



Winchester

Interconnect™

Home of Ulti-Mate

MICRO/NANO MINIATURE CONNECTORS & CABLE ASSEMBLIES

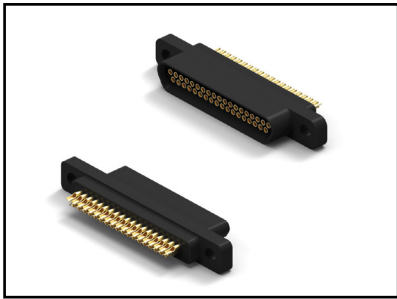




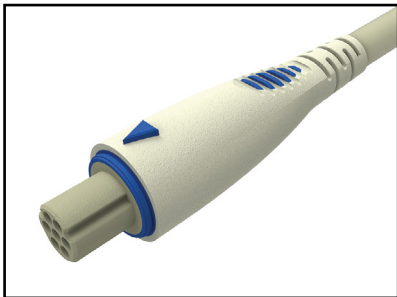
Winchester

Interconnect™

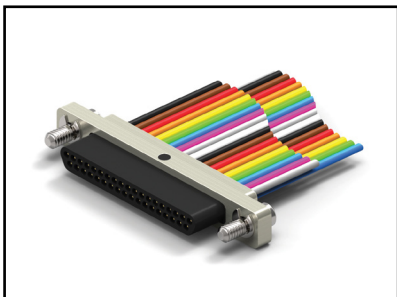
MICRO AND NANO MINIATURE INTERCONNECT SOLUTIONS



Winchester Interconnect has been producing world-class Micro and Nano miniature connectors and interconnect solutions since 1978. Our expertise in the design and production of standard and customized solutions to the most demanding customer requirements has made Ulti-Mate a valued supplier to the OEM Marketplace. Providing the broadest range of Micro and Nano miniature connector and cable assembly products, our engineering team is ready to assist you from design through the production implementation of the most cost effective solution to your interconnect needs.



We specializes in serving the unique interconnect solution needs of military, space, aviation, medical, and geophysical exploration marketplaces. Our reputation for cutting edge design, innovation and quality has placed Ulti-Mate Connectors in many of our country's most advanced avionics, missile systems, manned space and satellite vehicles, and guidance and navigation systems. Our ability to meet the demanding environmental requirements of the geophysical exploration industry has made Ulti-Mate a leading supplier to the largest and most advanced companies in the field. Ulti-Mate has a long history of meeting the rigorous specifications of invasive and noninvasive medical imaging, patient monitoring and the measured drug delivery markets.



Located in Orange, California for over 35 years, **Winchester Interconnect** prides itself on providing the highest levels of customer service and value with its "Made in America" interconnect solutions. Our experienced staff is dedicated to serving your interconnect needs with the latest design tools, state of the art test equipment and a customer support staff ready to assist you in all of your Micro and Nano miniature connector requirements.

TABLE OF CONTENTS

ABOUT US	1
----------------	---

INTERCONNECT SOLUTIONS	4
------------------------------	---

MICRO-D TABLE OF CONTENTS	8
---------------------------------	---

WIRED

STANDARD PROFILE-METAL SHELL	10
STANDARD PROFILE-PLASTIC SHELL	12
LOW PROFILE-METAL SHELL	14
LOW PROFILE-PLASTIC SHELL	16

FIELD SOLDERABLE

STANDARD PROFILE-METAL SHELL-SOLDERCUP	18
STANDARD PROFILE-PLASTIC SHELL	20
LOW PROFILE-METAL SHELL-SOLDERCUP	22
LOW PROFILE-PLASTIC SHELL-SOLDERCUP	24

NANO-D TABLE OF CONTENTS	26
--------------------------------	----

WIRED

SINGLE ROW-SINGLE ENDED-METAL SHELL	34
SINGLE ROW-DOUBLE ENDED-METAL SHELL	36
DUAL ROW-SINGLE ENDED-METAL SHELL	38
DUAL ROW-SINGLE ENDED-PLASTIC SHELL	40
DUAL ROW-DOUBLE ENDED-METAL SHELL	42
DUAL ROW-DOUBLE ENDED-PLASTIC SHELL	44

CIRCUIT

RIGHT ANGLE

SINGLE ROW-PLATED THRU HOLE-METAL SHELL	46
SINGLE ROW-SURFACE MOUNT-METAL SHELL	50
DUAL ROW-PLATED THRU HOLE-METAL SHELL	54
DUAL ROW-PLATED THRU HOLE-PLASTIC SHELL	58
DUAL ROW-SURFACE MOUNT-METAL SHELL	62
DUAL ROW-SURFACE MOUNT-PLASTIC SHELL	66
DUAL ROW-(EXTEND PROFILE-FEMALE ONLY) SURFACE MOUNT-METAL SHELL	70
DUAL ROW-(EXTEND PROFILE-FEMALE ONLY) SURFACE MOUNT-PLASTIC SHELL	74

VERTICAL

SINGLE ROW-PLATED THRU HOLE-METAL SHELL	78
SINGLE ROW-SURFACE MOUNT-METAL SHELL	82
DUAL ROW-PLATED THRU HOLE-METAL SHELL	86
DUAL ROW-PLATED THRU HOLE-PLASTIC SHELL	90
DUAL ROW-SURFACE MOUNT-METAL SHELL	94
DUAL ROW-SURFACE MOUNT-PLASTIC SHELL	96
DUAL ROW-(LOW PROFILE-MALE ONLY) SURFACE MOUNT-METAL SHELL	102
DUAL ROW-(LOW PROFILE-MALE ONLY) SURFACE MOUNT-PLASTIC SHELL	106

LATCHING

WIRED

DUAL ROW-SINGLE ENDED-METAL SHELL	110
DUAL ROW-DOUBLE ENDED-METAL SHELL	112

CIRCUIT

DUAL ROW-VERTICAL-PLATED THRU HOLE-METAL SHELL	114
DUAL ROW-VERTICAL-SURFACE MOUNT-METAL SHELL	118
DUAL ROW-RIGHT ANGLE-PLATED THRU HOLE-METAL SHELL	122
DUAL ROW-RIGHT ANGLE-SURFACE MOUNT-METAL SHELL	126
DUAL ROW-RIGHT ANGLE-SURFACE MOUNT-(EXTEND PROFILE,FEMALE ONLY)-METAL SHELL	130

FIELD ATTACHABLE

DUAL ROW-METAL SHELL	134
DUAL ROW-PLASTIC SHELL	136
CIRCULAR INLINE-PLASTIC SHELL	138

CIRCULAR

METAL BREAK AWAY WIRED-INLINE	140
PLASTIC WIRED-INLINE	142



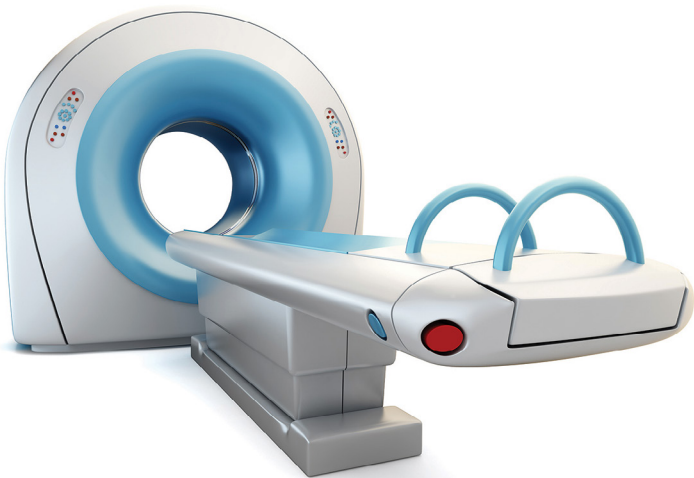
P/N SMART REFERENCE

- **Using a smart part number ordering**

MR (Metal shell for wire or solder cup connector)
 BR (Plastic shell for wire or solder cup connector)
 APR (Low profile metal shell plug)
 AR (Low profile metal shell receptacle)
 PR (Low profile plastic shell)
 CM (Circuit series with metal shell)
 CB (Circuit series with plastic shell)
 SR (Strip series)

Any part number starting with M83513/XXXXXX

- **Customers can also order by their own part number**



MICRO-D SERIES



WIRED

STANDARD PROFILE-METAL SHELL.....	10
STANDARD PROFILE-PLASTIC SHELL.....	12
LOW PROFILE-METAL SHELL.....	14
LOW PROFILE-PLASTIC SHELL.....	16



SOLDERABLE

STANDARD PROFILE-METAL SHELL-SOLDERCUP.....	18
STANDARD PROFILE-PLASTIC SHELL-SOLDERCUP.....	20
LOW PROFILE-METAL SHELL-SOLDERCUP.....	22
LOW PROFILE-PLASTIC SHELL-SOLDERCUP.....	24

PERFORMANCE DATA / MATERIALS AND FINISHES

10-E	ELECTRICAL
CONTACT RESISTANCE:	8 mΩ max.@ 2.5 A
CURRENT RATING (SIGNAL CONTACTS):	3 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	900 VAC at sea level, 300 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min.

18-E	ELECTRICAL
CONTACT RESISTANCE:	8 mΩ max.@ 2.5 A
CURRENT RATING (SIGNAL CONTACTS):	3 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	600 VAC at sea level, 150 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min.

10-M	MECHANICAL
CONTACT ENGAGING FORCE:	6 oz max. (Contact average is 3 oz.)
CONTACT SEPARATING FORCE:	0.5 oz. min.
CONNECTOR MATING FORCE:	10 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	10 oz. x number of contacts min.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-27 Condition E
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

10-M&F	MATERIALS AND FINISHES
Pin Contacts	Beryllium Copper (C17200) per ASTM B194.
Socket Contacts	Copper alloy (C21000) per ASTM B36
Contact Plating	Gold plated per ASTM-B488. 50 microinches min. is the standard thickness.
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, type 6061-T6. Finish is cadmium per SAE-AMS-QQ-P-416, TYPE II, CLASS 3, with suitable underplate with yellow chromate, this plating is not RoHS compliant. Or Finish Electroless Nickel plate per SAE AMS2404, class 3 or 4, .0005 minimum thickness.
Insulator Material Shell	Polyphenylene sulfide (PPS) per MIL-M-24519 GST 40F or ASTM D5927. Color Black.
Interfacial Seals	Fluorosilicone elastomer per MIL-R-25988. Standard on "M" Series socket face.
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

18-M&F	MATERIALS AND FINISHES
Pin Contacts	Beryllium Copper (C17200) per ASTM B194.
Socket Contacts	Leaded commercial bronze (C314000) per ASTM B140.
Contact Plating	Gold plated per ASTM-B488. 50 microinches min. is the standard thickness.
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, type 6061-T6. Finish is cadmium per SAE-AMS-QQ-P-416, TYPE II, CLASS 3, with suitable underplate with yellow chromate, this plating is not RoHS compliant. Or Finish Electroless Nickel plate per SAE AMS2404, class 3 or 4, .0005 minimum thickness.
Insulator Material Shell	Fluorosilicone elastomer per MIL-R-25988. Standard on "M" Series socket face.
Interfacial Seals	Polyphenylene sulfide (PPS) per MIL-M-24519 GST 40F or ASTM D5927. Color Black.
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

WIRED CONNECTOR

- Standard Profile Metal Shell Connector w/Wire Leads
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 100 Contacts



HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options *** Leave blank if no hardware required.

M	R	51-3	P	Ø2 -	26	E	6 -	18.0 -	SØ1	
Series	Insulator	Contacts	Contact Gender	Hardware***	Wire Gauge	Wire Type	Color Code	Length	Finish**	Temp Range
M= Metal	R=PPS	Ø9	P=Male/Pin (Plug Side)	*Ø2 (12 for Size 1ØØ) 22 (Swaged)	24	C=Solid Wire, Uninsulated	1 = White	*18.0	Blank= Cadmium	*Blank =125C
		15			25	*E=Stranded w/Teflon Insulation, per NEMA HP3-EX	2 = Yellow	*36.0		HT = 200C
		21	S=Female/Socket (Receptacle Side)	Ø3 (13 for Size 1ØØ)	26*	F=Stranded, w/Teflon Insulation, per NEMA HP3-ET	3 = Tin plated (Solid Wire)		*SØ1= Nickel	
		25			28	M=Stranded, w/Teflon Insulation, per SAE-AS22759/11	4 = Gold plated (Solid Wire)			
		31		*Ø5 (15 for Size 1ØØ)	3Ø	Y= Stranded w/ Tefzel Insulation, per SAE-AS22759/33	5 = Color Code per MIL-STD-681 (Non-Repeating Colors)		SØ3 = Black Anodize	
		37					*6 =10 Solid Colors, Repeating			
				Ø6 (16 for Size 1ØØ)					SØ6 =Olive-Drab Cadmium	
		51-3								
				Ø7 (17 for Size 1ØØ)					SØ7 =Titanium	
		1ØØ								
									SØ9=Stainless	
										

