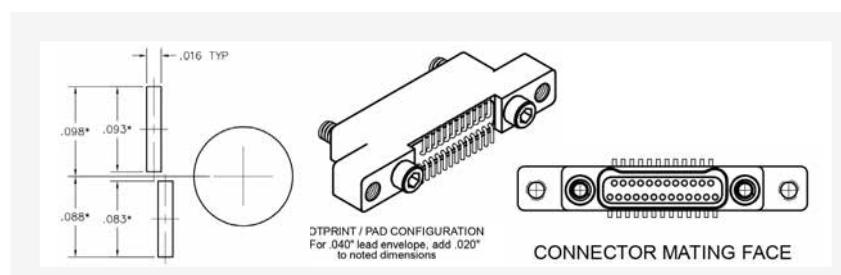
**21 POSITION**



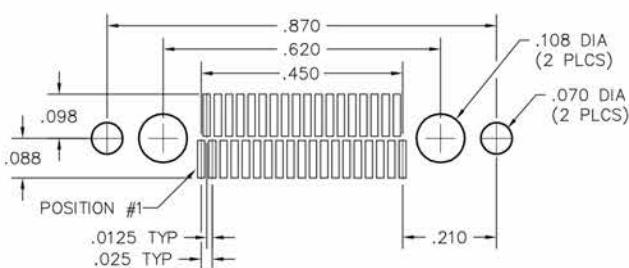
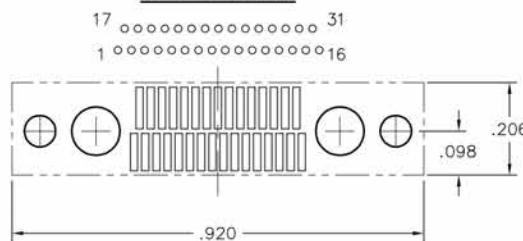
**25 POSITION**



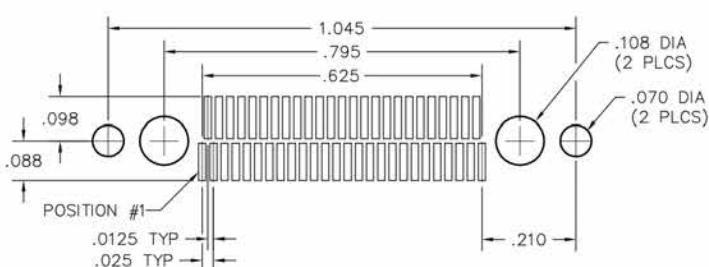
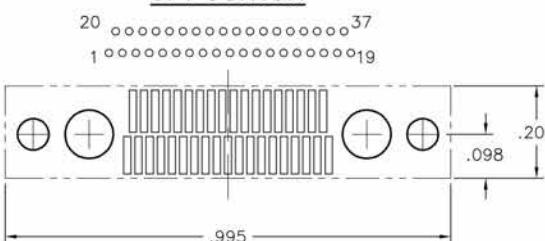
**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL SMT RECEPTACLE WITH  
 MOUNTING EARS  
 0.020" & 0.040" LEAD ENVELOPES  
 FOR REFERENCE ONLY  
 NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



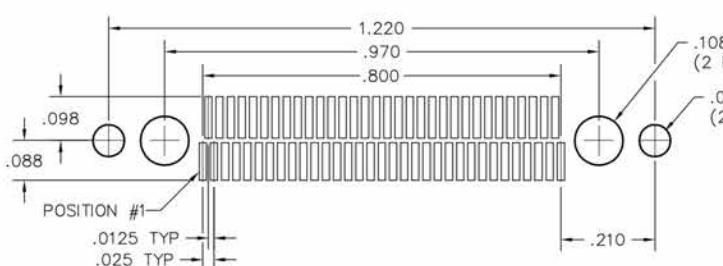
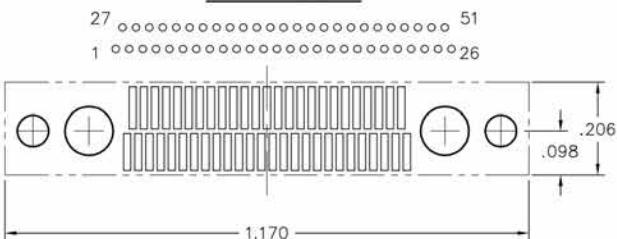
**31 POSITION**



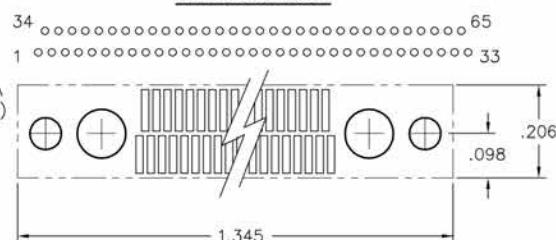
**37 POSITION**



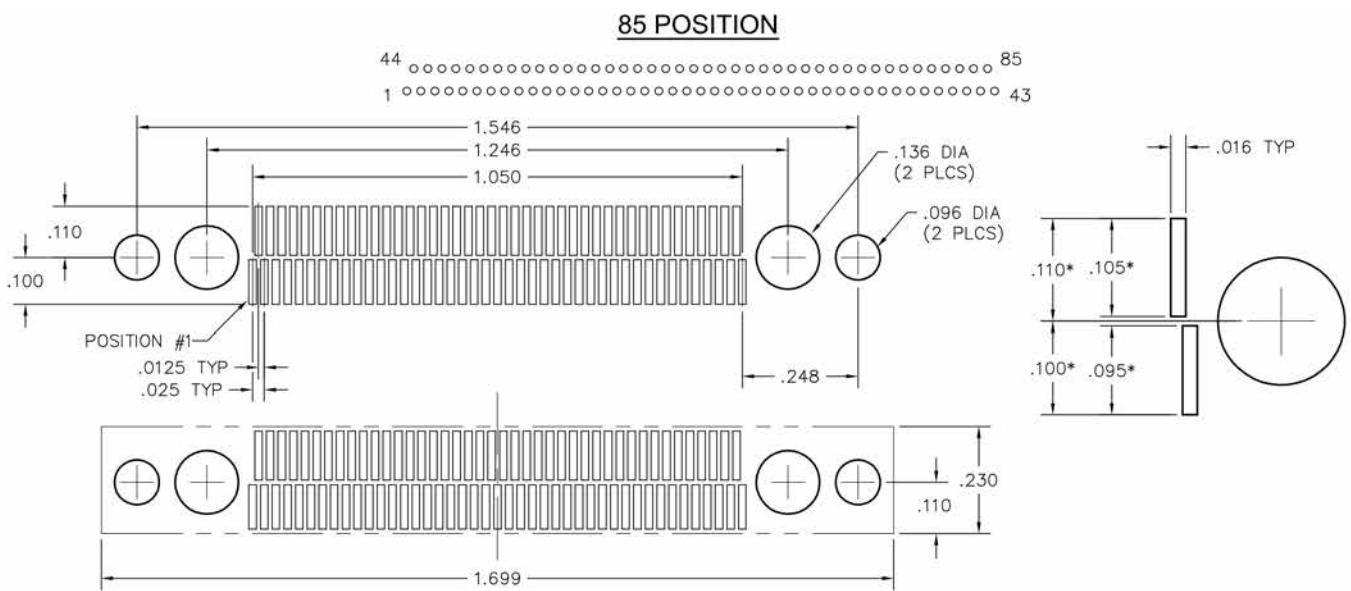
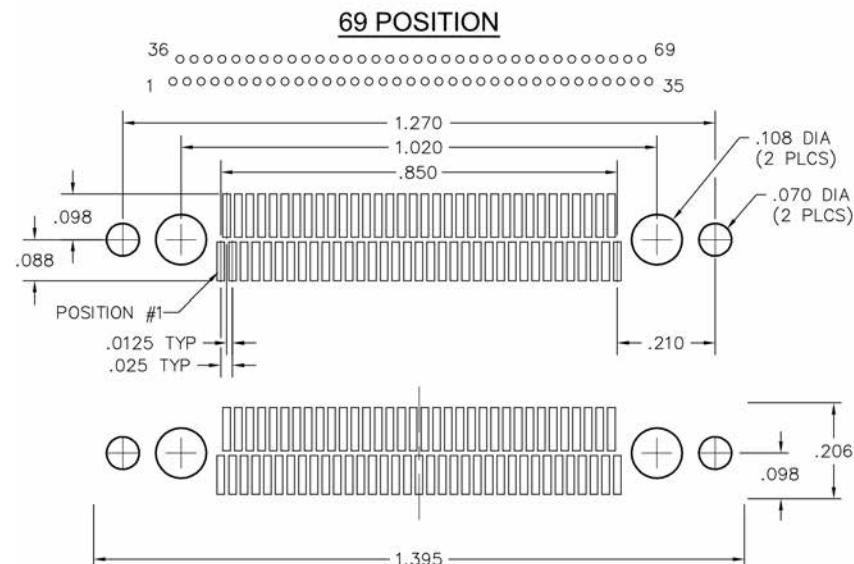
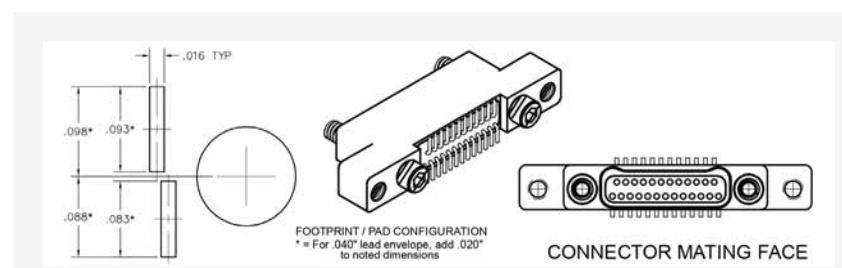
**51 POSITION**



**65 POSITION**

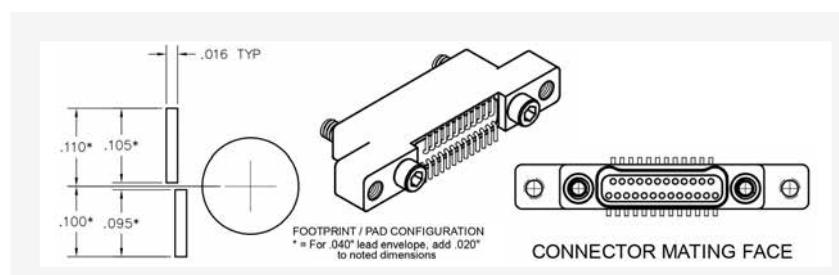


**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL SMT RECEPTACLE WITH  
 MOUNTING EARS  
 0.020" & 0.040" LEAD ENVELOPES  
 FOR REFERENCE ONLY  
 NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE

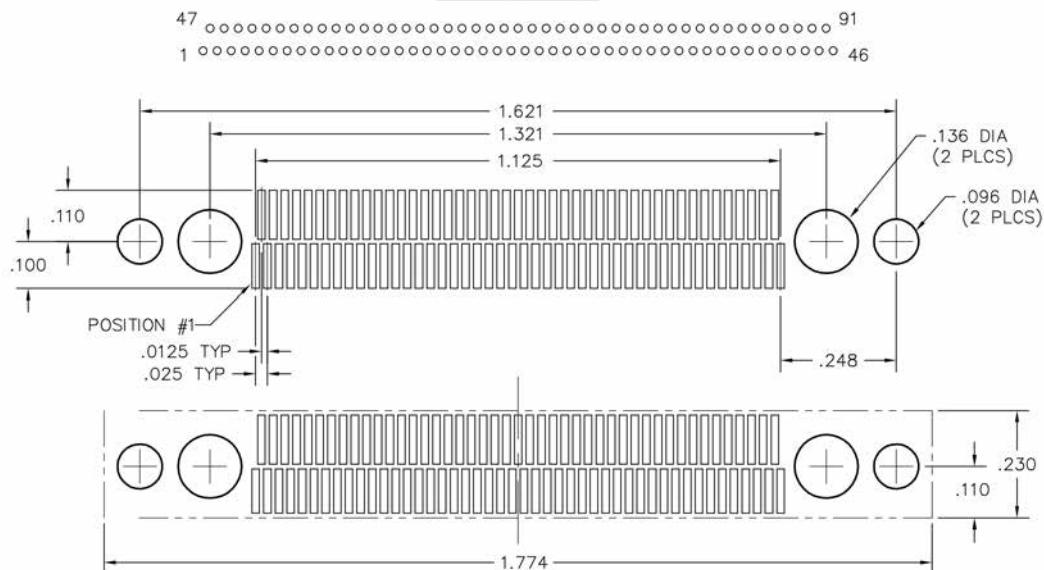


**molex**

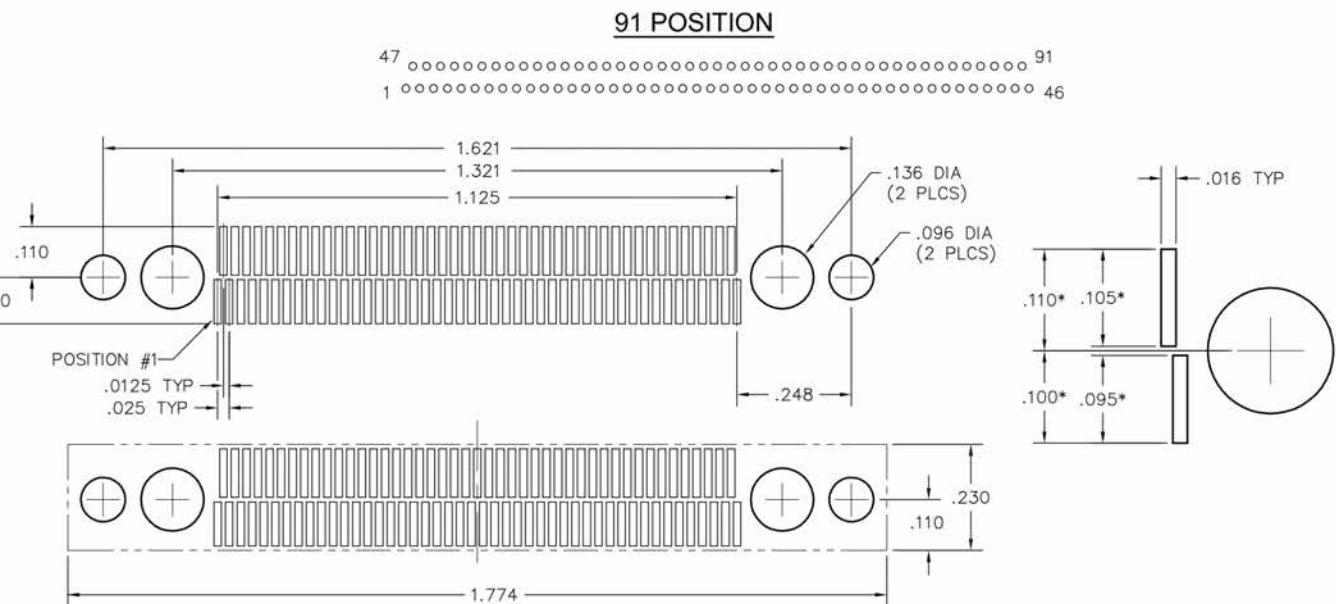
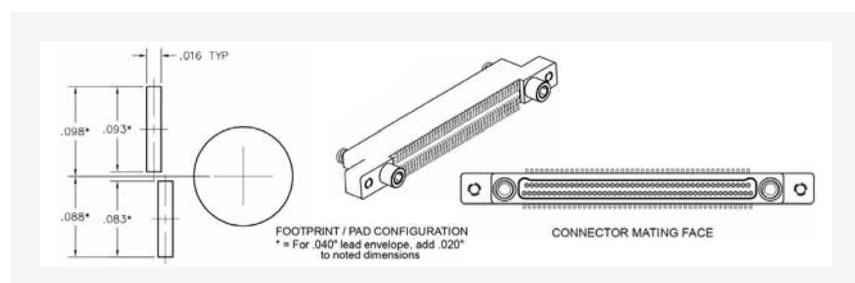
**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL SMT RECEPTACLE WITH  
 MOUNTING EARS  
 0.020" & 0.040" LEAD ENVELOPES  
 FOR REFERENCE ONLY  
 NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



**91 POSITION**



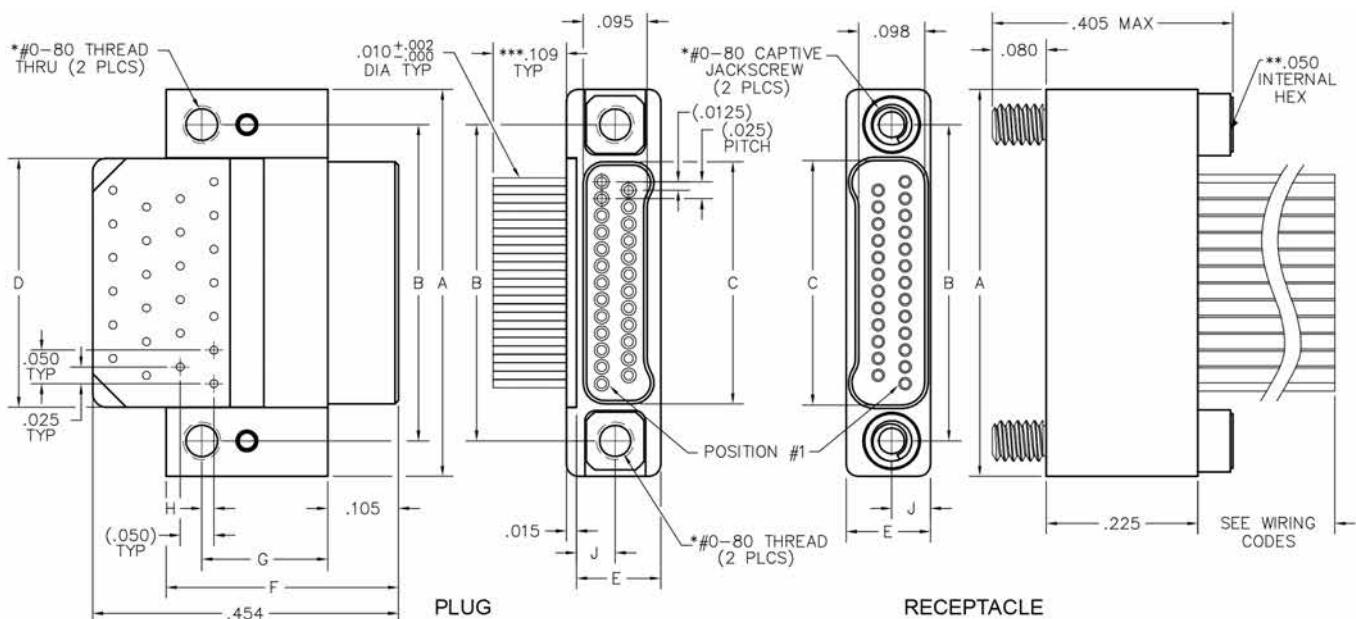
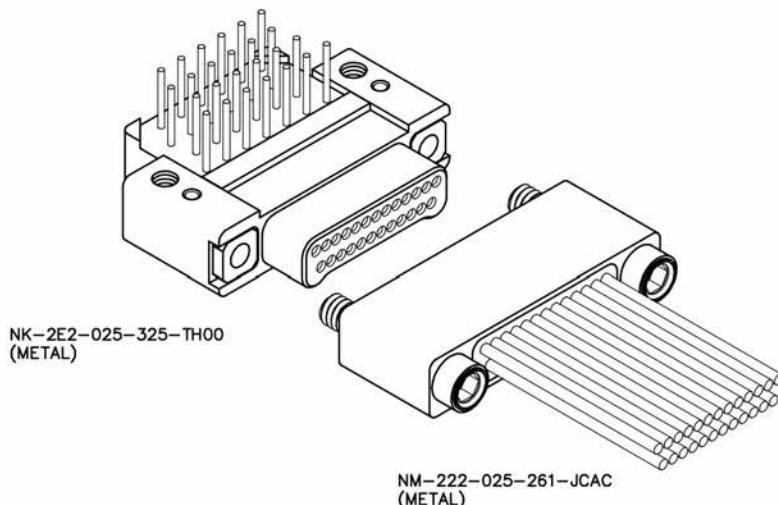
**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL SMT RECEPTACLE WITH  
 MOUNTING EARS  
 0.020" & 0.040" LEAD ENVELOPES  
 FOR REFERENCE ONLY  
 NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE



## TWO ROW - CABLE-TO-BOARD RIGHT ANGLE PTH

NM & NK

0.025" | 9 THROUGH 91 CONTACTS



SIZE	A	B	C		D	E	F	G	H	J	*HARDWARE
			PLUG	RCPT							
9	.375	.270	.160	.163	.170						
15	.450	.345	.235	.238	.245						
21	.525	.420	.310	.313	.320						
25	.575	.470	.360	.363	.370						
31	.650	.545	.435	.438	.445						
37	.725	.620	.510	.513	.520						
51	.900	.795	.685	.688	.695						
65	1.075	.970	.860	.863	.870						
69	1.125	1.020	.910	.913	.920						
85	1.377	1.246	1.110	1.113	1.120	.150	.410	.244	.075	.0700	#2-56 THREAD
91	1.452	1.321	1.185	1.188	1.195						

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.  
 \*\* = 1/16" HEX ON 85 AND 91 POSITION CONNECTORS. HEX MEASUREMENT TAKEN ACROSS THE FLATS.  
 \*\*\* = OTHER LENGTHS AS REQUIRED

PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NK-2E2-025-325-TH00  
 RECEPTACLE: NM-222-025-261-JCAC  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	NM .025" Metal I/O Connector
<b>BODY</b>	
2 2-Row	2 2-Row
<b>BODY STYLE:</b> E Plug, right angle, plated thru hole (PTH)	
<b>BODY MATERIAL:</b> 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	
<b>BODY STYLE:</b> 2 Receptacle, straight 6 Receptacle, straight, with factory installed backshell (See page NA-3)	
<b>BODY MATERIAL:</b> 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085, or 091)
<b>CONTACTS</b>	
<b>TYPE CONTACTS/TERMINATIONS:</b> 32 Pin, right angle, .109" 33 Pin, right angle, .140" 34 Pin, right angle, .172"	
<b>PLATING OPTIONS:</b> 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations	
<b>TYPE CONTACTS/TERMINATIONS:</b> 26 Socket, straight, crimped wire	
<b>PLATING OPTIONS:</b> 1 50 u" Au contacts	
<b>HARDWARE</b>	
<b>STYLE OF HARDWARE:</b> 00 None TH Threaded hole, #0-80 UNF* **	
<b>STYLE OF HARDWARE:</b> 00 None *** JC Turning jackscrews, captivated #0-80 UNF*	
<b>WIRING OPTIONS:</b> 00 None	
<b>WIRING OPTIONS:</b> XX See wiring codes, Page N-151	

\* = #2-56 UNC thread on 85 and 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

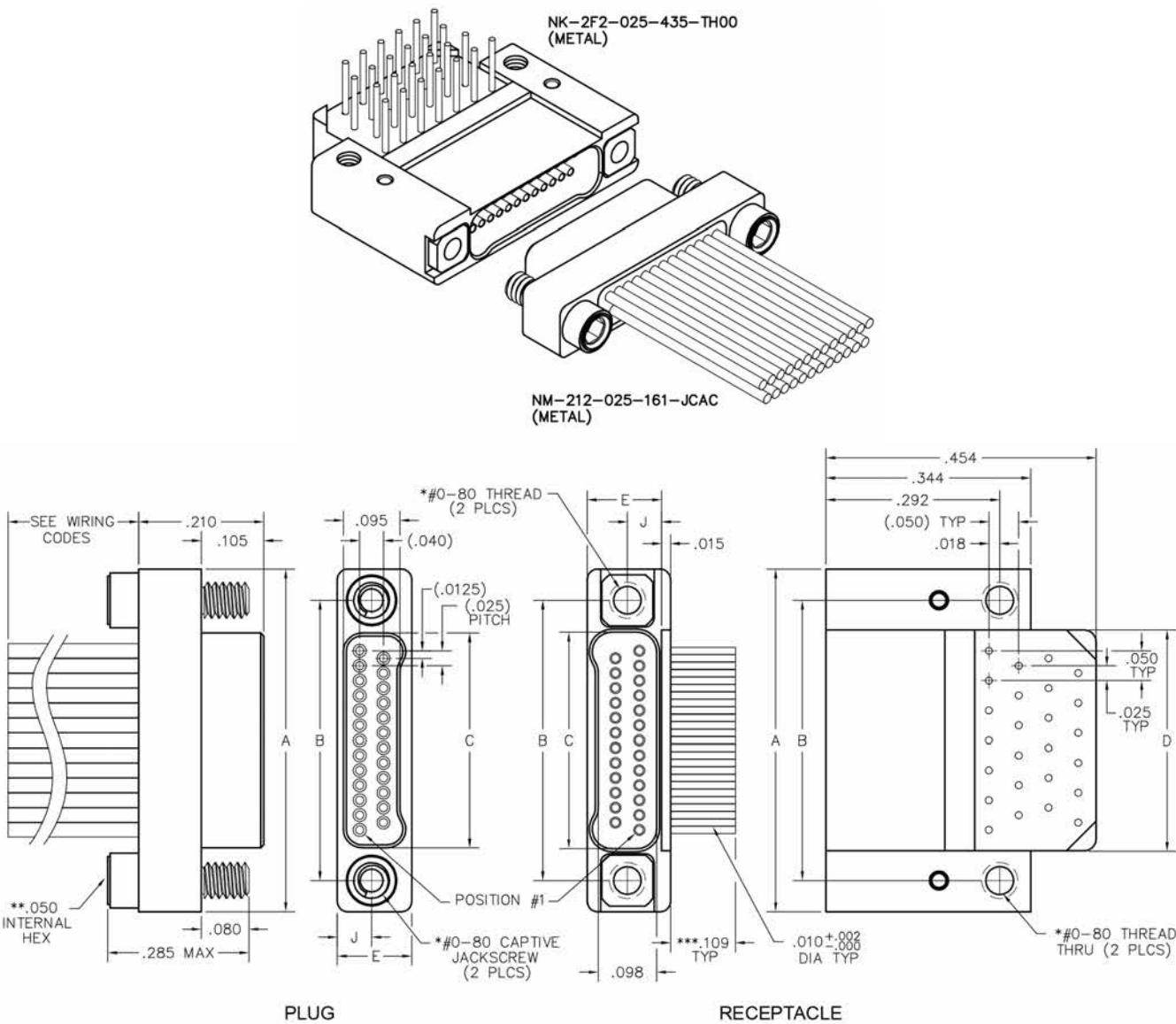
\*\*\* = Not available option if specifying factory installed backshell

= Option not RoHS compliant

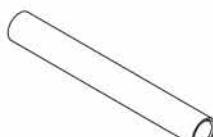
## TWO ROW - CABLE-TO-BOARD RIGHT-ANGLE PTH

NM & NK

0.025" | 9 THROUGH 91 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

SIZE	A	B	C		D	E	J	*HARDWARE
			PLUG	RCPT				
9	.375	.270	.160	.163	.170			
15	.450	.345	.235	.238	.245			
21	.525	.420	.310	.313	.320			
25	.575	.470	.360	.363	.370			
31	.650	.545	.435	.438	.445			
37	.725	.620	.510	.513	.520			
51	.900	.795	.685	.688	.695			
65	1.075	.970	.860	.863	.870			
69	1.125	1.020	.910	.913	.920			
85	1.377	1.246	1.110	1.113	1.120			#2-56 THREAD
91	1.452	1.321	1.185	1.188	1.195			

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.  
\*\* = 1/16" HEX ON 85 AND 91 POSITION CONNECTORS. HEX MEASUREMENT TAKEN ACROSS THE FLATS.  
\*\*\* = OTHER LENGTHS AS REQUIRED

## LEAD CONFIGURATION OPTIONS

PLUG: NM-212-025-161-JCAC  
 RECEPTACLE: NK-2F2-025-435-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal I/O Connector	NK .025" Metal PC Board Mounted Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: 1 Plug, straight 5 Plug, straight, with factory installed backshell (See page NA-3)	BODY STYLE: F Receptacle, right angle, plated thru hole (PTH)
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <b>X</b> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <b>X</b> 4 Liquid Crystal Polymer w/ stainless steel shell *** 5 Liquid Crystal Polymer w/ titanium shell ***
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 43 Socket, right angle, .109" 44 Socket, right angle, .140" 45 Socket, right angle, .172"
PLATING OPTIONS: 1 50 u" Au contacts	PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <b>X</b> 8 50 u" Au contacts; Tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF* **
WIRING OPTIONS: XX See wiring codes, Page N-151	WIRING OPTIONS: 00 None

\* = #2-56 UNC thread on 85 and 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

\*\*\* = Not available option if specifying factory installed backshell.

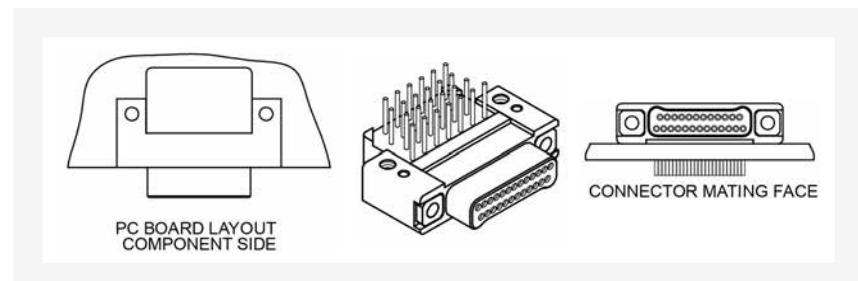
**X** = Option not RoHS compliant

**molex**

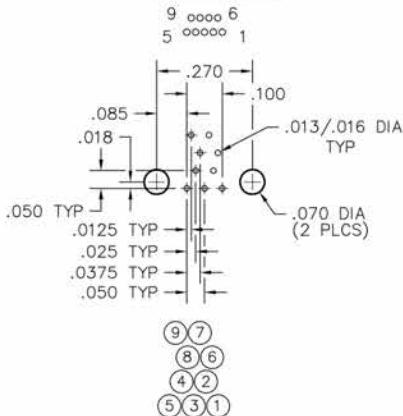
## RECOMMENDED PC BOARD LAYOUTS

### RIGHT-ANGLE PTH PLUG

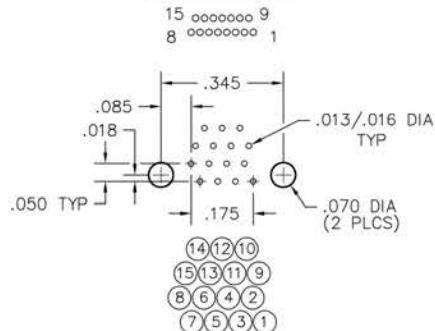
FOR REFERENCE ONLY



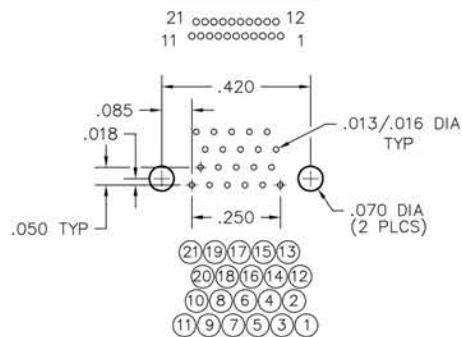
#### 9 POSITION



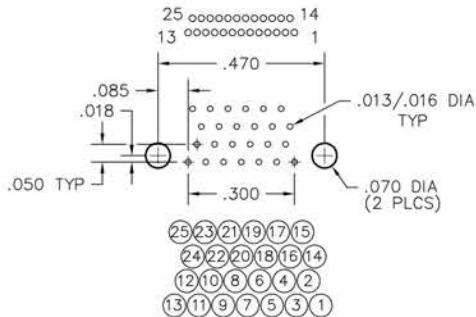
#### 15 POSITION



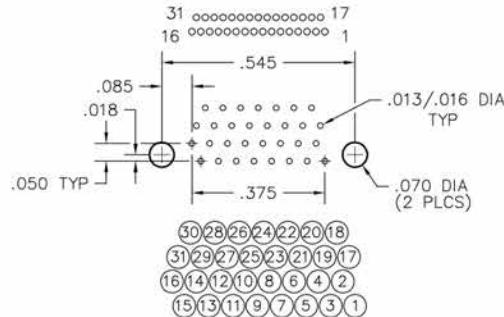
#### 21 POSITION



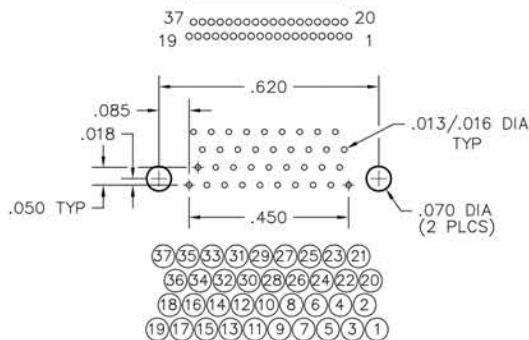
#### 25 POSITION



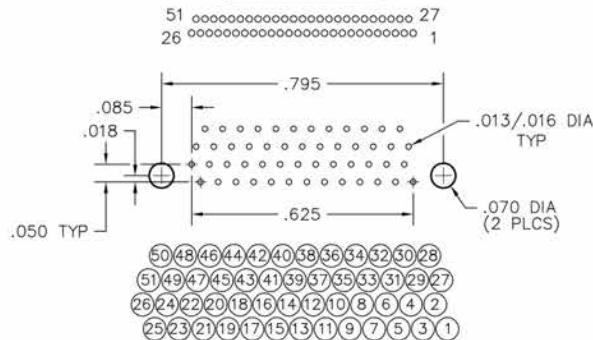
#### 31 POSITION



#### 37 POSITION



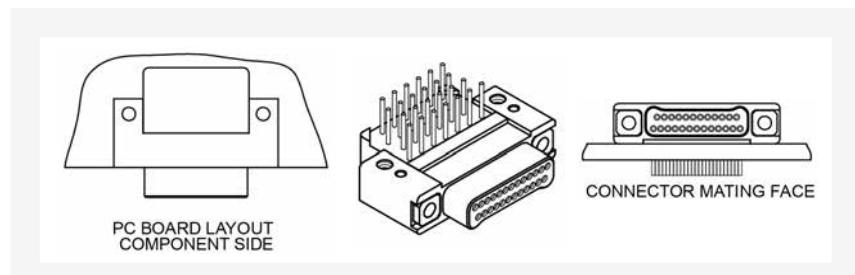
#### 51 POSITION



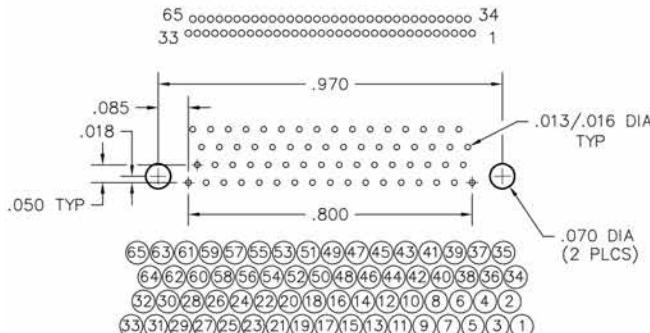
## RECOMMENDED PC BOARD LAYOUTS

## RIGHT-ANGLE PTH PLUG

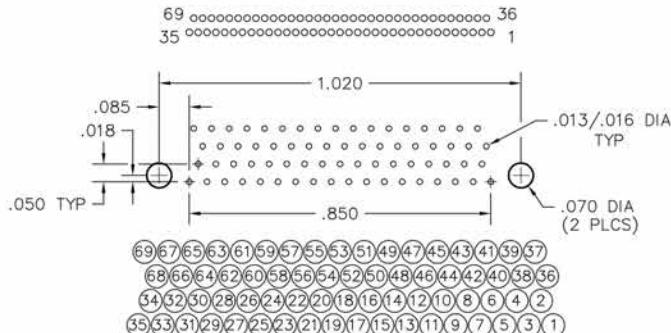
FOR REFERENCE ONLY



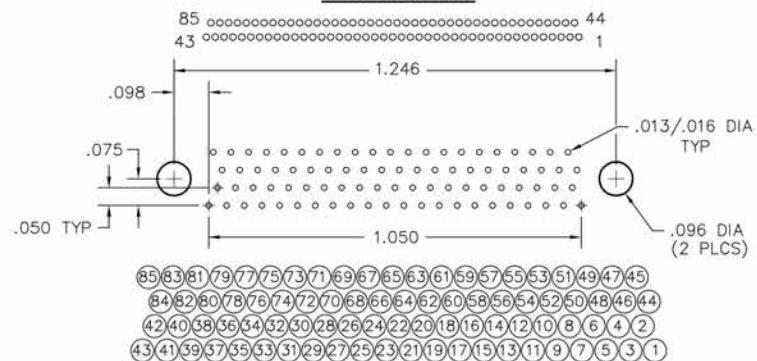
65 POSITION



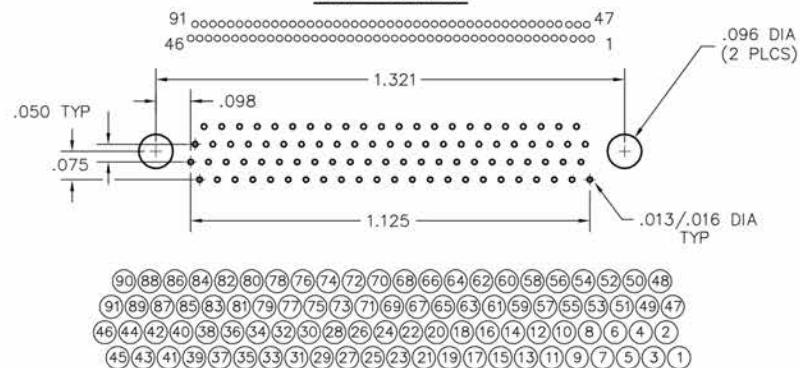
## 69 POSITION



## 85 POSITION



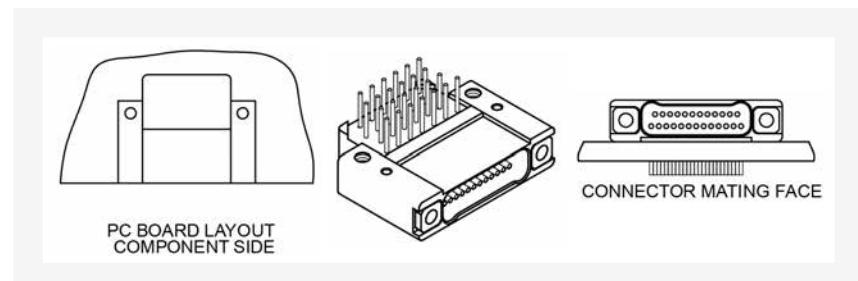
## 91 POSITION



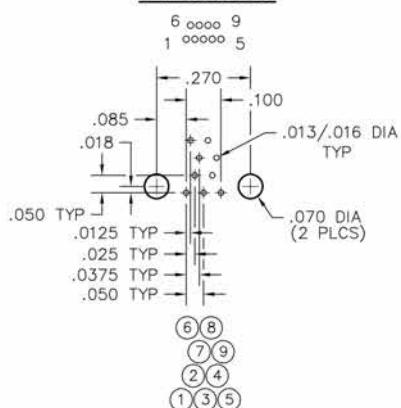
## RECOMMENDED PC BOARD LAYOUTS

### RIGHT-ANGLE PTH RECEPTACLE

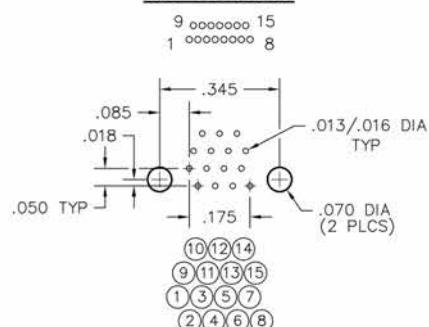
FOR REFERENCE ONLY



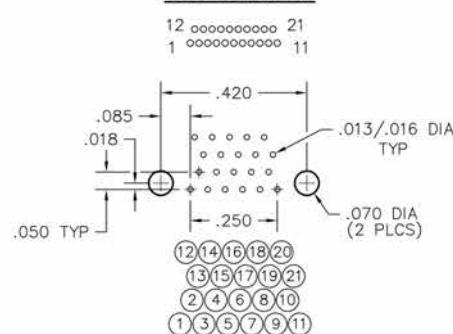
#### 9 POSITION



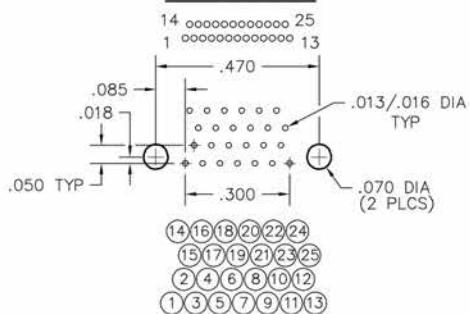
#### 15 POSITION



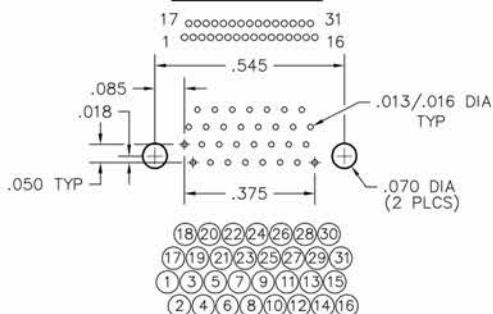
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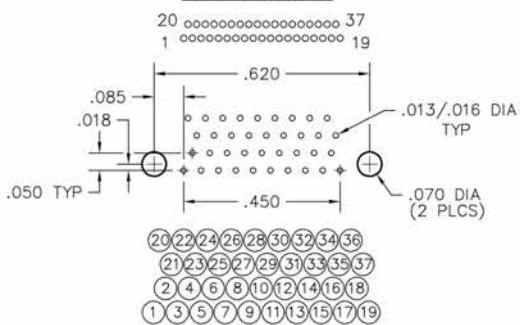
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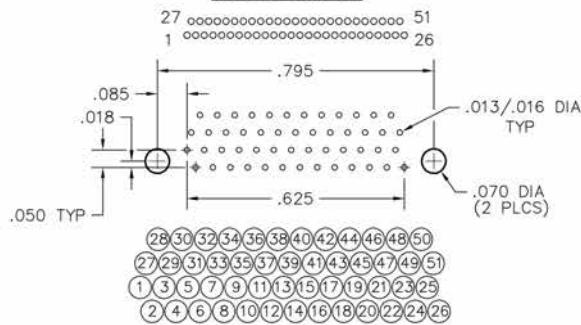
#### 31 POSITION