ELECTRICAL PERFORMANCE DATA

Go to Page 9 See chart 10 E or Click Here for Electrical Performance Data

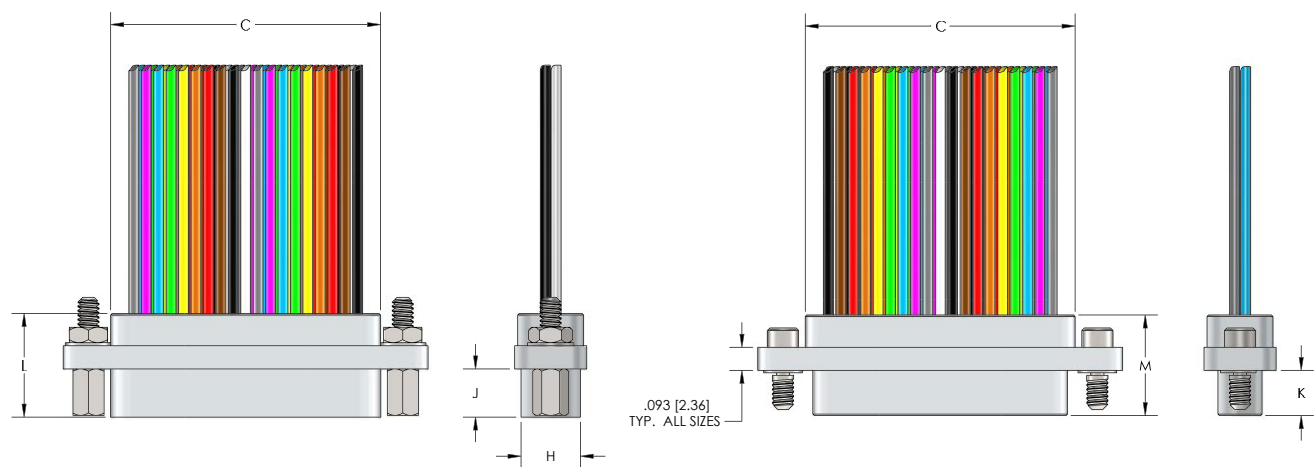
MECHANICAL PERFORMANCE DATA

Go to Page 9 See chart 10 M or Click Here for Mechanical Performance Data

MATERIALS AND FINISHES DATA

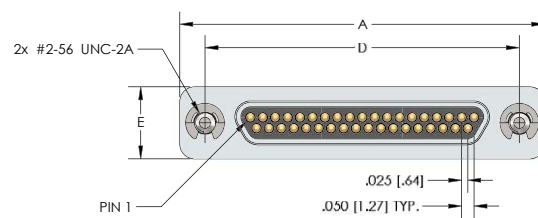
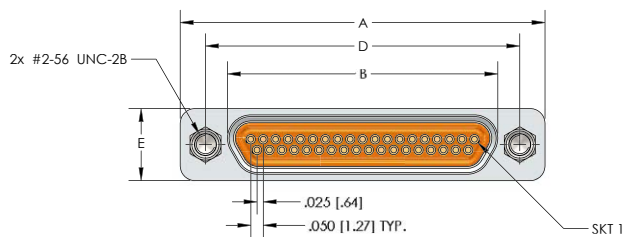
Go to Page 9 See chart 10 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



Size	ALL	M SERIES								
	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.402 (10.21)	.393 (9.98)	.565 (14.35)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
15	.935 (23.75)	.552 (14.02)	.543 (13.79)	.715 (18.16)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
21	1.085 (27.56)	.702 (17.83)	.693 (17.60)	.865 (21.47)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
25	1.185 (30.10)	.802 (20.37)	.793 (20.14)	.965 (24.51)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
31	1.335 (33.91)	.952 (24.18)	.943 (23.95)	1.115 (28.32)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
37	1.485 (37.72)	1.102 (27.99)	1.093 (27.76)	1.265 (32.13)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
51	1.435 (36.45)	1.054 (26.77)	1.041 (26.44)	1.215 (30.86)	.297 (7.54)	.351 (8.92)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
100	2.165 (54.99)	1.505 (38.23)	1.442 (36.63)	1.800 (45.72)	.394 (10.00)	.394 (10.00)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)

WIRED CONNECTOR

- Standard Profile Plastic Shell Connector w/Wire Leads
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 100 Contacts



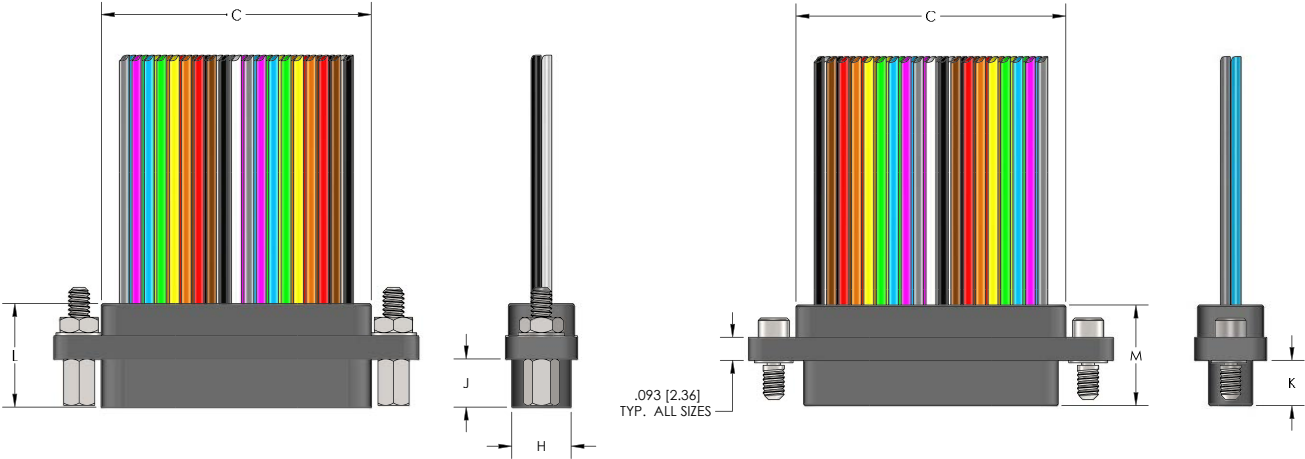
HOW TO ORDER

* Indicates preferred standard *** Leave blank if no hardware required.

B	R	51-3	P	Ø -	26	E	6 -	18.0	
Series	Insulator	Contacts	Contact Gender	Hardware***	Wire Gauge	Wire Type	Color Code	Length	Temp Range
B=Plastic Shell	R=PPS	09	P=Male/Pin (Plug Side)	*Ø2 (12 for Size 100) 22 (Swaged)	24	C = Solid Wire, Uninsulated	1 = White	*18.0	*Blank =125C
		15			25	*E = Stranded w/Teflon Insulation, per NEMA HP3-EX	2 = Yellow	*36.0	HT = 200C
		21	S=Female/Socket (Receptacle Side)	Ø3 (13 for Size 100)	26*	F = Stranded, w/Teflon Insulation, per NEMA HP3-ET	3 = Tin plated (Solid Wire)		
		25			28	M = Stranded, w/Teflon Insulation, per SAE-AS22759/11	4 = Gold plated (Solid Wire)		
		31		*Ø5 (15 for Size 100)	30	Y = Stranded w/Tefzel Insulation, per SAE-AS22759/33	5 = Color Code per MIL-STD-681 (Non-Repeating Colors)		
		37					*6 =10 Solid Colors, Repeating		
				Ø6 (16 for Size 100)					
		51-3							
				Ø7 (17 for Size 100)					
		100							
									

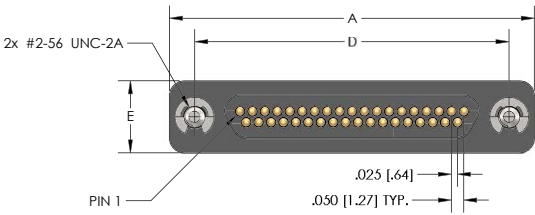
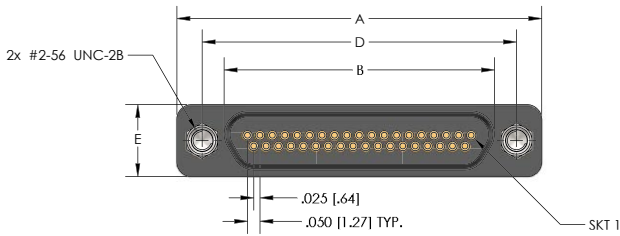
ELECTRICAL PERFORMANCE DATA	Go to Page 9 See chart 10 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 9 See chart 10 M or Click Here for Mechanical Performance Data
MATERIALS AND FINISHES DATA	Go to Page 9 See chart 10 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



Size	ALL	M SERIES								
	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.402 (10.21)	.393 (9.98)	.565 (14.35)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
15	.935 (23.75)	.552 (14.02)	.543 (13.79)	.715 (18.16)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
21	1.085 (27.56)	.702 (17.83)	.693 (17.60)	.865 (21.47)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
25	1.185 (30.10)	.802 (20.37)	.793 (20.14)	.965 (24.51)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
31	1.335 (33.91)	.952 (24.18)	.943 (23.95)	1.115 (28.32)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
37	1.485 (37.72)	1.102 (27.99)	1.093 (27.76)	1.265 (32.13)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
51	1.435 (36.45)	1.054 (26.77)	1.041 (26.44)	1.215 (30.86)	.297 (7.54)	.351 (8.92)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
100	2.165 (54.99)	1.505 (38.23)	1.442 (36.63)	1.800 (45.72)	.394 (10.00)	.394 (10.00)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)

WIRED CONNECTOR

- Standard Profile Metal Shell Connector w/Wire Leads
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts



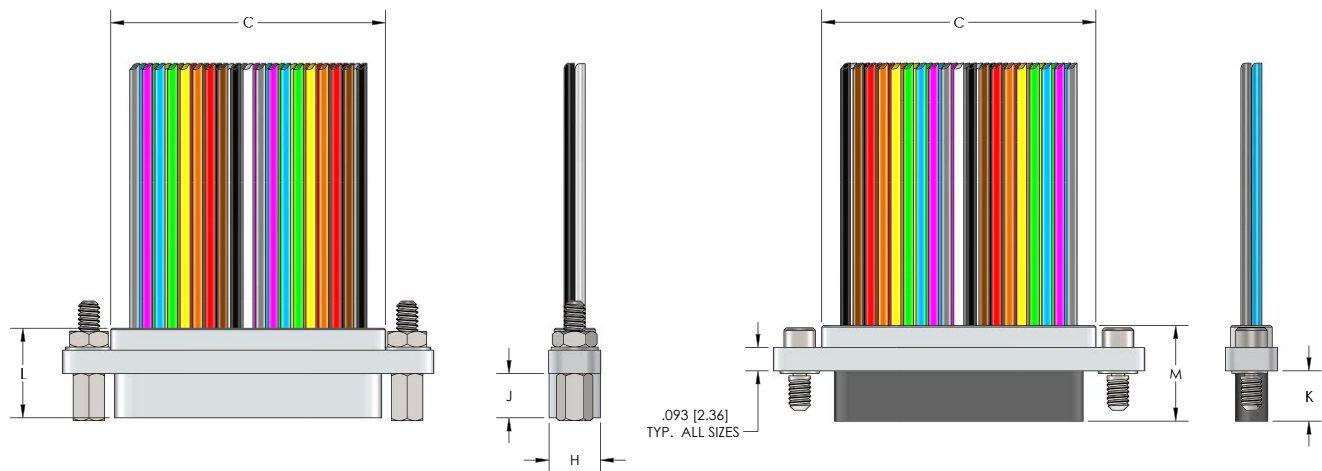
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options *** Leave blank if no hardware required.

AP	R	51-3	P	Ø2 -	26	E	6 -	18.0 -	SØ1	
Series	Insulator	Contacts	Contact Gender	Hardware***	Wire Gauge	Wire Type	Color Code	Length	Finish**	Temp Range
A = Metal Shell (Receptacle)	R = PPS	9	P=Male/Pin (Plug Side)	*Ø2 (12 for Size 1ØØ) 22 (Swaged)	24	C=Solid Wire, Uninsulated	1 = White	*18.0	Blank= Cadmium	*Blank=125C
		15			25	*E=Stranded w/Teflon Insulation, per NEMA HP3-EX	2 = Yellow	*36.0		HT = 200C
AP = Metal Shell w/Plastic shroud (Plug)		21	S=Female/Socket (Receptacle Side)	Ø3 (13 for Size 1ØØ)	26*	F=Stranded, w/Teflon Insulation, per NEMA HP3-ET	3 = Tin plated (Solid Wire)		*SØ1= Nickel	
		25			28	M=Stranded, w/Teflon Insulation, per SAE-AS22759/11	4 = Gold plated (Solid Wire)			
		31		*Ø5 (15 for Size 1ØØ)	3Ø	Y = Stranded w/ Tefzel Insulation, per SAE-AS22759/33	5 = Color Code per MIL-STD-681 (Non-Repeating Colors)		SØ3 = Black Anodize	
		37					*6 =1Ø Solid Colors, Repeating			
				Ø6 (16 for Size 1ØØ)					SØ6 = Olive-Drab Cadmium	
		51-3								
				Ø7 (17 for Size 1ØØ)					SØ7 =Titanium	
										
									SØ9=Stainless	
										

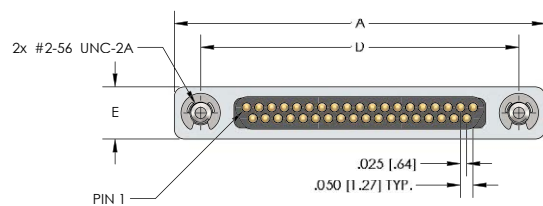
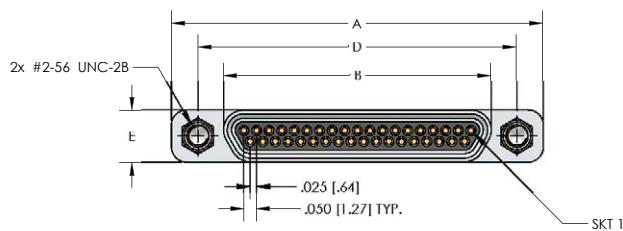
ELECTRICAL PERFORMANCE DATA	Go to Page 9 See chart 10 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 9 See chart 10 M or Click Here for Mechanical Performance Data
MATERIALS AND FINISHES DATA	Go to Page 9 See chart 10 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



Size	ALL	A SERIES									
	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	G Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.376 (9.55)	.393 (9.98)	.565 (14.35)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
15	.935 (23.75)	.526 (13.36)	.543 (13.79)	.715 (18.16)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
21	1.085 (27.56)	.693 (17.17)	.693 (17.60)	.865 (21.97)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
25	1.185 (30.10)	.776 (19.71)	.793 (20.14)	.965 (24.51)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
31	1.335 (33.91)	.926 (23.52)	.943 (23.95)	1.115 (28.32)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
37	1.485 (37.72)	1.076 (27.33)	1.093 (27.76)	1.265 (32.13)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
51-3	1.435 (36.45)	1.026 (26.06)	1.041 (26.44)	1.215 (30.86)	.254 (6.45)	.254 (6.45)	.223 (5.66)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)

WIRED CONNECTOR

- Low Profile Plastic Shell Connector w/Wire Leads
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts



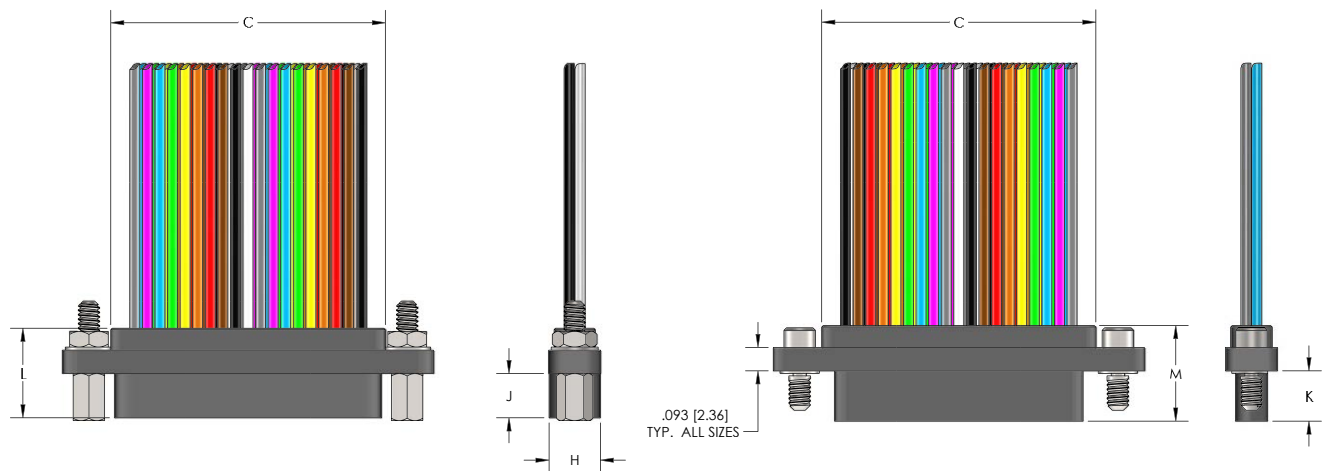
HOW TO ORDER

* Indicates preferred standard *** Leave blank if no hardware required.

P	R	51-3	P	Ø	- 26	E	6 -	18.Ø	
Series	Insulator	Contacts	Contact Gender	Hardware***	Wire Gauge	Wire Type	Color Code	Length	Temp Range
B=Plastic Shell	R = PPS	9	P = Male / Pin (Plug Side)	*Ø2	24	C = Solid Wire, Uninsulated	1 = White	*18.Ø	*Blank = 125C
		15			25	*E = Stranded w/Teflon Insulation, per NEMA HP3-EX	2 = Yellow	*36.Ø	HT = 200C
		21	T = Female/Socket (Receptacle Side)	Ø3	26*	F = Stranded, w/Teflon Insulation, per NEMA HP3-ET	3 = Tin plated (Solid Wire)		
		25			28	M = Stranded, w/Teflon Insulation, per SAE-AS22759/11	4 = Gold plated (Solid Wire)		
		31		*Ø5	3Ø	Y = Stranded w/Tefzel Insulation, per SAE-AS22759/33	5 = Color Code per MIL-STD-681 (Non-Repeating Colors)		
		37					*6 = 1Ø Solid Colors, Repeating		
				Ø6					
		51-3							
				Ø7					
									

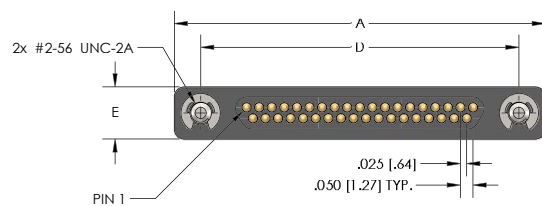
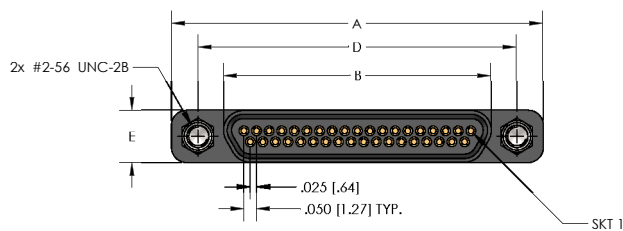
MECHANICAL PERFORMANCE DATA	Go to Page 9 See chart 10 M or Click Here for Mechanical Performance Data
ELECTRICAL PERFORMANCE DATA	Go to Page 9 See chart 10 E or Click Here for Electrical Performance Data
MATERIALS AND FINISHES DATA	Go to Page 9 See chart 10 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



Size	ALL	P SERIES									
	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	G Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.376 (9.55)	.393 (9.98)	.565 (14.35)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
15	.935 (23.75)	.526 (13.36)	.543 (13.79)	.715 (18.16)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
21	1.085 (27.56)	.693 (17.17)	.693 (17.60)	.865 (21.97)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
25	1.185 (30.10)	.776 (19.71)	.793 (20.14)	.965 (24.51)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
31	1.335 (33.91)	.926 (23.52)	.943 (23.95)	1.115 (28.32)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
37	1.485 (37.72)	1.076 (27.33)	1.093 (27.76)	1.265 (32.13)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
51-3	1.435 (36.45)	1.026 (26.06)	1.041 (26.44)	1.215 (30.86)	.254 (6.45)	.254 (6.45)	.223 (5.66)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)

FIELD SOLDERABLE CONNECTOR

- Standard Profile Metal Shell Connector w/Solder Cup Contacts
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 100 Contacts Accepting 24 AWG Wire

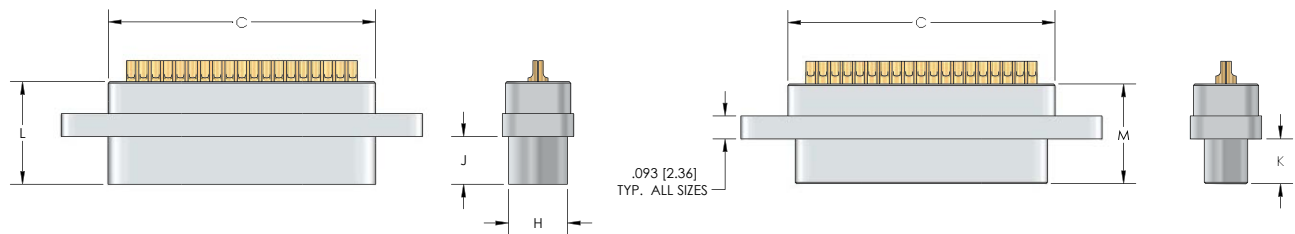
HOW TO ORDER

* Indicates preferred standard, ** Consult factory for other plating options *** Leave blank if no hardware required.

M	R	51-3	N	Ø	- SØ1	
Series	Insulator	Contacts	Contact Gender	Hardware***	Finish**	Temp Range
M=Metal	R=PPS	Ø9	N= Male / Pin (Plug Side)	*Ø2 (12 for Size 1ØØ) 22 (Swaged)	Blank= Cadmium	*Blank =125C
		15				HT = 200C
		21	T = Female/Socket (Receptacle Side)	Ø3 (13 for Size 1ØØ)	*SØ1= Nickel	
		25				
		31	TT = Female/Socket (Receptacle Side) for 24 AWG wire	*Ø5 (15 for Size 1ØØ)	SØ3 = Black Anodize	
		37				
				Ø6 (16 for Size 1ØØ)	SØ6 =Olive-Drab Cadmium	
		51-3				
				Ø7 (17 for Size 1ØØ)	SØ7 =Titanium	
		1ØØ				
					SØ9=Stainless	
						

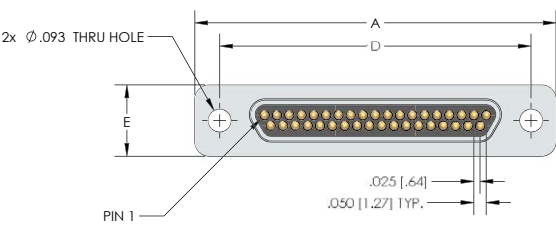
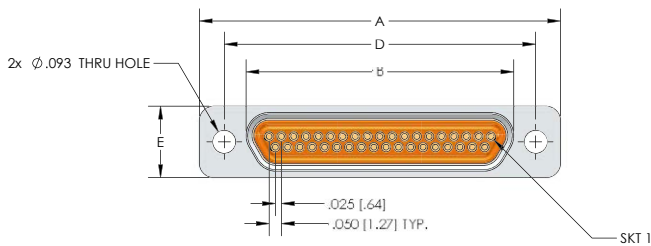
ELECTRICAL PERFORMANCE DATA	Go to Page 9 See chart 18 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 9 See chart 18 M or Click Here for Mechanical Performance Data
MATERIALS AND FINISHES DATA	Go to Page 9 See chart 18 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



	ALL	M SERIES								
Size	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.402 (10.21)	.393 (9.98)	.565 (14.35)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
15	.935 (23.75)	.552 (14.02)	.543 (13.79)	.715 (18.16)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
21	1.085 (27.56)	.702 (17.83)	.693 (17.60)	.865 (21.47)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
25	1.185 (30.10)	.802 (20.37)	.793 (20.14)	.965 (24.51)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
31	1.335 (33.91)	.952 (24.18)	.943 (23.95)	1.115 (28.32)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
37	1.485 (37.72)	1.102 (27.99)	1.093 (27.76)	1.265 (32.13)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
51	1.435 (36.45)	1.054 (26.77)	1.041 (26.44)	1.215 (30.86)	.297 (7.54)	.351 (8.92)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
100	2.165 (54.99)	1.505 (38.23)	1.442 (36.63)	1.800 (45.72)	.394 (10.00)	.394 (10.00)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)

FIELD SOLDERABLE CONNECTOR

- Standard Profile Plastic Shell Connector w/Solder Cup Contacts
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 100 Contacts Accepting 24 AWG Wire

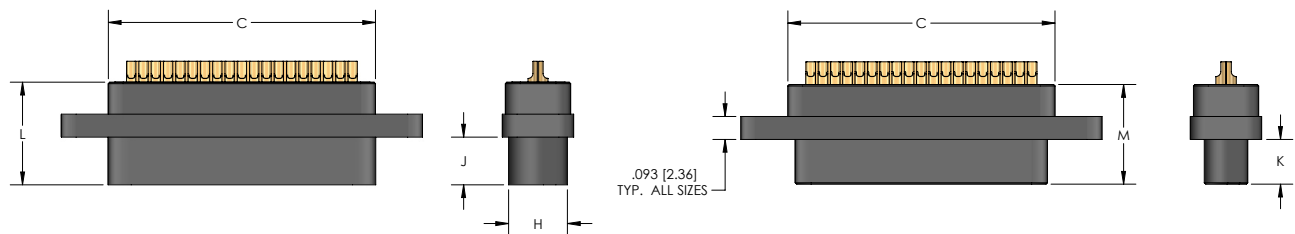
HOW TO ORDER

* Indicates preferred standard *** Leave blank if no hardware required.

B	R	51-3	N	Ø	
Series	Insulator	Contacts	Contact Gender	Hardware***	Temp Range
B = Plastic Shell	R=PPS	Ø9	N= Male / Pin (Plug Side)	*Ø2 (12 for Size 1ØØ) 22 (Swaged)	*Blank =125C
		15			HT = 200C
		21	T = Female/Socket (Receptacle Side)	Ø3 (13 for Size 1ØØ)	
		25			
		31	TT = Female/Socket (Receptacle Side) for 24 AWG wire	*Ø5 (15 for Size 1ØØ)	
		37			
		51-3		Ø6 (16 for Size 1ØØ)	
		1ØØ			
				Ø7 (17 for Size 1ØØ)	
					

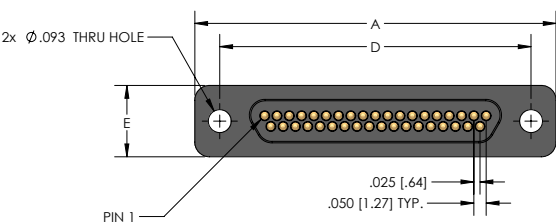
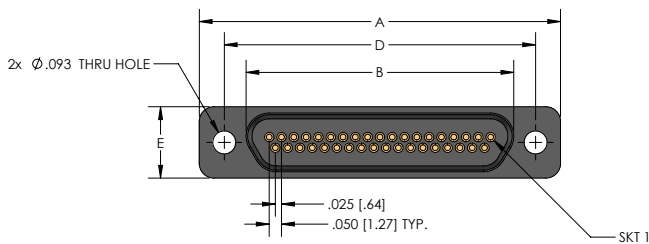
ELECTRICAL PERFORMANCE DATA	Go to Page 9 See chart 18 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 9 See chart 18 M or Click Here for Mechanical Performance Data
MATERIALS AND FINISHES DATA	Go to Page 9 See chart 18 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



	ALL	B SERIES								
Size	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.402 (10.21)	.393 (9.98)	.565 (14.35)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
15	.935 (23.75)	.552(14.02)	.543 (13.79)	.715 (18.16)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
21	1.085 (27.56)	.702 (17.83)	.693 (17.60)	.865 (21.47)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
25	1.185 (30.10)	.802 (20.37)	.793 (20.14)	.965 (24.51)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
31	1.335 (33.91)	.952 (24.18)	.943 (23.95)	1.115 (28.32)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
37	1.485 (37.72)	1.102 (27.99)	1.093 (27.76)	1.265 (32.13)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
51	1.435 (36.45)	1.054 (26.77)	1.041 (26.44)	1.215 (30.86)	.297 (7.54)	.351 (8.92)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
100	2.165 (54.99)	1.505 (38.23)	1.442 (36.63)	1.800 (45.72)	.394 (10.00)	.394 (10.00)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)

FIELD SOLDERABLE CONNECTOR

- Low Profile Metal Shell Connector w/Solder Cup Contacts
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts Accepting 24 AWG Wire

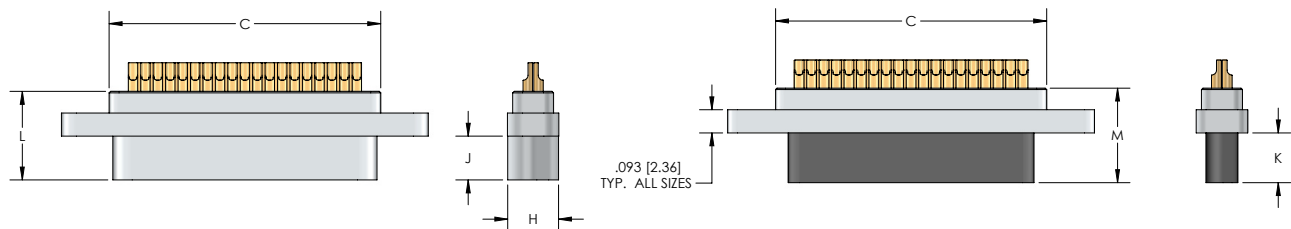
HOW TO ORDER

* Indicates preferred standard *** Leave blank if no hardware required.