#### 37 POSITION



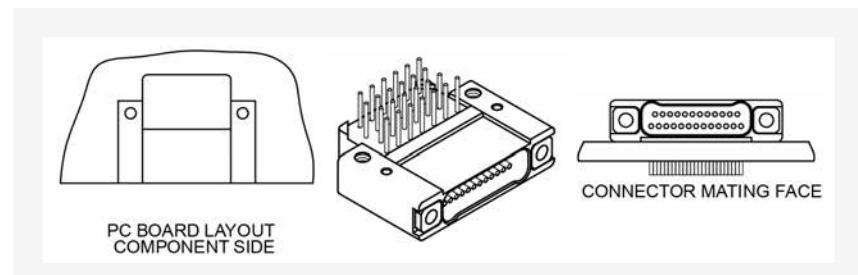
#### 51 POSITION



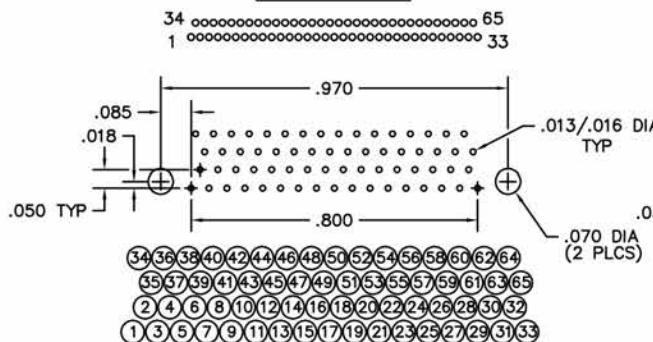
## RECOMMENDED PC BOARD LAYOUTS

### RIGHT-ANGLE PTH RECEPTACLE

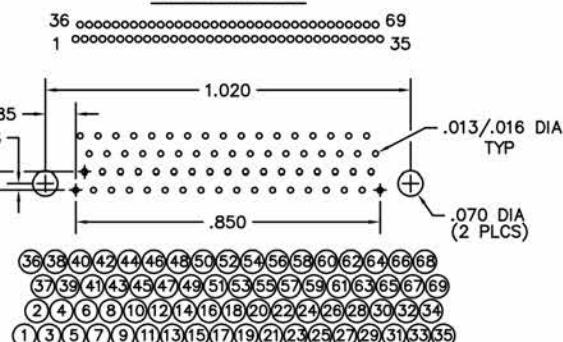
FOR REFERENCE ONLY



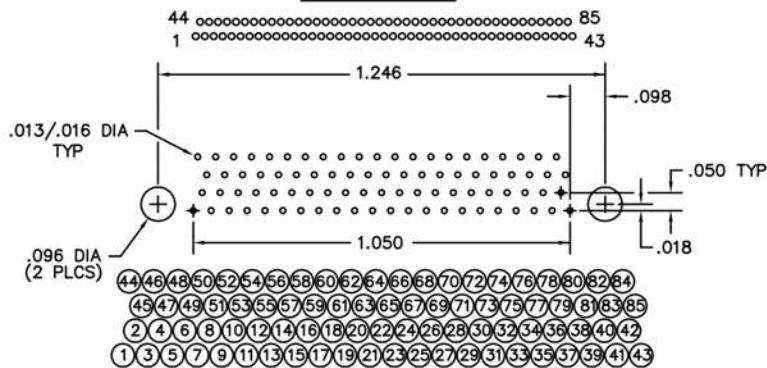
#### 65 POSITION



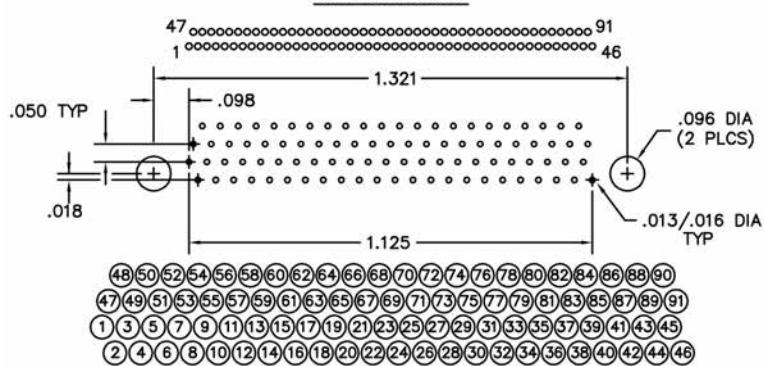
#### 69 POSITION



#### 85 POSITION



#### 91 POSITION

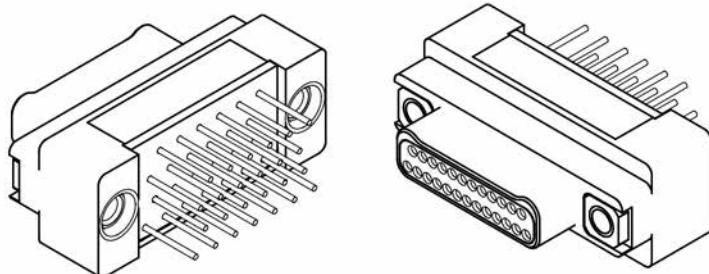


**molex**

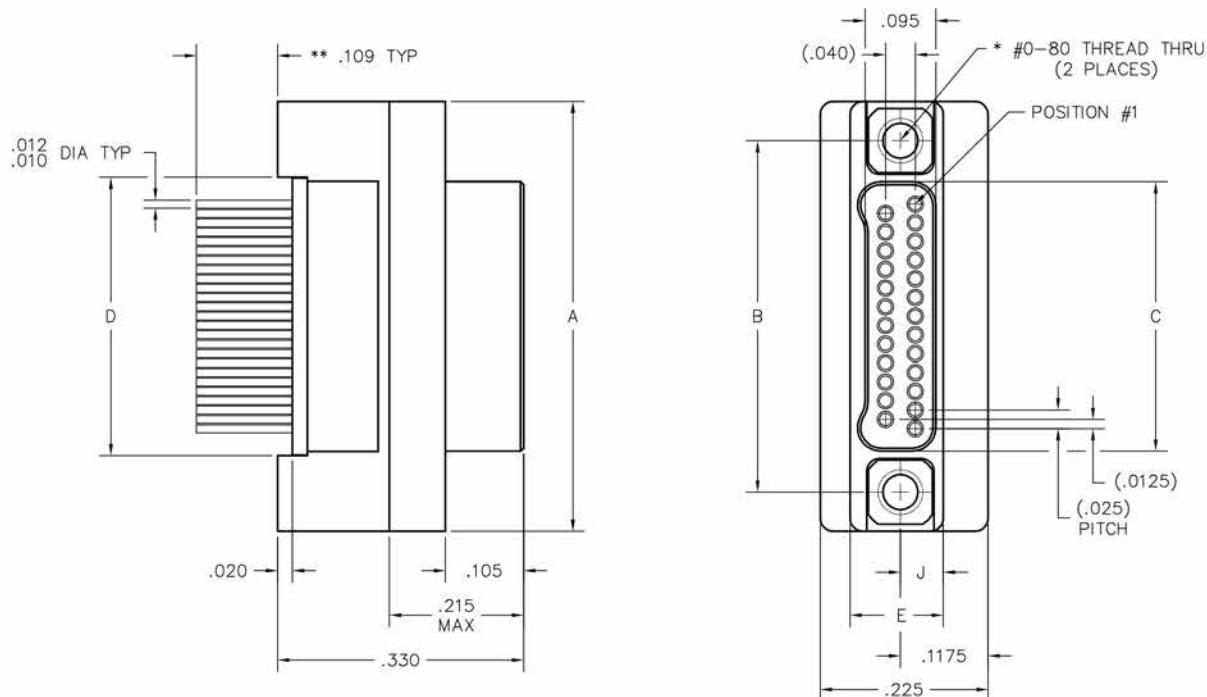
## TWO ROW - VERTICAL PTH PLUG WITH FIXED HARDWARE

**NK**

0.025" | 9 THROUGH 91 CONTACTS

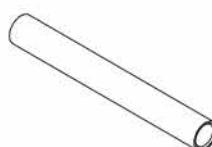


NK-2G2-025-135-TH00  
PLUG



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

DIMENSIONS							
SIZE	A	B	C	D	E	J	*HARDWARE
9	.375	.270	.160	.170			
15	.450	.345	.235	.245			
21	.525	.420	.310	.320			
25	.575	.470	.360	.370			
31	.650	.545	.435	.445	.125	.0575	#0-80 THREAD
37	.725	.620	.510	.520			
51	.900	.795	.685	.695			
65	1.075	.970	.860	.870			
69	1.125	1.020	.910	.920			
85	1.377	1.246	1.110	1.120	.150	.070	#2-56 THREAD
91	1.452	1.321	1.185	1.195			



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.  
\*\* = OTHER LENGTHS AS REQUIRED

## LEAD CONFIGURATION OPTIONS

NK-2G2-025-135-TH00  
XX-XXX-XXX-XXX-XXXX

### SERIES

NK .025" Metal PC Board Mounted Connector

### BODY

2 2-Row

#### BODY STYLE:

G Plug, vertical mount, plated thru hole (PTH)

#### BODY MATERIAL:

- 2 Liquid Crystal Polymer w/ electroless nickel shell
- 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell
- 4 Liquid Crystal Polymer w/ stainless steel shell
- 5 Liquid Crystal Polymer w/ titanium shell

### SIZE

XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)

### CONTACTS

#### TYPE CONTACTS/TERMINATIONS:

- 13 Pin, straight, .109"
- 14 Pin, straight, .140"
- 15 Pin, straight, .172"

#### PLATING OPTIONS:

- 5 50  $\mu$ " Au contacts; Sn/Pb alloy terminations
- 8 50  $\mu$ " Au contacts; Tin plated terminations

### HARDWARE

#### STYLE OF HARDWARE:

- 00 None
- TH Threaded hole, #0-80 UNF \* \*\*

#### WIRING OPTIONS:

- 00 None

\* = #2-56 UNC thread on 85 and 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

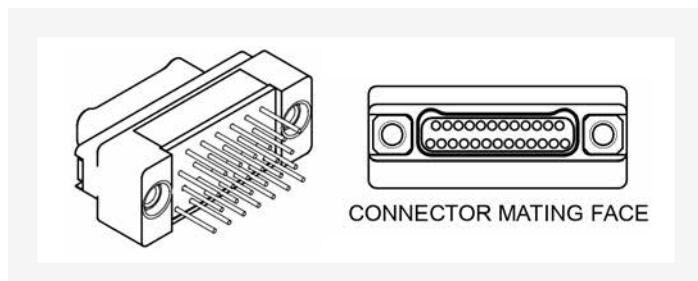
= Option not RoHS compliant

**molex**

## RECOMMENDED PC BOARD LAYOUTS

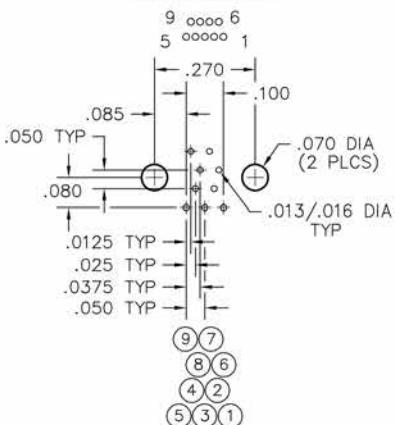
## VERTICAL PTH PLUG

**FOR REFERENCE ONLY**

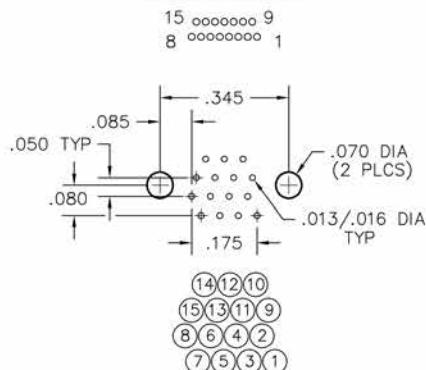


### CONNECTOR MATING FACE

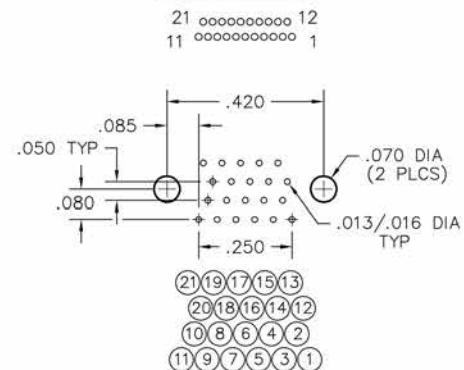
**9 POSITION**



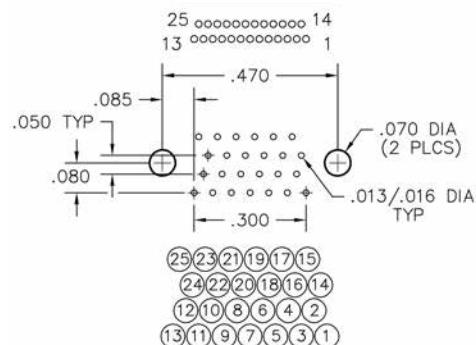
15 POSITION



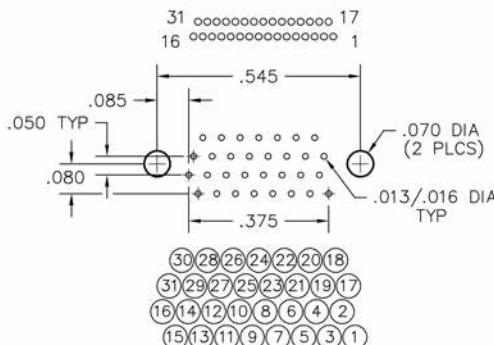
## 21 POSITION



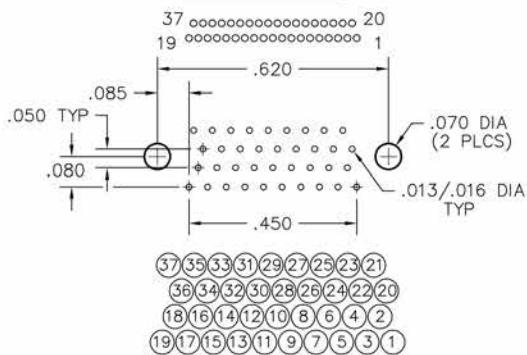
25 POSITION



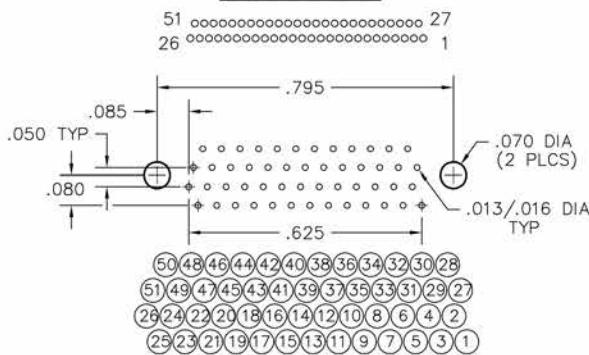
### 31 POSITION



### 37 POSITION



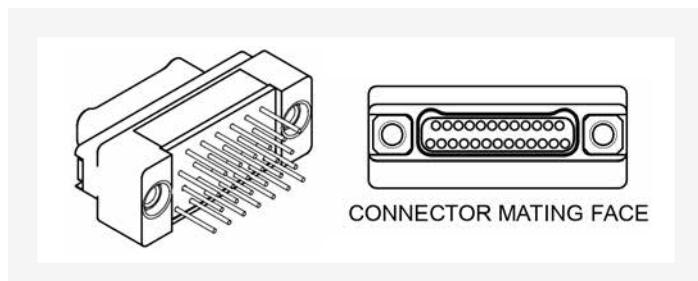
## 51 POSITION



## RECOMMENDED PC BOARD LAYOUTS

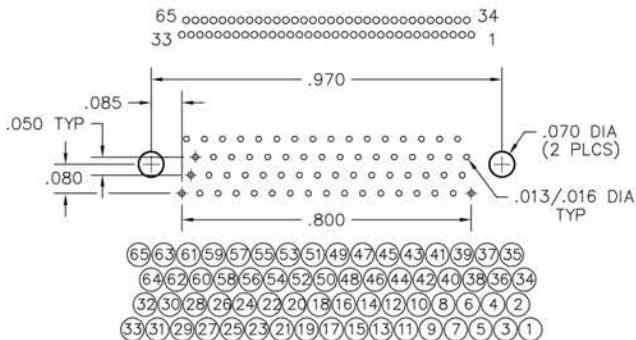
## VERTICAL PTH PLUG

*FOR REFERENCE ONLY*

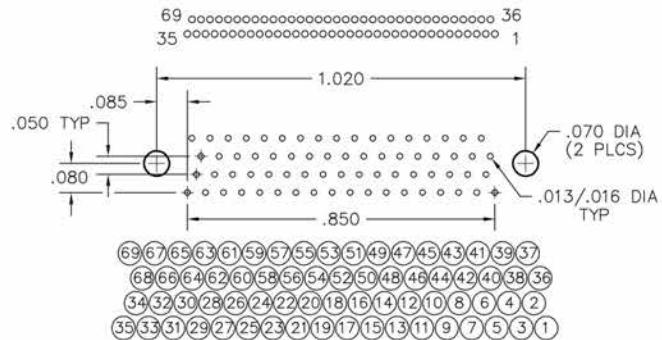


### CONNECTOR MATING FACE

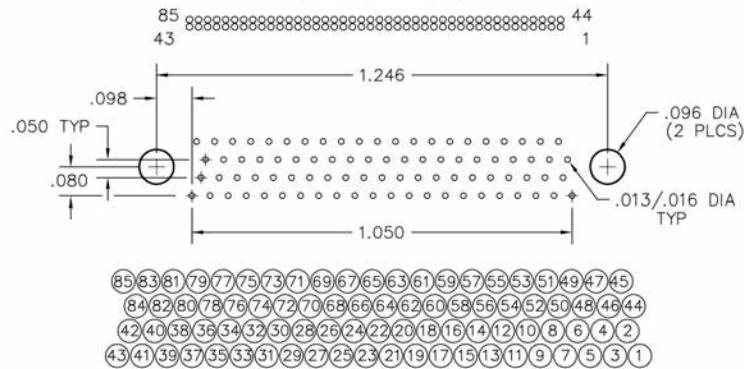
65 POSITION



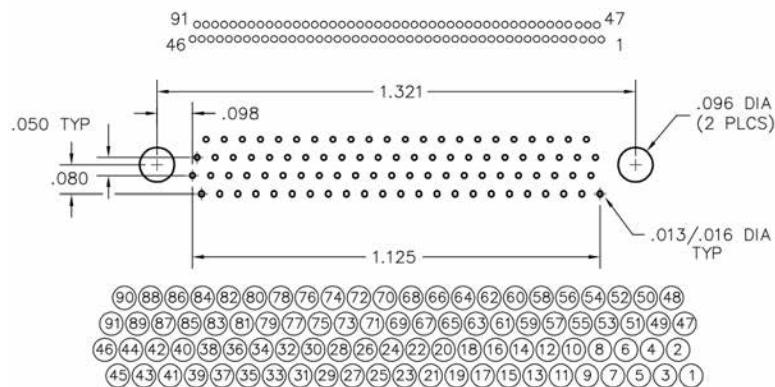
## 69 POSITION



## 85 POSITION



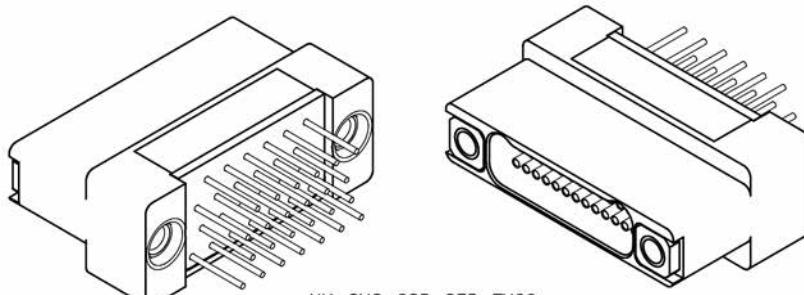
## 91 POSITION



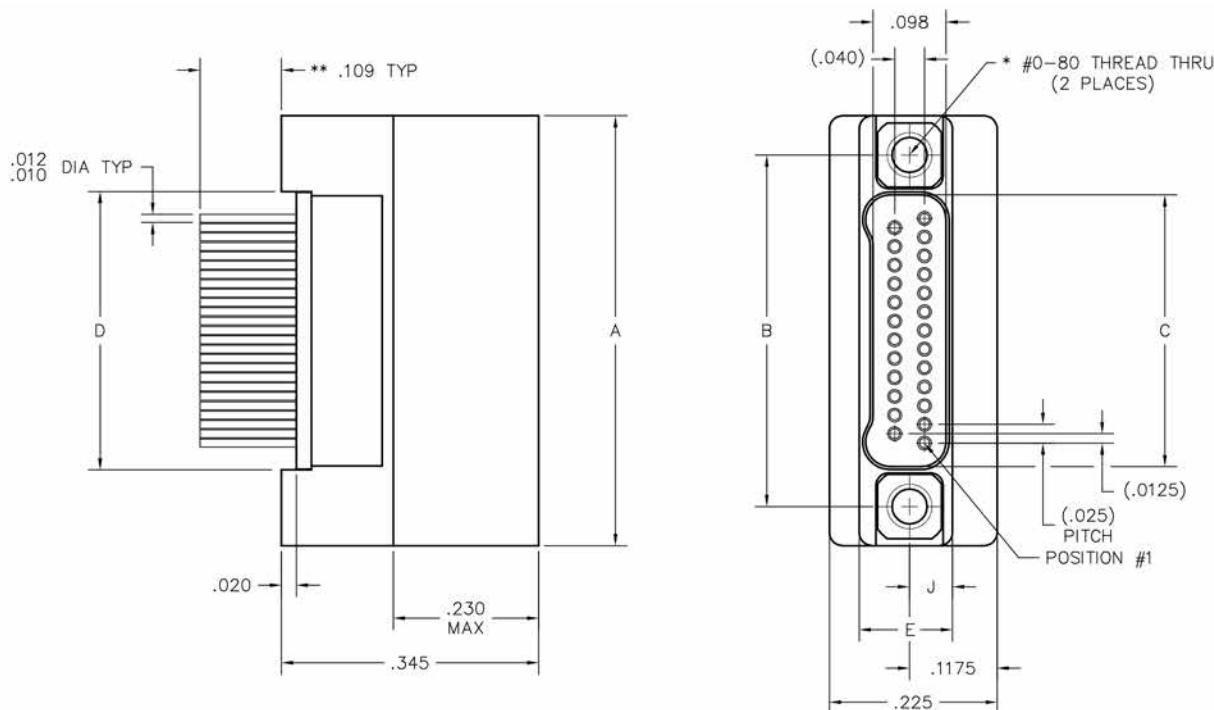
## TWO ROW - VERTICAL PTH RECEPTACLE WITH FIXED HARDWARE

**NK**

0.025" | 9 THROUGH 91 CONTACTS



NK-2H2-025-235-TH00  
(RCPT)



DIMENSIONS							
SIZE	A	B	C	D	E	J	*HARDWARE
9	.375	.270	.163	.170			
15	.450	.345	.238	.245			
21	.525	.420	.313	.320			
25	.575	.470	.363	.370			
31	.650	.545	.438	.445			
37	.725	.620	.513	.520			
51	.900	.795	.688	.695			
65	1.075	.970	.863	.870			
69	1.125	1.020	.913	.920			
85	1.377	1.246	1.113	1.120	.125	.0575	#0-80 THREAD
91	1.452	1.321	1.188	1.195	.150	.070	#2-56 THREAD

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.

\*\* = OTHER LENGTHS AS REQUIRED

PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

NK-2H2-025-235-TH00  
XX-XXX-XXX-XXX-XXXX

SERIES	
NK .025" Metal PC Board Mounted Connector	
BODY	
2	2-Row
BODY STYLE:	
H	Receptacle, vertical mount, plated thru hole (PTH)
BODY MATERIAL:	
2	Liquid Crystal Polymer w/ electroless nickel shell
3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4	Liquid Crystal Polymer w/ stainless steel shell
5	Liquid Crystal Polymer w/ titanium shell
SIZE	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091 )	
CONTACTS	
TYPE CONTACTS/TERMINATIONS:	
23	Socket, straight, .109"
24	Socket, straight, .140"
25	Socket, straight, .172"
PLATING OPTIONS:	
5	50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>
8	50 u" Au contacts; Tin plated terminations
HARDWARE	
STYLE OF HARDWARE:	
00	None
TH	Threaded hole, #0-80 UNF * **
WIRING OPTIONS:	
00	None

\* = #2-56 UNC thread on 85 and 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

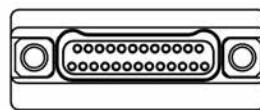
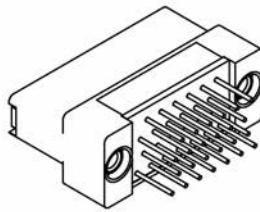
= Option not RoHS compliant

**molex**

## RECOMMENDED PC BOARD LAYOUTS

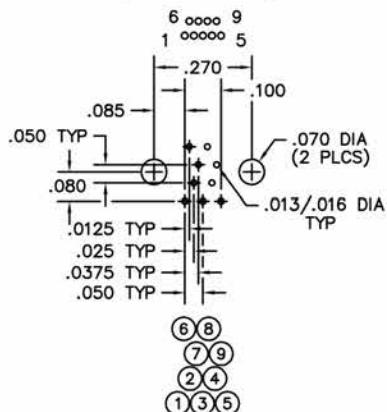
### VERTICAL PTH RECEPTACLE

FOR REFERENCE ONLY

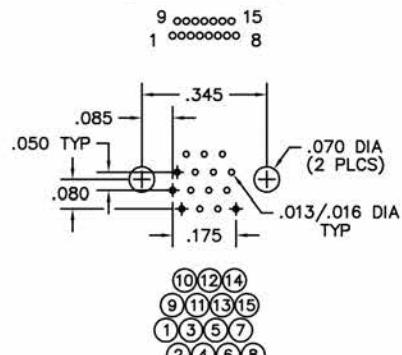


CONNECTOR MATING FACE

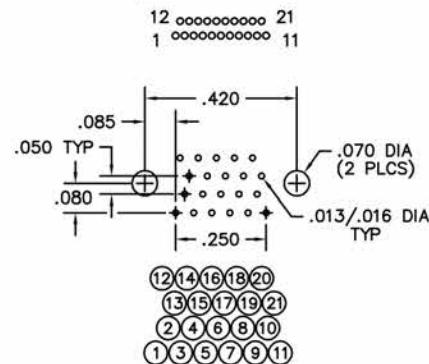
#### 9 POSITION



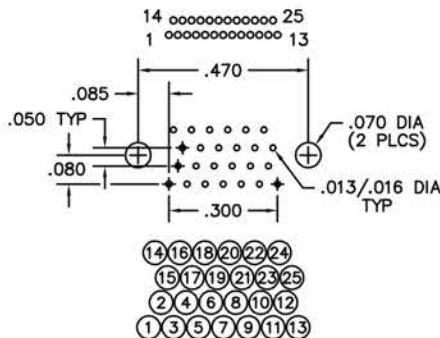
#### 15 POSITION



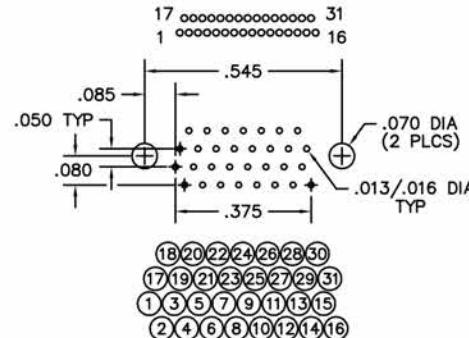
#### 21 POSITION



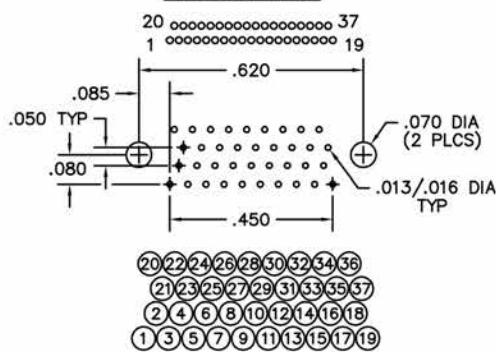
#### 25 POSITION



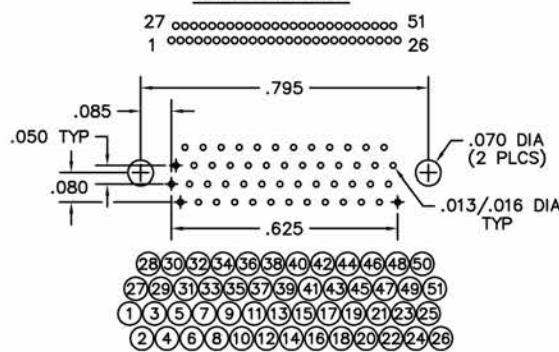
#### 31 POSITION



#### 37 POSITION



#### 51 POSITION

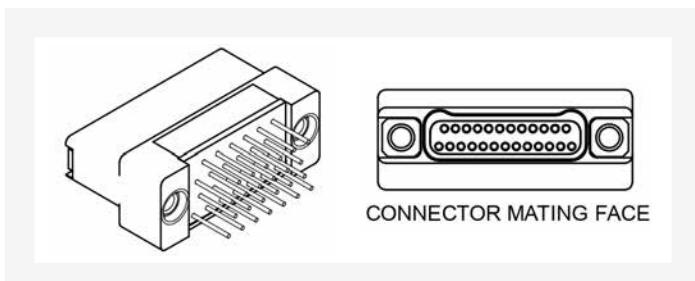


**molex**

## RECOMMENDED PC BOARD LAYOUTS

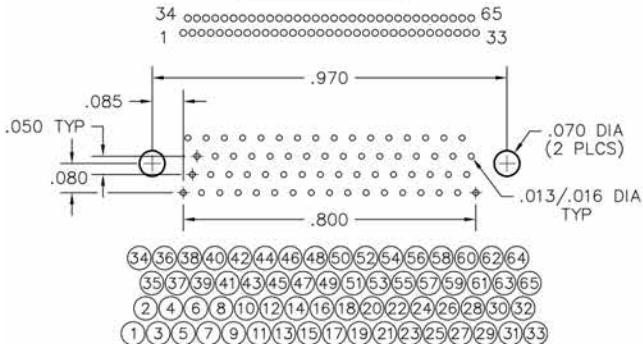
## VERTICAL PTH RECEPTACLE

**FOR REFERENCE ONLY**

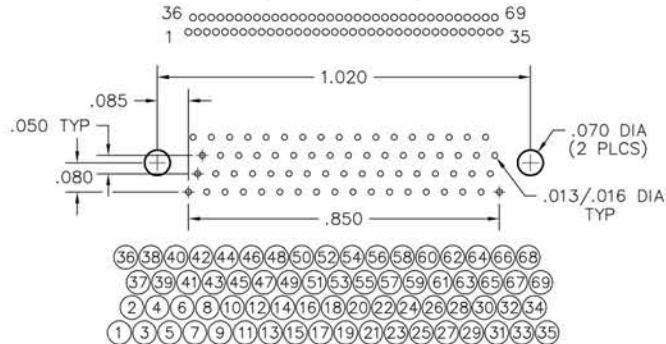


### CONNECTOR MATING FACE

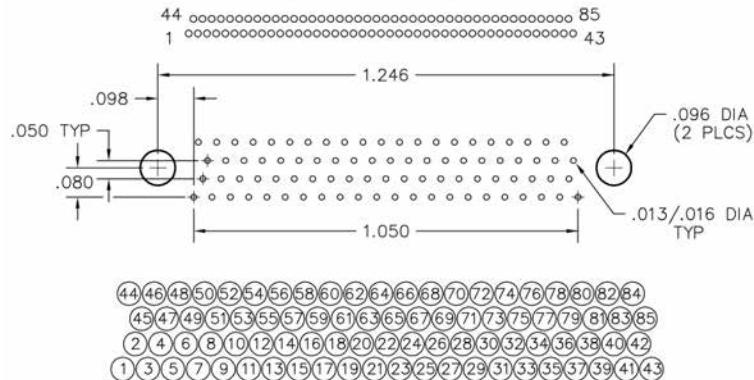
65 POSITION



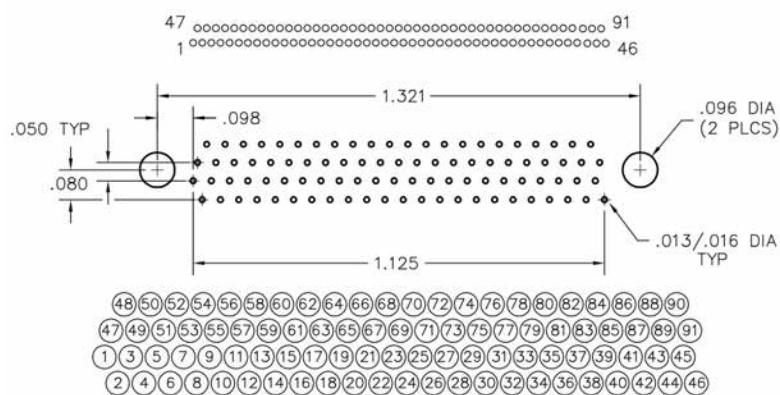
69 POSITION



## 85 POSITION



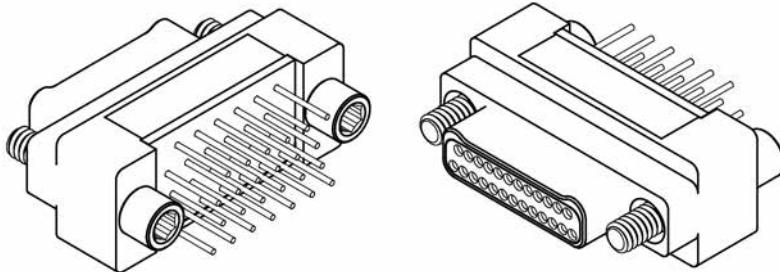
### 91 POSITION



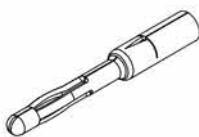
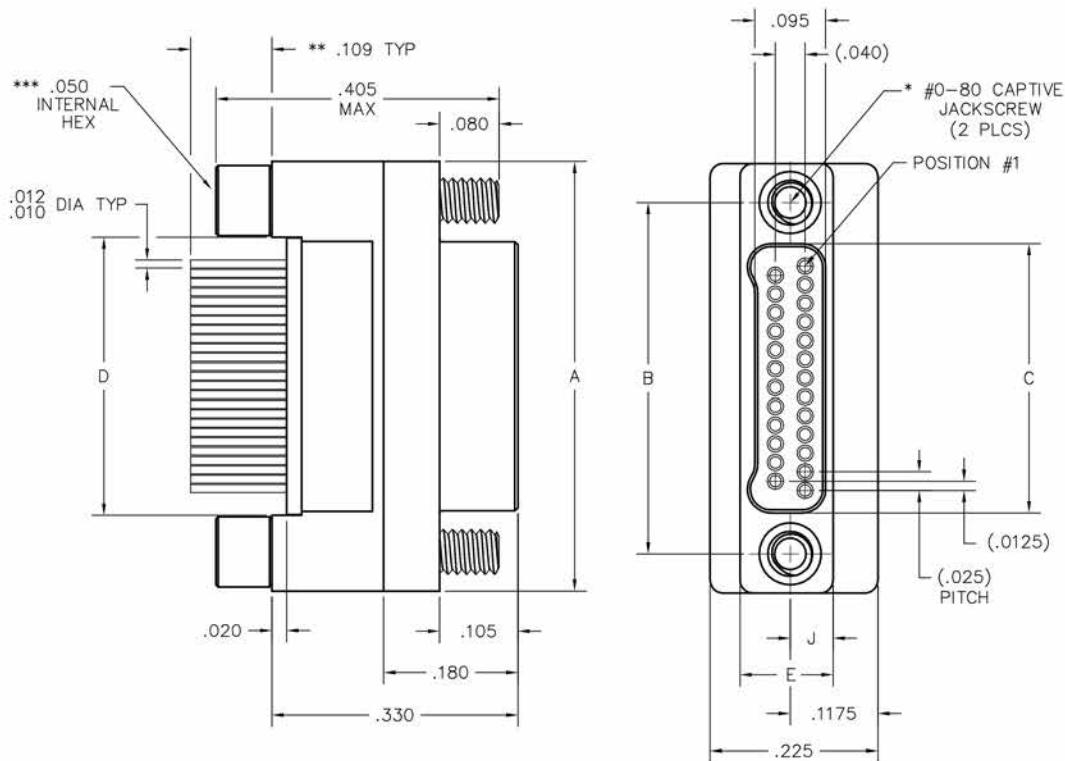
## TWO ROW - VERTICAL PTH PLUG WITH TURNING HARDWARE

**NK**

0.025" | 9 THROUGH 91



NK-2G2-025-135-JC00  
PLUG



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

DIMENSIONS							
SIZE	A	B	C	D	E	J	*HARDWARE
9	.375	.270	.160	.170			
15	.450	.345	.235	.245			
21	.525	.420	.310	.320			
25	.575	.470	.360	.370			
31	.650	.545	.435	.445	.125	.0575	#0-80 THREAD
37	.725	.620	.510	.520			
51	.900	.795	.685	.695			
65	1.075	.970	.860	.870			
69	1.125	1.020	.910	.920			
85	1.377	1.246	1.110	1.120	.150	.070	#2-56 THREAD
91	1.452	1.321	1.185	1.195			

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.

\*\* = OTHER LENGTHS AS REQUIRED

\*\*\* = 1/16" HEX ON 85 & 91 POSITION CONNECTORS.  
HEX MEASUREMENT TAKEN ACROSS THE FLATS.

**molex**

## LEAD CONFIGURATION OPTIONS

NK-2G2-025-135-JC00  
XX-XXX-XXX-XXX-XXXX

<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	
<b>BODY</b>	
2 2-Row	
BODY STYLE:	
G Plug, vertical mount, plated thru hole (PTH)	
BODY MATERIAL:	
2 Liquid Crystal Polymer w/ electroless nickel shell	
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	
4 Liquid Crystal Polymer w/ stainless steel shell	
5 Liquid Crystal Polymer w/ titanium shell	
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS:	
13 Pin, straight, .109"	
14 Pin, straight, .140"	
15 Pin, straight, .172"	
PLATING OPTIONS:	
5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	
8 50 $\mu$ " Au contacts; Tin plated terminations	
<b>HARDWARE</b>	
STYLE OF HARDWARE:	
JC #0-80 captive jackscrew *	
WIRING OPTIONS:	
00 None	

\* = #2-56 UNC thread on 85 and 91 position connectors  
.050 hex key (#0-80 thread)  
1/16" hex key (#2-56 thread)  
Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)  
Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)  
Ball end hex wrench not recommended  
Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.  
.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.  
1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

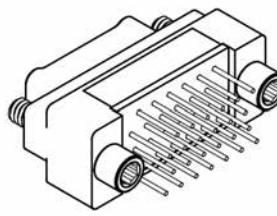
= Option not RoHS compliant

**molex**

## RECOMMENDED PC BOARD LAYOUTS

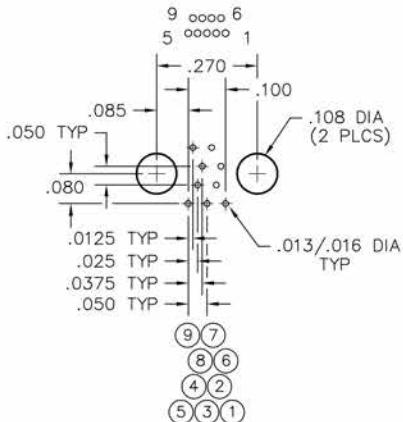
VERTICAL PTH PLUG WITH  
TURNING HARDWARE  
*FOR REFERENCE ONLY*

FOR REFERENCE ONLY

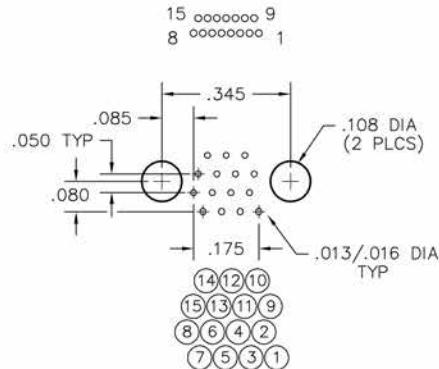


#### CONNECTOR MATING FACE

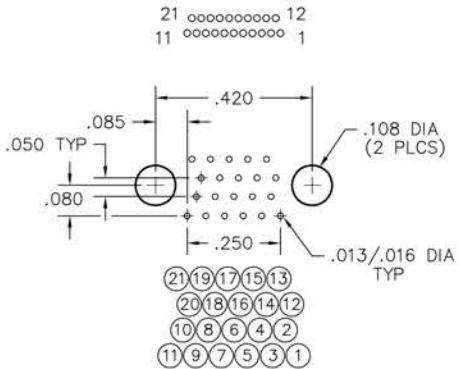
## 9 POSITION



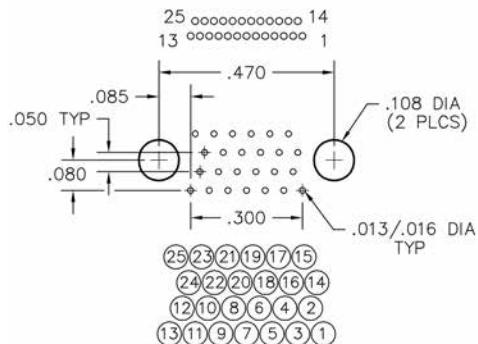
15 POSITION



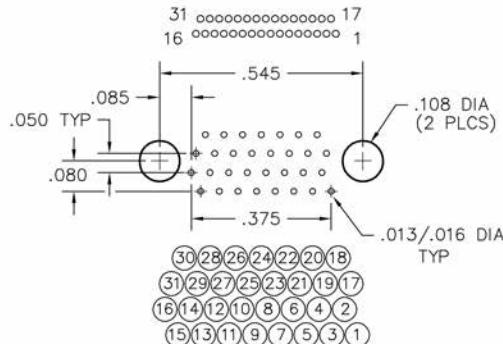
## 21 POSITION



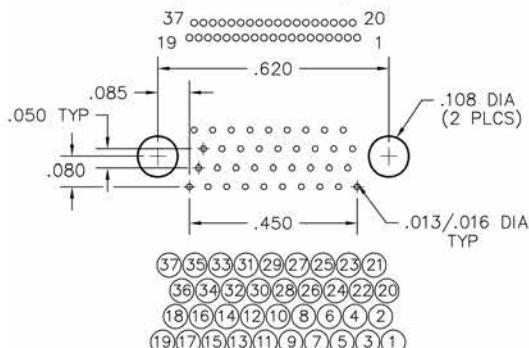
25 POSITION



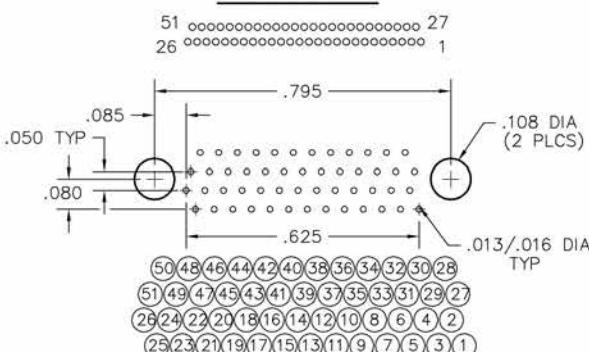
### 31 POSITION



### 37 POSITION

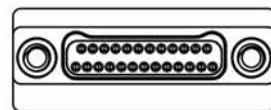
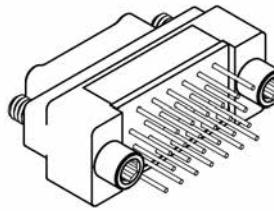


## 51 POSITION



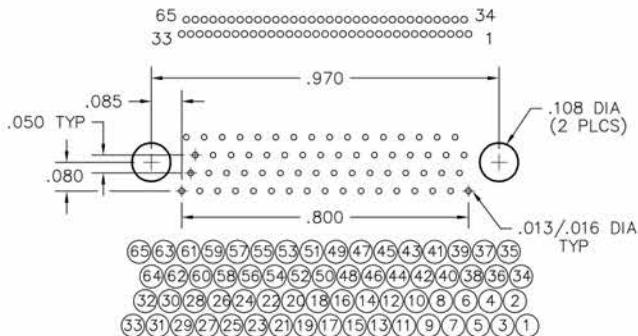
## RECOMMENDED PC BOARD LAYOUTS

VERTICAL PTH PLUG WITH  
TURNING HARDWARE  
FOR REFERENCE ONLY

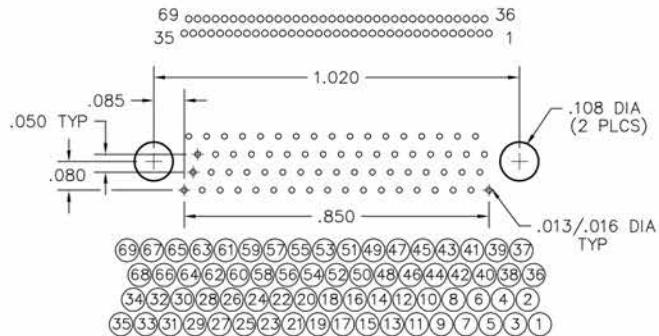


CONNECTOR MATING FACE

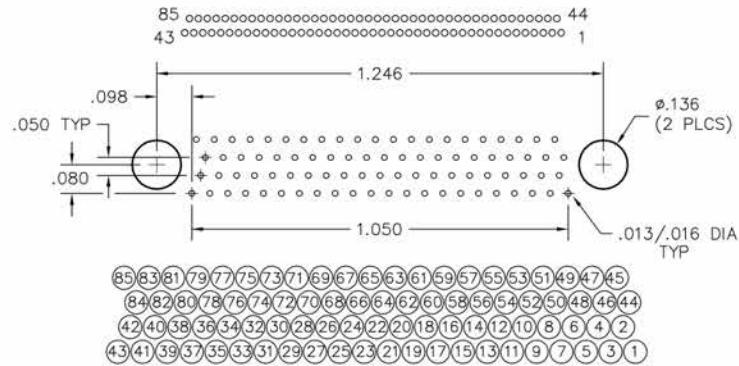
### 65 POSITION



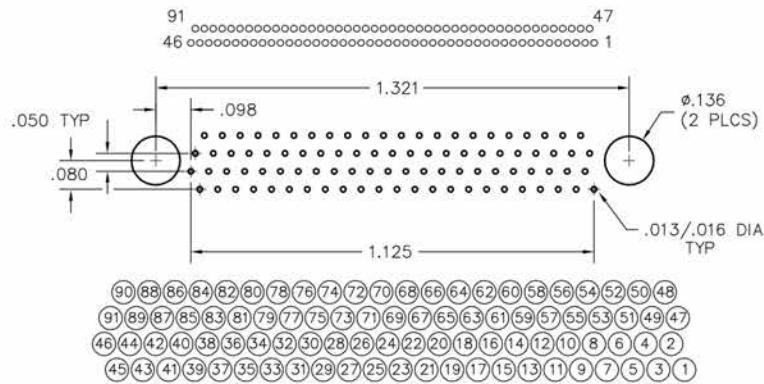
### 69 POSITION



### 85 POSITION



### 91 POSITION

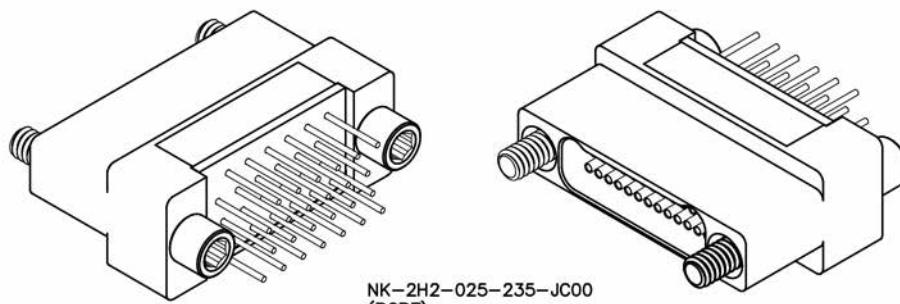


**molex**

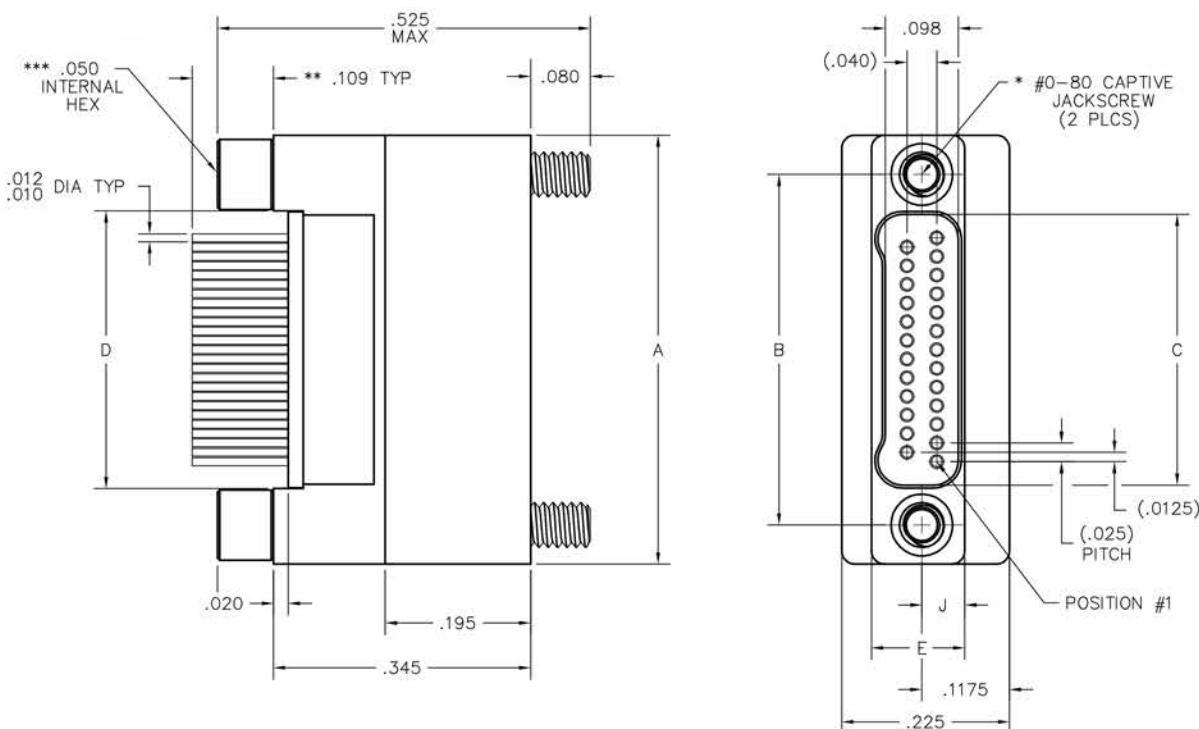
# TWO ROW - VERTICAL PTH RECEPTACLE WITH TURNING HARDWARE

**NK**

0.025" | 9 THROUGH 91 CONTACTS



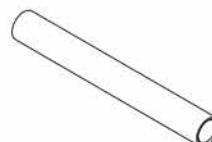
NK-2H2-025-235-JC00  
(RCPT)



SIZE	DIMENSIONS						
	A	B	C	D	E	J	*HARDWARE
9	.375	.270	.163	.170			
15	.450	.345	.238	.245			
21	.525	.420	.313	.320			
25	.575	.470	.363	.370			
31	.650	.545	.438	.445			
37	.725	.620	.513	.520			
51	.900	.795	.688	.695			
65	1.075	.970	.863	.870			
69	1.125	1.020	.913	.920			
85	1.377	1.246	1.113	1.120	.150	.070	#2-56 THREAD
91	1.452	1.321	1.188	1.195			



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.

\*\* = OTHER LENGTHS AS REQUIRED

\*\*\* = 1/16" HEX ON 85 & 91 POSITION CONNECTORS.

HEX MEASUREMENT TAKEN ACROSS THE FLATS.

## LEAD CONFIGURATION OPTIONS

NK-2H2-025-235-JC00  
XX-XXX-XXX-XXX-XXXX

<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	
<b>BODY</b>	
2	2-Row
BODY STYLE:	
H	Receptacle, vertical mount, plated thru hole (PTH)
BODY MATERIAL:	
2	Liquid Crystal Polymer w/ electroless nickel shell
3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4	Liquid Crystal Polymer w/ stainless steel shell
5	Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS:	
23	Socket, straight, .109"
24	Socket, straight, .140"
25	Socket, straight, .172"
PLATING OPTIONS:	
5	50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>
8	50 $\mu$ " Au contacts; Tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE:	
JC	#0-80 captive jackscrew *
WIRING OPTIONS:	
00	None

\* = #2-56 UNC thread on 85 and 91 position connectors  
.050 hex key (#0-80 thread)  
1/16" hex key (#2-56 thread)  
Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)  
Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)  
Ball end hex wrench not recommended  
Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.  
.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.  
1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

= Option not RoHS compliant

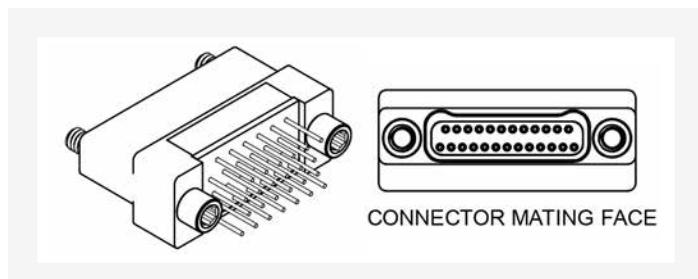
**molex**

## RECOMMENDED PC BOARD LAYOUTS

## VERTICAL PTH RECEPTACLE WITH

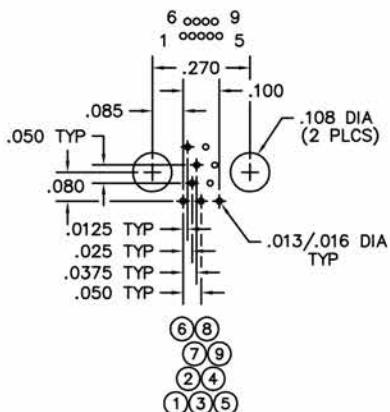
## TURNING HARDWARE

**FOR REFERENCE ONLY**

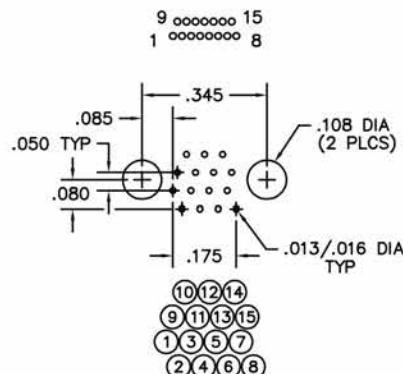


### CONNECTOR MATING FACE

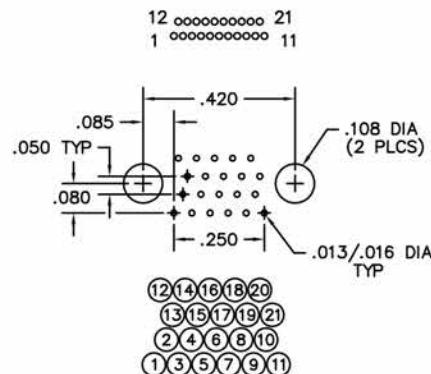
**9 POSITION**



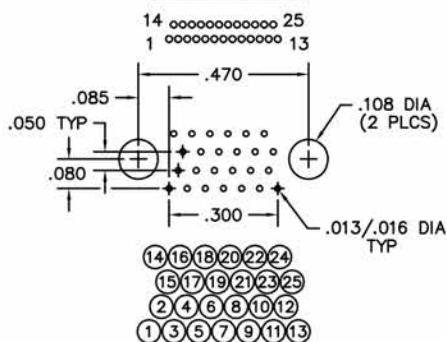
**15 POSITION**



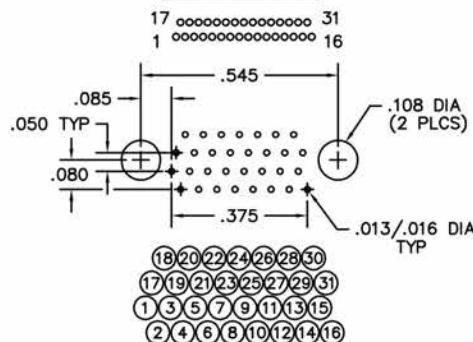
## 21 POSITION



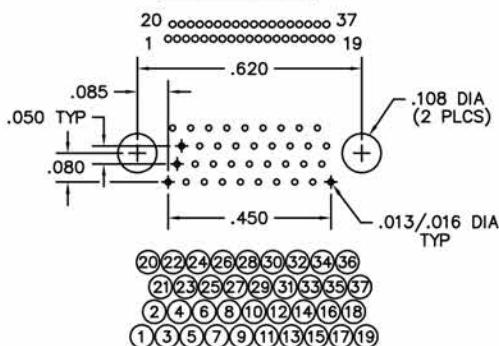
**25 POSITION**



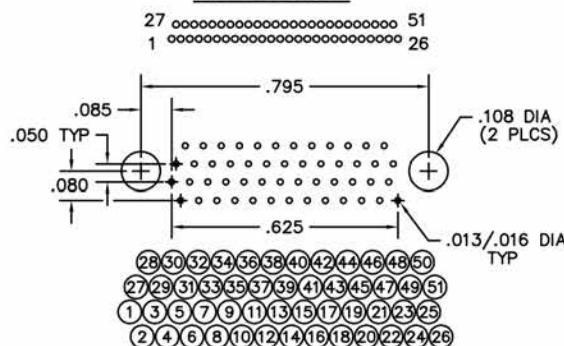
### 31 POSITION



### 37 POSITION



## 51 POSITION

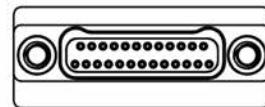
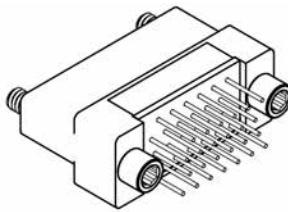


## RECOMMENDED PC BOARD LAYOUTS

VERTICAL PTH RECEPTACLE WITH

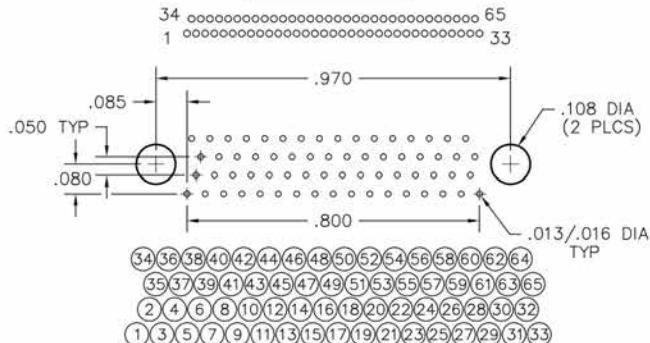
TURNING HARDWARE

FOR REFERENCE ONLY

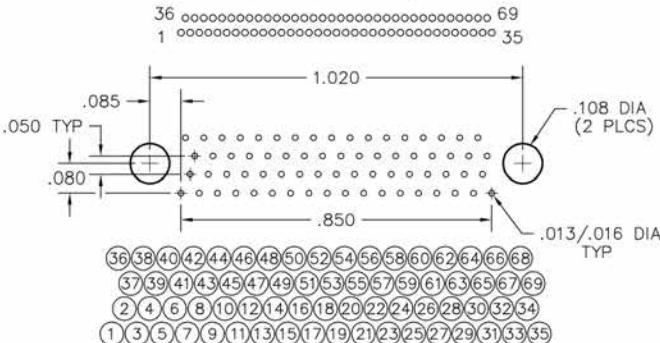


CONNECTOR MATING FACE

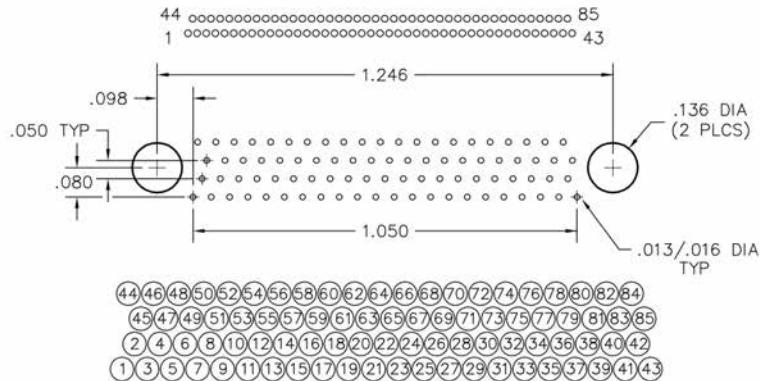
### 65 POSITION



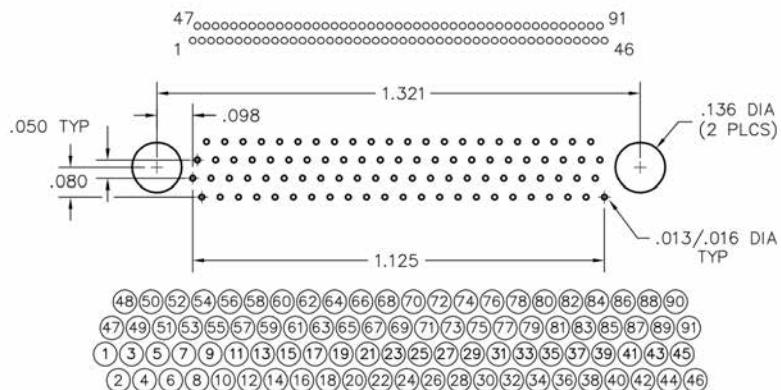
### 69 POSITION



### 85 POSITION



### 91 POSITION

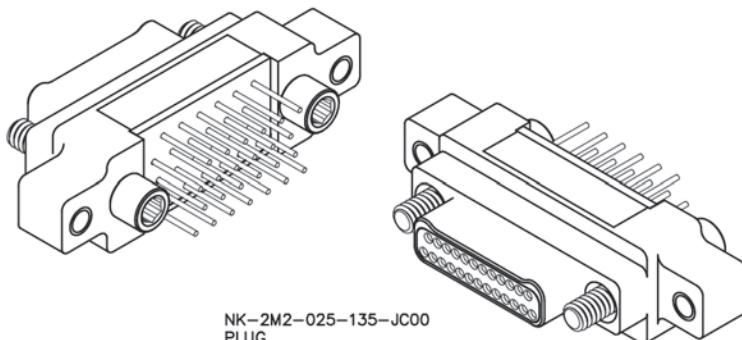


**molex**

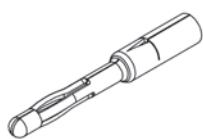
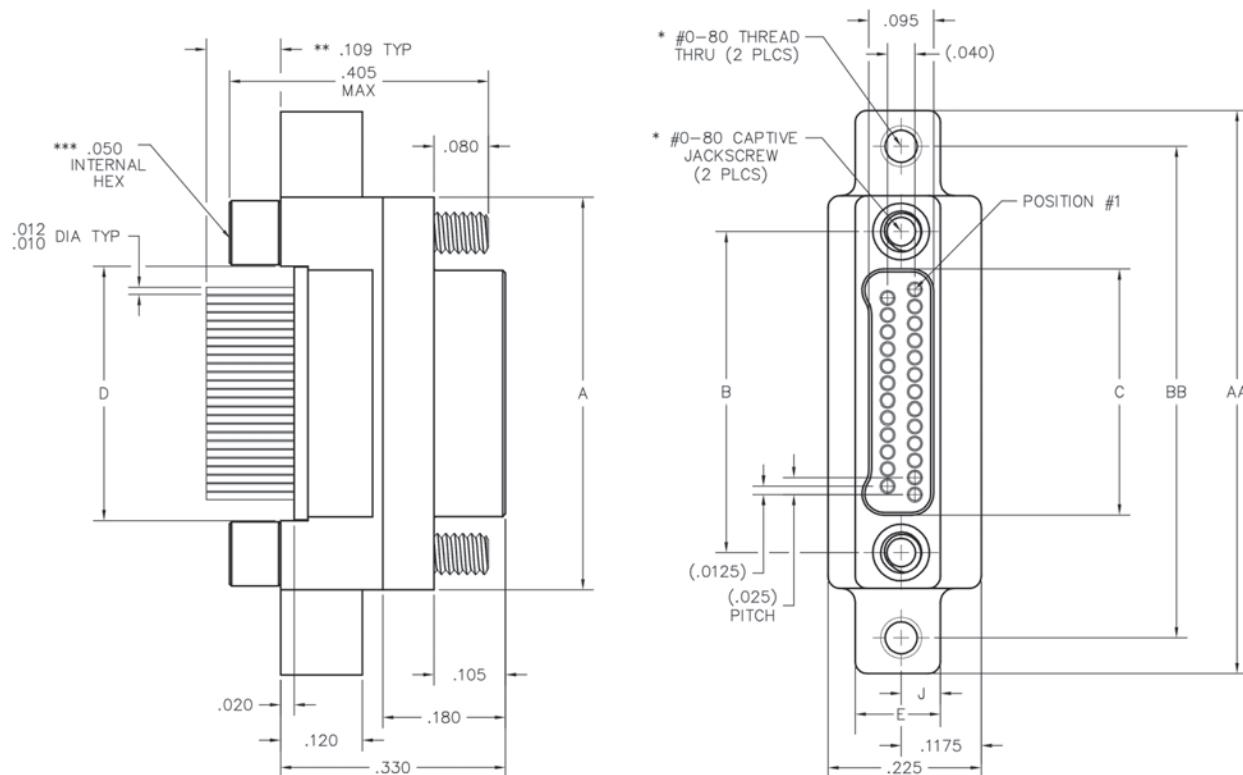
# TWO ROW - VERTICAL PTH PLUG WITH TURNING HARDWARE AND MOUNTING EARS

NK

0.025" | 9 THROUGH 91 CONTACTS



NK-2M2-025-135-JC00  
PLUG



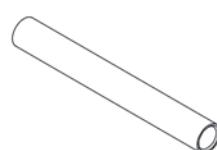
PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	DIMENSIONS								*HARDWARE
	A	B	AA	BB	C	D	E	J	
9	.375	.270	.625	.520	.160	.170			
15	.450	.345	.700	.595	.235	.245			
21	.525	.420	.775	.670	.310	.320			
25	.575	.470	.825	.720	.360	.370			
31	.650	.545	.900	.795	.435	.445			
37	.725	.620	.975	.870	.510	.520			
51	.900	.795	1.150	1.045	.685	.695			
65	1.075	.970	1.325	1.220	.860	.870			
69	1.125	1.020	1.375	1.270	.910	.920			
85	1.377	1.246	1.679	1.546	1.110	1.120	.150	.070	#2-56 THREAD
91	1.452	1.321	1.754	1.621	1.185	1.195			

\* = #2-56 UNC THREAD ON 85 & 91 POSITION CONNECTORS.

\*\* = OTHER LENGTHS AS REQUIRED

\*\*\* = 1/16" HEX ON 85 & 91 POSITION CONNECTORS.  
HEX MEASUREMENT TAKEN ACROSS THE FLATS.



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

NK-2M2-025-135-JC00  
XX-XXX-XXX-XXX-XXXX

SERIES	
NK .025" Metal PC Board Mounted Connector	
BODY	
2	2-Row
BODY STYLE:	
M	Plug, vertical mount, plated thru hole (PTH) with mounting ears
BODY MATERIAL:	
2	Liquid Crystal Polymer w/ electroless nickel shell
3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4	Liquid Crystal Polymer w/ stainless steel shell
5	Liquid Crystal Polymer w/ titanium shell
SIZE	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 91)	
CONTACTS	
TYPE CONTACTS/TERMINATIONS:	
13	Pin, straight, .109"
14	Pin, straight, .140"
15	Pin, straight, .172"
PLATING OPTIONS:	
5	50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>
8	50 $\mu$ " Au contacts; Tin plated terminations
HARDWARE	
STYLE OF HARDWARE:	
JC	#0-80 captive jackscrew *
WIRING OPTIONS:	
00	None

\* = #2-56 UNC thread on 85 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

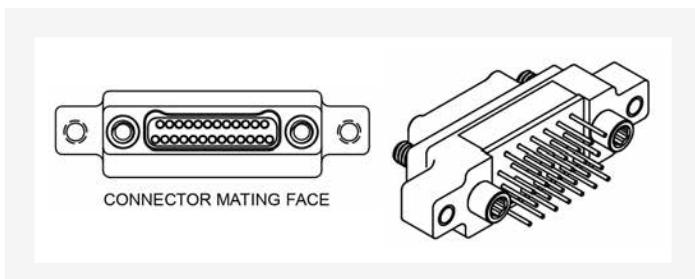
= Option not RoHS compliant

**molex**

## RECOMMENDED PC BOARD LAYOUTS

VERTICAL PTH PLUG WITH TURNING  
HARDWARE AND MOUNTING EARS  
*FOR REFERENCE ONLY*

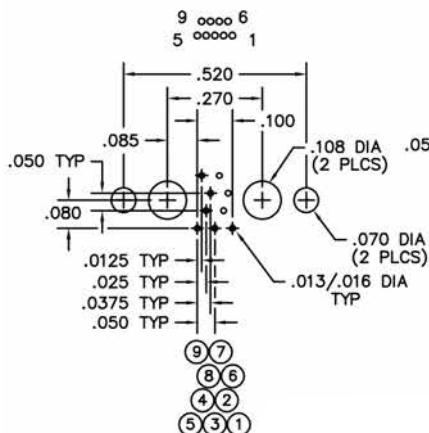
## HARDWARE AND REFERENCE ONLY



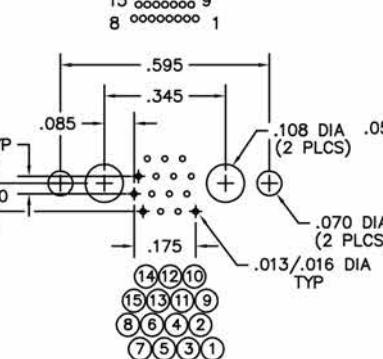
**CONNECTOR MATING FACE**

A schematic diagram of a heat sink assembly. It shows a rectangular heat sink base with a fan at the top. A central vertical column of pins or fins is visible. A circular area on the base is labeled 'Thermal Interface Material' (TIM), indicating where it should be applied to a substrate.