AP	R	51-3	N	Ø	- SØ1	
Series	Insulator	Contacts	Contact Gender	Hardware***	Finish**	Temp Range
A = Metal Shell (Receptacle)	R=PPS	Ø9	N= Male / Pin (Plug Side)	*Ø2 (12 for Size 1ØØ) 22 (Swaged)	Blank= Cadmium	*Blank =125C
		15				HT = 200C
AP = Metal Shell w/Plastic shroud (Plug)		21	T = Female/Socket (Receptacle Side)	Ø3 (13 for Size 1ØØ)	*SØ1 = Nickel	
		25				
		31	TT = Female/Socket (Receptacle Side) for 24 AWG wire	*Ø5 (15 for Size 1ØØ)	SØ3 = Black Anodize	
		37				
				Ø6 (16 for Size 1ØØ)	SØ6 = Olive-Drab Cadmium	
		51-3				
				Ø7 (17 for Size 1ØØ)	SØ7 =Titanium	
		1ØØ				
					SØ9=Stainless	
						

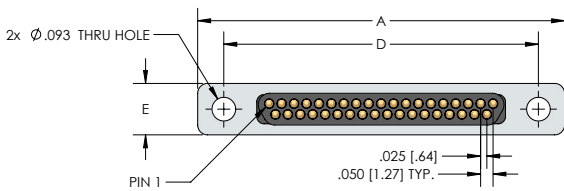
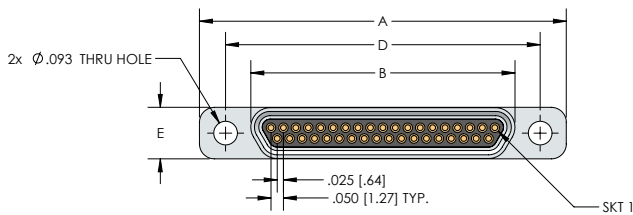
ELECTRICAL PERFORMANCE DATA	Go to Page 9 See chart 18 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 9 See chart 18 M or Click Here for Mechanical Performance Data
MATERIALS AND FINSHES DATA	Go to Page 9 See chart 18 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



Size	ALL	A SERIES									
	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	G Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.376 (9.55)	.393 (9.98)	.565 (14.35)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
15	.935 (23.75)	.526 (13.36)	.543 (13.79)	.715 (18.16)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
21	1.085 (27.56)	.693 (17.17)	.693 (17.60)	.865 (21.97)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
25	1.185 (30.10)	.776 (19.71)	.793 (20.14)	.965 (24.51)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
31	1.335 (33.91)	.926 (23.52)	.943 (23.95)	1.115 (28.32)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
37	1.485 (37.72)	1.076 (27.33)	1.093 (27.76)	1.265 (32.13)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
51-3	1.435 (36.45)	1.026 (26.06)	1.041 (26.44)	1.215 (30.86)	.254 (6.45)	.254 (6.45)	.223 (5.66)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)

FIELD SOLDERABLE CONNECTOR

- Low Profile Plastic Shell Connector w/Solder Cup Contacts
- Environmentally Sealed
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts Accepting 24 AWG Wire

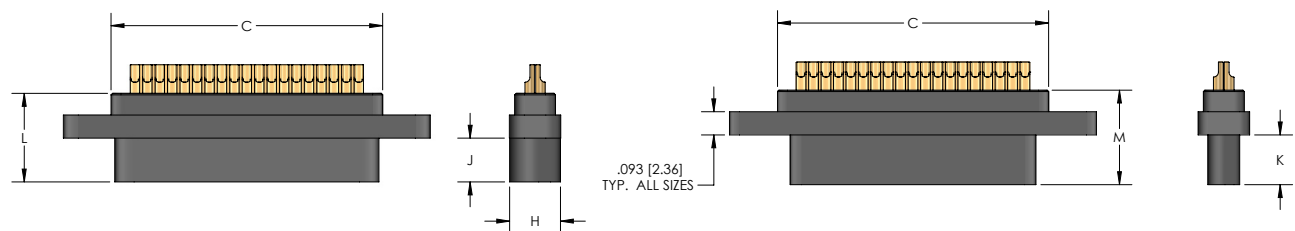
HOW TO ORDER

* Indicates preferred standard *** Leave blank if no hardware required.

P	R	51-3	N	Ø	
Series	Insulator	Contacts	Contact Gender	Hardware***	Temp Range
P = Plastic Shell	R=PPS	Ø9	N= Male / Pin (Plug Side)	*Ø2 (12 for Size 1ØØ) 22 (Swaged)	*Blank =125C
		15			HT = 200C
		21	T = Female/Socket (Receptacle Side)	Ø3 (13 for Size 1ØØ)	
		25			
		31	TT = Female/Socket (Receptacle Side) for 24 AWG wire	*Ø5 (15 for Size 1ØØ)	
		37			
		51-3		Ø6 (16 for Size 1ØØ)	
					
				Ø7 (17 for Size 1ØØ)	
					

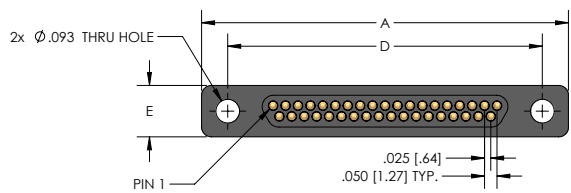
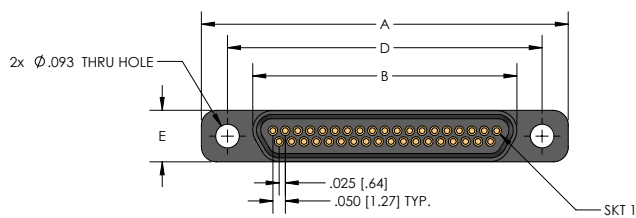
ELECTRICAL PERFORMANCE DATA	Go to Page 9 See chart 18 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 9 See chart 18 M or Click Here for Mechanical Performance Data
MATERIALS AND FINISHES DATA	Go to Page 9 See chart 18 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

PLUG (PINS)



Size	ALL	P SERIES									
	A Max.	B Max.	C Max.	D Max.	H Max.	E Max.	G Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
9	.785 (19.94)	.376 (9.55)	.393 (9.98)	.565 (14.35)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
15	.935 (23.75)	.526 (13.36)	.543 (13.79)	.715 (18.16)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
21	1.085 (27.56)	.693 (17.17)	.693 (17.60)	.865 (21.97)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
25	1.185 (30.10)	.776 (19.71)	.793 (20.14)	.965 (24.51)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
31	1.335 (33.91)	.926 (23.52)	.943 (23.95)	1.115 (28.32)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
37	1.485 (37.72)	1.076 (27.33)	1.093 (27.76)	1.265 (32.13)	.218 (5.54)	.218 (5.54)	.174 (4.42)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)
51-3	1.435 (36.45)	1.026 (26.06)	1.041 (26.44)	1.215 (30.86)	.254 (6.45)	.254 (6.45)	.223 (5.66)	.182 (4.62)	.209 (5.31)	.375 (9.57)	.395 (10.03)

NANO-D SERIES

WIRED

SINGLE ROW-SINGLE ENDED-METAL SHELL	34
SINGLE ROW-DOUBLE ENDED-METAL SHELL	36
DUAL ROW-SINGLE ENDED-METAL SHELL	38
DUAL ROW-SINGLE ENDED-PLASTIC SHELL	40
DUAL ROW-DOUBLE ENDED-METAL SHELL	42
DUAL ROW-DOUBLE ENDED-PLASTIC SHELL	44

PERFORMANCE DATA

123-E	ELECTRICAL
CONTACT RESISTANCE:	.080 mΩ max.@ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min..

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

123-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or electrodeposited cadmium plating per SAE-AMS-QQ-P-416, Type II, class 3, with Yellow Chromate or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582, Titanium Alloy per MIL-T-81556, Unplated
Molded Insulators into Metal housing	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

126-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Molded Full plastic housing:	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

NANO-D SERIES

CIRCUIT RIGHT ANGLE

SINGLE ROW-PLATED THRU HOLE-METAL SHELL	46
SINGLE ROW-SURFACE MOUNT-METAL SHELL	50
DUAL ROW-PLATED THRU HOLE-METAL SHELL.....	54
DUAL ROW-PLATED THRU HOLE-PLASTIC SHELL.....	58
DUAL ROW-SURFACE MOUNT-METAL SHELL.....	62
DUAL ROW-SURFACE MOUNT-PLASTIC SHELL.....	66
DUAL ROW-(EXTEND PROFILE-FEMALE ONLY) SURFACE MOUNT-METAL SHELL.....	70
DUAL ROW-(EXTEND PROFILE-FEMALE ONLY) SURFACE MOUNT-PLASTIC SHELL.....	74

PERFORMANCE DATA

133-E	ELECTRICAL
CONTACT RESISTANCE:	0.033 mΩ max.@ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min.

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

131-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or electrodeposited cadmium plating per SAE-AMS-QQ-P-416, Type II, class 3, with Yellow Chromate or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582, Titanium Alloy per MIL-T-81556, Unplated
Molded Insulators into Metal housing	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Alignment Post	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

126-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Molded Full plastic housing:	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

NANO-D SERIES

CIRCUIT

SINGLE ROW-PLATED THRU HOLE-METAL SHELL	78
SINGLE ROW-SURFACE MOUNT-METAL SHELL	82

PERFORMANCE DATA

133-E	ELECTRICAL
CONTACT RESISTANCE:	0.033 mΩ max.@ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min.

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

145-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or electrodeposited cadmium plating per SAE-AMS-QQ-P-416, Type II, class 3, with Yellow Chromate or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582, Titanium Alloy per MIL-T-81556, Unplated
Molded Insulators into Metal Housing	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass

146-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Molded Full Plastic Housing:	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

NANO-D SERIES

CIRCUIT

DUAL ROW-PLATED THRU HOLE-METAL SHELL.....	86
DUAL ROW-PLATED THRU HOLE-PLASTIC SHELL.....	90
DUAL ROW-SURFACE MOUNT-METAL SHELL.....	94
DUAL ROW-SURFACE MOUNT-PLASTIC SHELL.....	96
DUAL ROW-(LOW PROFILE-MALE ONLY) SURFACE MOUNT-METAL SHELL.....	102
DUAL ROW-(LOW PROFILE-MALE ONLY) SURFACE MOUNT-PLASTIC SHELL.....	106

PERFORMANCE DATA

133-E	ELECTRICAL
CONTACT RESISTANCE:	0.033 mΩ max.@ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min.

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

139 -M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or electrodeposited cadmium plating per SAE-AMS-QQ-P-416, Type II, class 3, with Yellow Chromate or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582, Titanium Alloy per MIL-T-81556, Unplated
Molded Insulators into Metal Housing	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass

142 144-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Molded Full Plastic Housing:	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

NANO-D SERIES

LATCHING

WIRED

DUAL ROW-SINGLE ENDED-METAL SHELL.....	110
DUAL ROW-DOUBLE ENDED-METAL SHELL.....	112

PERFORMANCE DATA

123-E	ELECTRICAL
CONTACT RESISTANCE:	.080 mΩ max.@ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min..

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

149-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or electrodeposited cadmium plating per SAE-AMS-QQ-P-416, Type II, class 3, with Yellow Chromate or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582, Titanium Alloy per MIL-T-81556, Unplated
Molded Insulators into Metal housing	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Polyphenylene Sulfide (PPS), per MIL-M-24519 GST-40F, 40% Glass

NANO-D SERIES

LATCHING CIRCUIT

DUAL ROW-VERTICAL-PLATED THRU HOLE-METAL SHELL.....	114
DUAL ROW-VERTICAL-SURFACE MOUNT-METAL SHELL.....	118
DUAL ROW-RIGHT ANGLE-PLATED THRU HOLE-METAL SHELL	122
DUAL ROW-RIGHT ANGLE-SURFACE MOUNT-METAL SHELL	126
DUAL ROW-RIGHT ANGLE-SURFACE MOUNT-(EXTEND PROFILE,FEMALE ONLY)-METAL SHELL	130

PERFORMANCE DATA

133-E	ELECTRICAL
CONTACT RESISTANCE:	0.033 mΩ max.@ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min.

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

131-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or electrodeposited cadmium plating per SAE-AMS-QQ-P-416, Type II, class 3, with Yellow Chromate or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582, Titanium Alloy per MIL-T-81556, Unplated
Molded Insulators into Metal housing	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Alignment Post	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

NANO-D SERIES

FIELD ATTACHABLE

DUAL ROW-METAL SHELL.....	134
DUAL ROW-PLASTIC SHELL.....	136
CIRCULAR INLINE-PLASTIC SHELL	138

PERFORMANCE DATA

133-E	ELECTRICAL
CONTACT RESISTANCE:	0.033 mΩ max.@ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min.