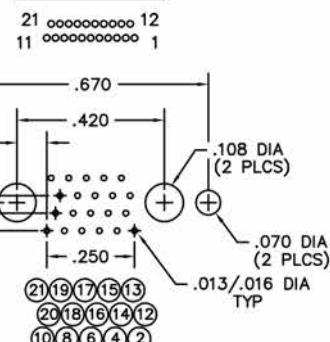
## 9 POSITION



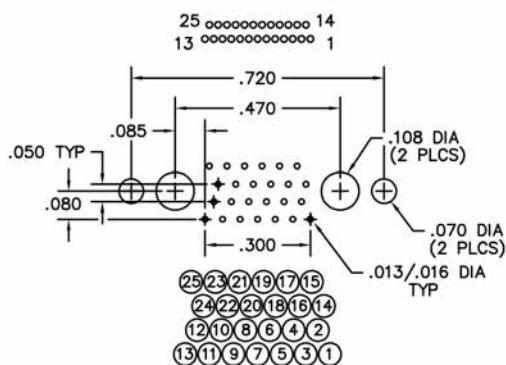
15 POSITION



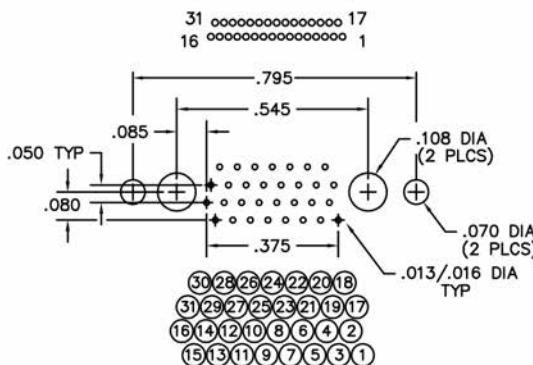
21 POSITION



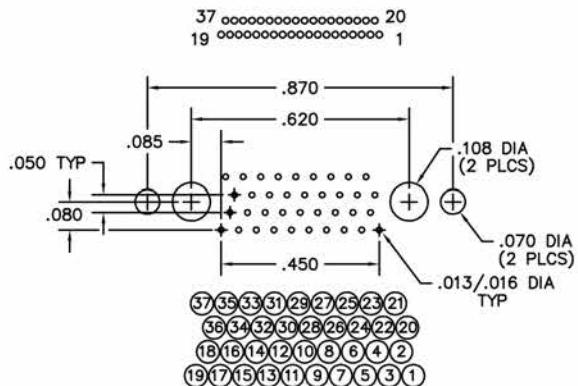
**25 POSITION**



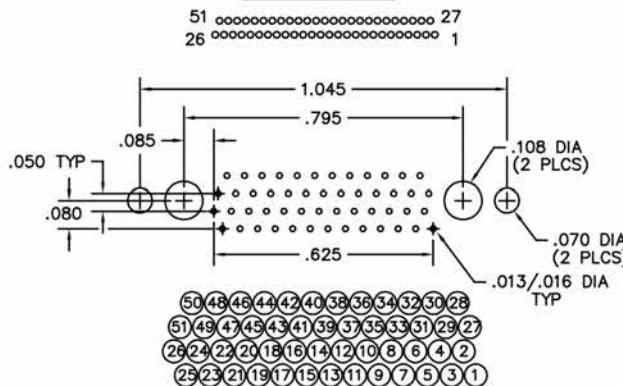
### 31 POSITION



### 37 POSITION



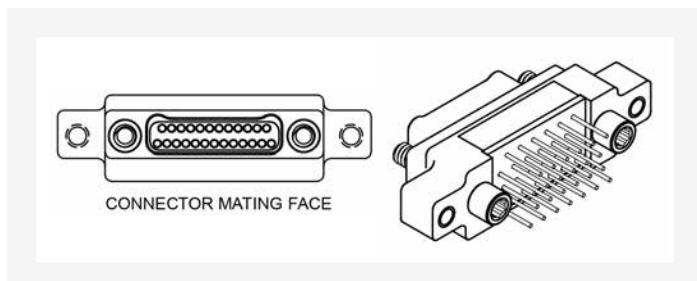
## 51 POSITION



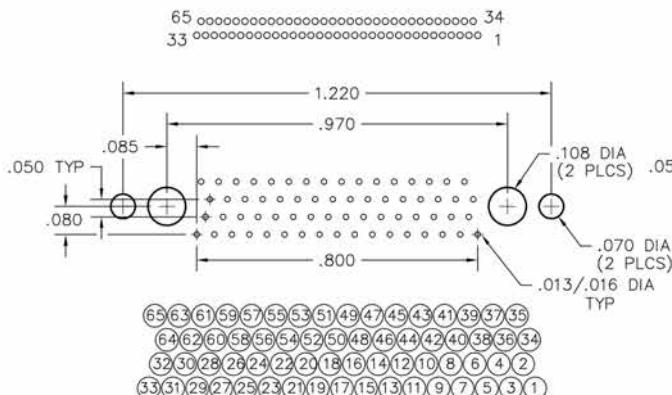
## RECOMMENDED PC BOARD LAYOUTS

VERTICAL PTH PLUG WITH TURNING  
HARDWARE AND MOUNTING EARS  
*FOR REFERENCE ONLY*

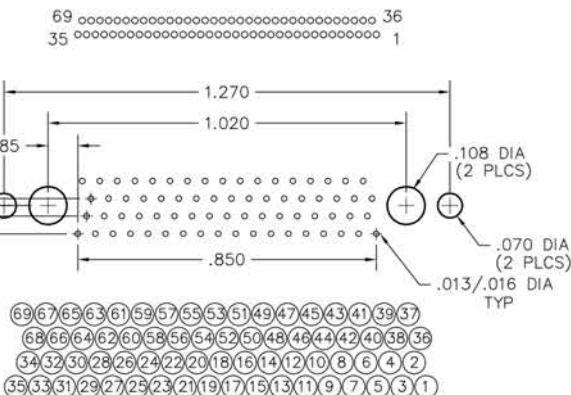
## HARDWARE AND FOR PREFERENCE ONLY



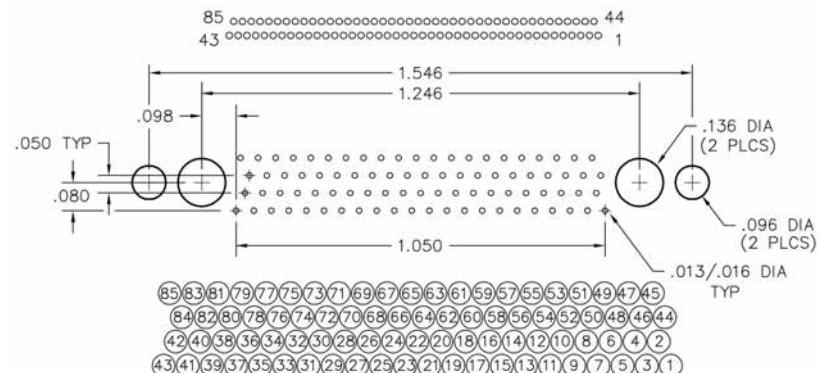
65 POSITION



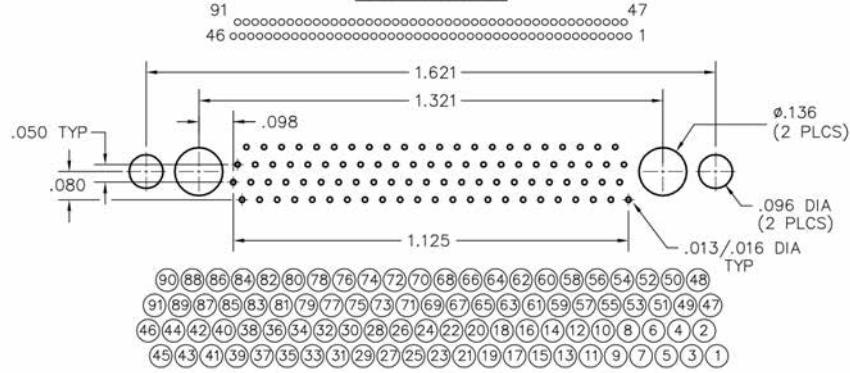
69 POSITION



## 85 POSITION



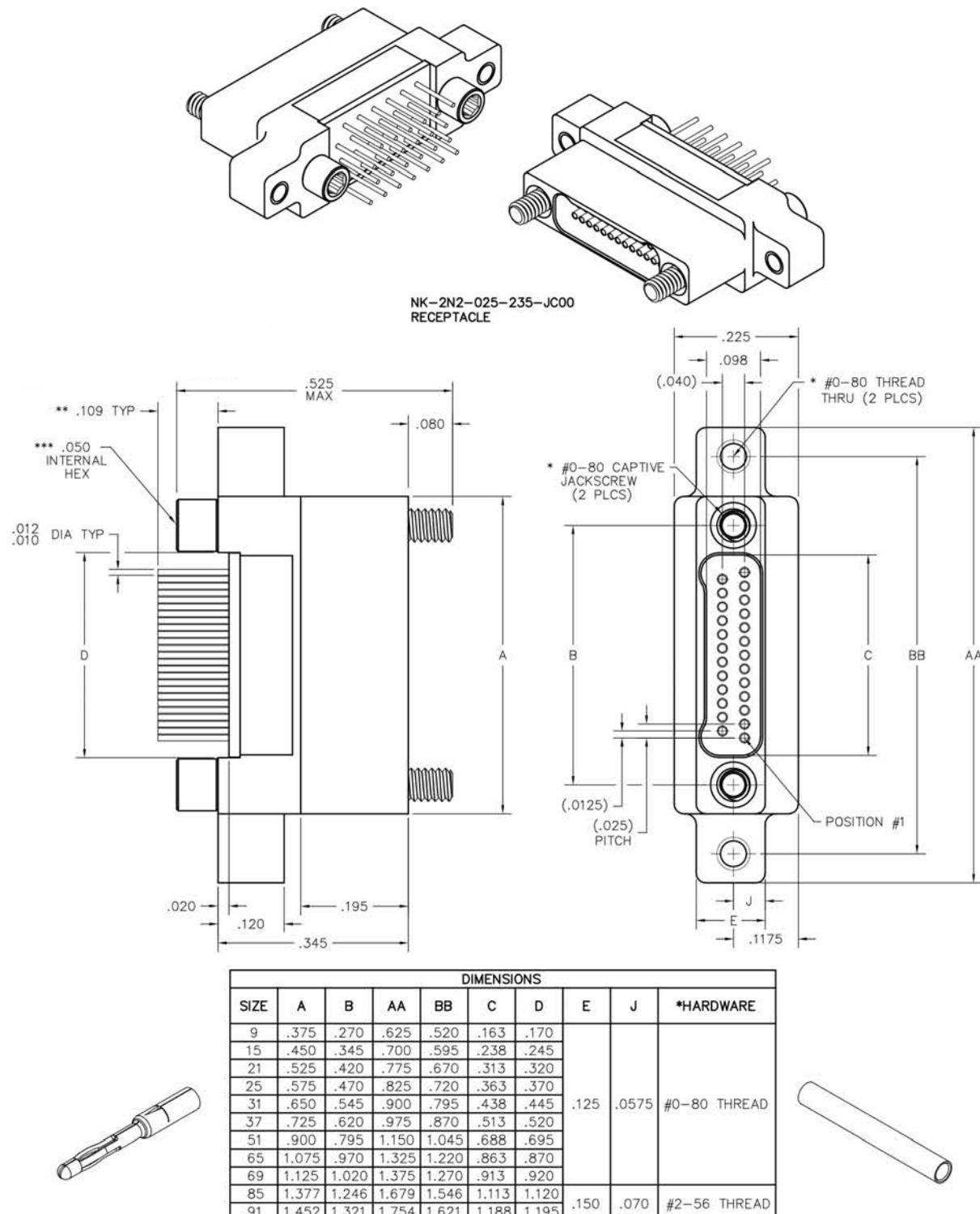
91 POSITION



# TWO ROW - VERTICAL PTH RECEPTACLE WITH TURNING HARDWARE AND MOUNTING EARS

NK

0.025" | 9 THROUGH 91 CONTACTS



\* = #2-56 UNC THREAD ON 85 & 91 POSITION CONNECTORS.

\*\* = OTHER LENGTHS AS REQUIRED

\*\*\* = 1/16" HEX ON 85 & 91 POSITION CONNECTORS.

HEX MEASUREMENT TAKEN ACROSS THE FLATS.

## LEAD CONFIGURATION OPTIONS

NK-2N2-025-235-JC00  
XX-XXX-XXX-XXX-XXXX

SERIES	
NK .025" Metal PC Board Mounted Connector	
BODY	
2	2-Row
BODY STYLE:	
N	Receptacle, vertical mount, plated thru hole (PTH) with mounting ears
BODY MATERIAL:	
2	Liquid Crystal Polymer w/ electroless nickel shell
3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4	Liquid Crystal Polymer w/ stainless steel shell
5	Liquid Crystal Polymer w/ titanium shell
SIZE	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	
CONTACTS	
TYPE CONTACTS/TERMINATIONS:	
23	Socket, straight, .109"
24	Socket, straight, .140"
25	Socket, straight, .172"
PLATING OPTIONS:	
5	50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>
8	50 $\mu$ " Au contacts; Tin plated terminations
HARDWARE	
STYLE OF HARDWARE:	
JC	#0-80 captive jackscrew *
WIRING OPTIONS:	
00	None

\* = #2-56 UNC thread on 85 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

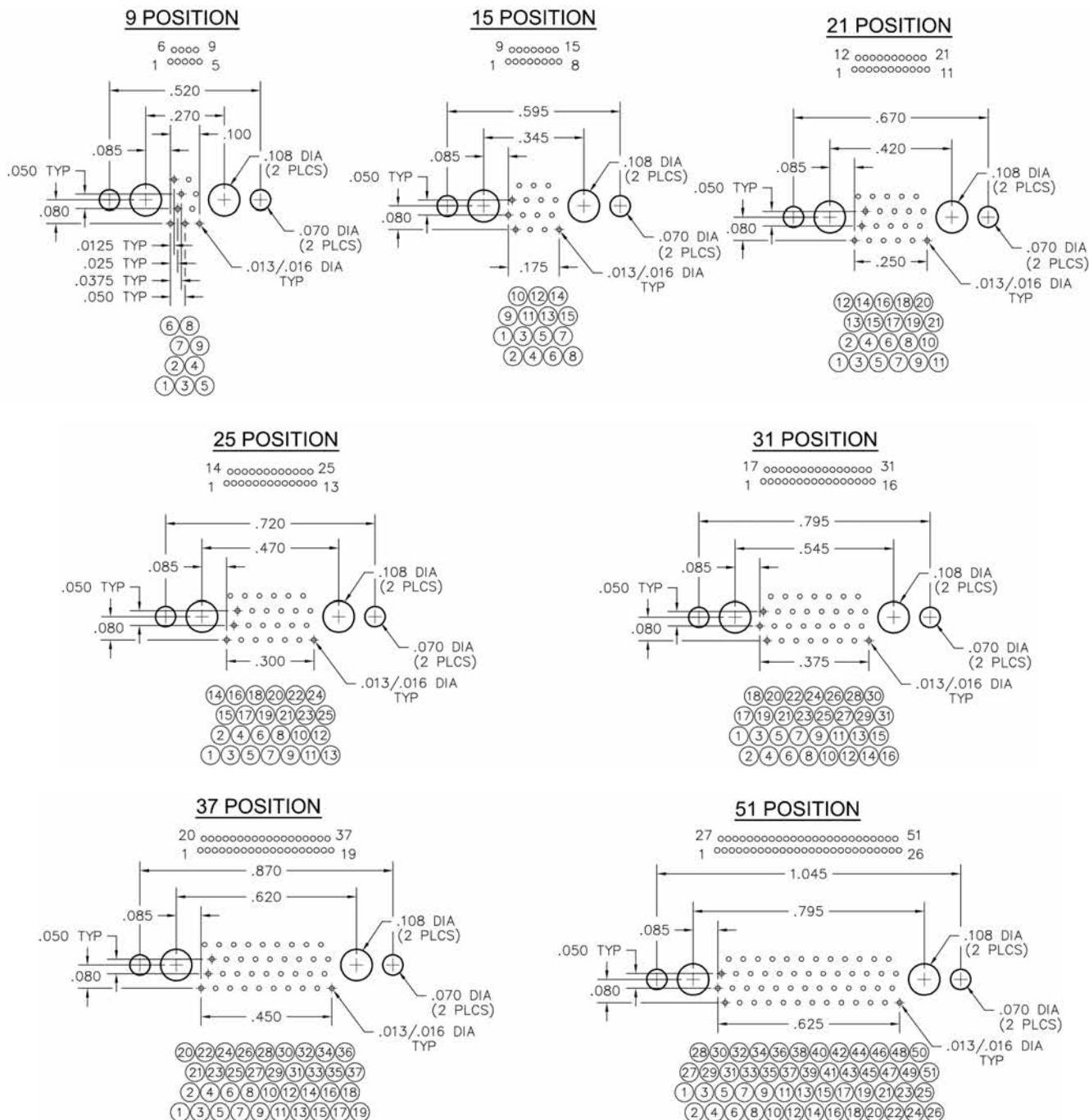
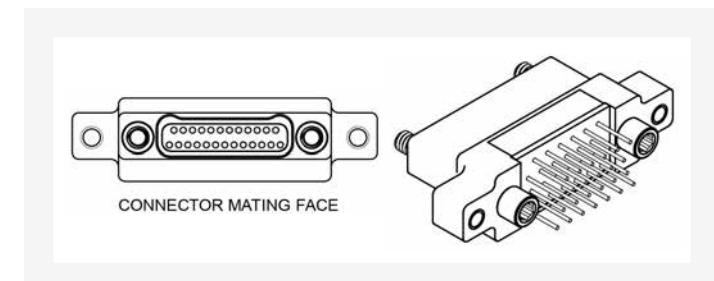
.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

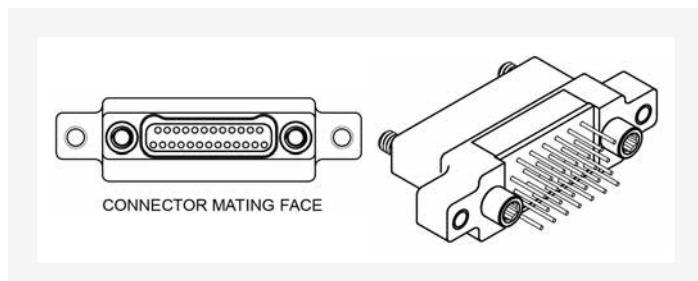
= Option not RoHS compliant

**molex**

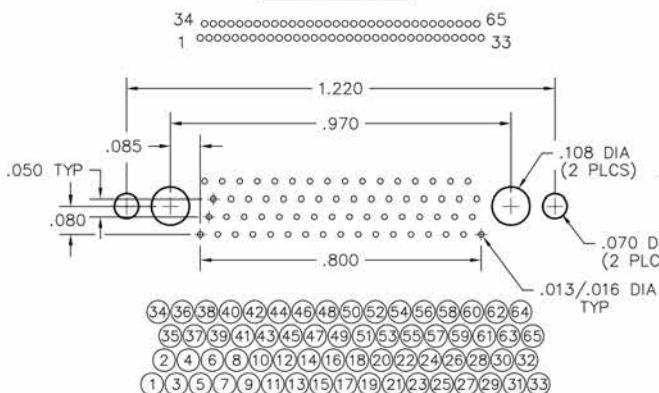
**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL PTH RECEPTACLE WITH TURNING  
 HARDWARE AND MOUNTING EARS  
 FOR REFERENCE ONLY



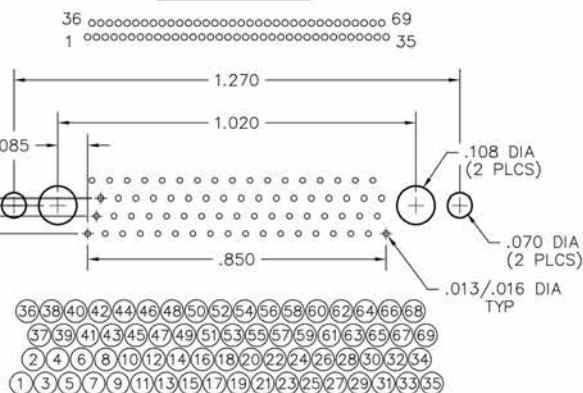
**RECOMMENDED PC BOARD LAYOUTS**  
 VERTICAL PTH RECEPTACLE WITH TURNING  
 HARDWARE AND MOUNTING EARS  
 FOR REFERENCE ONLY



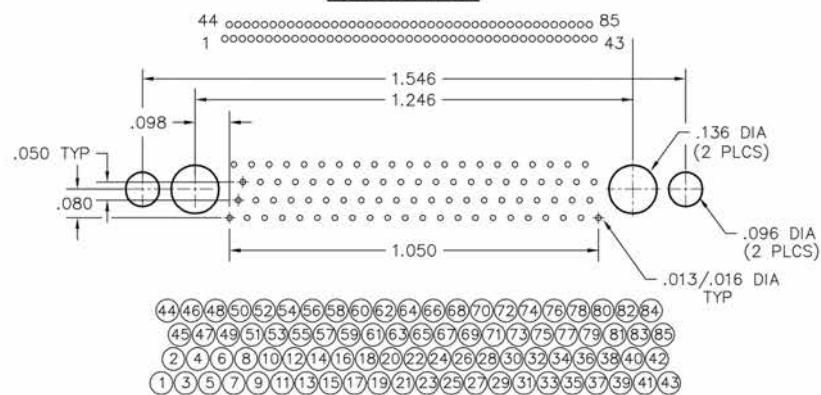
**65 POSITION**



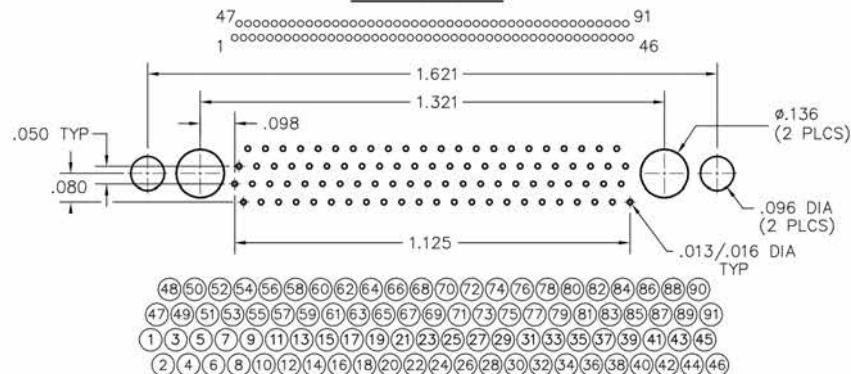
**69 POSITION**



**85 POSITION**



**91 POSITION**



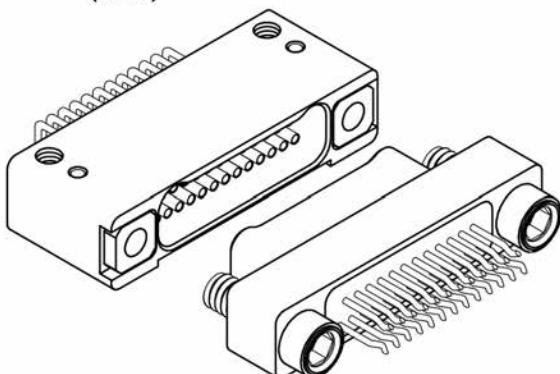
**molex**

## TWO ROW - FLEX TO BOARD

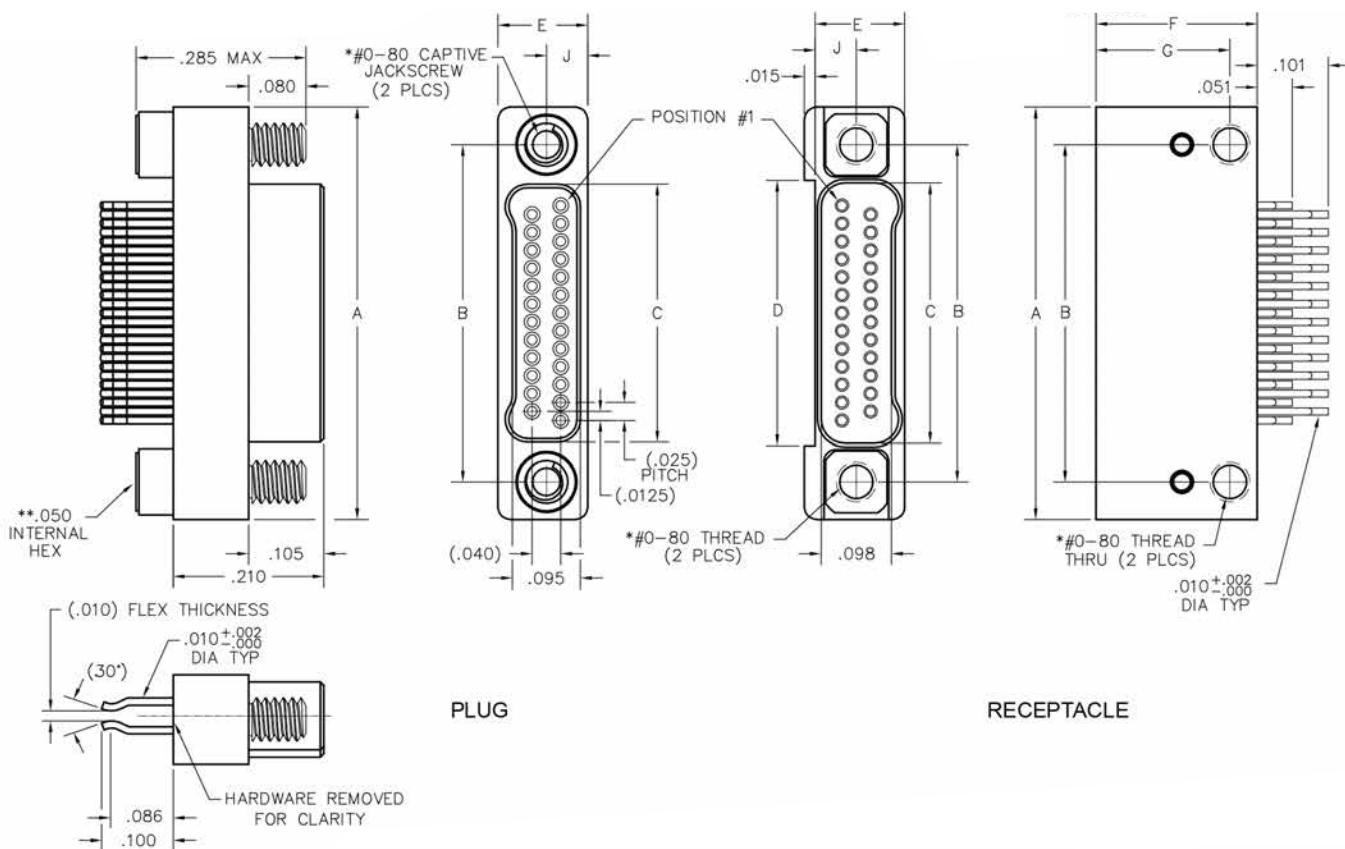
NM & NK

0.025" | 9 THROUGH 91 CONTACTS

NK-2D2-025-225-TH00  
(METAL)



NM-212-025-125-JC00  
(METAL)



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	C		D	E	F	G	J	*HARDWARE
			PLUG	RCPT						
9	.375	.270	.160	.163	.170					
15	.450	.345	.235	.238	.245					
21	.525	.420	.310	.313	.320					
25	.575	.470	.360	.363	.370					
31	.650	.545	.435	.438	.445					
37	.725	.620	.510	.513	.520					
51	.900	.795	.685	.688	.695					
65	1.075	.970	.860	.863	.870					
69	1.125	1.020	.910	.913	.920					
85	1.377	1.246	1.110	1.113	1.120					
91	1.452	1.321	1.185	1.188	1.195					

\* = #2-56 UNC THREAD ON 85, 91 POSITION CONNECTORS.  
\*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.



SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NM-212-025-125-JC00  
 RECEPTACLE: NK-2D2-025-225-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NM .025" Metal Straddle Mount Flex Connector	NK .025" Metal PC Board Mounted Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: 1 Plug, straight	BODY STYLE: D Receptacle, horizontal mount SMT
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 91)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 12 Pin, straddle SMT	TYPE CONTACTS/TERMINATIONS: 22 Socket, SMT
PLATING OPTIONS: 5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 $\mu$ " Au contacts; Tin plated terminations	PLATING OPTIONS: 5 50 $\mu$ " Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 $\mu$ " Au contacts; Tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF * **
WIRING OPTIONS: 00 None	WIRING OPTIONS: 00 None

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

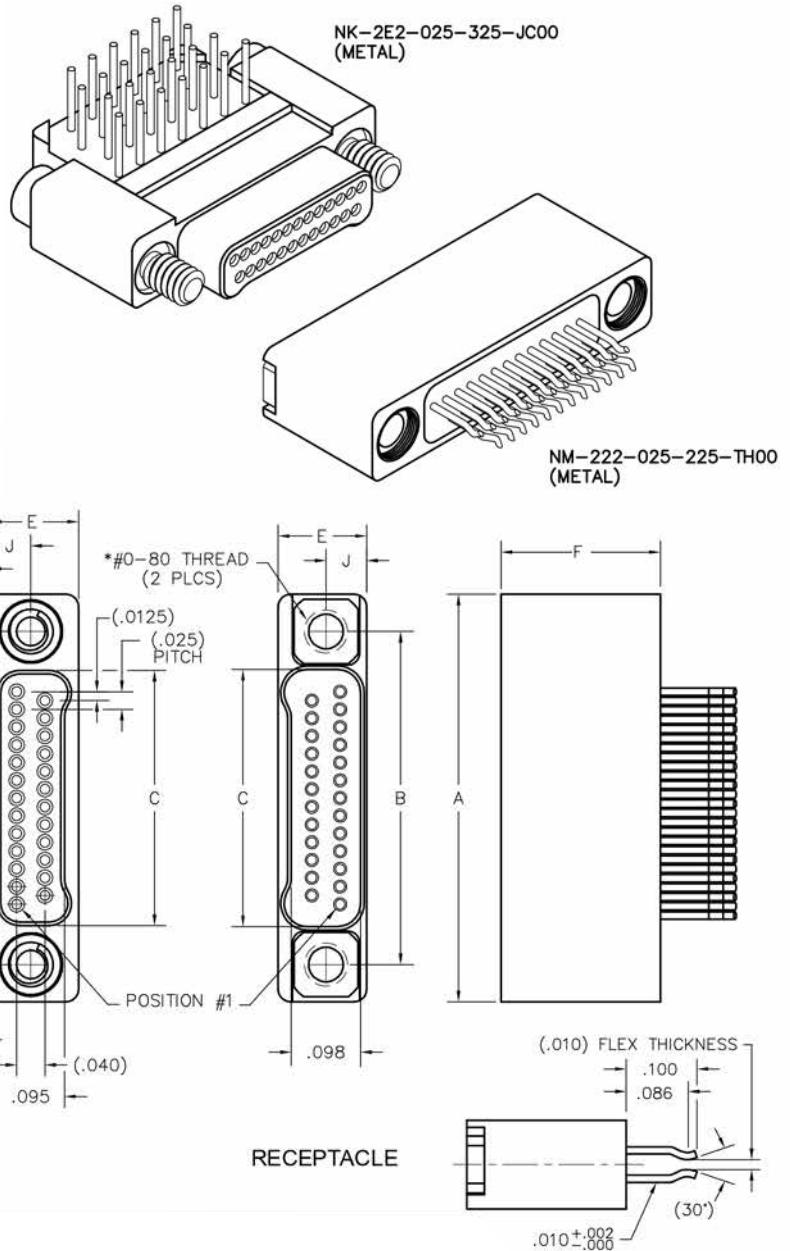
= Option not RoHS compliant

**molex**

## TWO ROW - FLEX-TO-BOARD

NM & NK

0.025" | 9 THROUGH 91 CONTACTS



SIZE	A	B	C		D	E	F		J	*HARDWARE
			PLUG	RCPT			PLUG	RCPT		
9	.375	.270	.160	.163	.170					
15	.450	.345	.235	.238	.245					
21	.525	.420	.310	.313	.320					
25	.575	.470	.360	.363	.370					
31	.650	.545	.435	.438	.445					
37	.725	.620	.510	.513	.520					
51	.900	.795	.685	.688	.695					
65	1.075	.970	.860	.863	.870					
69	1.125	1.020	.910	.913	.920					
85	1.377	1.246	1.110	1.113	1.120					
91	1.452	1.321	1.185	1.188	1.195					

\* = #2-56 UNC THREAD ON 85, 91 POSITION CONNECTORS.  
 \*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENT  
 TAKEN ACROSS THE FLATS.  
 \*\*\* = OTHER LENGTHS AS REQUIRED

PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NK-2E2-025-325-JC00  
 RECEPTACLE: NM-222-025-225-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG		RECEPTACLE	
<b>SERIES</b>			
NK .025" Metal PC Board Mounted Connector		NM .025" Metal Straddle Mount Flex Connector	
<b>BODY</b>			
2	2-Row	2	2-Row
BODY STYLE:		BODY STYLE:	
E	Plug, right angle, plated thru hole (PTH)	2	Receptacle, straight
BODY MATERIAL:		BODY MATERIAL:	
2	Liquid Crystal Polymer w/ electroless nickel shell	2	Liquid Crystal Polymer w/ electroless nickel shell
3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>	3	Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>
4	Liquid Crystal Polymer w/ stainless steel shell	4	Liquid Crystal Polymer w/ stainless steel shell
5	Liquid Crystal Polymer w/ titanium shell	5	Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>			
XXX	Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX	Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
32	Pin, right angle, .109"	22	Socket, straddle SMT
33	Pin, right angle, .140"		
34	Pin, right angle, .172"		
PLATING OPTIONS:		PLATING OPTIONS:	
5	50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	5	50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>
8	50 u" Au contacts; Tin plated terminations	8	50 u" Au contacts; Tin plated terminations
<b>HARDWARE</b>			
STYLE OF HARDWARE:		STYLE OF HARDWARE:	
00	None	00	None
JC	Turning jackscrews, captivated #0-80 UNF*	TH	Threaded hole, #0-80 UNF* **
WIRING OPTIONS:		WIRING OPTIONS:	
00	None	00	None

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

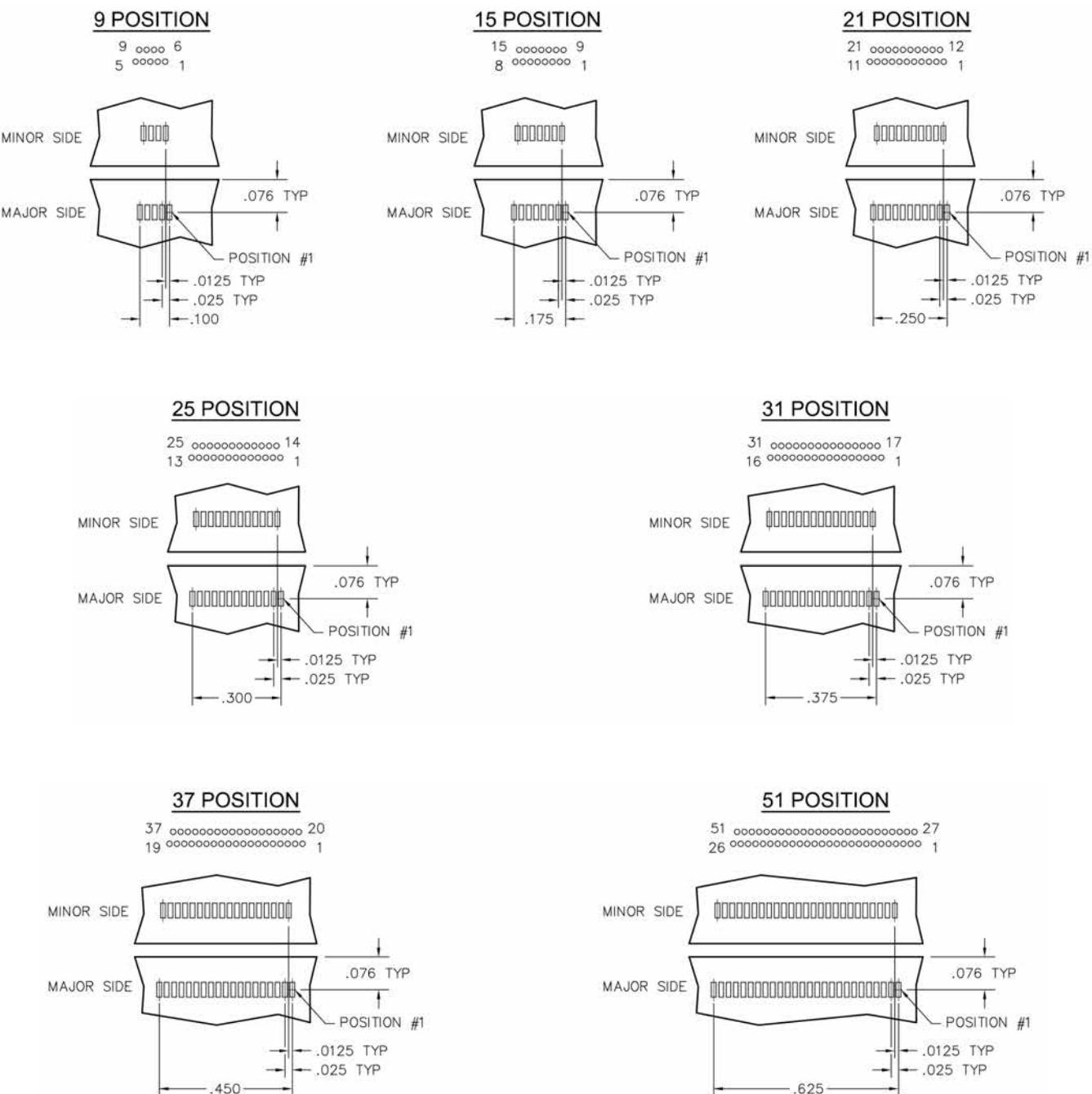
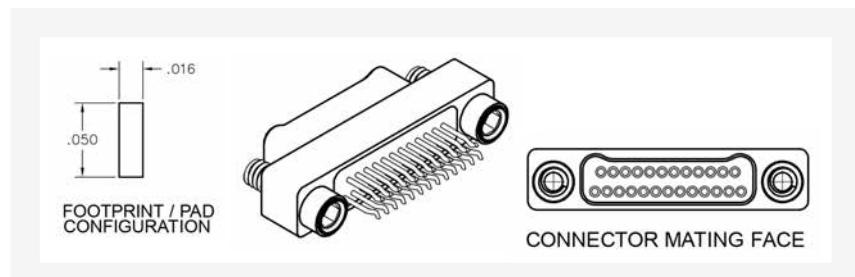
1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

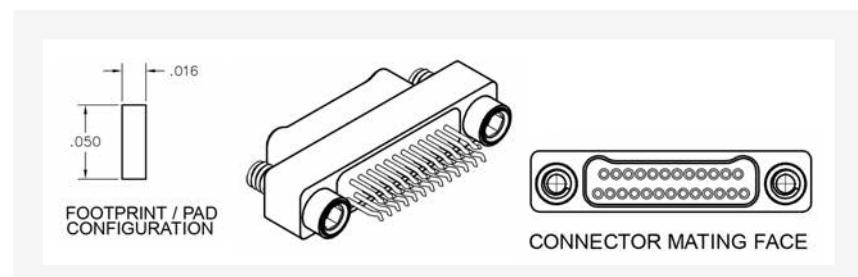
= Option not RoHS compliant

**molex**

**RECOMMENDED FLEX CIRCUIT LAYOUT**  
**STRADDLE MOUNT FLEX PLUG**  
**FOR REFERENCE ONLY**

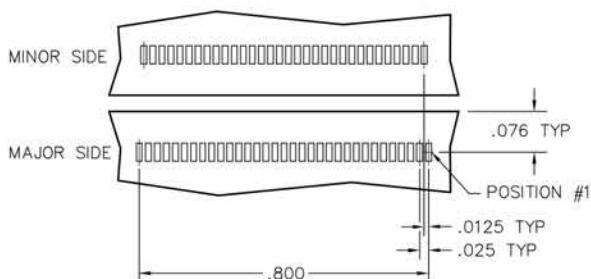


**RECOMMENDED FLEX CIRCUIT LAYOUT**  
**STRADDLE MOUNT FLEX PLUG**  
**FOR REFERENCE ONLY**



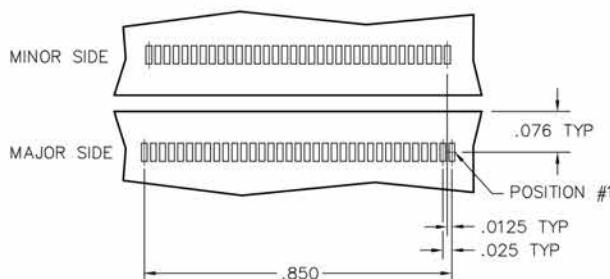
**65 POSITION**

65 oooooooooooooooooooooooooooo 34  
 33 oooooooooooooooooooooooooooo 1



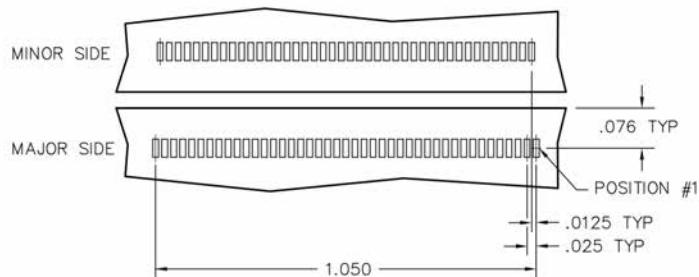
**69 POSITION**

69 oooooooooooooooooooooooooooo 36  
 35 oooooooooooooooooooooooooooo 1



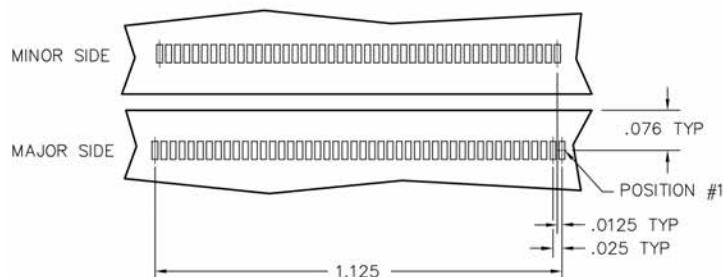
**85 POSITION**

85 oooooooooooooooooooooooooooo 44  
 43 oooooooooooooooooooooooooooo 1



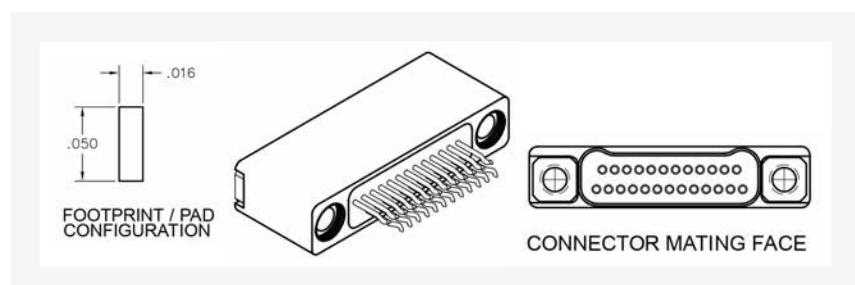
**91 POSITION**

91 oooooooooooooooooooooooooooo 47  
 46 oooooooooooooooooooooooooooo 1



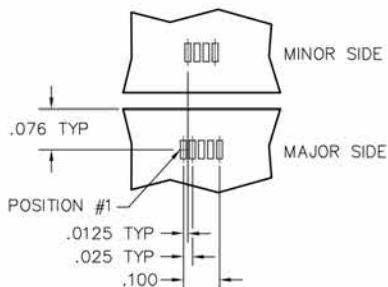
**molex**

**RECOMMENDED FLEX CIRCUIT LAYOUT**  
**STRADDLE MOUNT FLEX RECEPTACLE**  
**FOR REFERENCE ONLY**



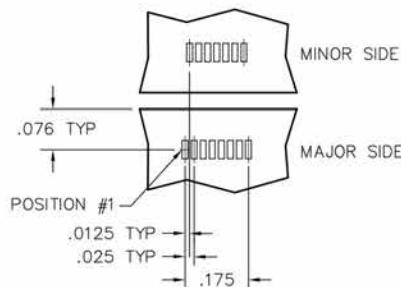
**9 POSITION**

6 ooooo 9  
1 ooooo 5



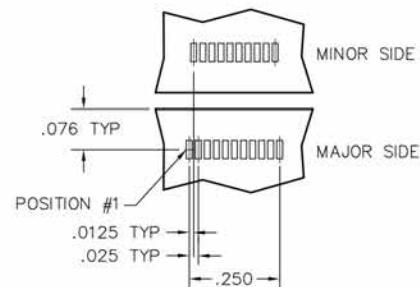
**15 POSITION**

9 oooooooo 15  
1 oooooooo 8



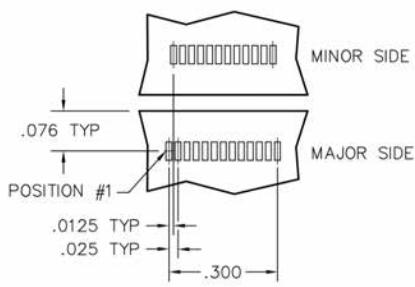
**21 POSITION**

12 ooooooooooooo 21  
1 ooooooooooooo 11



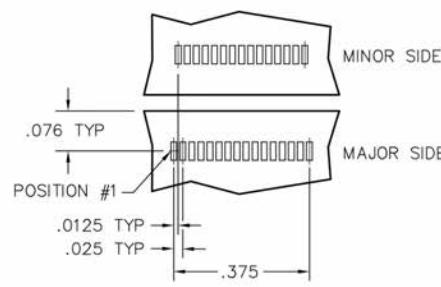
**25 POSITION**

14 ooooooooooooo 25  
1 ooooooooooooo 13



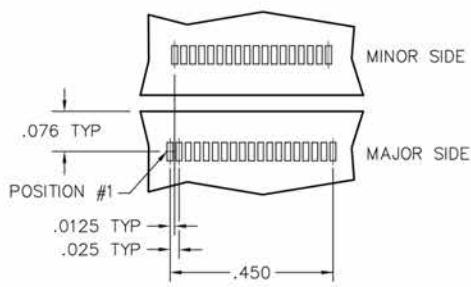
**31 POSITION**

17 oooooooooooooooo 31  
1 oooooooooooooooo 16



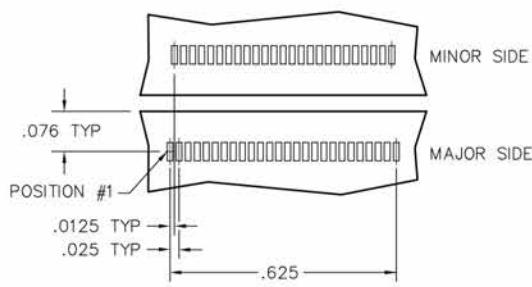
**37 POSITION**

20 ooooooooooooooooo 37  
1 ooooooooooooooooo 19

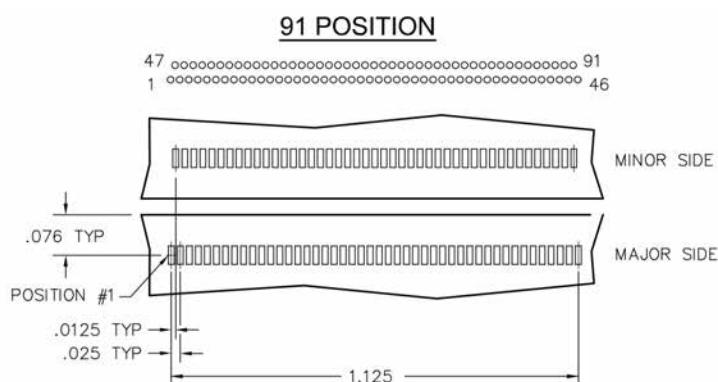
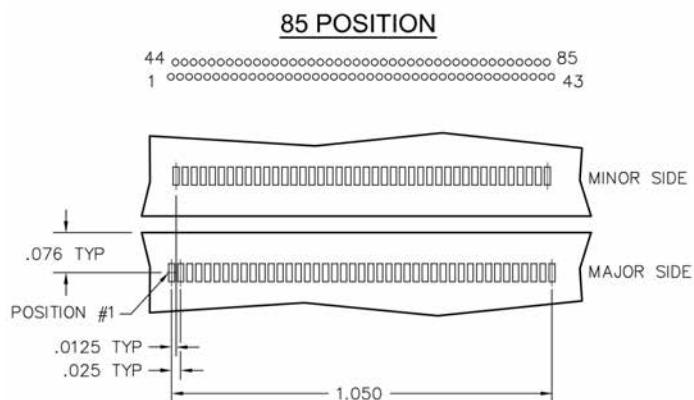
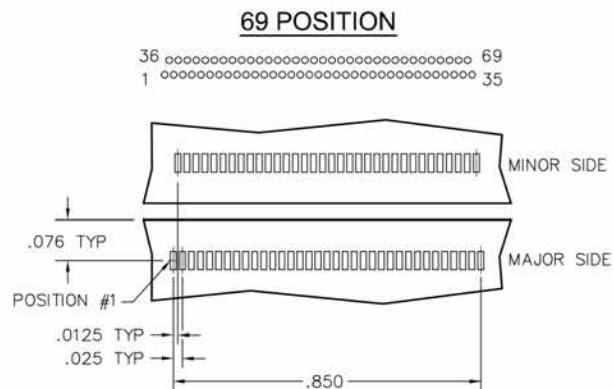
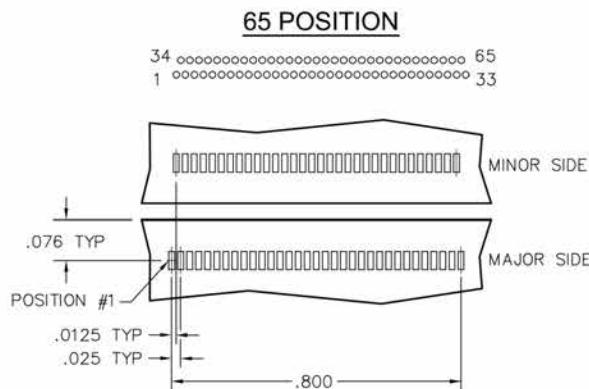
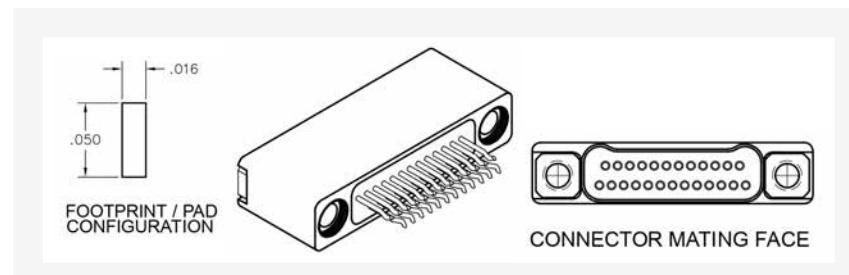


**51 POSITION**

27 oooooooooooooooooooo 51  
1 oooooooooooooooooooo 26



**RECOMMENDED FLEX CIRCUIT LAYOUT**  
**STRADDLE MOUNT FLEX RECEPTACLE**  
**FOR REFERENCE ONLY**

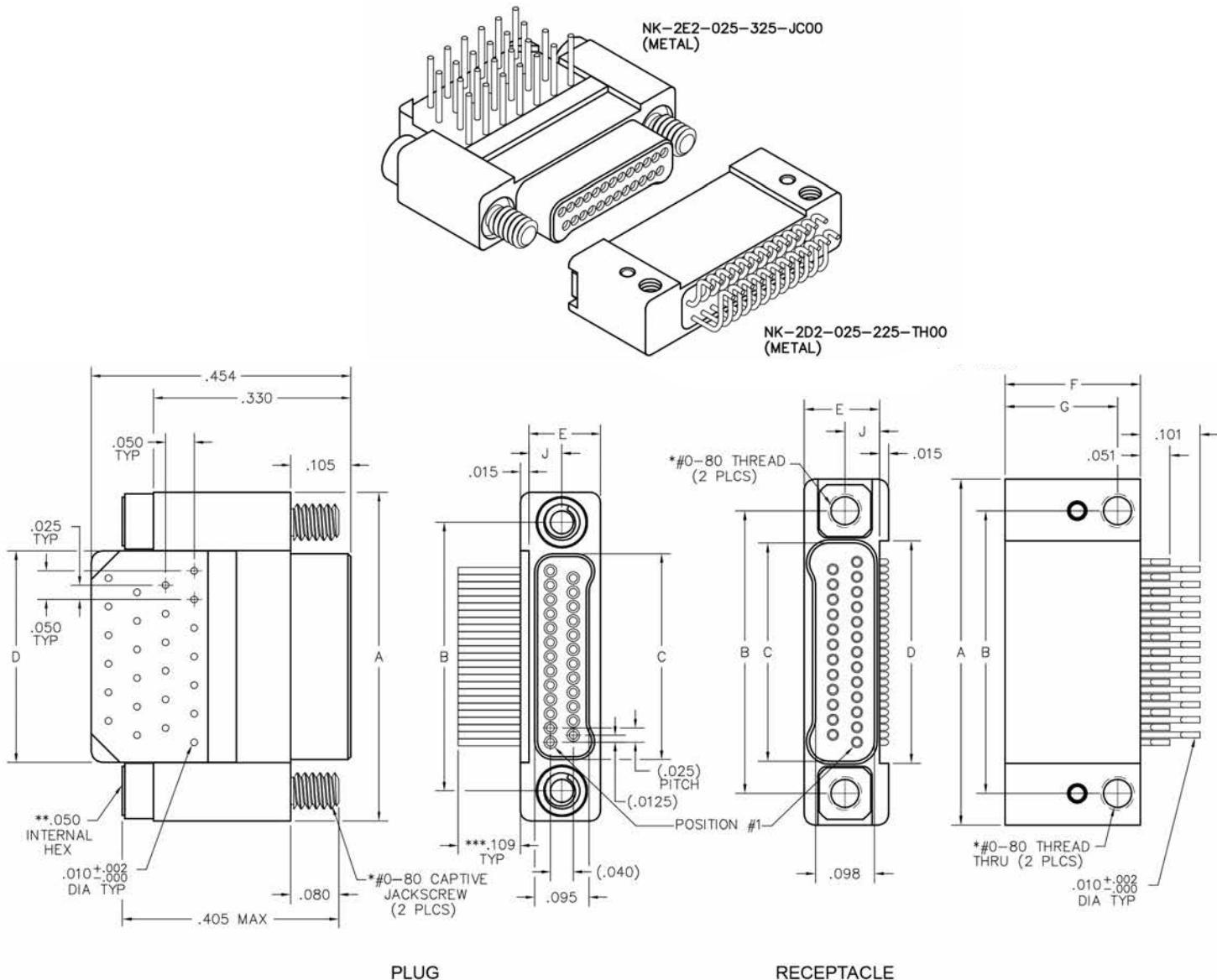


**molex**

## TWO ROW - FLEX-TO-BOARD

### NK & NK

0.025" | 9 THROUGH 91 CONTACTS



SIZE	A	B	C		D	E	F	G	J	*HARDWARE
			PLUG	RCPT						
9	.375	.270	.160	.163	.170					
15	.450	.345	.235	.238	.245					
21	.525	.420	.310	.313	.320					
25	.575	.470	.360	.363	.370					
31	.650	.545	.435	.438	.445					
37	.725	.620	.510	.513	.520					
51	.900	.795	.685	.688	.695					
65	1.075	.970	.860	.863	.870					
69	1.125	1.020	.910	.913	.920					
85	1.377	1.246	1.110	1.113	1.120	.150	.270	.210	.0700	#2-56 THREAD
91	1.452	1.321	1.185	1.188	1.195					

\* = #2-56 UNC THREAD ON 85 & 91 POSITION CONNECTORS.  
 \*\* = 1/16" HEX ON 85 & 91 POSITION CONNECTORS. HEX MEASUREMENT TAKEN ACROSS THE FLATS.  
 \*\*\* = OTHER LENGTHS AS REQUIRED

PIN CONTACT  
3 TINE SPRING MEMBER,  
CRIMP

SOCKET CONTACT  
DRAWN TUBE, CRIMP

## LEAD CONFIGURATION OPTIONS

PLUG: NK-2E2-025-325-JC00  
 RECEPTACLE: NK-2D2-025-225-TH00  
 XX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NK .025" Metal PC Board Mounted Connector	NK .025" Metal PC Board Mounted Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: E Plug, right angle, plated thru hole (PTH)	BODY STYLE: D Receptacle, horizontal mount SMT
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 91)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 91)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 32 Pin, right angle, .109" 33 Pin, right angle, .140" 34 Pin, right angle, .172"	TYPE CONTACTS/TERMINATIONS: 22 Socket, SMT
PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations	PLATING OPTIONS: 5 50 u" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts; Tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE: 00 None JC Turning jackscrews, captivated #0-80 UNF*	STYLE OF HARDWARE: 00 None TH Threaded hole, #0-80 UNF* **
WIRING OPTIONS: 00 None	WIRING OPTIONS: 00 None

\* = #2-56 UNC thread on 85 & 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

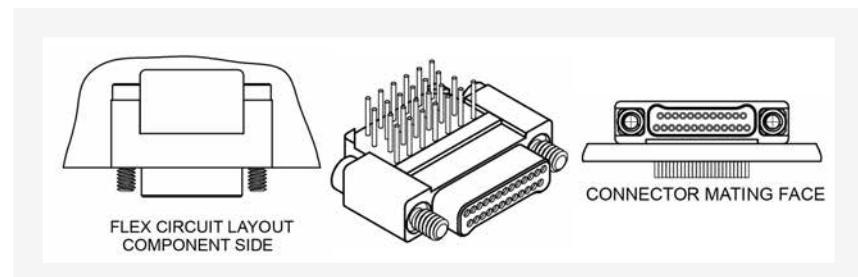
1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

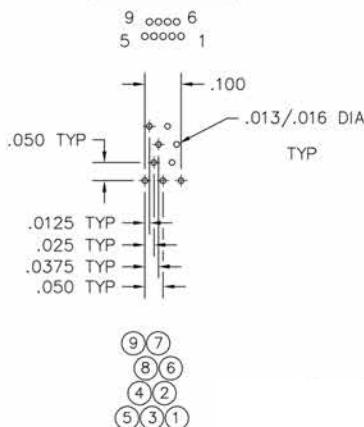
= Option not RoHS compliant

**molex**

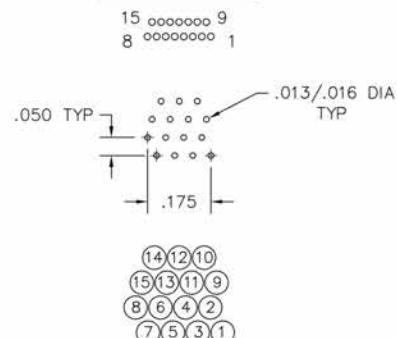
**RECOMMENDED FLEX CIRCUIT LAYOUTS**  
**RIGHT-ANGLE FLEX MOUNT PTH PLUG**  
**FOR REFERENCE ONLY**



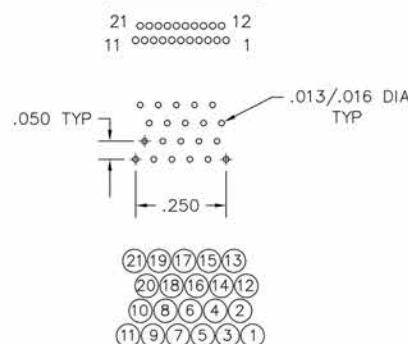
**9 POSITION**



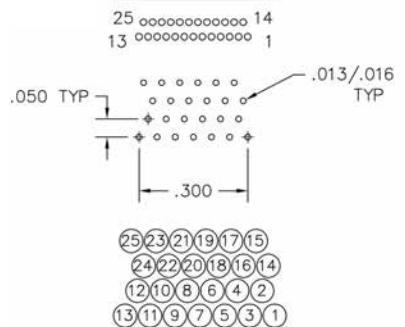
**15 POSITION**



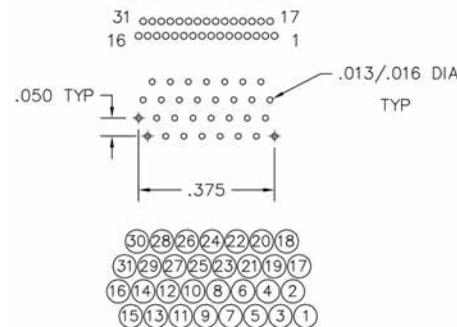
**21 POSITION**



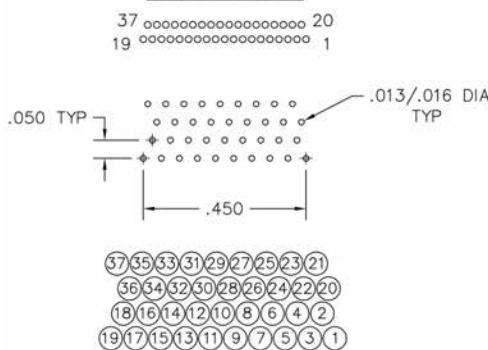
**25 POSITION**



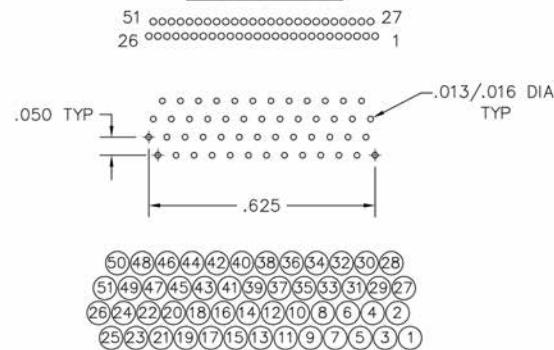
**31 POSITION**



**37 POSITION**



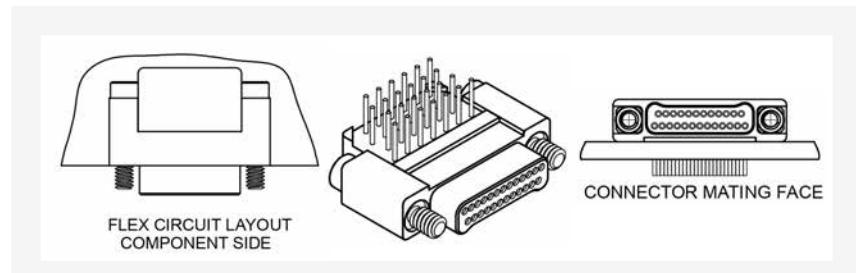
**51 POSITION**



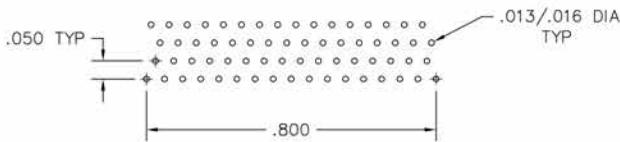
# RECOMMENDED FLEX CIRCUIT LAYOUTS

## RIGHT-ANGLE FLEX MOUNT PTH PLUG

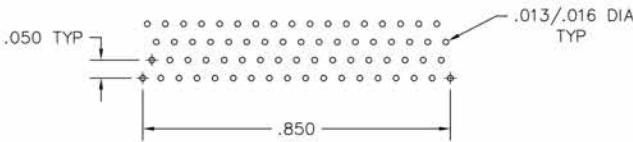
FOR REFERENCE ONLY



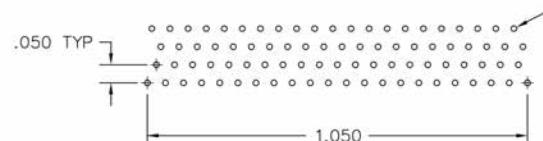
## 65 POSITION



## 69 POSITION



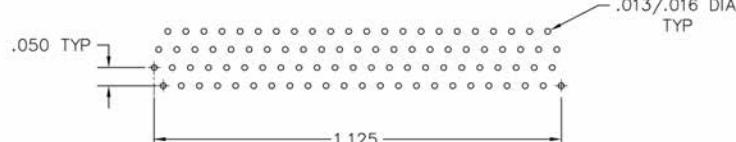
## 85 POSITION



85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45  
84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48 46 44  
42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2  
43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1

91 POSITION

91 oooooooooooooooooooooooooooooooooooo 47  
46 oooooooooooooooooooooooooooo 1

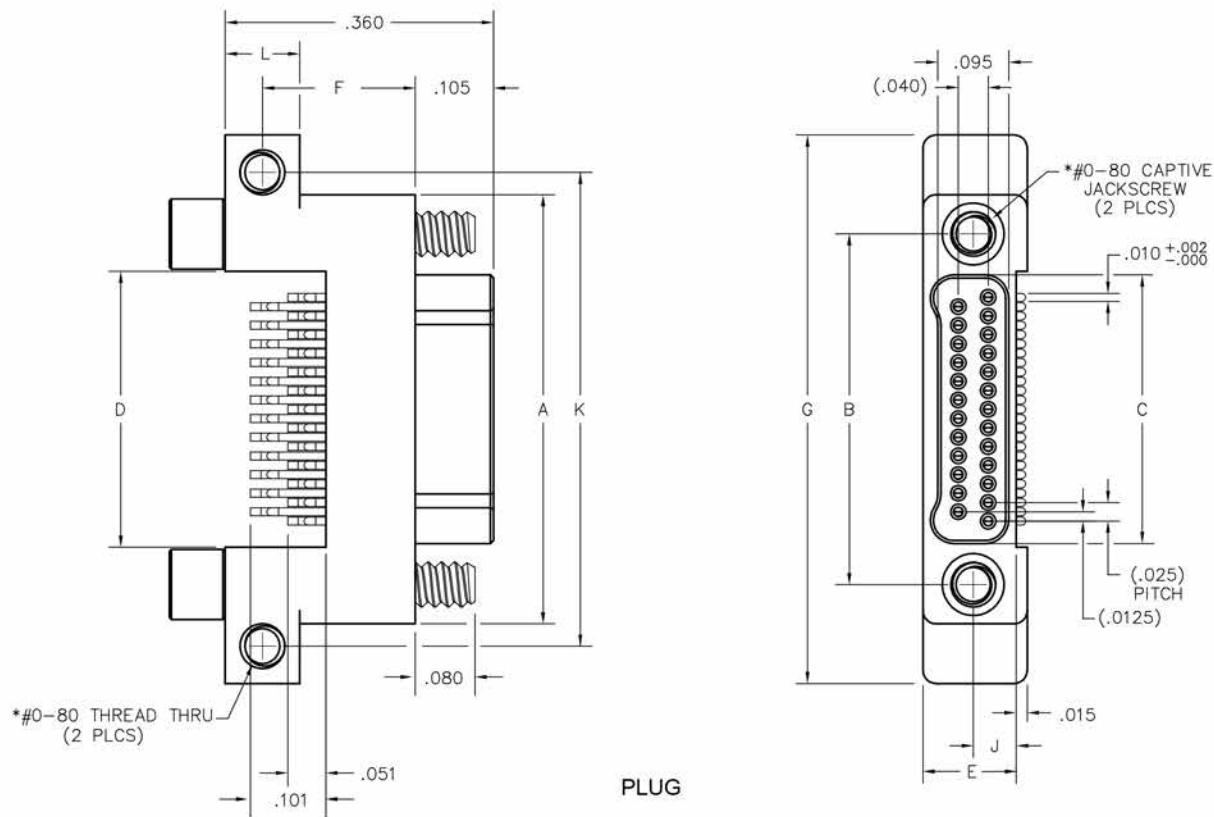
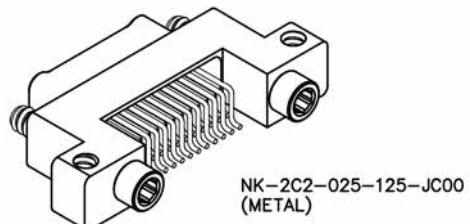


90 88 86 84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54 52 50 48  
91 89 87 85 83 81 79 77 75 73 71 69 67 65 63 61 59 57 55 53 51 49 47  
46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2  
45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1

## TWO ROW - HORIZONTAL SMT PLUG WITH JACKSCREWS

NK

0.025" | 9 THROUGH 91 CONTACTS



DIMENSIONS											
SIZE	A	B	C	D	E	F	G	J	K	L	*HARDWARE
9	.375	.270	.160	.170			.535		.435		
15	.450	.345	.235	.245			.610		.510		
21	.525	.420	.310	.320			.685		.585		
25	.575	.470	.360	.370			.735		.635		
31	.650	.545	.435	.445			.810	.0575	.710	.100	#0-80 THREAD
37	.725	.620	.510	.520			.885		.785		
51	.900	.795	.685	.695			1.060		.960		
65	1.075	.970	.860	.870			1.235		1.135		
69	1.125	1.020	.910	.920			1.285		1.185		
85	1.377	1.246	1.110	1.120			1.590		1.463	.126	#2-56 THREAD
91	1.452	1.321	1.185	1.195			1.665	.0700	1.538		

## LEAD CONFIGURATION OPTIONS

PLUG: NK-2C2-025-125-JC00  
NK-XXX-XXX-XXX-XXXX

### PLUG

#### SERIES

NK .025" Metal PC Board Mounted Connector

#### BODY

2 2-Row

##### BODY STYLE:

C Plug, horizontal mount SMT

##### BODY MATERIAL:

- 2 Liquid Crystal Polymer w/ electroless nickel shell
- 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell
- 4 Liquid Crystal Polymer w/ stainless steel shell
- 5 Liquid Crystal Polymer w/ titanium shell

#### SIZE

XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)

#### CONTACTS

##### TYPE CONTACTS/TERMINATIONS:

12 Pin, SMT

##### PLATING OPTIONS:

- 5 50  $\mu$ " Au contacts, Sn/Pb alloy terminations
- 8 50  $\mu$ " Au contacts, tin plated terminations

#### HARDWARE

##### STYLE OF HARDWARE:

JC Turning jackscrews, captivated #0-80 UNF\*

##### WIRING OPTIONS:

00 None

\* = #2-56 UNC thread on 85 & 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

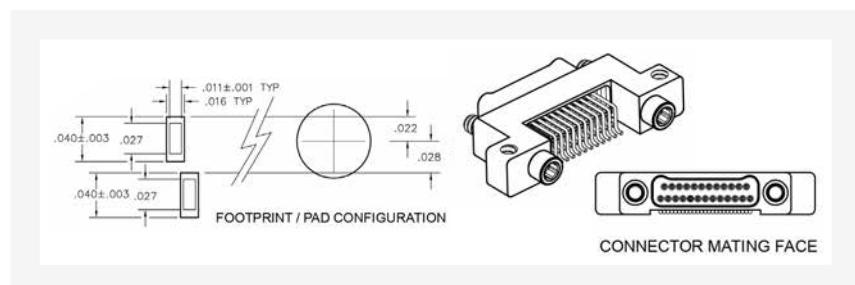
= Option not RoHS compliant

**molex**

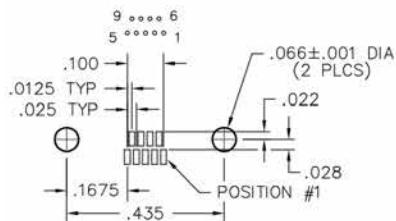
## RECOMMENDED PC BOARD LAYOUTS

### HORIZONTAL SMT PLUG

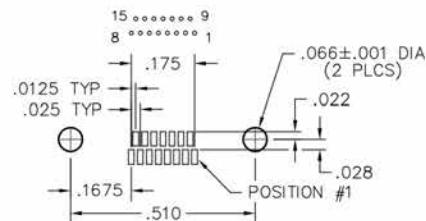
FOR REFERENCE ONLY



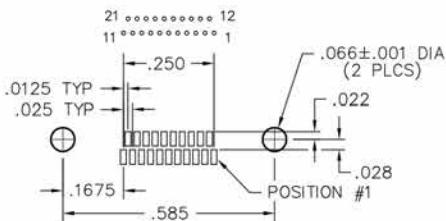
#### 9 POSITION



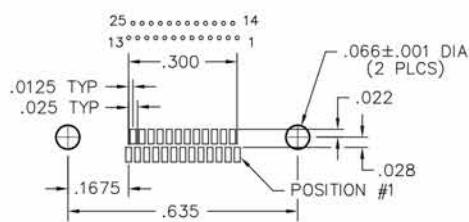
#### 15 POSITION



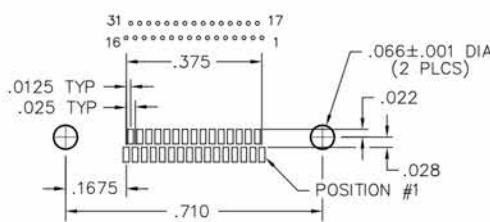
#### 21 POSITION



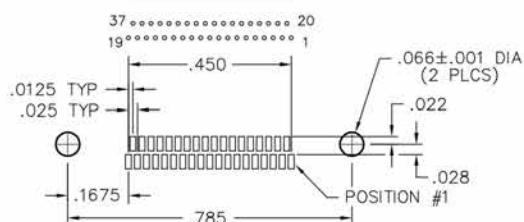
#### 25 POSITION



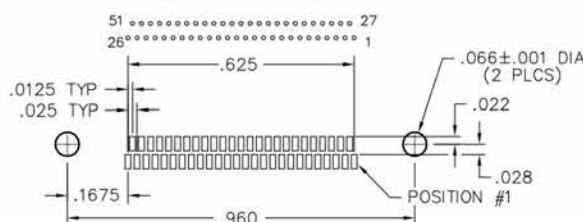
#### 31 POSITION



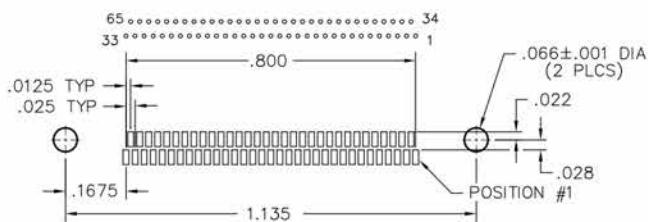
#### 37 POSITION



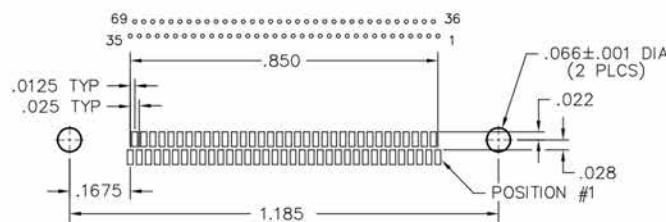
#### 51 POSITION



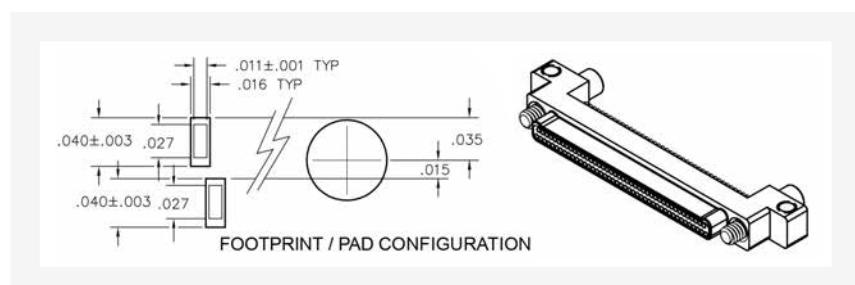
#### 65 POSITION



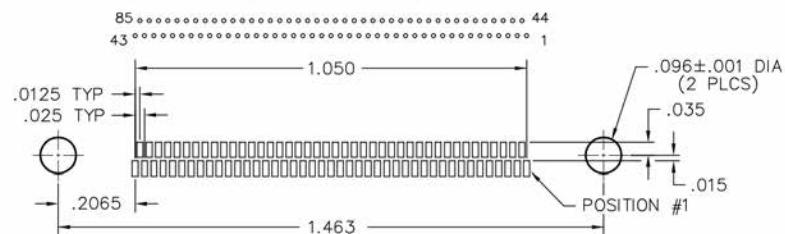
#### 69 POSITION



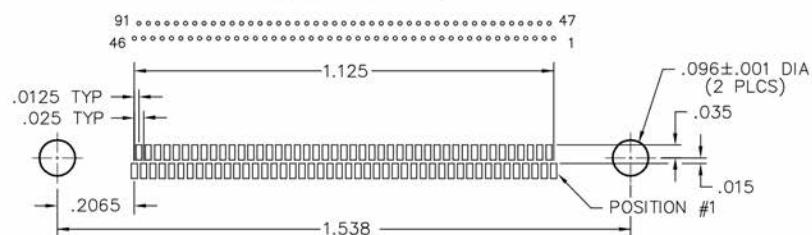
**RECOMMENDED PC BOARD LAYOUTS**  
**HORIZONTAL SMT PLUG**  
**FOR REFERENCE ONLY**



**85 POSITION**



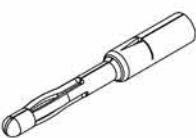
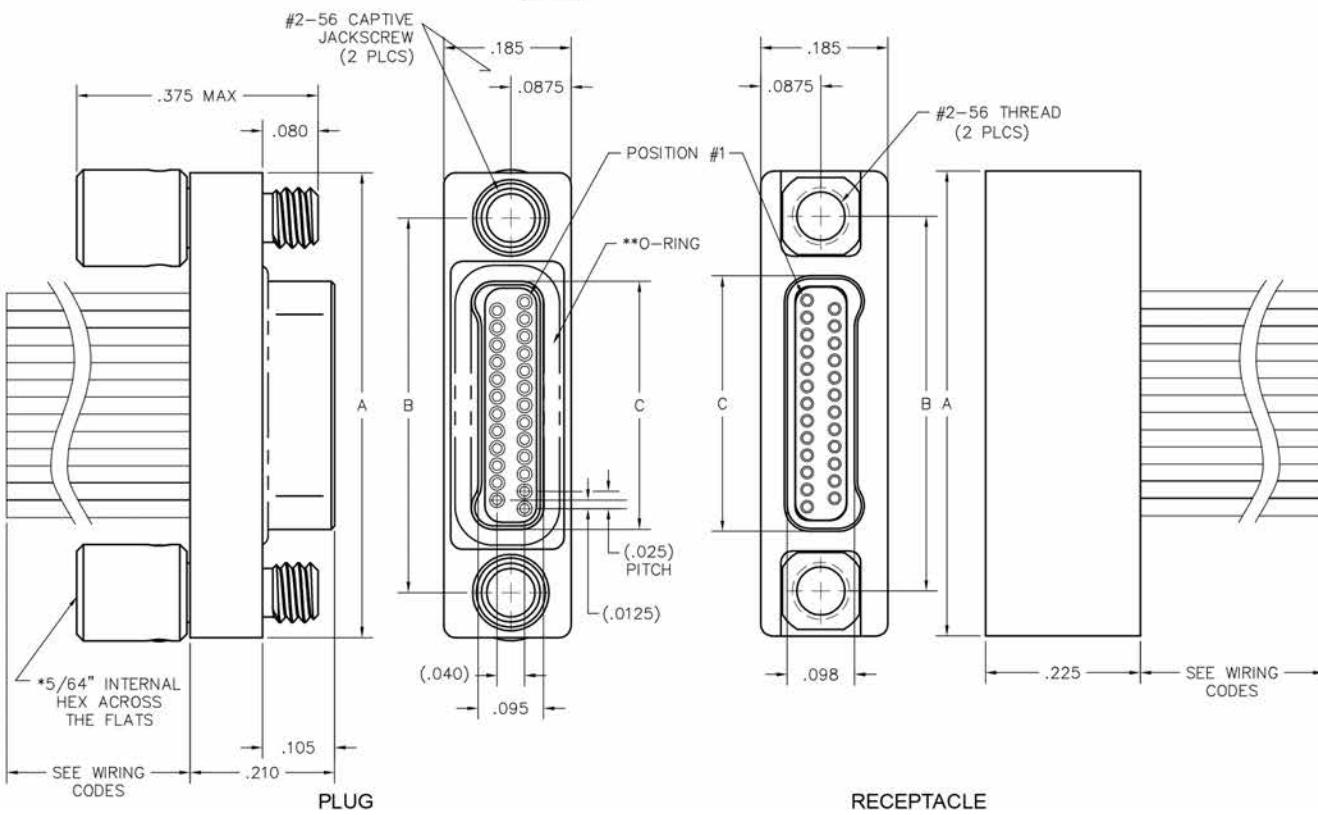
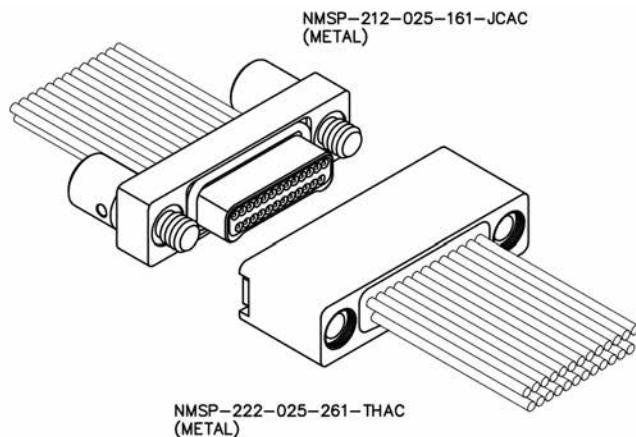
**91 POSITION**



## TWO ROW - SPLASHPROOF CABLE-TO-CABLE

### NMSP & NMSP

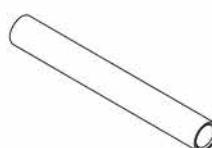
0.025" | 9 THROUGH 91 CONTACTS



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP

SIZE	A	B	DIMENSIONS		HARDWARE
			PLUG	RCPT	
9	.475	.344	.160	.163	
15	.550	.419	.235	.238	
21	.625	.494	.310	.313	
25	.675	.544	.360	.363	
31	.750	.619	.435	.438	
37	.825	.694	.510	.513	
51	1.000	.869	.685	.688	
65	1.175	1.044	.860	.863	
69	1.225	1.094	.910	.913	
85	1.425	1.294	1.110	1.113	
91	1.500	1.369	1.185	1.188	

#2-56 THREAD



SOCKET CONTACT  
DRAWN TUBE, CRIMP

\*\*The o-ring seal provides moisture resistance to fog, humidity and splashing.