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

126-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Molded Full plastic housing:	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

NANO-D SERIES

CIRCULAR WIRED

METAL BREAK AWAY WIRED-INLINE	140
PLASTIC WIRED-INLINE.....	142

PERFORMANCE DATA

123-E	ELECTRICAL
CONTACT RESISTANCE:	.080 mΩ max. @ 1.0 A
CURRENT RATING (SIGNAL CONTACTS):	1.0 A max.
DIELECTRIC WITHSTANDING VOLTAGE:	250 VAC at sea level , 100 VAC at 70,000 ft.
INSULATION RESISTANCE:	5,000 MΩ min..

123-M	MECHANICAL
CONTACT ENGAGING FORCE:	5 oz max. (Contact average is 2 oz.)
CONTACT SEPARATING FORCE:	0.4 oz. min.
CONNECTOR MATING FORCE:	7 oz. x number of contacts max.
CONNECTOR UNMATING FORCE:	7 oz. x number of contacts max.
VIBRATION:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
SHOCK:	No damage or interruption detected (one microsecond sensitivity) EIA-364-28 Condition IV
DURABILITY:	No mechanical or electrical defects after 500 matings.
SALT SPRAY:	No exposure of base metal or loss of performance after 96 hours for both Nickel and Cadmium plating

MATERIALS AND FINISHES

122-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or electrodeposited cadmium plating per SAE-AMS-QQ-P-416, Type II, class 3, with Yellow Chromate or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582, Titanium Alloy per MIL-T-81556, Unplated
Molded Insulators into Metal housing	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass
Hardware	Corrosion resistant steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

113-M&F	MATERIALS AND FINISHES
Pin Contacts	Pins: BeCu alloy strip per ASTM-B-194
Socket Contacts	Sockets: BeCu per ASTM-B-194
Contact Plating	Gold plate per ASTM B488, or SAE AMS 2422
Metal Shells	Aluminum alloy per SAE-AMS-QQ-A-200/8, Type 6061-T6, with electroless nickel SAE AMS2404, class 3 or 4 or Anodize per Mil-A-8625, Type III, Class 2, Black, Stainless Steel per ASTM A582 Passivated per SAE AMS-2700
Molded Insulators	Insulating compound per MIL-I-16923. Liquid Crystal Polymer (LCP), per MIL-M-24519 GLCP-30F, 30% Glass

WIRED CONNECTOR

- Metal Shell Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts



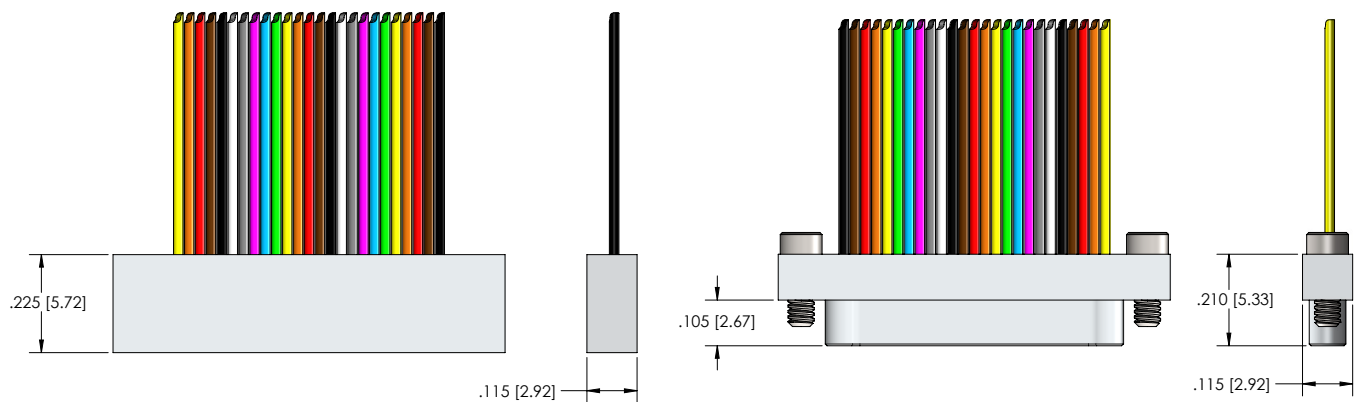
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

N	M	L	25	–	1	P	Ø2	–	3Ø	F	6	–	18.Ø	–	SØ1
	Series	Insulator	Contacts	Insulator Type	Contact Gender	Hardware***	Wire Gauge	Wire Type	Color Code	Length	Finish**	Temp Range			
N = Nano	M = Metal	L = LCP	Ø9	1 = Single Row	P = Male/Pin (Plug Side)	Ø1 = Phillips Head Jackscrew	3Ø*	C = Solid Wire, uninsulated	1 = White	*18.Ø	Blank = Cadmium	*blank = 125C			
			15				32	*F = Stranded, w/Teflon insulation, per NEMA HP3-ET	3 = Tin plated (6Ø/4Ø) (solid wire)	*36.Ø		HT = 200°C			
			21		S = Female/Socket (Receptacle Side)	Ø2 = Allen Head Jackscrew	34	Y = Stranded w/Tefzel insulation, per SAE AS22759/33	4 = Gold plated (RoHS) (solid wire)		*SØ1 = Nickel				
			25					A = Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)	*6 = 10 solid colors, repeating			SØ3 = Black Anodize			
			31			Ø5 = Slotted Head Jackscrew		T = Flat Integral Tail				SØ6 = Olive-Drab Cadmium			
			37									SØ7 = Titanium			
			51			Ø6 = Floating Phillips Head Jackscrew (Female Only)						SØ9 = Stainless			
							Ø7 = Threaded Hole								
							Ø8 = Floating Allen Head Jackscrew (Female Only)								
							Ø9 = Floating Slotted Head Jackscrew (Female Only)								

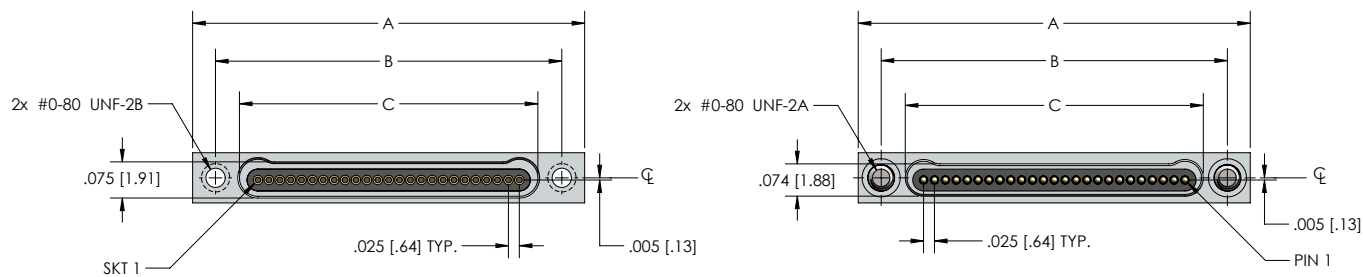
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 E or Click Here for Mechanical Performance Data
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Electrical Performance Data
MATERIALS DATA	Go to Page 26 See chart 123 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

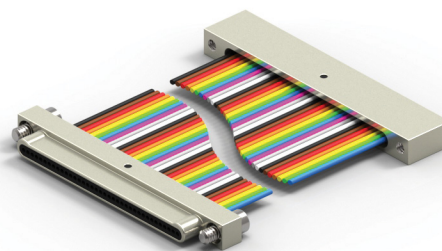
PLUG (PINS)



Size	NM SERIES			
	A	B	Plug C	Receptacle
9	.500 [12.70]	.395 [10.03]	.284 [7.21]	.285 [7.24]
15	.650 [16.51]	.545 [13.84]	.434 [11.02]	.435 [11.05]
21	.800 [20.32]	.695 [17.65]	.584 [14.83]	.585 [14.86]
25	.900 [22.86]	.795 [20.19]	.684 [17.37]	.685 [17.40]
31	1.050 [26.67]	.945 [24.00]	.834 [21.18]	.835 [21.21]
37	1.200 [30.48]	1.095 [27.81]	.984 [24.99]	.985 [25.02]
51	1.550 [39.37]	1.445 [36.70]	1.334 [33.88]	1.335 [33.91]

WIRED CONNECTOR

- Metal Shell Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts



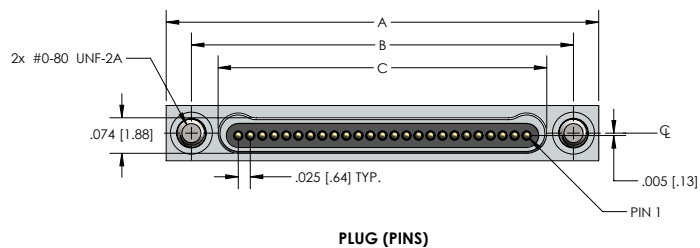
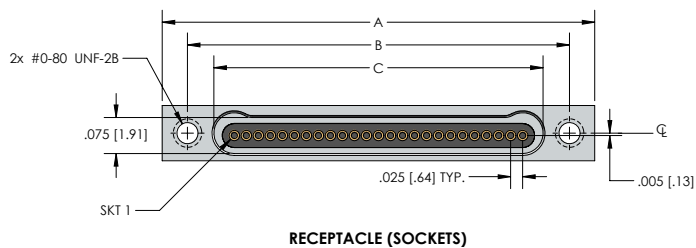
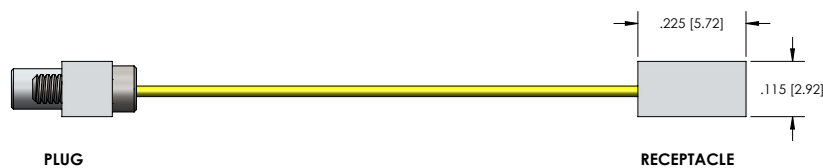
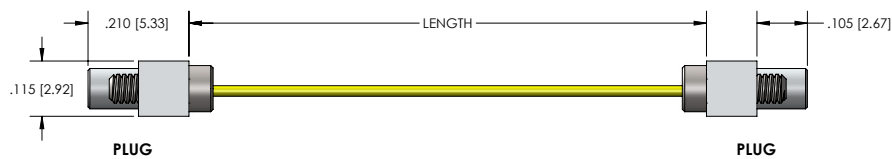
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

N	M	L	25	-	1	P	Ø2	/NMLX-1XX	-	3Ø	F	6	-	18.Ø	-	SØ1	
	Series	Insulator	Contacts		Insulator Type	Contact Gender	Hardware	Detail of Other End of the Harness		Wire Gauge	Wire Type	Color Code	Length		Finish**	Temp Range	
N= Nano	M= Metal	L= LCP	Ø9		1= Single Row	P= Male/Pin (Plug Side)	Ø1= Phillips Head Jackscrew	Refer to the left columns for filling out the x		3Ø*	*F=Stranded, w/ Teflon insulation, per NEMA HP3-ET	1=White	*18.Ø		Blank= Cadmium	*blank = 1250°	
			15							32	Y=Stranded w/ Tefzel insulation, per SAE AS22759/33	*6 = 10 solid colors, repeating	*36.Ø				HT = 200°
			21			S=Female/Socket (Receptacle Side)	Ø2= Allen Head Jackscrew			34	A=Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)					*SØ1= Nickel	
			25														
			31				Ø5=Slotted Head Jackscrew									SØ6 = Olive Drab Cadmium	
			37														
			51				Ø6=Floating Phillips Head Jackscrew (Female Only)									SØ7 = Titanium	
																	
							Ø7=Threaded Hole									SØ9= Stainless	
																	
							Ø8=Floating Allen Head Jackscrew (Female Only)										
																	
							Ø9=Floating Slotted Head Jackscrew (Female Only)										
																	

MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 E or Click Here for Mechanical Performance Data
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Electrical Performance Data
MATERIALS DATA	Go to Page 26 See chart 123 M&F or Click Here for Materials and Finishes Data

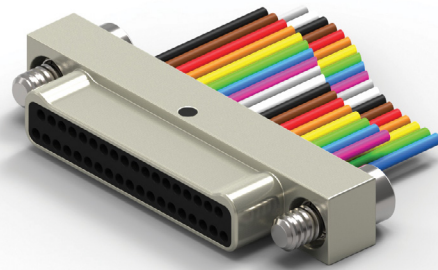
DIMENSIONS



Size	NM SERIES				
	A	B	Plug	C	Receptacle
9	.500 [12.70]	.395 [10.03]	.284 [7.21]		.285 [7.24]
15	.650 [16.51]	.545 [13.84]	.434 [11.02]		.435 [11.05]
21	.800 [20.32]	.695 [17.65]	.584 [14.83]		.585 [14.86]
25	.900 [22.86]	.795 [20.19]	.684 [17.37]		.685 [17.40]
31	1.050 [26.67]	.945 [24.00]	.834 [21.18]		.835 [21.21]
37	1.200 [30.48]	1.095 [27.81]	.984 [24.99]		.985 [25.02]
51	1.550 [39.37]	1.445 [36.70]	1.334 [33.88]		1.335 [33.91]

WIRED CONNECTOR

- Metal Shell Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



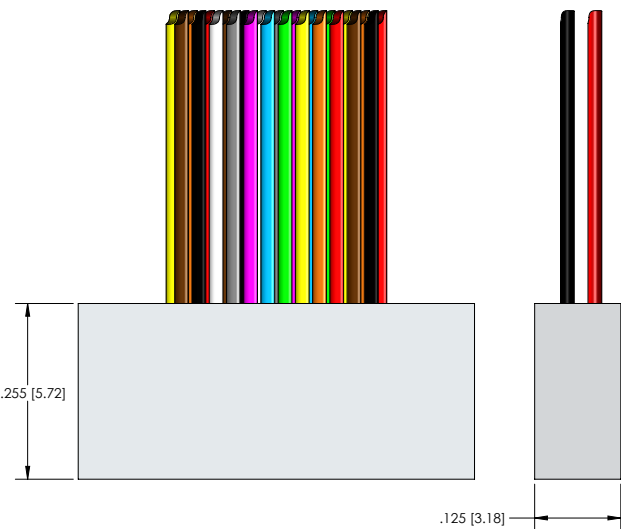
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