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG: NMSP-212-025-161-JCAC  
 RECEPTACLE: NMSP-222-025-261-THAC  
 XXXX-XXX-XXX-XXX-XXXX

PLUG	RECEPTACLE						
<b>SERIES</b>							
NMSP .025" Metal Splashproof I/O Connector						NMSP .025" Metal Splashproof I/O Connector	
<b>BODY</b>							
2 2-Row		2 2-Row					
BODY STYLE:		BODY STYLE:					
1 Plug, straight, with fluorosilicone o-ring		2 Receptacle, straight					
BODY MATERIAL:		BODY MATERIAL:					
2 Liquid Crystal Polymer w/ electroless nickel shell		2 Liquid Crystal Polymer w/ electroless nickel shell					
3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>		3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/>					
4 Liquid Crystal Polymer w/ stainless steel shell		4 Liquid Crystal Polymer w/ stainless steel shell					
5 Liquid Crystal Polymer w/ titanium shell		5 Liquid Crystal Polymer w/ titanium shell					
<b>SIZE</b>							
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)		XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085, 91)					
<b>CONTACTS</b>							
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:					
16 Pin, straight, crimped wire		26 Socket, straight, crimped wire					
PLATING OPTIONS:		PLATING OPTIONS:					
1 50 u" Au contacts		1 50 u" Au contacts					
<b>HARDWARE</b>							
STYLE OF HARDWARE:		STYLE OF HARDWARE:					
JC Turning jackscrews, captivated #2-56 UNF*		JC Turning jackscrews, captivated #2-56 UNF*					
TH Threaded hole, #2-56 UNF **		TH Threaded hole, #2-56 UNF **					
WIRING OPTIONS:		WIRING OPTIONS:					
XX See wiring codes, Page N-151		XX See wiring codes, Page N-151					

\* = 5/64" hex key

Recommended torque value 2.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

5/64" hex L-key long arm wrench - order AirBorn p/n CDG14179.

\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel inserts (as shown on previous page).

= Option not RoHS compliant

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# SPECIFICATIONS – REAR PANEL MOUNT MATERIALS AND FINISHES\*

<b>CONTACTS:</b>	Sockets: BeCu per ASTM-B-194 or NiAg per ASTM-B-122
<b>EMBEDMENT:</b>	Insulating compound per MIL-I-16923
<b>CONTACT FINISHES:</b>	Gold plate per ASTM B 488, SAE AMS 2422
<b>MOLDED INSULATORs:</b>	Glass filled liquid crystal polymer (LCP) per ASTM D5138 or MIL-M-24519
<b>SHells:</b>	303 Stainless Steel per ASTM A581/A581M or ASTM A582/A582M passivated per SAE AMS-2700
<b>HARDWARE:</b>	Corrosion resistant steel per ASTM A581/A581M or ASTM A582/A582M or ASTM A320 passivated per SAE AMS-2700
<b>O-RINGS</b>	Fluorosilicone elastomer per SAE AMS-R-25988 Or Ag/Ai filled fluorosilicone elastomer per MIL-DTL-83528, type D
<b>TOLERANCES:**</b> <i>(Unless otherwise specified)</i>	Angles: $\pm 2^\circ$ Decimals: .XXX = $\pm 0.005"$ .XXXX = $\pm 0.0050"$

## NOTES

Molex can manufacture special configurations for your exact specifications.

\* = Reference the above listed specifications or an equivalent industry standard when applicable

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# PERFORMANCE - REAR PANEL MOUNT REFERENCE M32139

AirBorn N Series meets or exceeds MIL-DTL-32139 performance specifications.

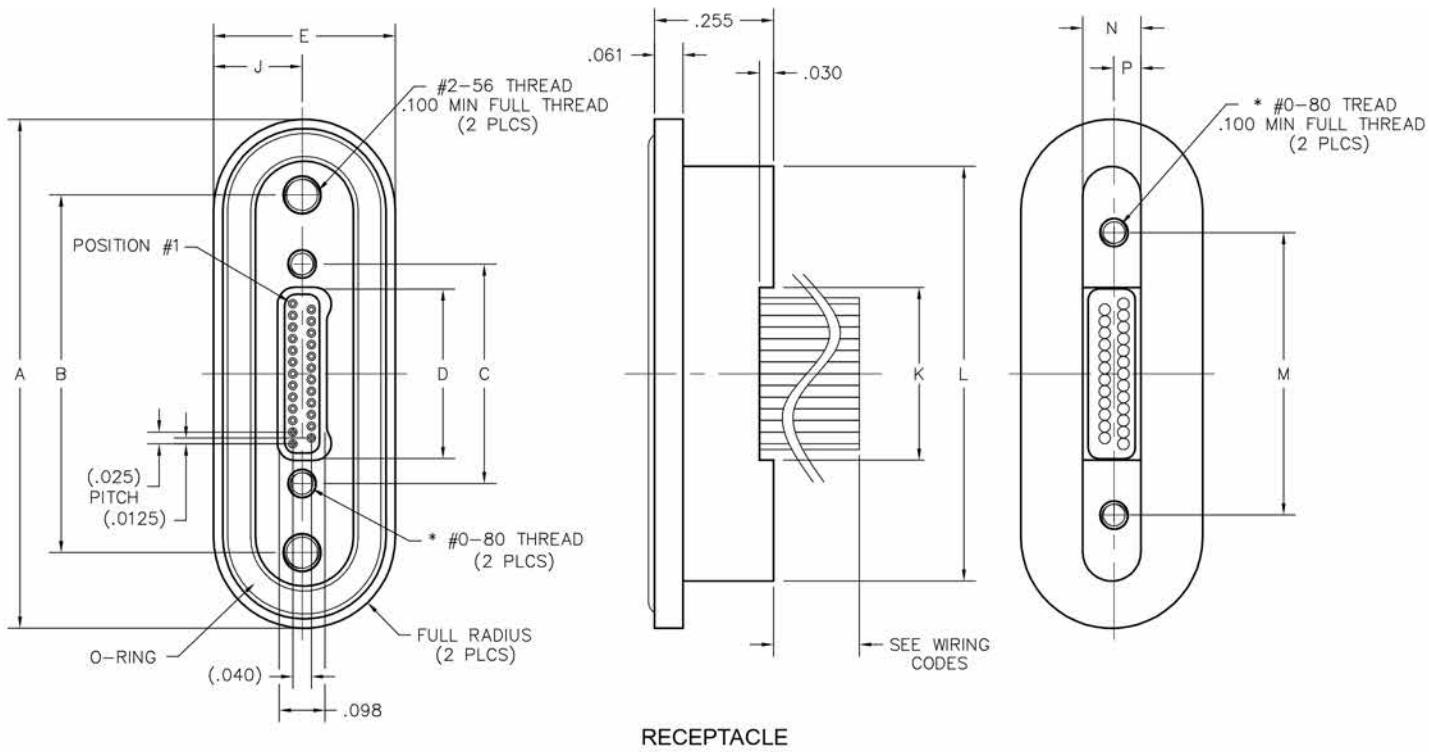
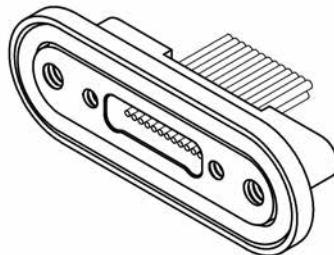
<b>CONTACT RATING:</b>	1-amperes maximum
<b>SOLDERABILITY:</b>	Terminals (except crimp) tested in accordance with MIL-STD-202, method 208
<b>WIRE SIZE:</b>	Stranded #30 and #32 AWG or solid #30 AWG standard <i>(consult factory for other sizes and types)</i>
<b>TEST VOLTAGE:</b>	250V (RMS), 60 Hz
<b>OPERATING TEMPERATURE:</b>	-55° C to +125° C
<b>INSULATION RESISTANCE:</b>	5,000 megaohms minimum at 100 VDC
<b>DURABILITY:</b>	200 connector mating cycles tested in accordance with EIA-364-09
<b>VIBRATION:</b>	Tested in accordance with EIA-364-28, condition IV
<b>SHOCK:</b>	Tested in accordance with EIA-364-27, condition G
<b>SALT SPRAY:</b>	Mated connectors tested in accordance with EIA-364-26, condition B
<b>HUMIDITY:</b>	Mated connectors tested in accordance with EIA-364-31, condition A <i>(except steps 7a and 7b)</i>
<b>THERMAL SHOCK:</b>	Tested to the temperature extremes of EIA-364-32, condition I
<b>CONTACT RESISTANCE:</b>	0.021 volt maximum drop at 1.0 amps (.021 ohms)
<b>CONTACT ENGAGING FORCE:</b>	5.0 oz maximum, with minimum diameter test sleeve
<b>CONTACT SEPARATING:</b>	0.4 oz minimum, with maximum diameter test sleeve
<b>FORCE CRIMP STRENGTH:</b>	1 pound minimum tensile strength

## **TWO ROW – REAR PANEL MOUNT I/O**

NMRP

0.025" | 9 THROUGH 85 CONTACTS

NMRP-224-025-261-THBE  
(METAL)



DIMENSIONS											
SIZE	A	B	C	D	E	J	K	L	M	N	P
9	.890	.566	.270	.163			.170	.688	.405		
15	.965	.641	.345	.238			.245	.763	.480		
21	1.040	.716	.420	.313			.320	.838	.555		
25	1.090	.766	.470	.363			.370	.888	.605		
31	1.165	.841	.545	.438			.445	.963	.680		
37	1.240	.916	.620	.513			.520	1.038	.755		
51	1.415	1.091	.795	.688			.695	1.213	.930		
65	1.590	1.266	.970	.863			.870	1.388	1.105		
69	1.640	1.316	1.020	.913			.920	1.438	1.155		
85	1.892	1.568	1.246	1.113	.415	.2025	1.120	1.690	1.407	.150	.0700

\* = #2-56 UNC THREAD ON 85 POSITION CONNECTORS.

PLEASE CONSULT THE MOLEX WEBSITE FOR THE LATEST VERSION OF THIS INFORMATION PRIOR TO BEGINNING ANY DESIGN WORK.  
SOURCE: CTN155-REV E

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## LEAD CONFIGURATION OPTIONS

RECEPTACLE: NMRP-224-025-261-TH00  
XXXX-XXX-XXX-XXX-XXXX-XXX

### SERIES

NMRP .025" Metal I/O Connector

### BODY

2 2-Row

BODY STYLE:

2 Receptacle, straight, rear panel mount with  
fluorosilicone o-ring

BODY MATERIAL:

4 Liquid Crystal Polymer w/ stainless steel shell

### SIZE

XXX Number of contacts (009, 015, 021, 025, 031,  
037, 051, 065, 069 or 085)

### CONTACTS

TYPE CONTACTS/TERMINATIONS:

26 Socket, straight, crimped wire

PLATING OPTIONS:

1 50  $\mu$ " Au contacts

### HARDWARE

STYLE OF HARDWARE:

TH Threaded hole, #0-80 UNF\*

WIRING OPTIONS:

XX See wiring codes, Page N-151

### OPTIONS

EMI EMI o-ring (in lieu of fluorosilicone o-ring)

\* = #2-56 UNC thread on 85 position connectors

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

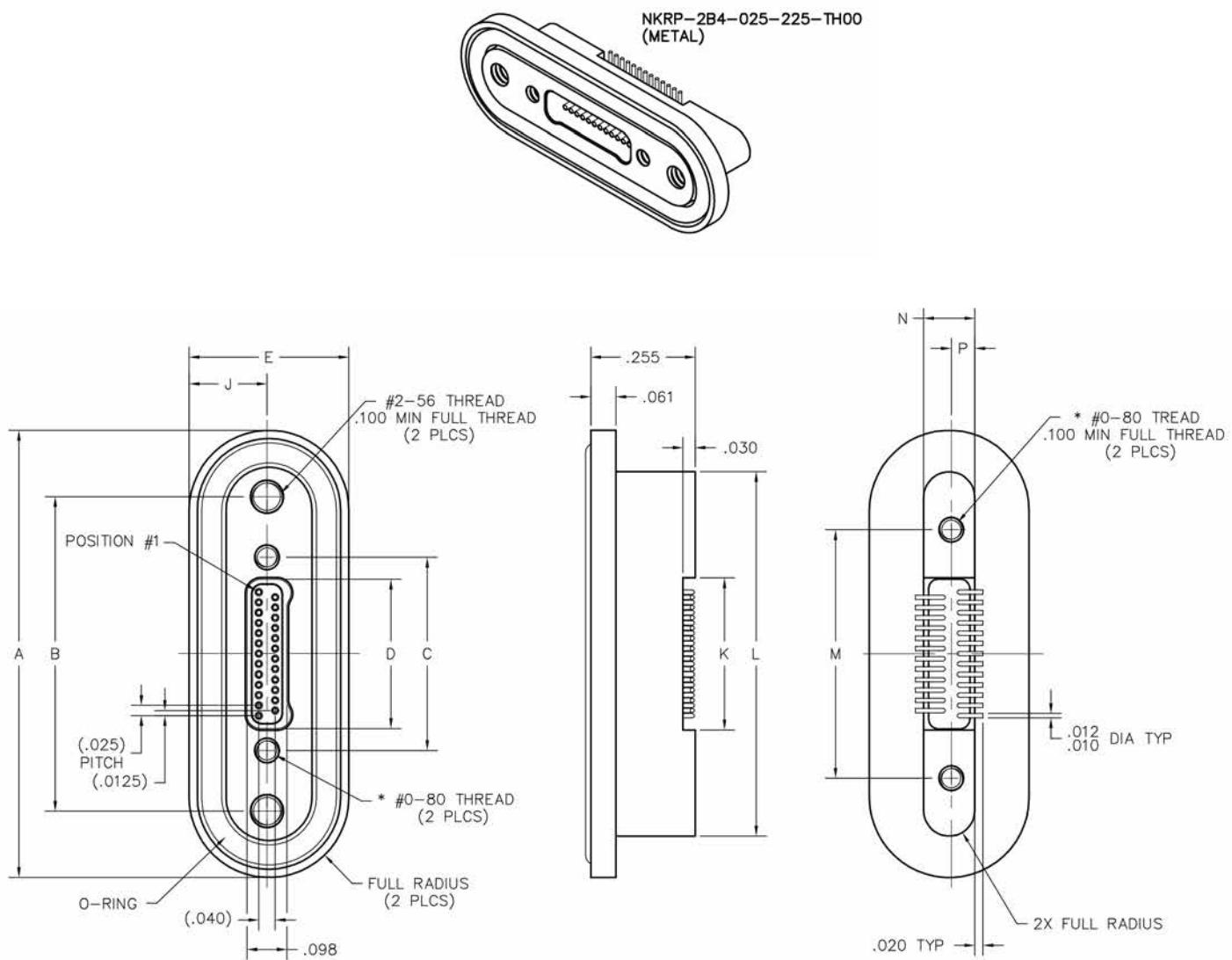
Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

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# TWO ROW - REAR PANEL MOUNT VERTICAL SMT

**NKRP**

0.025" | 9 THROUGH 85 CONTACTS



DIMENSIONS											
SIZE	A	B	C	D	E	J	K	L	M	N	P
9	.890	.566	.270	.163			.170	.688	.405		
15	.965	.641	.345	.238			.245	.763	.480		
21	1.040	.716	.420	.313			.320	.838	.555		
25	1.090	.766	.470	.363			.370	.888	.605		
31	1.165	.841	.545	.438			.445	.963	.680		
37	1.240	.916	.620	.513			.520	1.038	.755		
51	1.415	1.091	.795	.688			.695	1.213	.930		
65	1.590	1.266	.970	.863			.870	1.388	1.105		
69	1.640	1.316	1.020	.913			.920	1.438	1.155		
85	1.892	1.568	1.246	1.113	.415	.2025	1.120	1.690	1.407	.150	.0700

\* = #2-56 UNC THREAD ON 85 POSITION CONNECTORS.

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## LEAD CONFIGURATION OPTIONS

RECEPTACLE: NKRP-2B4-025-225-TH00  
XXXX-XXX-XXX-XXX-XXXX-XXX

### SERIES

NKRP .025" Metal PC Board Mounted Connector

### BODY

2 2-Row

BODY STYLE:

B Receptacle, vertical SMT, rear panel mount with fluorosilicone o-ring

BODY MATERIAL:

4 Liquid Crystal Polymer w/ stainless steel shell

### SIZE

XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)

### CONTACTS

TYPE CONTACTS/TERMINATIONS:

22 Socket, SMT

PLATING OPTIONS:

5 50  $\mu$ " Au contacts; Sn/Pb alloy terminations

8 50  $\mu$ " Au contacts; Tin plated terminations

### HARDWARE

STYLE OF HARDWARE:

TH Threaded hole, #0-80 UNF\*

WIRING OPTIONS:

00 None

### OPTIONS

EMI EMI o-ring (in lieu of fluorosilicone o-ring)

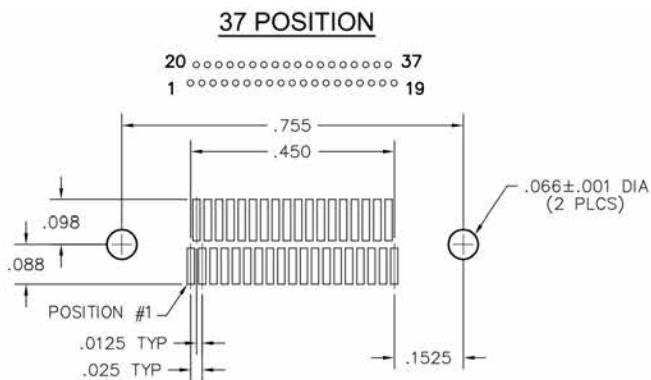
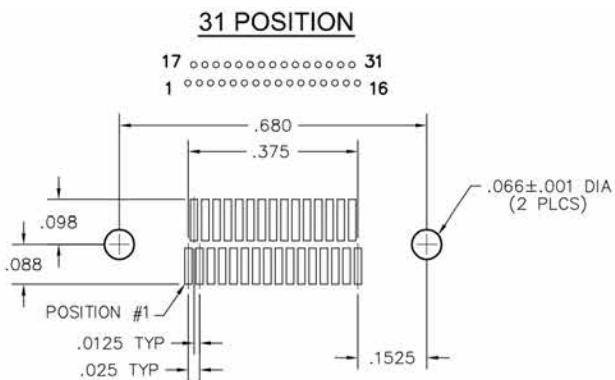
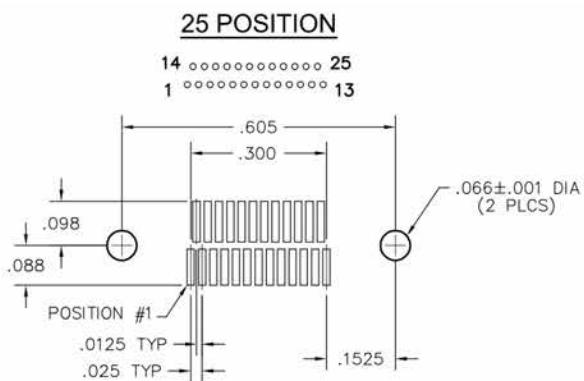
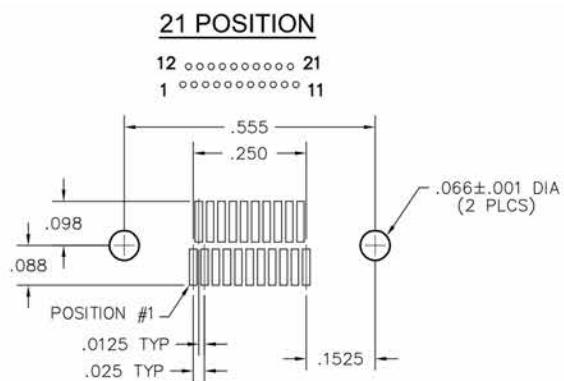
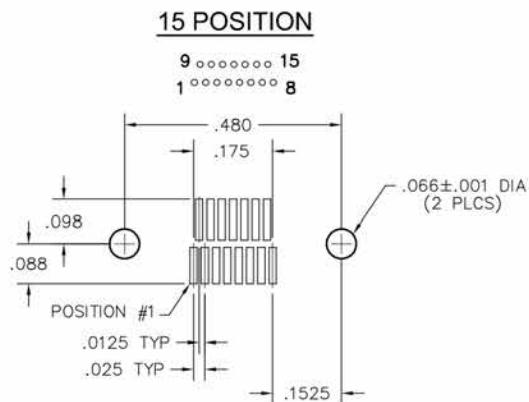
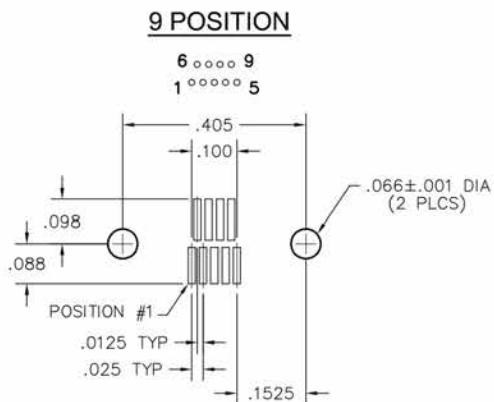
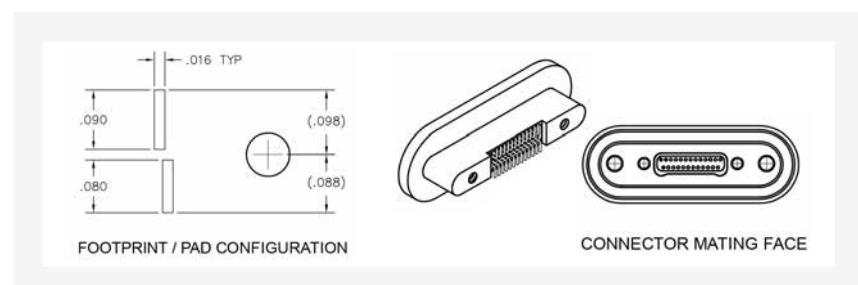
\* = #2-56 UNC thread on 85, 91 position connectors

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

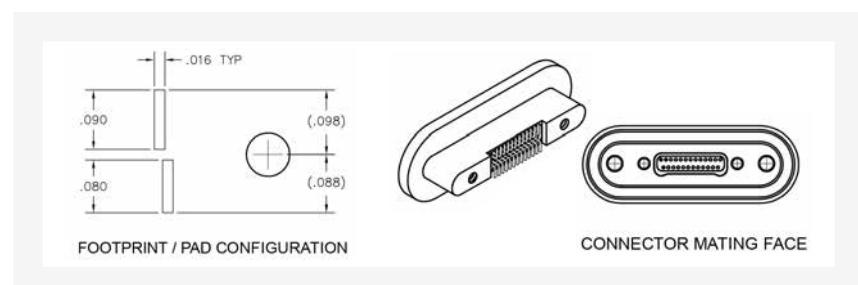
Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

= Option not RoHS compliant

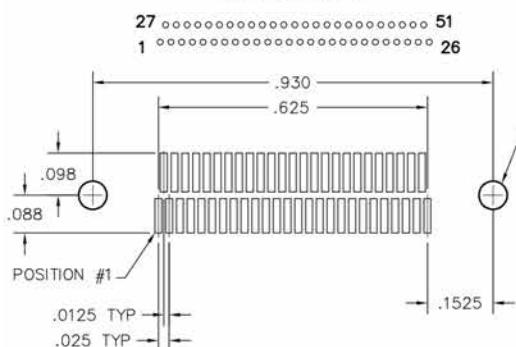
**RECOMMENDED PC BOARD LAYOUTS**  
**VERTICAL SMT RECEPTACLE**  
**FOR REFERENCE ONLY**



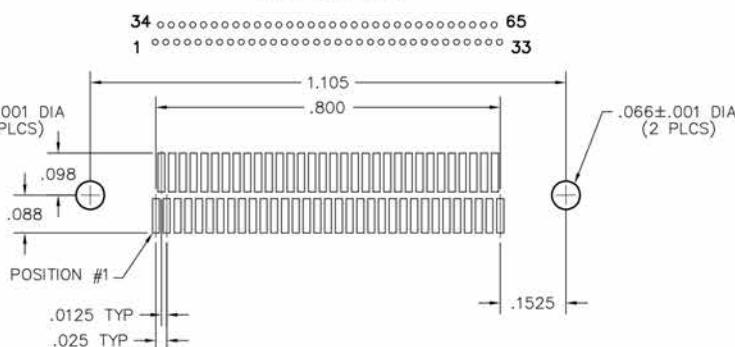
**RECOMMENDED PC BOARD LAYOUTS**  
**VERTICAL SMT RECEPTACLE**  
**FOR REFERENCE ONLY**



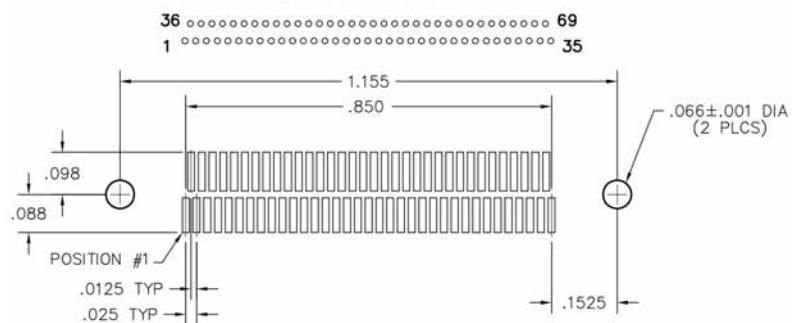
51 POSITION



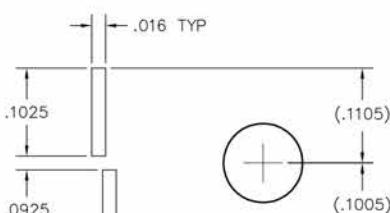
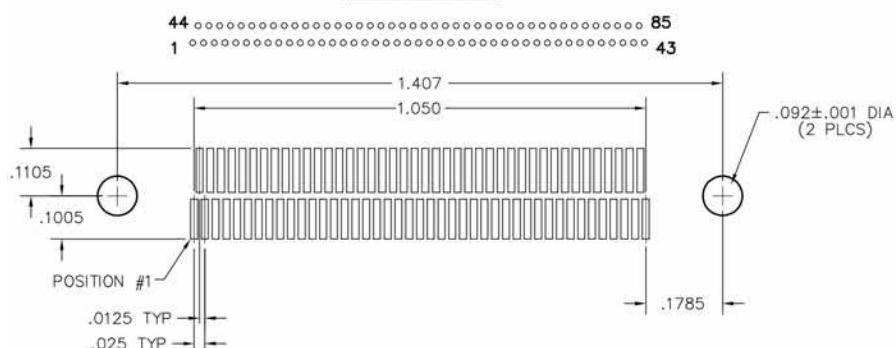
65 POSITION



69 POSITION



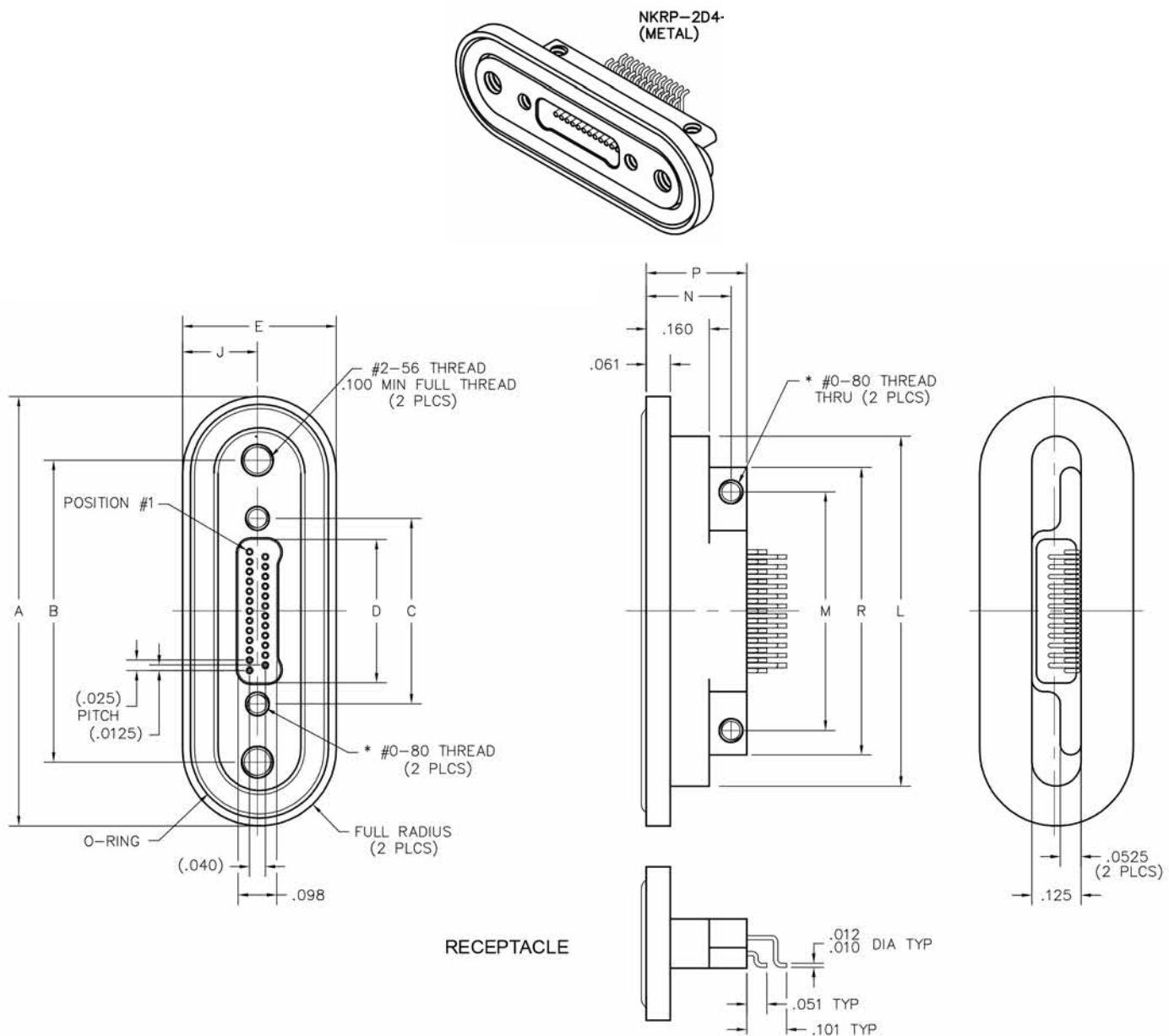
85 POSITION



# TWO ROW - REAR PANEL MOUNT HORIZONTAL SMT

**NKRP**

0.025" | 9 THROUGH 85 CONTACTS



SIZE	DIMENSIONS											
	A	B	C	D	E	J	L	M	N	P	R	
9	.890	.566	.270	.163			.688	.405			.531	
15	.965	.641	.345	.238			.763	.480			.606	
21	1.040	.716	.420	.313			.838	.555			.681	
25	1.090	.766	.470	.363			.888	.605			.731	
31	1.165	.841	.545	.438			.963	.680			.806	
37	1.240	.916	.620	.513			1.038	.755			.881	
51	1.415	1.091	.795	.688			1.213	.930			1.056	
65	1.590	1.266	.970	.863			1.388	1.105			1.231	
69	1.640	1.316	1.020	.913			1.438	1.155			1.281	
85	1.892	1.568	1.246	1.113	.415	.2025	1.690	1.407	.244	.300	1.533	

\* = #2-56 UNC THREAD ON 85 & 91 POSITION CONNECTORS.

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## LEAD CONFIGURATION OPTIONS

RECEPTACLE: NKRP-2D4-025-225-TH00  
XXXX-XXX-XXX-XXX-XXXX-XXX

### SERIES

NKRP .025" Metal PC Board Mounted Connector

### BODY

2 2-Row

BODY STYLE:

D Receptacle, horizontal SMT, rear panel mount with  
fluorosilicone o-ring

BODY MATERIAL:

4 Liquid Crystal Polymer w/ stainless steel shell

### SIZE

XXX Number of contacts (009, 015, 021, 025, 031,  
037, 051, 065, 069 or 085)

### CONTACTS

TYPE CONTACTS/TERMINATIONS:

22 Socket, SMT

PLATING OPTIONS:

5 50  $\mu$ " Au contacts; Sn/Pb alloy terminations   
8 50  $\mu$ " Au contacts; Tin plated terminations

### HARDWARE

STYLE OF HARDWARE:

TH Threaded hole, #0-80 UNF\*

WIRING OPTIONS:

00 None

### OPTIONS

EMI EMI o-ring (in lieu of fluorosilicone o-ring)

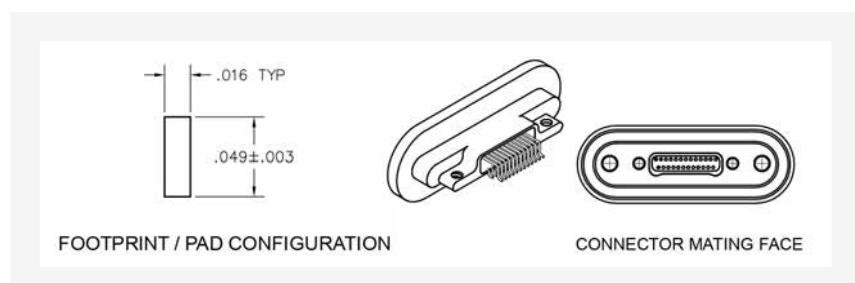
\* = #2-56 UNC thread on 85 position connectors

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

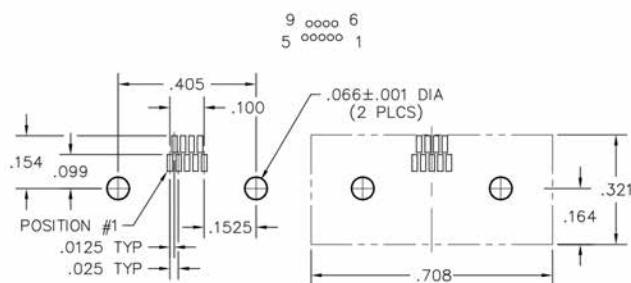
Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

= Option not RoHS compliant

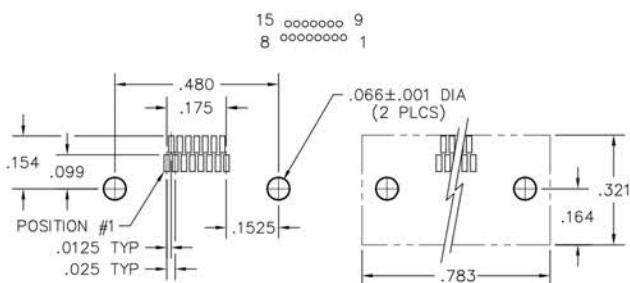
**RECOMMENDED PC BOARD LAYOUTS**  
**HORIZONTAL SMT RECEPTACLE**  
**FOR REFERENCE ONLY**  
**NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE**



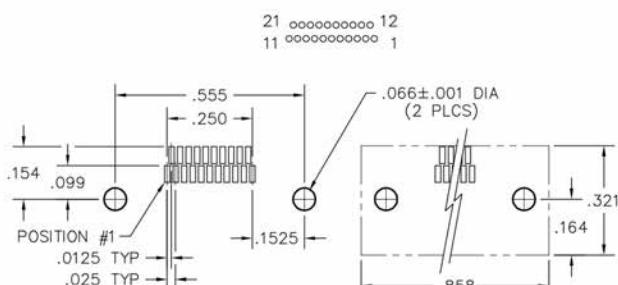
**9 POSITION**



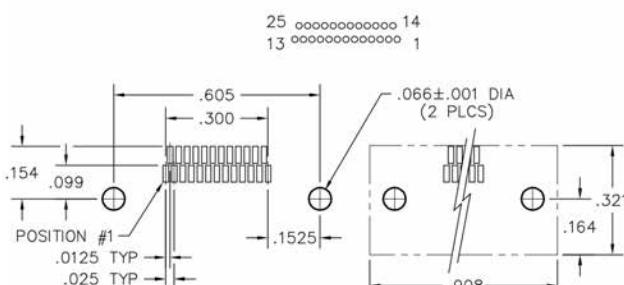
**15 POSITION**



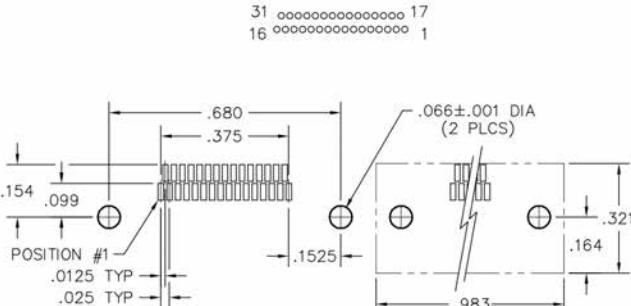
**21 POSITION**



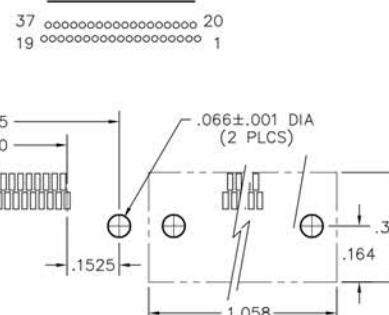
**25 POSITION**



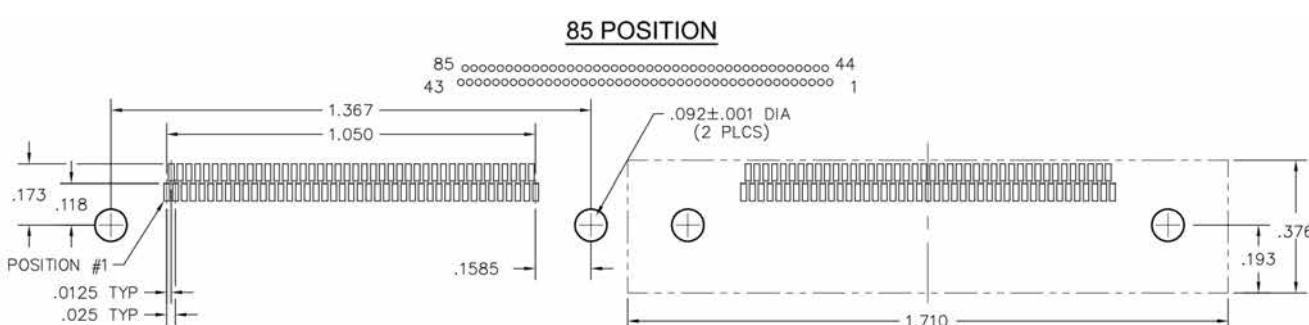
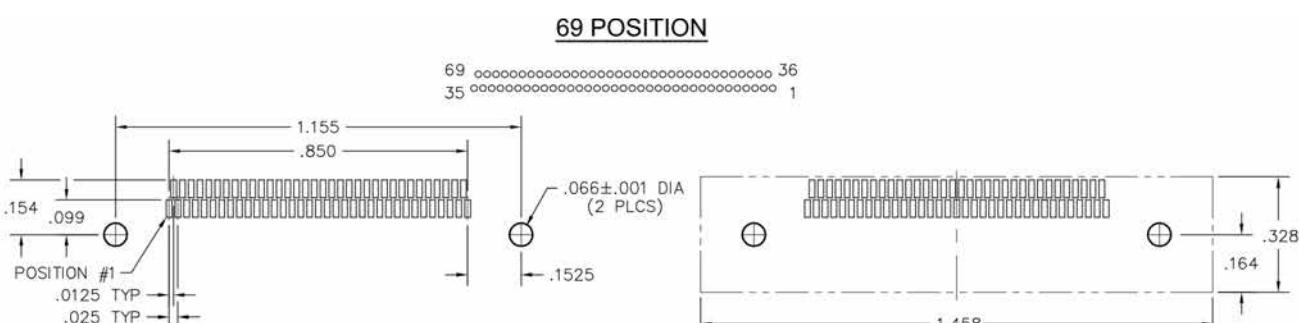
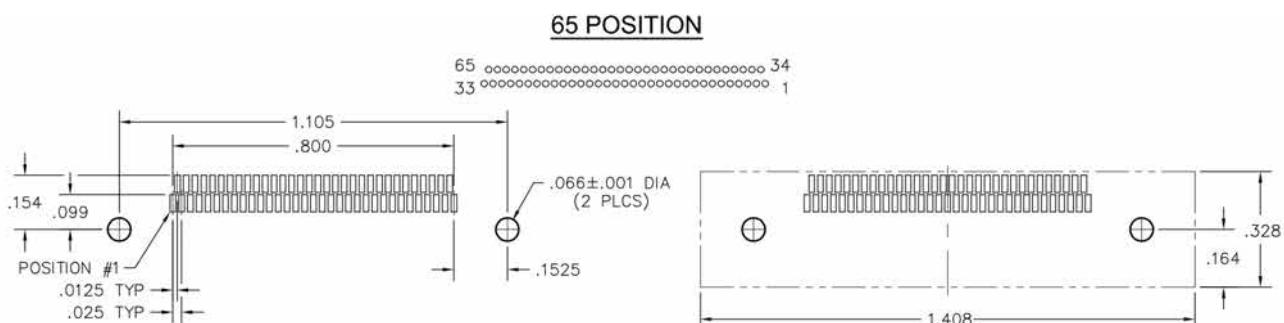
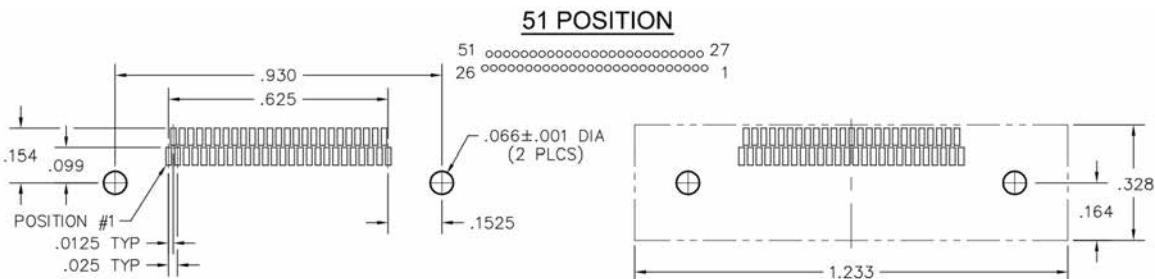
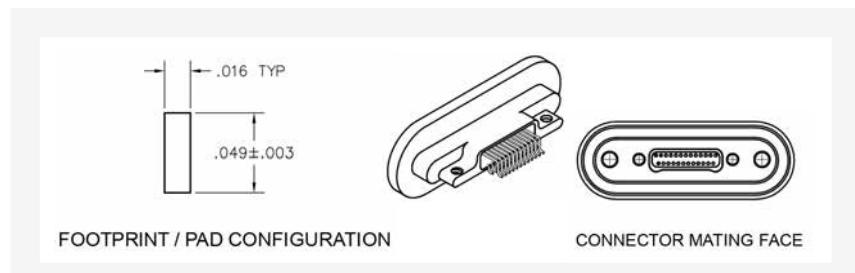
**31 POSITION**



**37 POSITION**



**RECOMMENDED PC BOARD LAYOUTS**  
**HORIZONTAL SMT RECEPTACLE**  
**FOR REFERENCE ONLY**  
**NO SOLDER MASK ALLOWED WITHIN CONNECTOR OUTLINE**

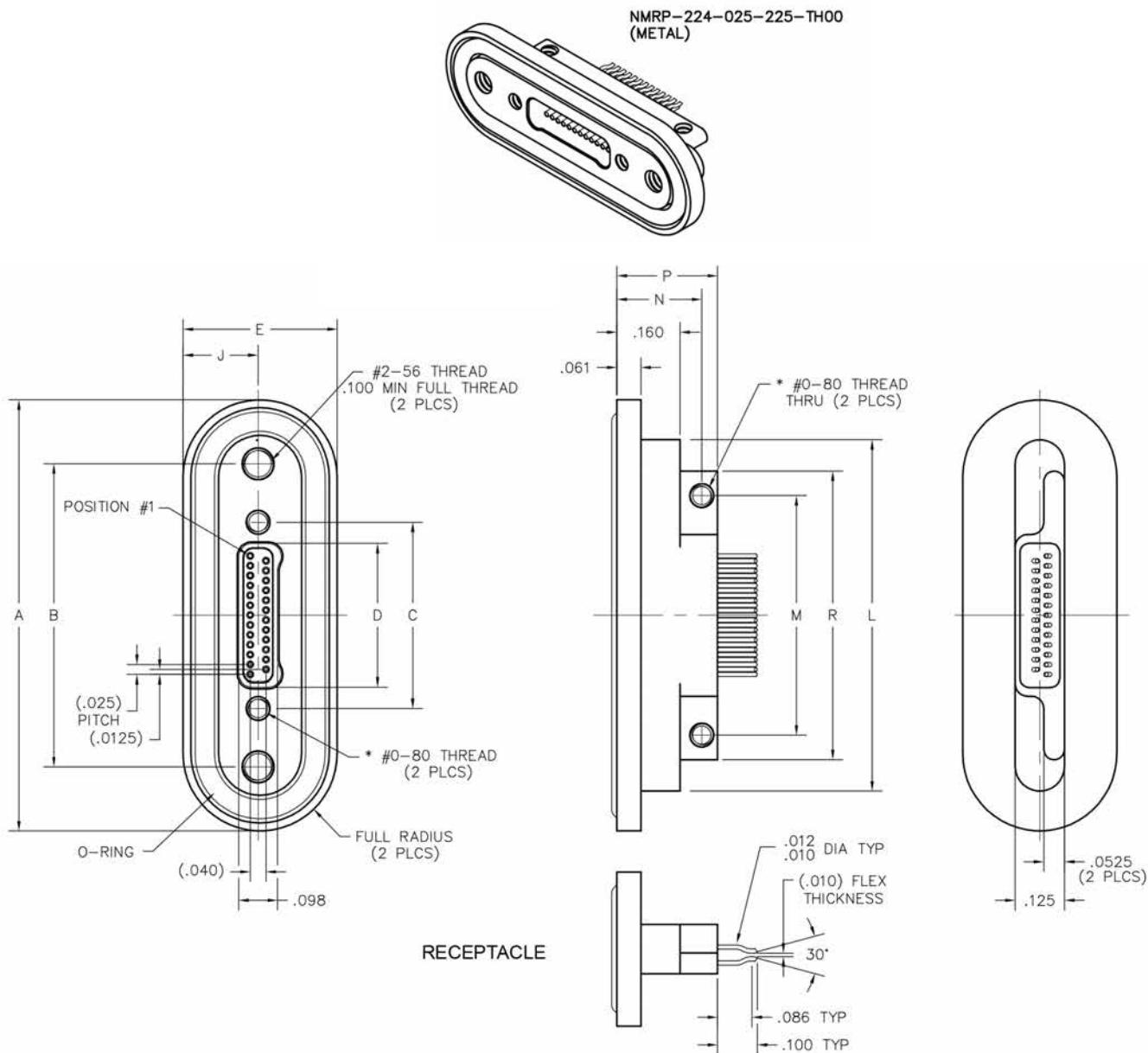


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# TWO ROW - REAR PANEL MOUNT STRADDLE MOUNT

## NMRP

0.025" | 9 THROUGH 85 CONTACTS



SIZE	DIMENSIONS										
	A	B	C	D	E	J	L	M	N	P	R
9	.890	.566	.270	.163			.688	.405			.531
15	.965	.641	.345	.238			.763	.480			.606
21	1.040	.716	.420	.313			.838	.555			.681
25	1.090	.766	.470	.363			.888	.605			.731
31	1.165	.841	.545	.438			.963	.680			.806
37	1.240	.916	.620	.513			1.038	.755			.881
51	1.415	1.091	.795	.688			1.213	.930			1.056
65	1.590	1.266	.970	.863			1.388	1.105			1.231
69	1.640	1.316	1.020	.913			1.438	1.155			1.281
85	1.892	1.568	1.246	1.113	.415	.2025	1.690	1.367	.244	.300	1.533

\* = #2-56 UNC THREAD ON 85 POSITION CONNECTORS.

## LEAD CONFIGURATION OPTIONS

RECEPTACLE: NMRP-224-025-225-TH00  
XXXX-XXX-XXX-XXX-XXXX-XXX

### SERIES

NMRP .025" Metal Straddle Mount Flex Connector

### BODY

2 2-Row

BODY STYLE:

2 Receptacle, straight, rear panel mount with  
fluorosilicone o-ring

BODY MATERIAL:

4 Liquid Crystal Polymer w/ stainless steel shell

### SIZE

XXX Number of contacts (009, 015, 021, 025, 031,  
037, 051, 065, 069 or 085)

### CONTACTS

TYPE CONTACTS/TERMINATIONS:

22 Socket, SMT

PLATING OPTIONS:

5 50  $\mu$ " Au contacts; Sn/Pb alloy terminations

8 50  $\mu$ " Au contacts; Tin plated terminations

### HARDWARE

STYLE OF HARDWARE:

TH Threaded hole, #0-80 UNF\*

WIRING OPTIONS:

00 None

### OPTIONS

EMI EMI o-ring (in lieu of fluorosilicone o-ring)

\* = #2-56 UNC thread on 85 position connectors

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

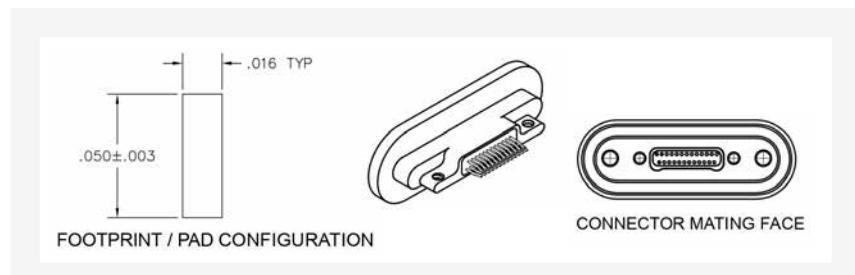
= Option not RoHS compliant

**molex**

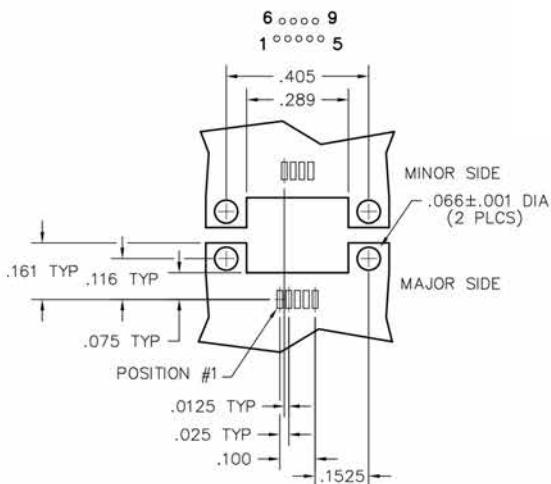
## RECOMMENDED PC BOARD LAYOUTS

### STRADDLE MOUNT RECEPTACLE

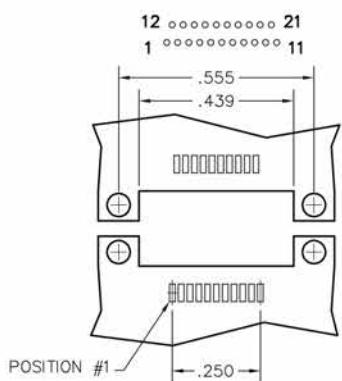
*FOR REFERENCE ONLY*



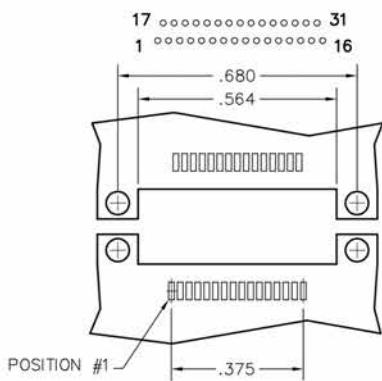
**9 POSITION**



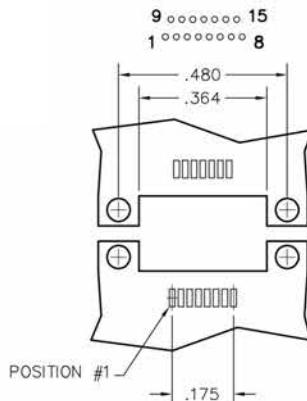
## 21 POSITION



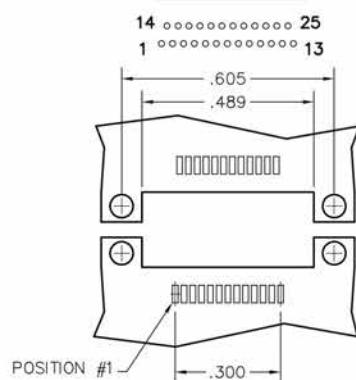
### 31 POSITION



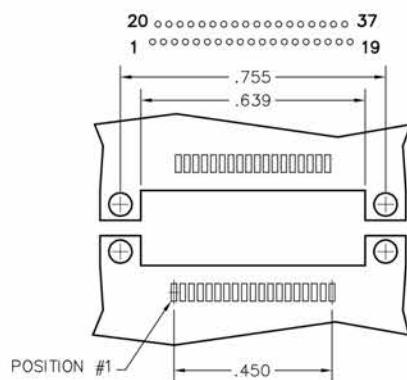
**15 POSITION**



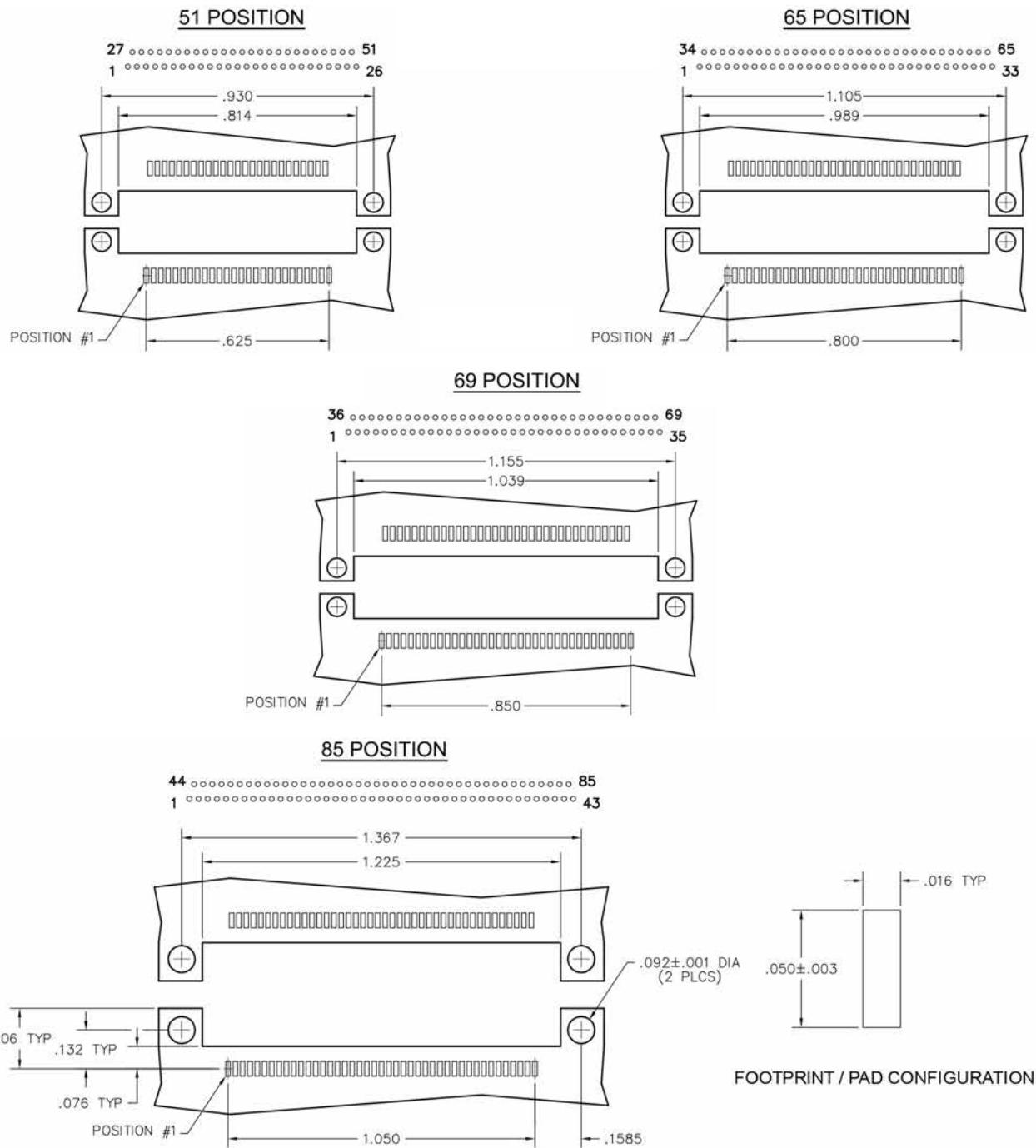
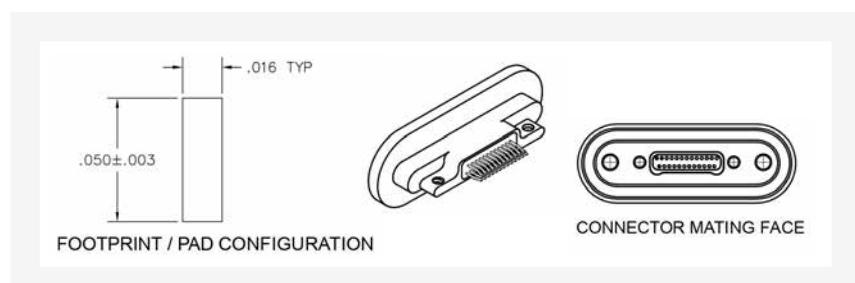
25 POSITION



### 37 POSITION

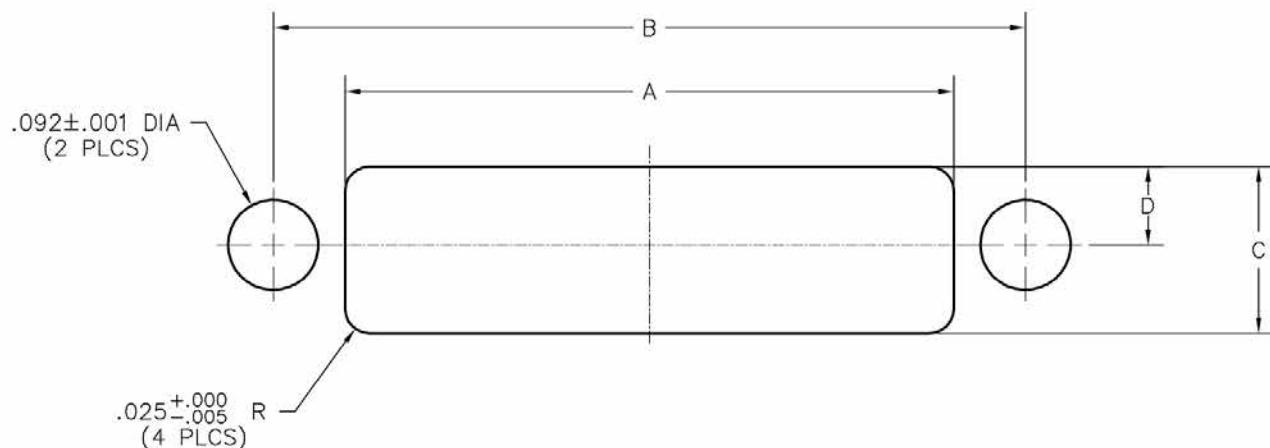


**RECOMMENDED PC BOARD LAYOUTS**  
**STRADDLE MOUNT RECEPTACLE**  
**FOR REFERENCE ONLY**



**molex**

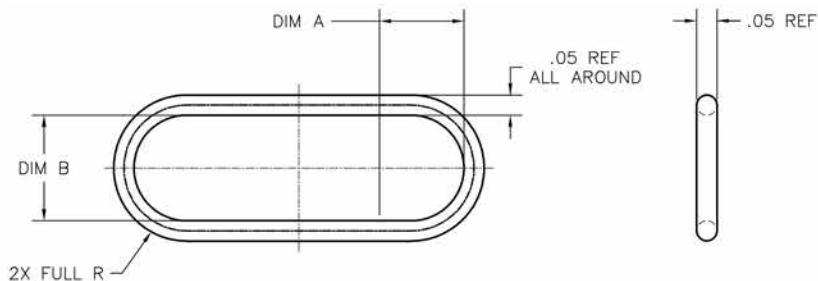
**PANEL MOUNTING DIMENSIONS FOR  
REAR PANEL MOUNT CONNECTORS**



SIZE	DIMENSIONS			
	A +.004 -.000	B ±.002	C +.004 -.000	D ±.001
9	.420	.566	.170	.080
15	.495	.641	.170	.080
21	.570	.716	.170	.080
25	.620	.766	.170	.080
31	.695	.841	.170	.080
37	.770	.916	.170	.080
51	.945	1.091	.170	.080
65	1.120	1.266	.170	.080
69	1.170	1.316	.170	.080
85	1.422	1.568	.195	.0925

**molex**

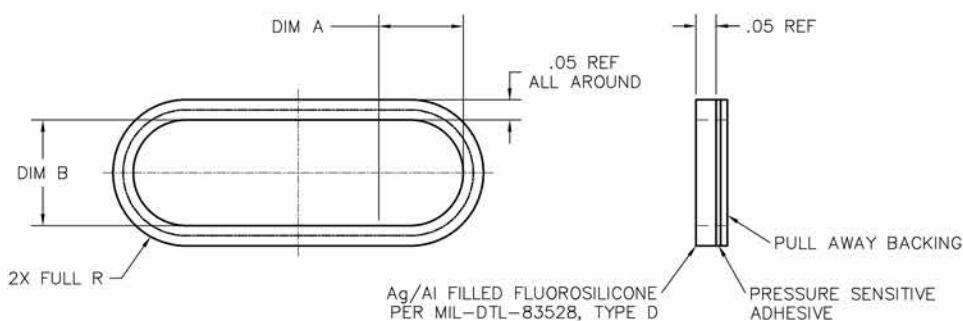
## O-RING, FLUOROSILICONE



DIMENSIONS (Ref Only)			
SIZE	CONTACT ROWS	A	B
9	2	.73	.23
15		.81	
21		.88	
25		.93	
31		1.01	
37		1.08	
51		1.26	
65		1.43	
69		1.48	
85	2	1.73	.26

PART NUMBERS	
SIZE	P/N
9	CDP1980
15	CDP1981
21	CDP1982
25	CDP1983
31	CDP1984
37	CDP1985
51	CDP1986
65	CDP1987
69	CDP1988
85	CDP1989

## EMI GASKET, FLUOROSILICONE



DIMENSIONS (Ref Only)			
SIZE	CONTACT ROWS	A	B
9	2	.74	.24
15		.81	
21		.89	
25		.94	
31		1.01	
37		1.09	
51		1.26	
65		1.44	
69		1.49	
85	2	1.74	.26

PART NUMBERS	
SIZE	P/N
9	CDP1990
15	CDP1991
21	CDP1992
25	CDP1993
31	CDP1994
37	CDP1995
51	CDP1996
65	CDP1997
69	CDP1998
85	CDP1999

**molex**

# AIRBORN N SERIES ACCESSORIES

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# MOLEX STANDARD NANO WIRE CODES

WIRE CODE	WIRE SIZE	WIRE SPEC	WIRE COLOR	WIRE LENGTH (+1.0"/-0.0")
AA	30AWG	NEMA HP3	Color Coded*	6.0
AB	30AWG	NEMA HP3	Color Coded*	12.0
AC	30AWG	NEMA HP3	Color Coded*	18.0
AD	30AWG	NEMA HP3	Color Coded*	36.0
AE	30AWG	NEMA HP3	White	6.0
AF	30AWG	NEMA HP3	White	12.0
AG	30AWG	NEMA HP3	White	18.0
AH	30AWG	NEMA HP3	White	36.0
AJ	30AWG	NEMA HP3	Yellow	6.0
AK	30AWG	NEMA HP3	Yellow	12.0
AL	30AWG	NEMA HP3	Yellow	18.0
AM	30AWG	NEMA HP3	Yellow	36.0
AN	32AWG	NEMA HP3	Color Coded*	6.0
AP	32AWG	NEMA HP3	Color Coded*	12.0
AQ	32AWG	NEMA HP3	Color Coded*	18.0
AR	32AWG	NEMA HP3	Color Coded*	36.0
AS	32AWG	NEMA HP3	White	6.0
AT	32AWG	NEMA HP3	White	12.0
AU	32AWG	NEMA HP3	White	18.0
AV	32AWG	NEMA HP3	White	36.0
AW	32AWG	NEMA HP3	Yellow	6.0
AX	32AWG	NEMA HP3	Yellow	12.0
AY	32AWG	NEMA HP3	Yellow	18.0
AZ	32AWG	NEMA HP3	Yellow	36.0
BA	30AWG	SAE-AS22759/33	Color Coded*	6.0
BB	30AWG	SAE-AS22759/33	Color Coded*	12.0
BC	30AWG	SAE-AS22759/33	Color Coded*	18.0
BD	30AWG	SAE-AS22759/33	Color Coded*	36.0
BE	30AWG	SAE-AS22759/33	White	6.0
BF	30AWG	SAE-AS22759/33	White	12.0
BG	30AWG	SAE-AS22759/33	White	18.0
BH	30AWG	SAE-AS22759/33	White	36.0

# MOLEX STANDARD NANO WIRE CODES

WIRE CODE	WIRE SIZE	WIRE SPEC	WIRE COLOR	WIRE LENGTH (+1.0"/-0.0")
CA	30AWG	04047-30A [x]	Color Coded*	6.0
CB	30AWG	04047-30A [x]	Color Coded*	12.0
CC	30AWG	04047-30A [x]	Color Coded*	18.0
CD	30AWG	04047-30A [x]	Color Coded*	36.0
CE	30AWG	04047-30A [x]	White	6.0
CF	30AWG	04047-30A [x]	White	12.0
CG	30AWG	04047-30A [x]	White	18.0
CH	30AWG	04047-30A [x]	White	36.0

## NOTES

•NEMA HP3 has replaced MIL-W-16878/6 TFE 7 -strand ET

Consult factory for other available wire types.