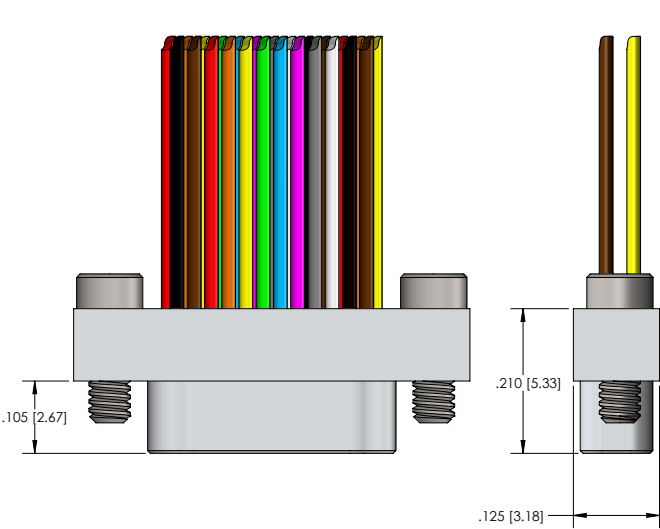
N	M	L	25	-2	P	Ø2	- 3Ø	F	6 - 18.Ø - SØ1			
	Series	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Wire Gauge	Wire Type	Color Code	Length	Finish**	Temp Range
N= Nano	M= Metal	L=LCP	Ø9	2= Dual Row	P=Male/Pin (Plug Side)	Ø1=Phillips Head Jackscrew	3Ø*	C=Solid Wire, uninsulated	1=White	*18.Ø	Blank= Cadmium	*blank = 125C
			15				32	*F=Stranded, w/ Teflon insulation, per NEMA HP3-ET	3= Tin plated (6Ø/4Ø) (solid wire)	*36.Ø		HT = 200°C
			21		S=Female/ Socket (Receptacle Side)	Ø2=Allen Head Jackscrew	34	Y=Stranded w/Tefzel insulation, per SAE AS22759/33	4=Gold plated (RoHS) (solid wire)		*SØ1= Nickel	
			25					A=Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)	*6 = 10 solid colors, repeating			
			31			Ø5=Slotted Head Jackscrew		T=Flat Integral Tail			SØ3 = Black Anodize	
			37									
			51			Ø6=Floating Phillips Head Jackscrew (Female Only)					SØ6 = Olive-Drab Cadmium	
			65									
						Ø7=Threaded Hole					SØ7 = Titanium	
												
						Ø8=Floating Allen Head Jackscrew (Female Only)					SØ9= Stainless	
												
						Ø9=Floating Slotted Head Jackscrew (Female Only)						
												

MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 E or Click Here for Mechanical Performance Data
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Electrical Performance Data
MATERIALS DATA	Go to Page 26 See chart 123 M&F or Click Here for Materials and Finishes Data

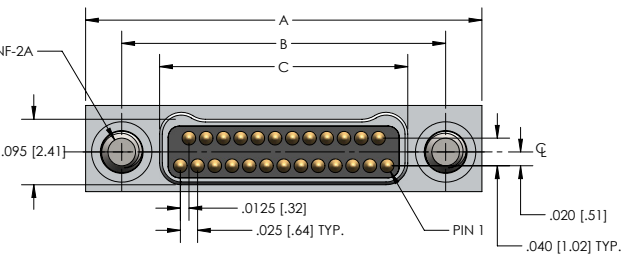
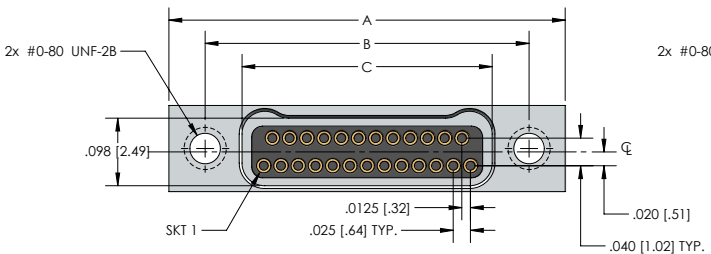
DIMENSIONS



RECEPTACLE (SOCKETS)



PLUG (PINS)



Size	NM SERIES			
	A	B	Plug	Receptacle
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]

WIRED CONNECTOR

- Plastic Shell Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



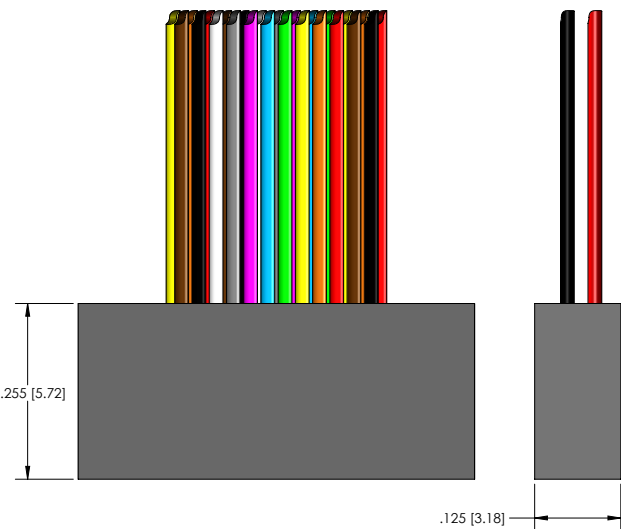
HOW TO ORDER

* Indicates preferred standard

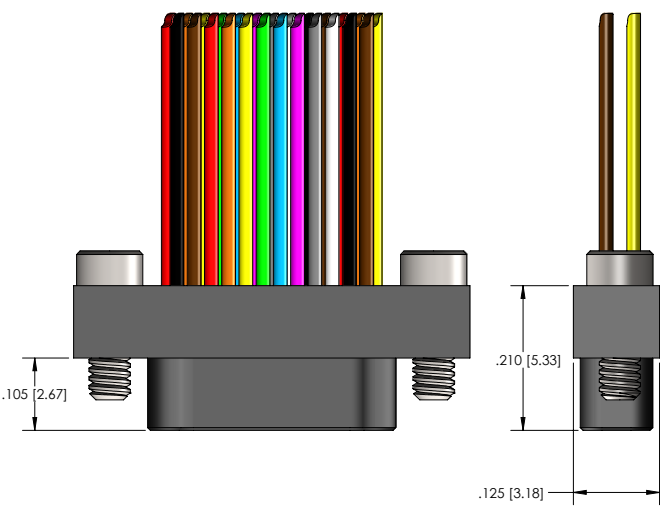
N	P	L	25	2	P	Ø2	- 3Ø	F	6	- 18.Ø	
	Series	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Wire Gauge	Wire Type	Color Code	Length	Temp Range
N= Nano	P= Plastic	L= LCP	Ø9	2= Dual Row	P= Male/Pin (Plug Side)	Ø1= Phillips Head Jackscrew	3Ø*	C= Solid Wire, uninsulated	1= White	*18.Ø	*blank = 125C
			15				32	*F= Stranded, w/ Teflon insulation, per NEMA HP3-ET	3= Tin plated (6Ø/4Ø) (Solid Wire)	*36.Ø	HT = 200°C
			21		S= Female/ Socket (Receptacle Side)	Ø2= Allen Head Jackscrew	34	Y= Stranded w/ Tefzel insulation, per SAE AS22759/33	4= Gold plated (RoHS) (Solid Wire)		
			25					A= Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)	*6 = 10 solid colors, repeating		
			31			Ø5= Slotted Head Jackscrew		"T= Flat Integral Tail			
			37								
			51			Ø6= Floating Phillips Head Jackscrew (Female Only)					
			65								
						Ø7= Threaded Hole					
											
						Ø8= Floating Allen Head Jackscrew (Female Only)					
											
						Ø9= Floating Slotted Head Jackscrew (Female Only)					
											

MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 123 E or Click Here for Electrical Performance Data
MATERIALS DATA	Go to Page 26 See chart 126 M&F or Click Here for Materials and Finishes Data

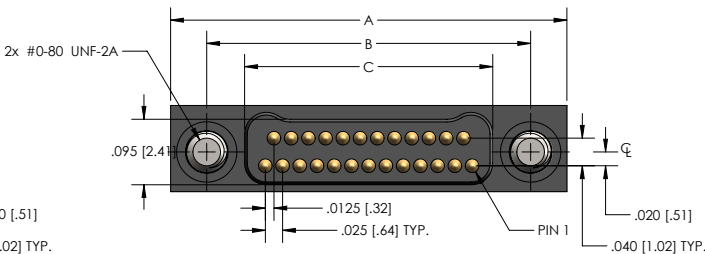
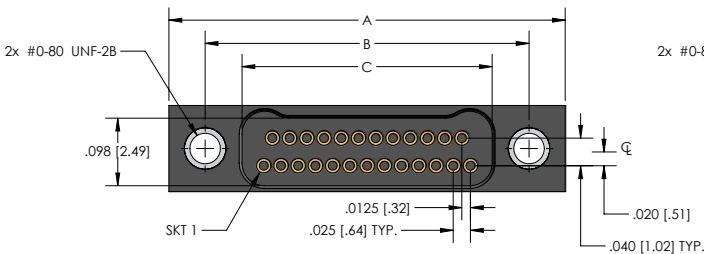
DIMENSIONS



RECEPTACLE (SOCKETS)



PLUG (PINS)



P SERIES					
Size	A	B	Plug	C	Receptacle
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]		.688 [17.47]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]		.863 [21.92]

WIRED CONNECTOR

- Metal Shell Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

N	M	L	25	2	P	Ø2	/NMLX-2XX	- 3Ø	F	6	- 18.Ø	- SØ1		
	Series	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Detail of Other End of the Harness	Wire Gauge	Wire Type	Color Code	Length	Finish**	Temp Range	
N = Nano	M = Metal	L = LCP	Ø9	2 = Dual Row	P = Male/Pin (Plug Side)	Ø1 = Phillips Head Jackscrew	Refer to the left columns for filling out the x	3Ø*	*F = Stranded, w/ Teflon insulation, per NEMA HP3-ET	1 = White	*18.Ø	Blank = Cadmium	*blank = 125°C	
			15					32	Y = Stranded w/ Tefzel insulation, per SAE AS22759/33	*6 = 10 solid colors, repeating	*36.Ø		HT = 200°C	
			21		S = Female/Socket (Receptacle Side)	Ø2 = Allen Head Jackscrew			34	A = Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)			*SØ1 = Nickel	
			25											
			31			Ø5 = Slotted Head Jackscrew						SØ3 = Black Anodize		
			37											
			51			Ø6 = Floating Phillips Head Jackscrew (Female Only)						SØ6 = Olive-Drab Cadmium		
			65											
						Ø7 = Threaded Hole						SØ7 = Titanium		
														
						Ø8 = Floating Allen Head Jackscrew (Female Only)						SØ9 = Stainless		
														
						Ø9 = Floating Slotted Head Jackscrew (Female Only)								
														

MECHANICAL PERFORMANCE DATA

Go to Page 26 See chart 123 E or Click Here for Mechanical Performance Data

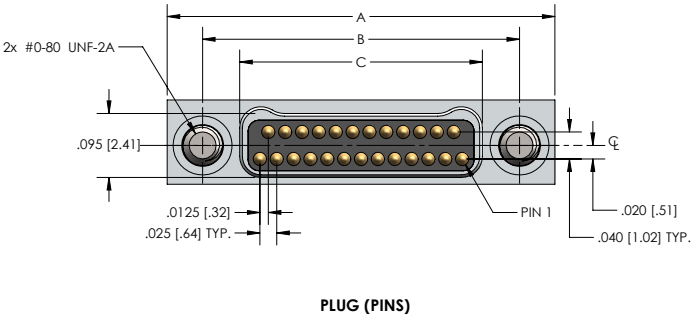
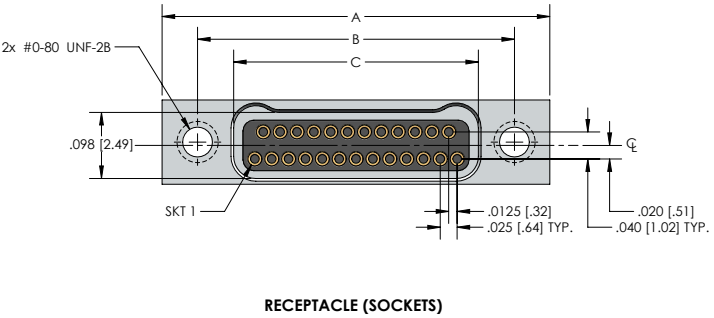
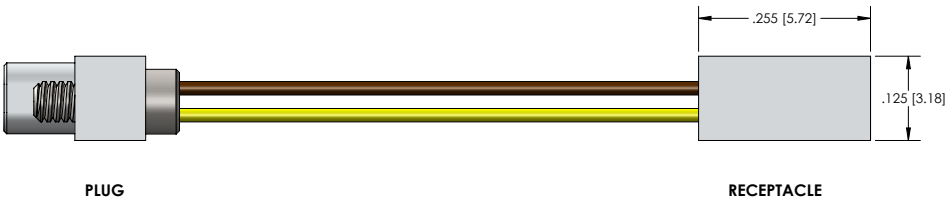
ELECTRICAL PERFORMANCE DATA

Go to Page 26 See chart 123 M or Click Here for Electrical Performance Data

MATERIALS DATA

Go to Page 26 See chart 123 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



M SERIES					
Size	A	B	Plug	C	Receptacle
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]		.688 [17.47]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]		.863 [21.92]