\*Color coding in accordance with MIL-STD-681, System I, except using ten solid colors only in repeating sequence

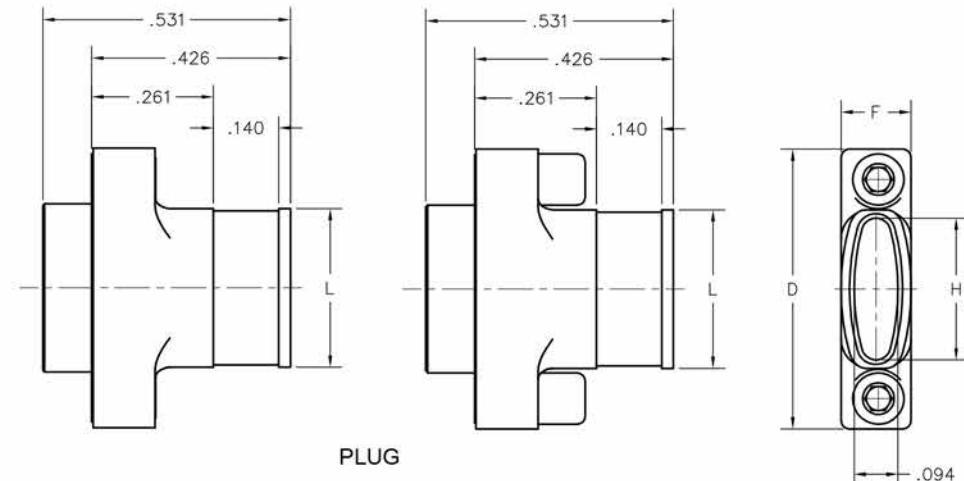
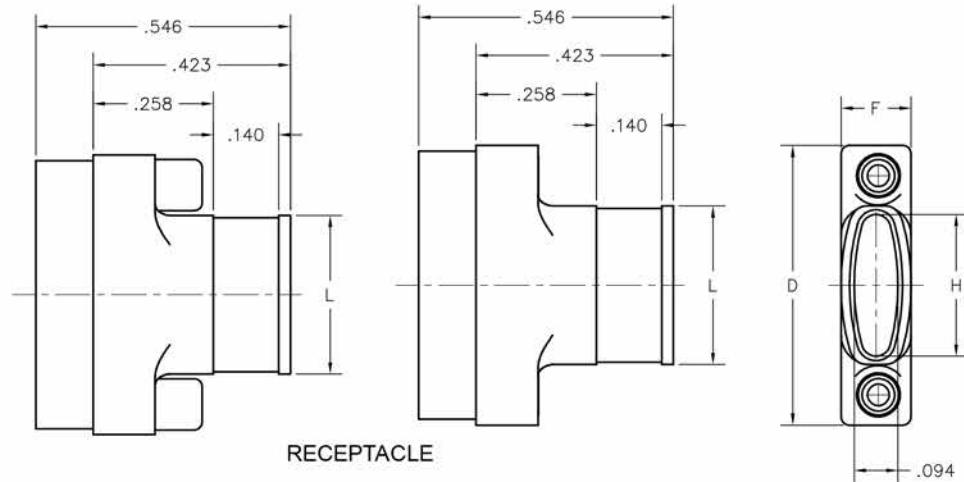
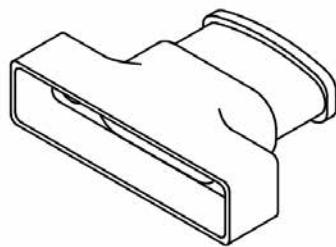
[x] Option is not RoHS-compliant



## TWO ROW - BACKSHELLS

**NM**

0.025" | 9 THROUGH 91 CONTACTS



DIMENSIONS					
SIZE	D	F	H	L	HARDWARE
9	.400		.104	.140	
15	.475		.179	.215	
21	.550		.254	.290	
25	.600		.304	.340	
31	.675		.379	.415	
37	.750		.454	.490	
51	.925		.629	.665	
65	1.100		.804	.840	
69	1.150		.854	.890	
85	1.402	.175	1.054	1.090	#2-56
91	1.477	.175	1.129	1.165	

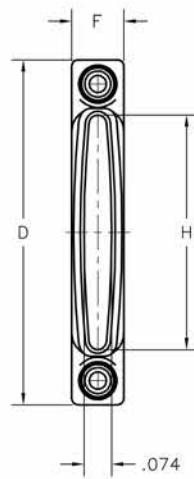
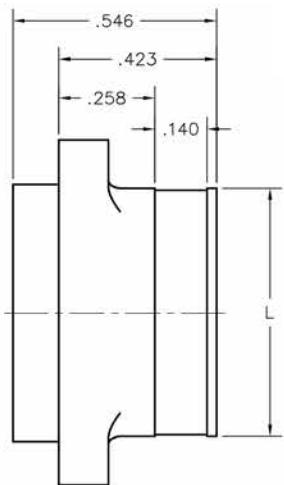
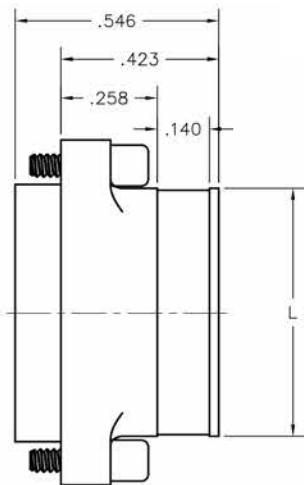
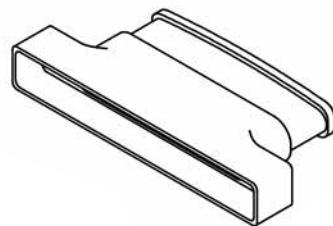
THESE BACKSHELLS ARE AVAILABLE FACTORY INSTALLED ONLY, SEE PAGE N-45

**molex**

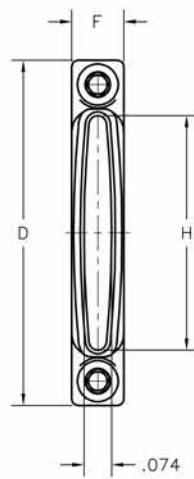
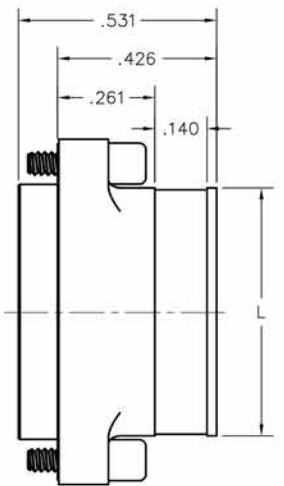
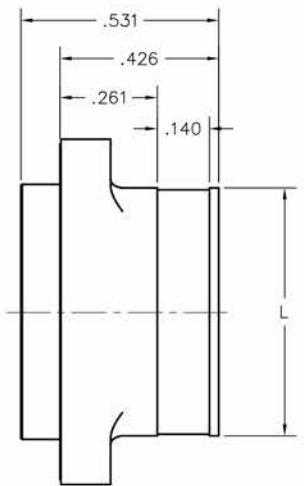
## ONE ROW - BACKSHELLS

### NM

0.025" | 9 THROUGH 51 CONTACTS



RECEPTACLE



PLUG

DIMENSIONS					
SIZE	D	F	H	L	HARDWARE
9	.525		.229	.265	
15	.675		.379	.415	
21	.825		.529	.565	
25	.925	.140	.629	.665	#0-80
31	1.075		.779	.815	
37	1.225		.929	.965	
51	1.575		1.279	1.315	

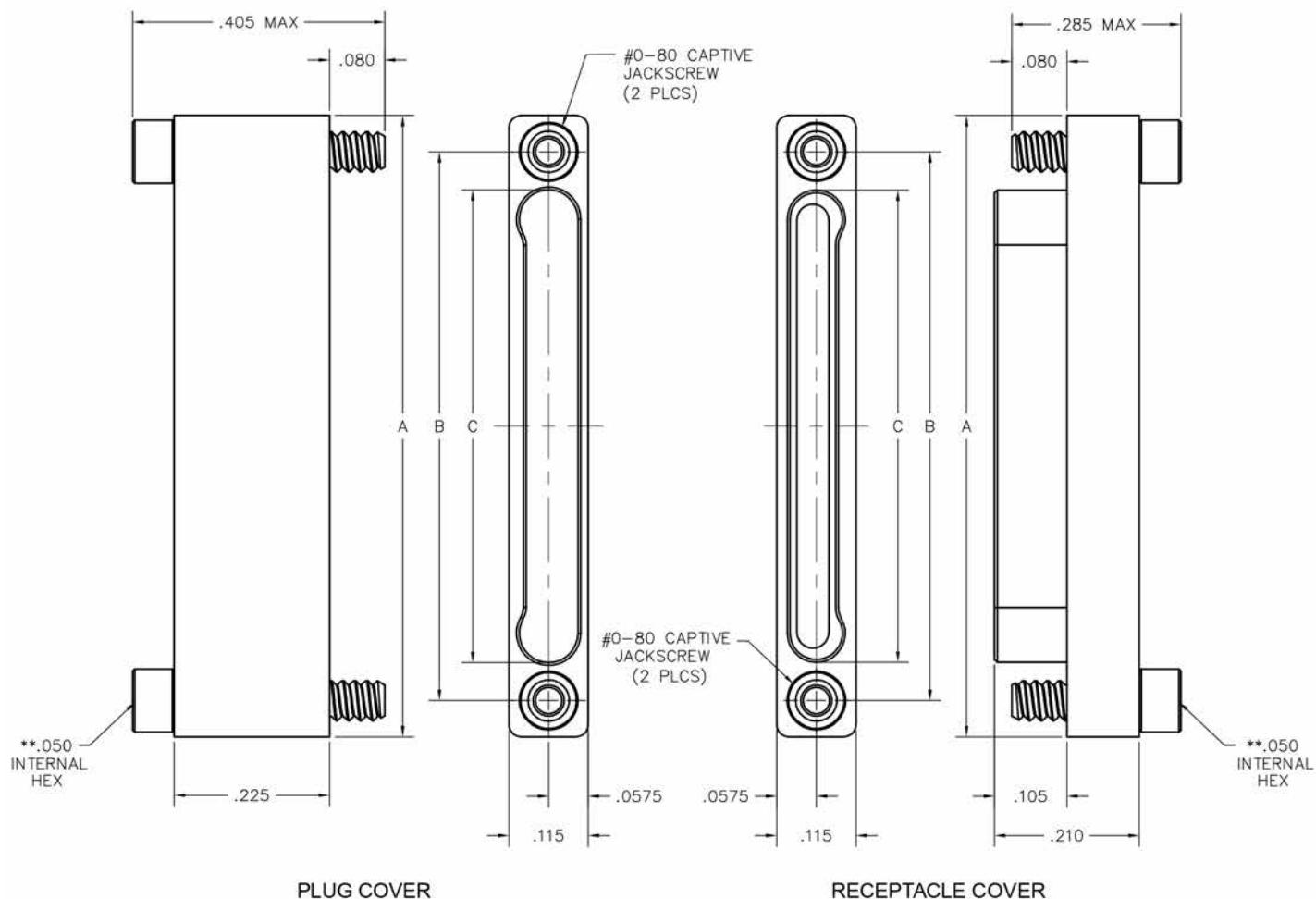
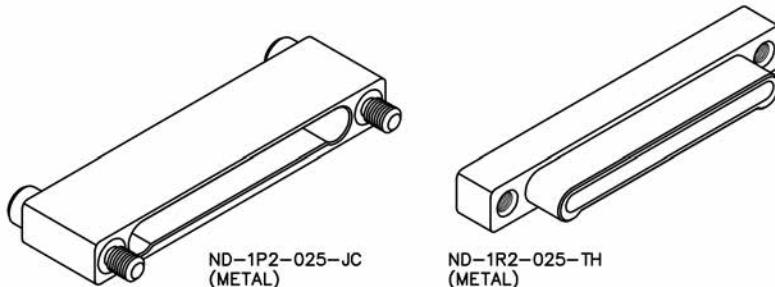
THESE BACKSHELLS ARE AVAILABLE FACTORY INSTALLED ONLY. SEE PAGE N-8

**molex**

# ONE ROW – DUST COVER

**ND**

0.025" | 9 THROUGH 51 CONTACTS



PLUG COVER

RECEPTACLE COVER

SIZE	A	B	DIMENSIONS	
			PLUG	RCPT
9	.500	.395	.285	.284
15	.650	.545	.435	.434
21	.800	.695	.585	.584
25	.900	.795	.685	.684
31	1.050	.945	.835	.834
37	1.200	1.095	.985	.984
51	1.550	1.445	1.335	1.334

\*\* = HEX MEASUREMENT TAKEN ACROSS THE FLATS.

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG COVER: ND-1P2-009-JC  
 RECEPTACLE COVER: ND-1R2-009-TH  
 XX-XXX-XXX-XX

### PLUG COVER

### RECEPTACLE COVER

#### SERIES

ND .025" Metal Dust Cover

ND .025" Metal Dust Cover

#### BODY

1 1-Row

1 1-Row

P BODY STYLE:  
Plug cover

R BODY STYLE:  
Receptacle cover

2 BODY PLATING:  
Electroless nickel  
3 Electrodeposited cadmium

2 BODY PLATING:  
Electroless nickel  
3 Electrodeposited cadmium

#### SIZE

XXX 009, 015, 021, 025, 031, 037 or 051

XXX 009, 015, 021, 025, 031, 037 or 051

#### HARDWARE

STYLE OF HARDWARE:  
JC Turning jackscrews, captivated #0-80 UNF\*  
TH Threaded hole, #0-80 UNF

STYLE OF HARDWARE:  
JC Turning jackscrews, captivated #0-80 UNF\*  
TH Threaded hole, #0-80 UNF

\* = Recommended torque value 1.0 inch-lbs. max.

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

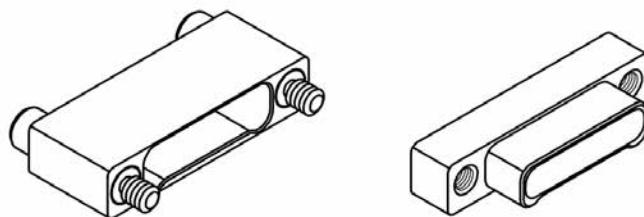
.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

= Option not RoHS compliant

## TWO ROW - DUST COVER

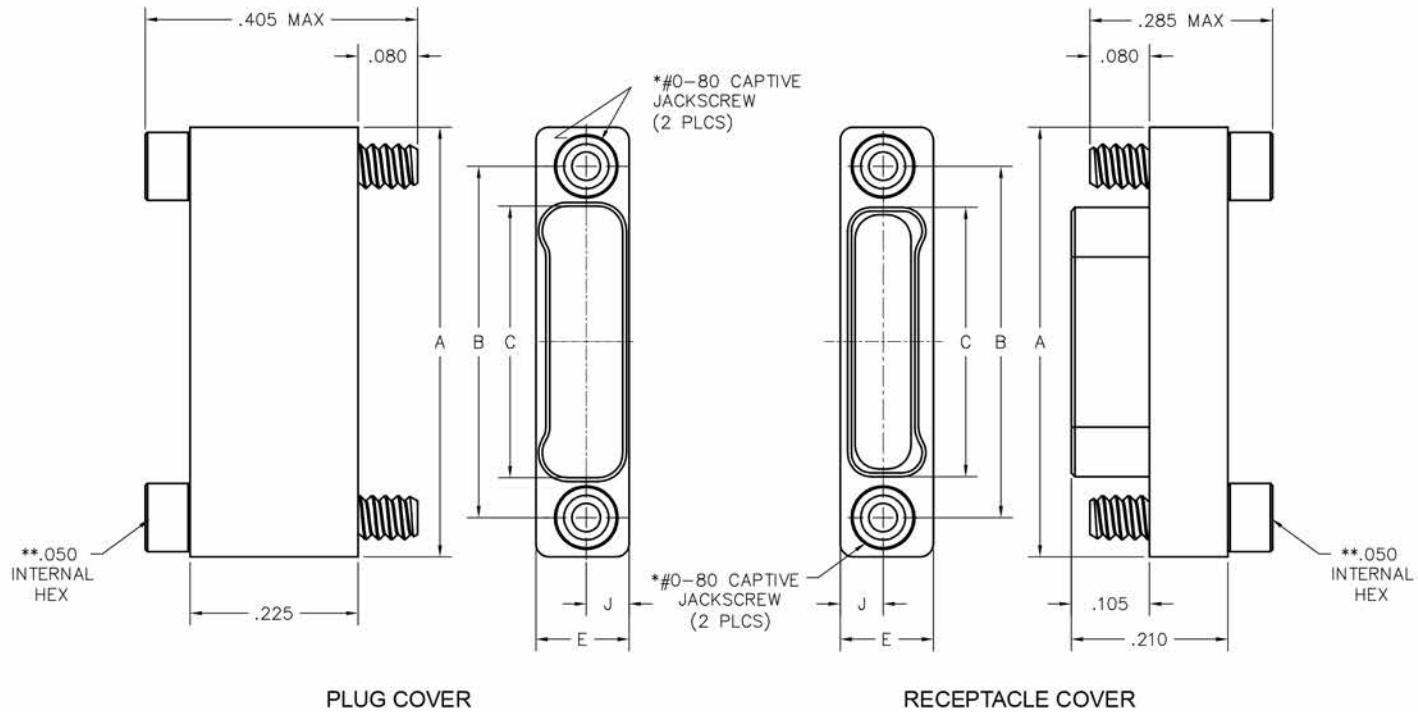
**ND**

0.025" | 9 THROUGH 91 CONTACTS



ND-2P2-025-JC  
(METAL)

ND-2R2-025-TH  
(METAL)



PLUG COVER

RECEPTACLE COVER

SIZE	A	B	DIMENSIONS		E	J	*HARDWARE
			PLUG	RCPT			
9	.375	.270	.163	.160			
15	.450	.345	.238	.235			
21	.525	.420	.313	.310			
25	.575	.470	.363	.360			
31	.650	.545	.438	.435			
37	.725	.620	.513	.510			
51	.900	.795	.688	.685			
65	1.075	.970	.863	.860			
69	1.125	1.020	.913	.910			
85	1.377	1.246	1.113	1.110	.125	.0575	#0-80 THREAD
91	1.452	1.321	1.188	1.185	.150	.0700	#2-56 THREAD

\* = #2-56 UNC THREAD ON 85, 91 POSITION CONNECTORS.

\*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

**molex**

## LEAD CONFIGURATION OPTIONS

PLUG COVER: ND-2P2-009-JC  
 RECEPTACLE COVER: ND-2R2-009-TH  
 XX-XXX-XXX-XX

### PLUG COVER

### RECEPTACLE COVER

#### SERIES

ND .025" Metal Dust Cover

ND .025" Metal Dust Cover

#### BODY

2 2-Row

2 2-Row

BODY STYLE:  
 P Plug cover

BODY STYLE:  
 R Receptacle cover

BODY PLATING:  
 2 Electroless nickel  
 3 Electrodeposited cadmium

BODY PLATING:  
 2 Electroless nickel  
 3 Electrodeposited cadmium

#### SIZE

XXX 009, 015, 021, 025, 031, 037, 051, 065,  
 069, 085 or 091

XXX 009, 015, 021, 025, 031, 037, 051, 065,  
 069, 085 or 091

#### HARDWARE

STYLE OF HARDWARE:  
 JC Turning jackscrews, captivated #0-80 UNF\*  
 TH Threaded hole, #0-80 UNF\*

STYLE OF HARDWARE:  
 JC Turning jackscrews, captivated #0-80 UNF\*  
 TH Threaded hole, #0-80 UNF\*

\* = #2-56 UNC thread on 85, 91 position covers

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

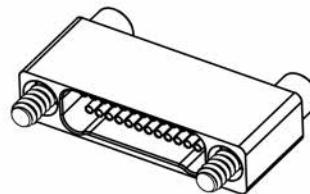
= Option not RoHS compliant

**molex**

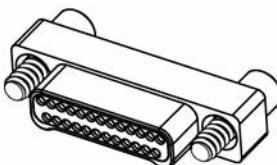
## TWO ROW - SHORTING

### NMSH

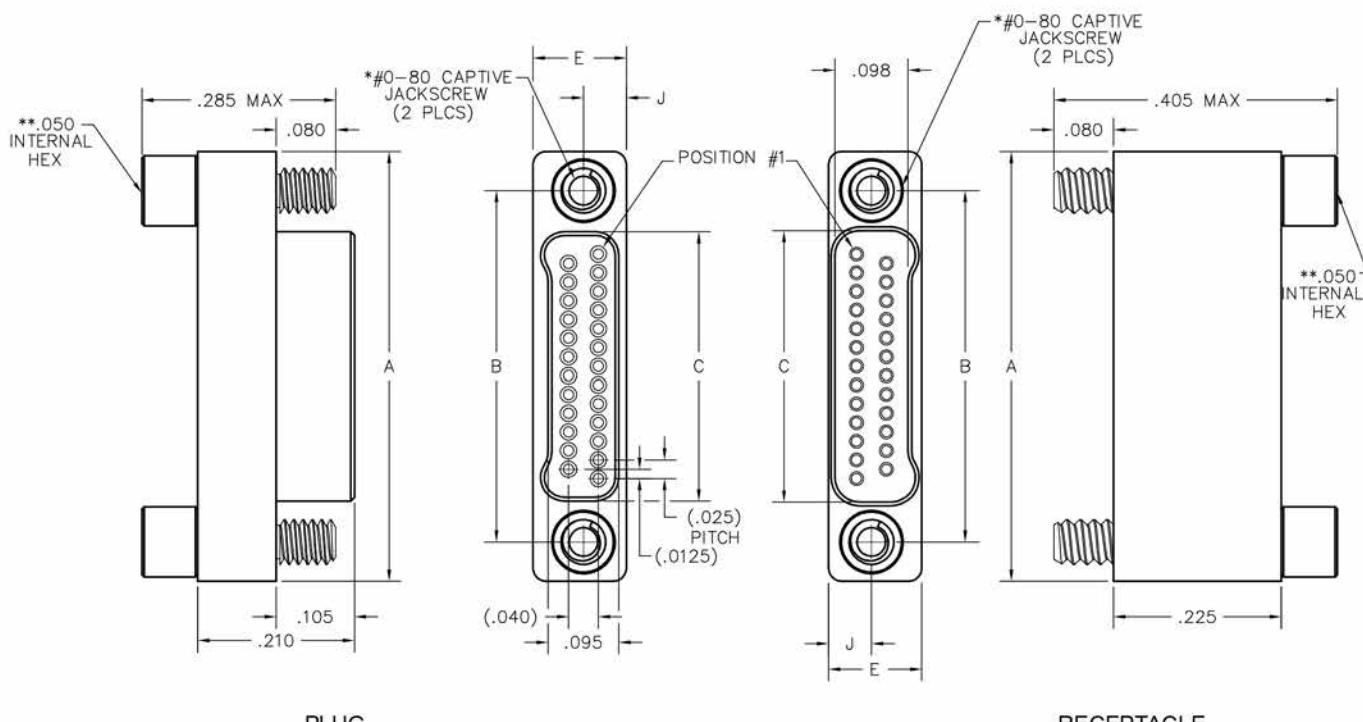
0.025" | 9 THROUGH 91 CONTACTS



NMSH-222-025-225-JC00  
(METAL)



NMSH-212-025-125-JC00  
(METAL)



PLUG

RECEPTACLE



PIN CONTACT  
3 TINE SPRING MEMBER, CRIMP



SOCKET CONTACT  
DRAWN TUBE, CRIMP

SIZE	A	B	DIMENSIONS		E	J	*HARDWARE
			PLUG	RCPT			
9	.375	.270	.160	.163			
15	.450	.345	.235	.238			
21	.525	.420	.310	.313			
25	.575	.470	.360	.363			
31	.650	.545	.435	.438	.125	.0575	#0-80 THREAD
37	.725	.620	.510	.513			
51	.900	.795	.685	.688			
65	1.075	.970	.860	.863			
69	1.125	1.020	.910	.913			
85	1.377	1.246	1.110	1.113	.150	.0700	#2-56 THREAD
91	1.452	1.321	1.185	1.188			

\* = #2-56 UNC THREAD ON 85, 91 POSITION CONNECTORS.

\*\* = 1/16" HEX ON 85, 91 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

## LEAD CONFIGURATION OPTIONS

PLUG: NMSH-212-025-125-JC00  
 RECEPTACLE: NMSH-222-025-225-JC00  
 XXXX-XXX-XXX-XXX-XXXX-XXX

PLUG	RECEPTACLE
<b>SERIES</b>	
NMSH .025" Metal I/O Connector	NMSH .025" Metal I/O Connector
<b>BODY</b>	
2 2-Row	2 2-Row
BODY STYLE: 1 Plug, straight	BODY STYLE: L Receptacle, vertical SMT w/ mounting ears
BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell	BODY MATERIAL: 2 Liquid Crystal Polymer w/ electroless nickel shell 3 Liquid Crystal Polymer w/ electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Liquid Crystal Polymer w/ stainless steel shell 5 Liquid Crystal Polymer w/ titanium shell
<b>SIZE</b>	
XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)	XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: 12 Pin, none	TYPE CONTACTS/TERMINATIONS: 22 Socket, none
PLATING OPTIONS: 5 50 u" Au contacts, Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts, tin plated terminations	PLATING OPTIONS: 5 50 u" Au contacts, Sn/Pb alloy terminations <input checked="" type="checkbox"/> 8 50 u" Au contacts, tin plated terminations
<b>HARDWARE</b>	
STYLE OF HARDWARE: JC Turning jackscrews, captivated #0-80 UNF* TH Threaded hole, #0-80 UNF* **	STYLE OF HARDWARE: JC Turning jackscrews, captivated #0-80 UNF* TH Threaded hole, #0-80 UNF* **
WIRING OPTIONS: 00 None, all contacts shorted together (not to shell)	WIRING OPTIONS: 00 None, all contacts shorted together (not to shell)
<b>OPTIONS</b>	
yyy Selectively shorted contacts. Contact factory for modification code.	

\* = #2-56 UNC thread on 85, 91 position connectors

.050 hex key (#0-80 thread)

1/16" hex key (#2-56 thread)

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

Ball end hex wrench not recommended

Hex wrench key/bit conforming to the requirements of ASME / ANSI-B-18.3 is recommended.

.050" hex L-key long arm wrench - order AirBorn p/n CDG14148.

1/16" hex L-key long arm wrench - order AirBorn p/n CDG14160.

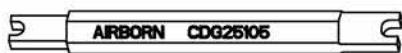
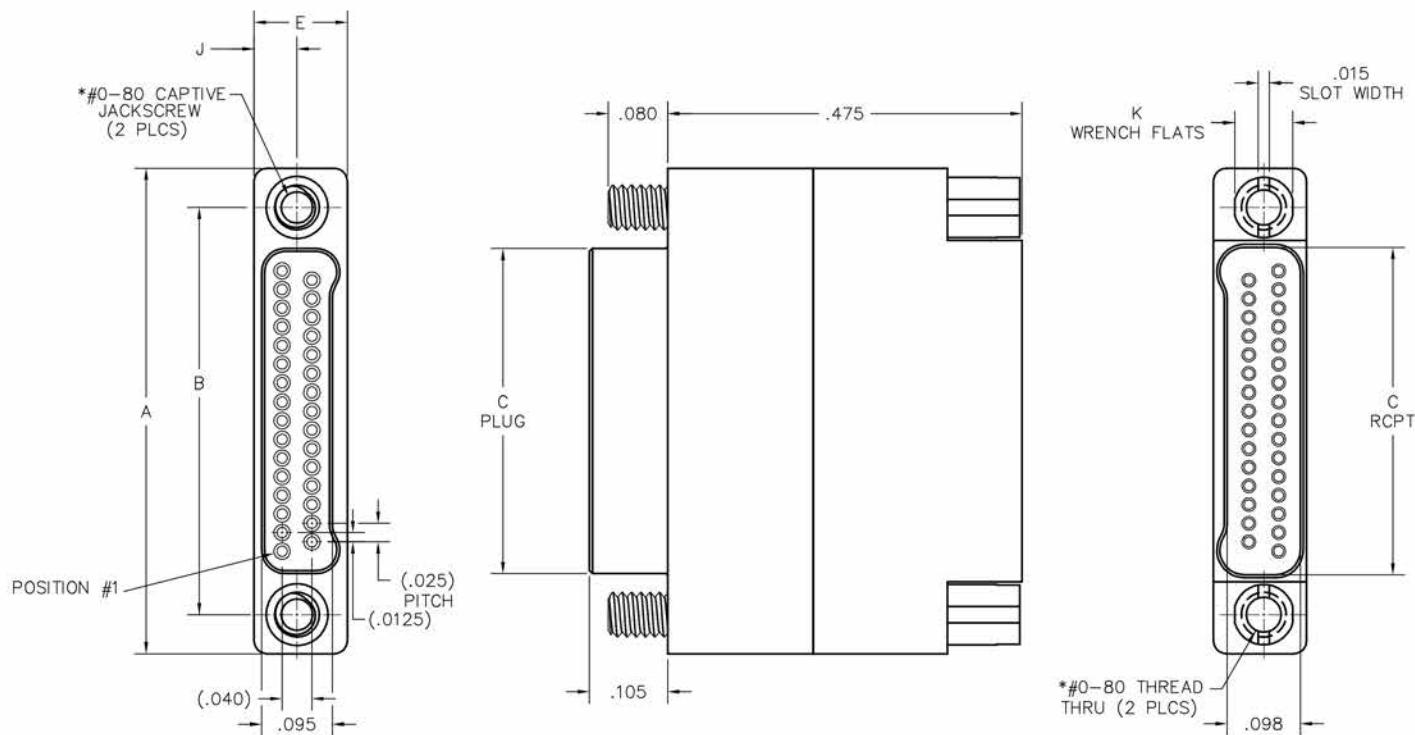
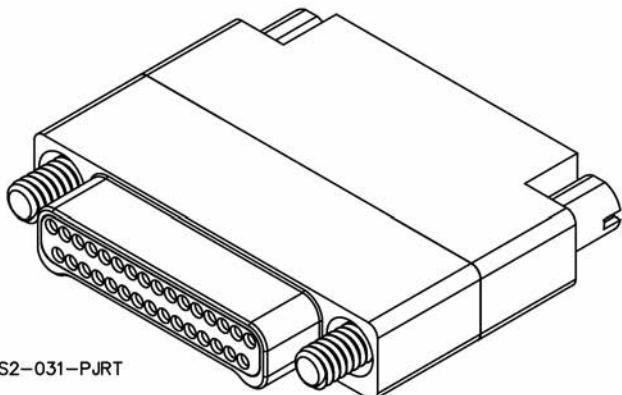
\*\* = Threaded hole tapped directly into stainless steel and titanium shells, aluminum shells have stainless steel.

= Option not RoHS compliant

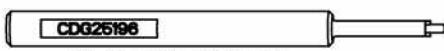
## TWO ROW - CONNECTOR SAVER

NMCS

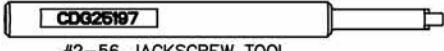
0.025" | 9 THROUGH 91 CONTACTS



JACKSCREW WRENCH



#0-80 JACKSCREW TOOL



#2-56 JACKSCREW TOOL

SIZE	A	B	C		E	J	K	*HARDWARE
			PLUG	RCPT				
9	.375	.270	.160	.163				
15	.450	.345	.235	.238				
21	.525	.420	.310	.313				
25	.575	.470	.360	.363				
31	.650	.545	.435	.438				
37	.725	.620	.510	.513				
51	.900	.795	.685	.688				
65	1.075	.970	.860	.863				
69	1.125	1.020	.910	.913				
85	1.377	1.246	1.110	1.113				
91	1.452	1.321	1.185	1.198				

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.

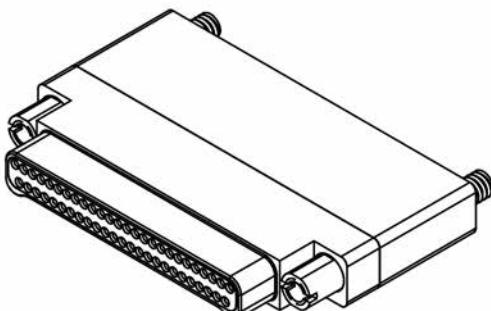
\*\* = 1/16" HEX ON 85 & 91 POSITION CONNECTORS.  
HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

**molex**

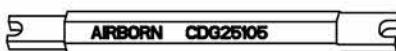
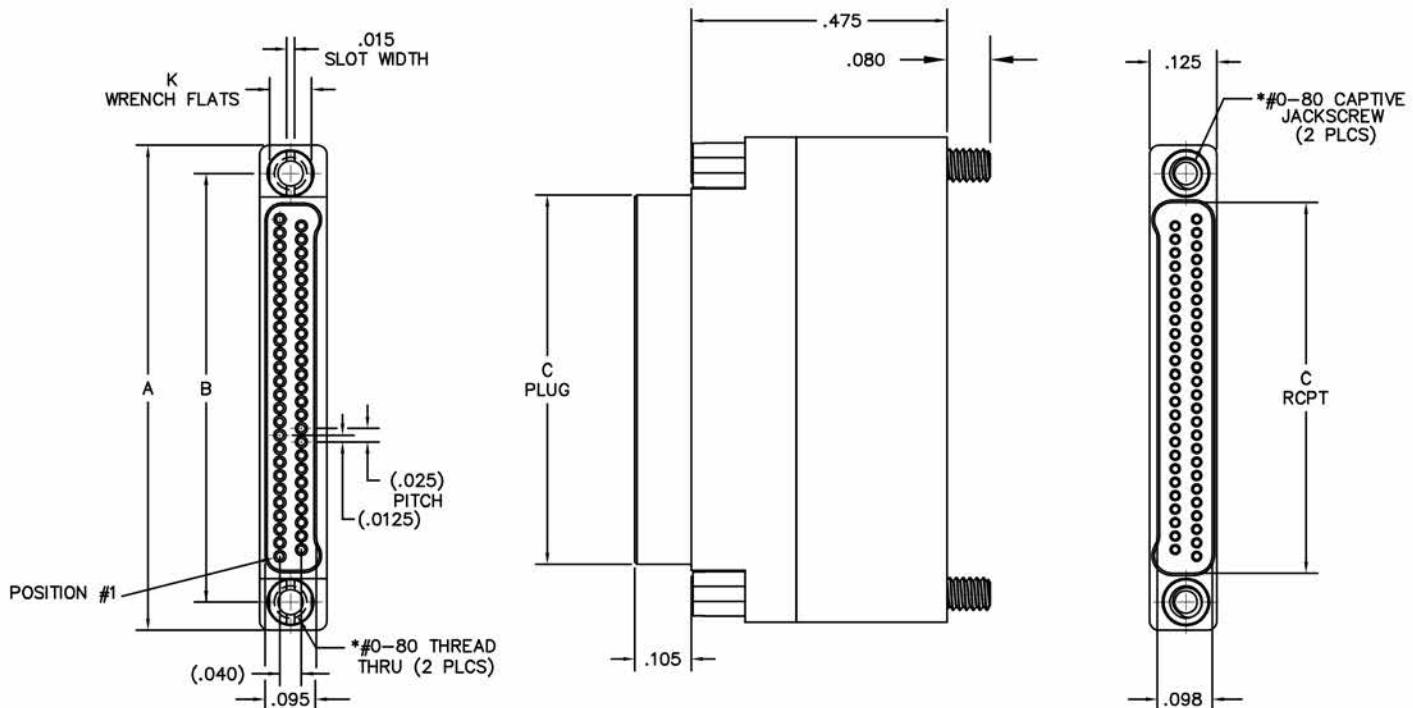
## TWO ROW - CONNECTOR SAVER

NMCS

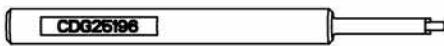
0.025" | 9 THROUGH 91 CONTACT



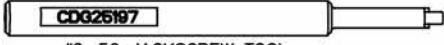
NMCS-2S2-037-PTRJ



JACKSCREW WRENCH



#0-80 JACKSCREW TOOL



#2-56 JACKSCREW TOOL

SIZE	A	B	C		E	J	K	*HARDWARE
			PLUG	RCPT				
9	.375	.270	.160	.163				
15	.450	.345	.235	.238				
21	.525	.420	.310	.313				
25	.575	.470	.360	.363				
31	.650	.545	.435	.438				
37	.725	.620	.510	.513				
51	.900	.795	.685	.688				
65	1.075	.970	.860	.863				
69	1.125	1.020	.910	.913				
85	1.377	1.246	1.110	1.113				
91	1.452	1.321	1.185	1.195				

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.

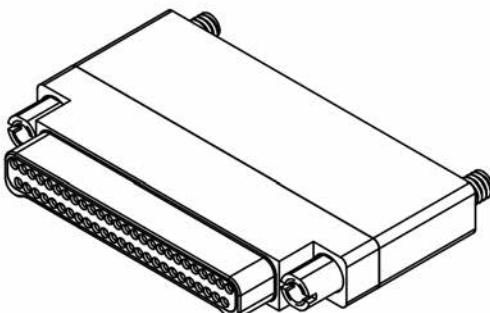
\*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

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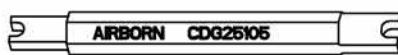
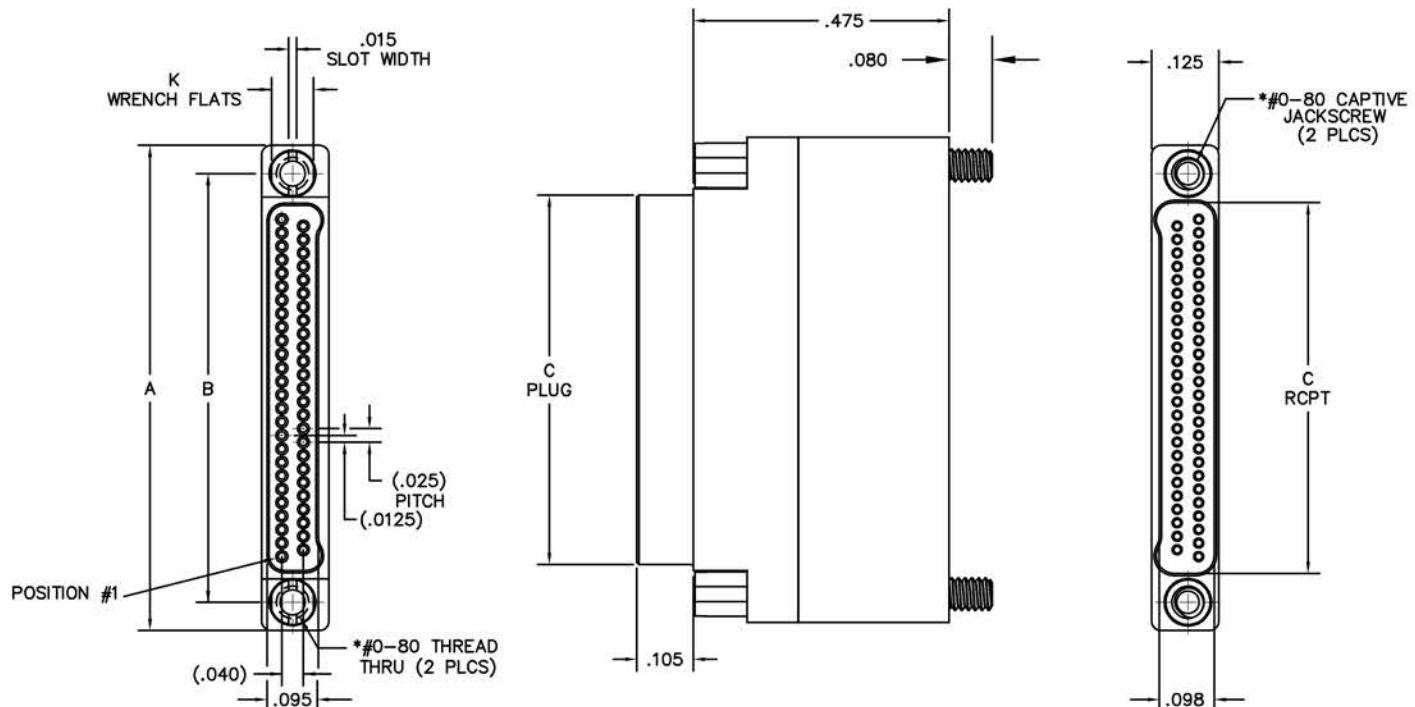
## TWO ROW - CONNECTOR SAVER

NMCS

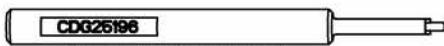
0.025" | 9 THROUGH 91 CONTACTS



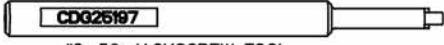
NMCS-2S2-037-PTRJ



JACKSCREW WRENCH



#0-80 JACKSCREW TOOL



#2-56 JACKSCREW TOOL

SIZE	A	B	DIMENSIONS		E	J	K	*HARDWARE
			C PLUG	C RCPT				
9	.375	.270	.160	.163				
15	.450	.345	.235	.238				
21	.525	.420	.310	.313				
25	.575	.470	.360	.363				
31	.650	.545	.435	.438	.125	.0575	.078	#0-80 THREAD
37	.725	.620	.510	.513				
51	.900	.795	.685	.688				
65	1.075	.970	.860	.863				
69	1.125	1.020	.910	.913				
85	1.377	1.246	1.110	1.113	.150	.0700	.094	#2-56 THREAD
91	1.452	1.321	1.185	1.195				

\* = #2-56 UNC THREAD ON 85 AND 91 POSITION CONNECTORS.

\*\* = 1/16" HEX ON 85 POSITION CONNECTORS. HEX MEASUREMENTS TAKEN ACROSS THE FLATS.

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## LEAD CONFIGURATION OPTIONS

CONNECTOR SAVER: NMCS-2S2-025-PJRT  
NMCS-XS2-XXX-PRX

### SERIES

NMCS .025" Metal I/O Connector Saver

### BODY

2 2-Row

S BODY STYLE:  
Saver

BODY MATERIAL:

2 Liquid Crystal Polymer w/ electroless nickel shell  
3 Liquid Crystal Polymer w/ electroless electrodeposited cadmium shell   
4 Liquid Crystal Polymer w/ stainless steel shell  
5 Liquid Crystal Polymer w/ titanium shell

### SIZE

XXX Number of contacts (009, 015, 021, 025, 031, 037, 051, 065, 069, 085 or 091)

### HARDWARE

STYLE OF HARDWARE:

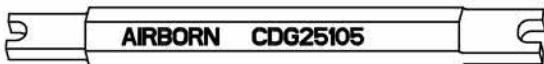
PJRT PLUG with Turning jackscrews, captivated #0-80 UNF\*, RECEPTACLE with Threaded hole, #0-80 UNF\*  
PTRJ PLUG with Threaded hole, #0-80 UNF\*, RECEPTACLE with Turning jackscrews, captivated #0-80 UNF\*

\* = #2-56 UNC thread on 85 & 91 position connectors

Recommended torque value 1.0 inch-lbs. max. (#0-80 thread)

Recommended torque value 2.0 inch-lbs. max. (#2-56 thread)

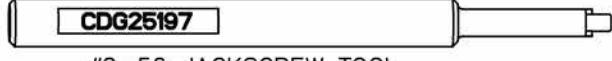
Jackscrew Wrench - order AirBorn p/n CDG25105.  
#0-80 Jackscrew Tool - order AirBorn p/n CDG25196.  
#2-56 Jackscrew Tool - order AirBorn p/n CDG25197.



JACKSCREW WRENCH



#0-80 JACKSCREW TOOL



#2-56 JACKSCREW TOOL

= Option not RoHS compliant

*creating connections for life*

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