WIRED CONNECTOR

- Plastic Shell Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



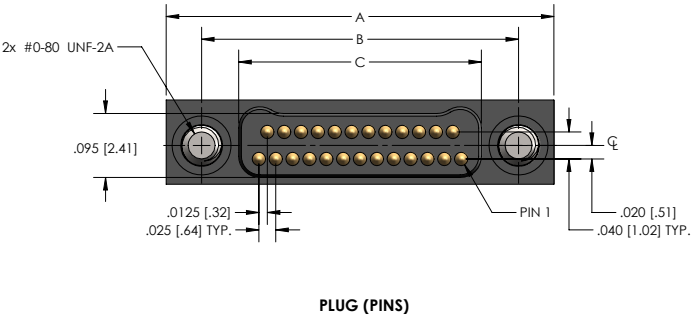
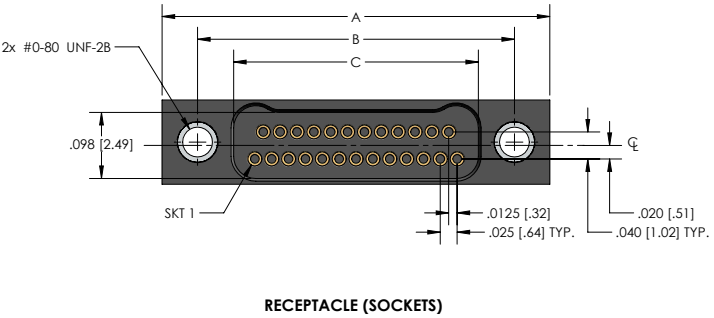
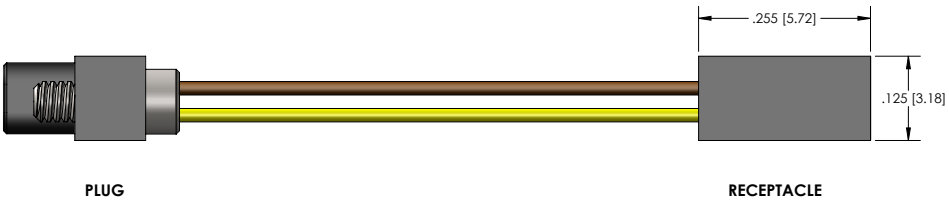
HOW TO ORDER

* Indicates preferred standard

N	P	L	25	- 2	P	Ø2	/NPLX-2XX - 3Ø	F	6 -	18.Ø		
	Series	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Detail of Other End of the Harness	Wire Gauge	Wire Type	Color Code	Length	Temp Range
N = Nano	P = Plastic	L = LCP	Ø9	2 = Dual Row	P = Male/Pin (Plug Side)	Ø1 = Phillips Head Jackscrew	Refer to the left columns for filling out the x	3Ø*	*F = Stranded, w/Teflon insulation, per NEMA HP3-ET	1 = White	*18.Ø	*blank = 125C
			15					32	Y = Stranded w/Tefzel insulation, per SAE AS22759/33	*6 = 10 solid colors, repeating	*36.Ø	HT = 200°C
			21		S = Female/Socket (Receptacle Side)	Ø2 = Allen Head Jackscrew		34	A = Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)			
			25									
			31			Ø5 = Slotted Head Jackscrew						
			37									
			51			Ø6 = Floating Phillips Head Jackscrew (Female Only)						
			65									
						Ø7 = Threaded Hole						
												
						Ø8 = Floating Allen Head Jackscrew (Female Only)						
												
						Ø9 = Floating Slotted Head Jackscrew (Female Only)						
												

MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 123 E or Click Here for Electrical Performance Data
MATERIALS DATA	Go to Page 26 See chart 126 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



NP SERIES					
Size	A	B	Plug	C	Receptacle
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]		.688 [17.47]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]		.863 [21.92]

CIRCUIT CONNECTOR RIGHT ANGLE

- Metal Shell Connector
- Plated Thru Hole .050 x .050 (Style 8)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts

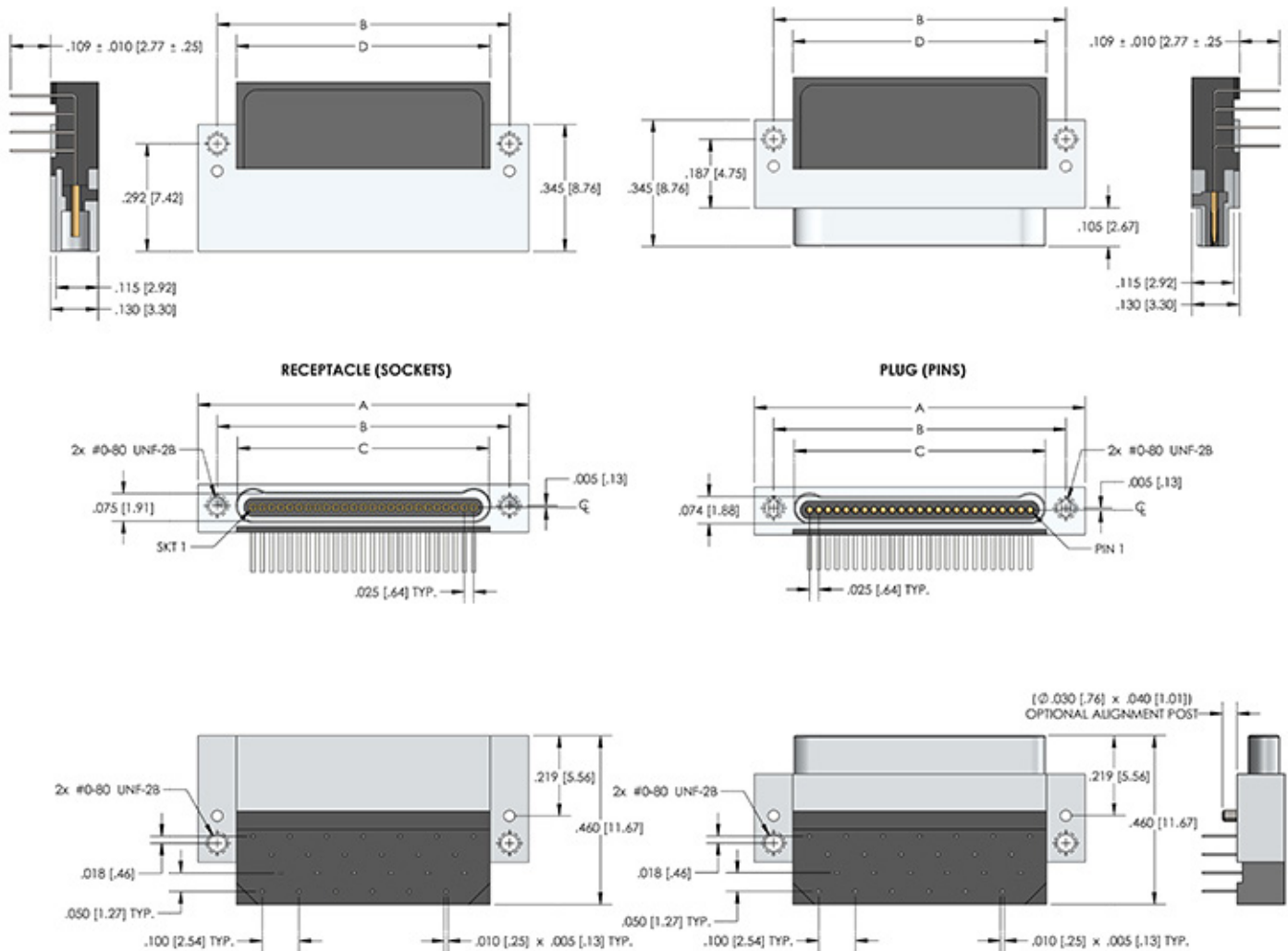
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	8	L	25	-1	P	Ø7	1	-SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN = Nano	M = Metal Shell	Style = 8	L = LCP	Ø9	1 = Single Row	P = Male / Pin (Plug Side)	Ø7 = Threaded Hole	1 = Tin plated (6Ø/4Ø)	Blank = Cadmium	*blank = 125C	*Blank = Threaded Mounting Holes
				15				2 = Gold plated (RoHS)		HT = 200°C	
				21		S = Female / Socket (Receptacle Side)"			*SØ1 = Nickel		1 = Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		2 = Clearance Mounting Holes
				37							
				51					SØ6 = Olive-Drab Cadmium		3 = Solder Alignment Posts with Clearance Mounting Holes
											
									SØ7 = Titanium		
											
									SØ9 = Stainless		
											

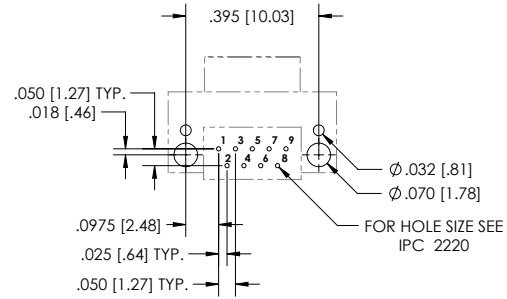
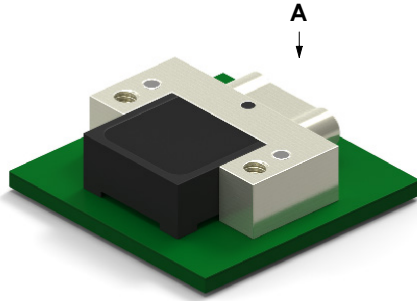
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 131 M&F or Click Here for Materials and Finishes Data

DIMENSIONS

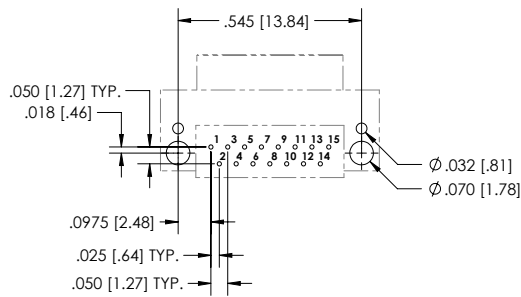


Size	CNM SERIES				
	A	B	Plug C	Receptacle	D
9	.500 [12.70]	.395 [10.03]	.284 [7.21]	.285 [7.24]	.300 [7.62]
15	.650 [16.51]	.545 [13.84]	.434 [11.02]	.435 [11.05]	.450 [11.43]
21	.800 [20.32]	.695 [17.65]	.584 [14.83]	.585 [14.86]	.600 [15.24]
25	.900 [22.86]	.795 [20.19]	.684 [17.37]	.685 [17.40]	.700 [17.78]
31	1.050 [26.67]	.945 [24.00]	.834 [21.18]	.835 [21.21]	.850 [21.59]
37	1.200 [30.48]	1.095 [27.81]	.984 [24.99]	.985 [25.02]	1.000 [25.40]
51	1.550 [39.37]	1.445 [36.70]	1.334 [33.88]	1.335 [33.91]	1.350 [34.29]

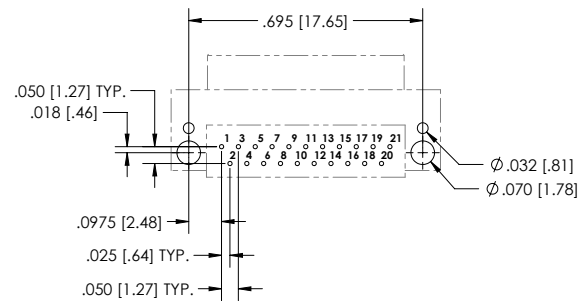
CIRCUIT CONNECTOR RIGHT ANGLE



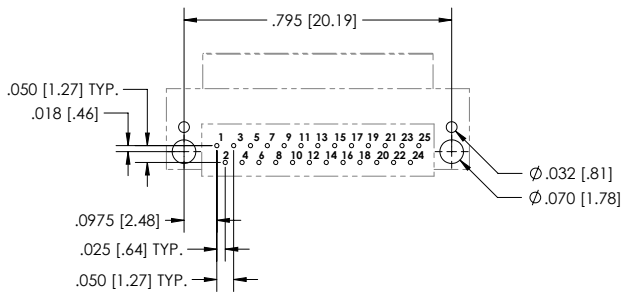
SIZE 9 - VIEW A



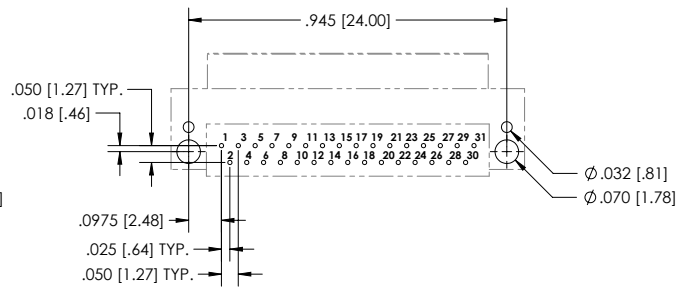
SIZE 15 - VIEW A



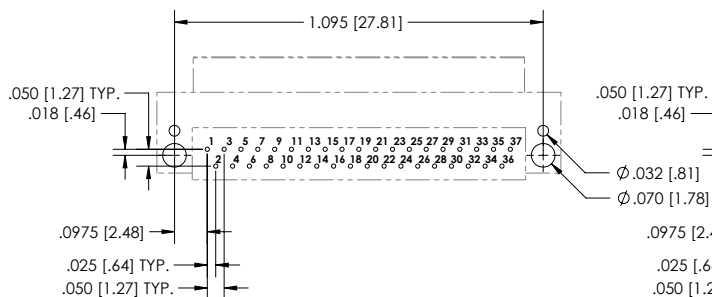
SIZE 21 - VIEW A



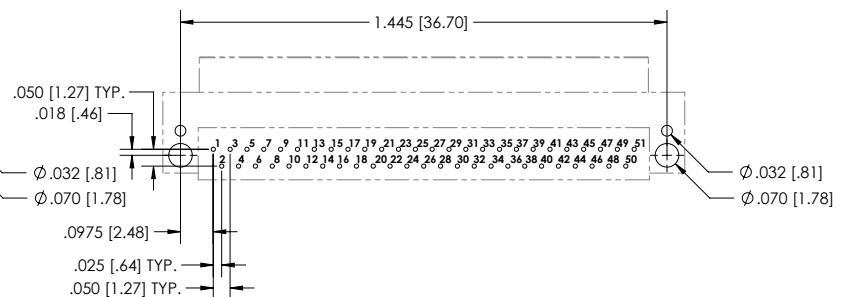
SIZE 25 - VIEW A



SIZE 31 - VIEW A

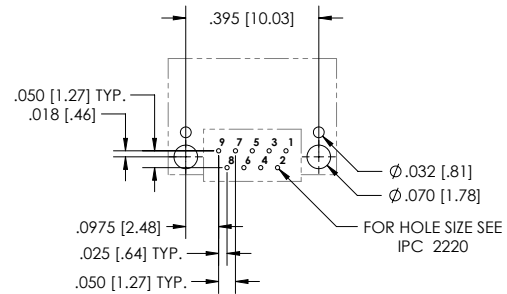
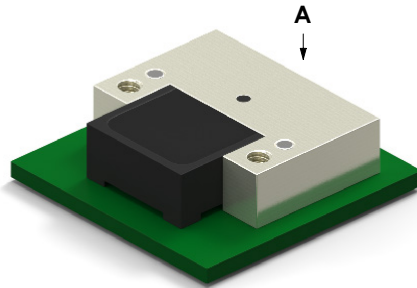


SIZE 37 - VIEW A

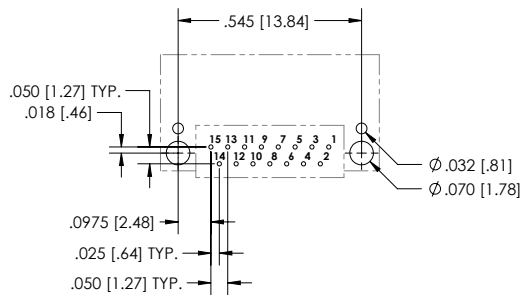


SIZE 51 - VIEW A

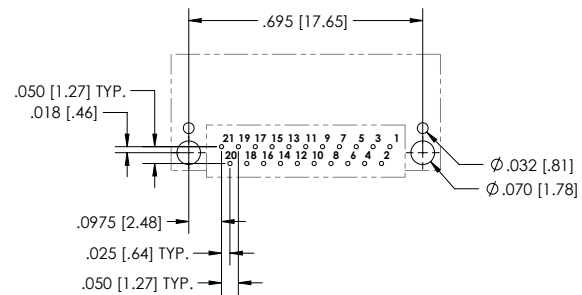
CIRCUIT CONNECTOR RIGHT ANGLE



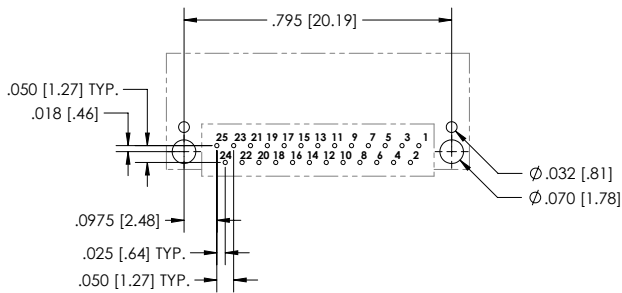
SIZE 9 - VIEW A



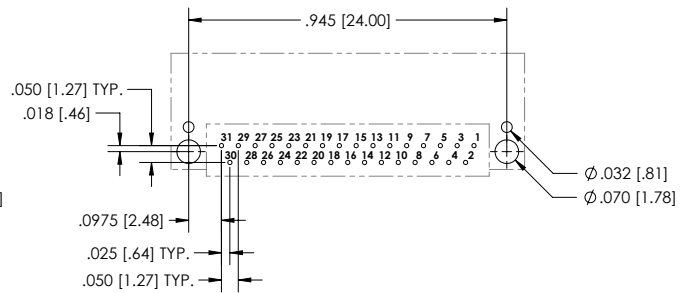
SIZE 15 - VIEW A



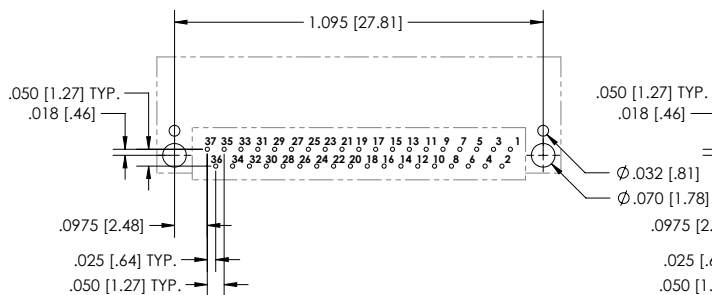
SIZE 21 - VIEW A



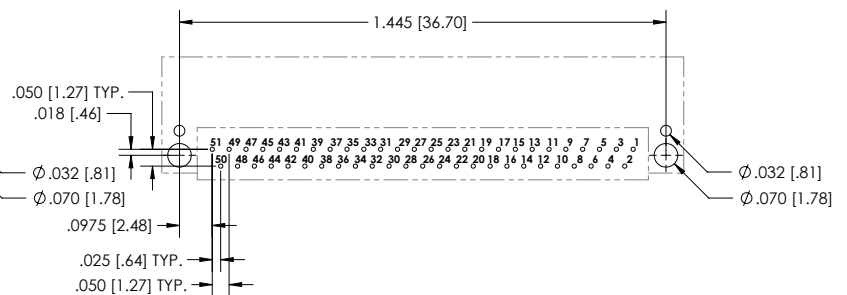
SIZE 25 - VIEW A



SIZE 31 - VIEW A



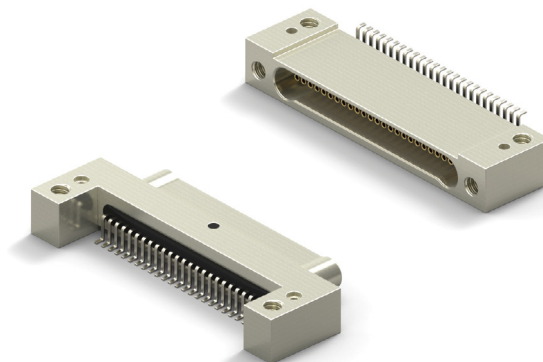
SIZE 37 - VIEW A



SIZE 51 - VIEW A

CIRCUIT CONNECTOR RIGHT ANGLE

- Metal Shell Connector
- Surface Mount .025 (Style 28)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts



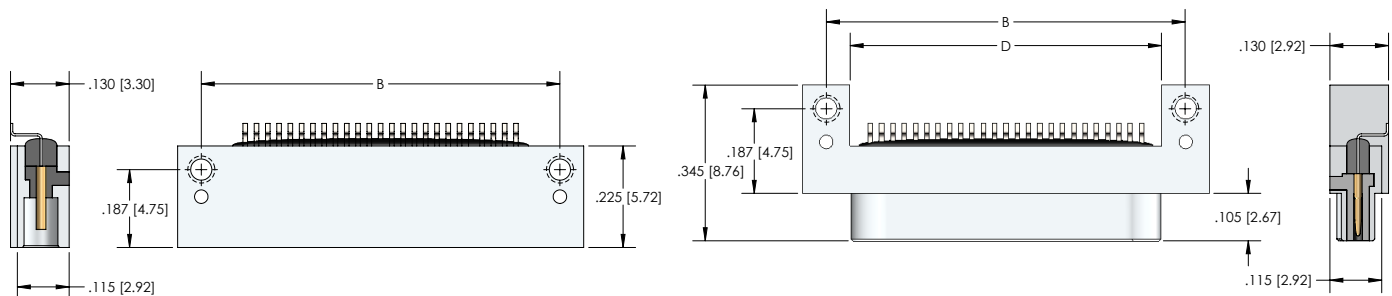
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	28	L	25	-1	P	Ø7	1	-SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN=Nano	M= Metal Shell	Style=28	L=LCP	Ø9	1= Single Row	P=Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (6Ø/4Ø)	Blank= Cadmium	*blank = 125C	*Blank=Threaded Mounting Holes
				15				2= Gold plated (RoHS)		HT = 200°C	
				21		S=Female/Socket (Receptacle Side)			*SØ1= Nickel		1=Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		2=Clearance Mounting Holes
				37							
				51					SØ6 = Olive-Drab Cadmium		3=Solder Alignment Posts with Clearance Mounting Holes
											
									SØ7 =Titanium		
											
									SØ9=Stainless		
											

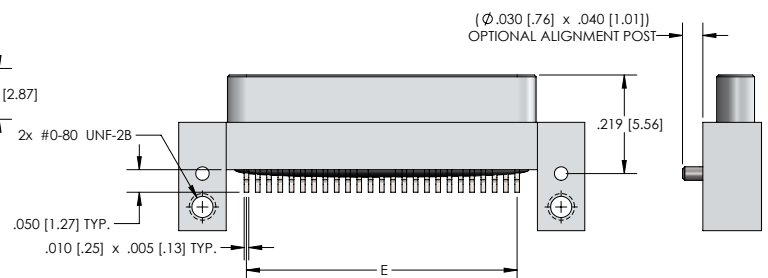
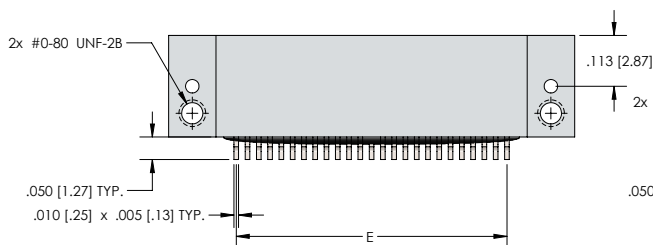
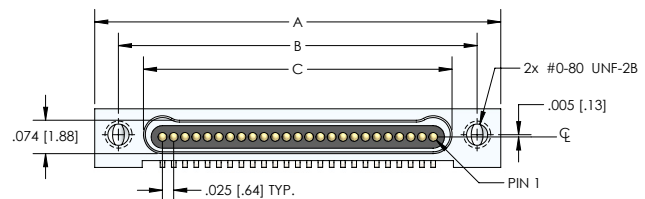
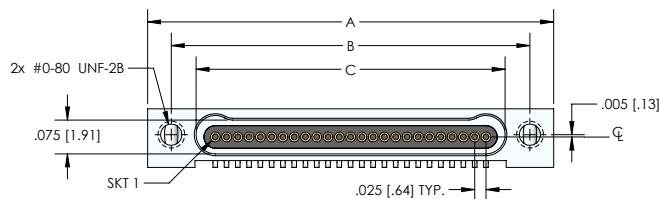
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 131 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



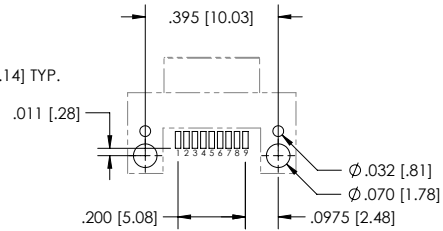
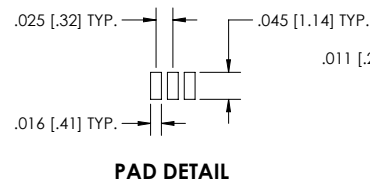
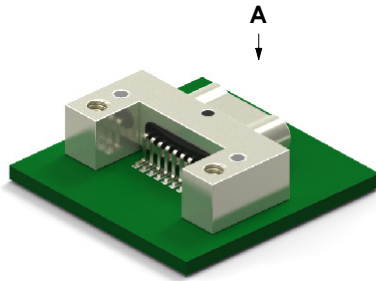
RECEPTACLE (SOCKETS)

PLUG (PINS)

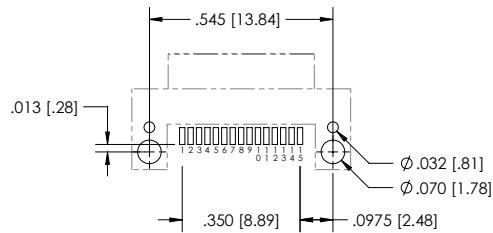


Size	CNM SERIES				
	A	B	Plug C	Receptacle	D
9	.500 [12.70]	.395 [10.03]	.284 [7.21]	.285 [7.24]	.300 [7.62]
15	.650 [16.51]	.545 [13.84]	.434 [11.02]	.435 [11.05]	.450 [11.43]
21	.800 [20.32]	.695 [17.65]	.584 [14.83]	.585 [14.86]	.600 [15.24]
25	.900 [22.86]	.795 [20.19]	.684 [17.37]	.685 [17.40]	.700 [17.78]
31	1.050 [26.67]	.945 [24.00]	.834 [21.18]	.835 [21.21]	.850 [21.59]
37	1.200 [30.48]	1.095 [27.81]	.984 [24.99]	.985 [25.02]	1.000 [25.40]
51	1.550 [39.37]	1.445 [36.70]	1.334 [33.88]	1.335 [33.91]	1.350 [34.29]

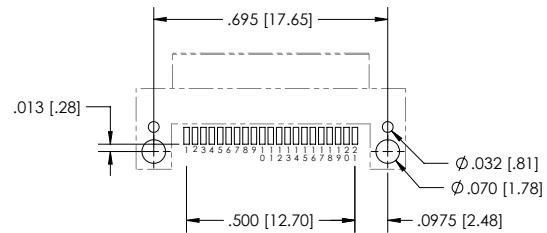
CIRCUIT CONNECTOR RIGHT ANGLE



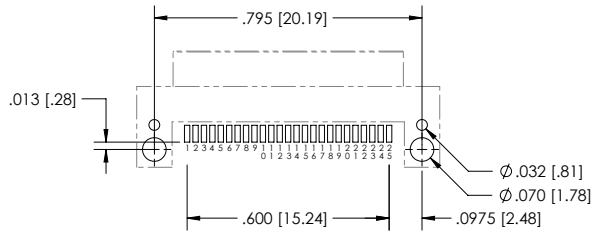
SIZE 9 - VIEW A



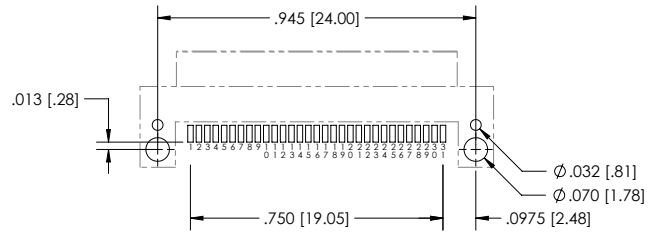
SIZE 15 - VIEW A



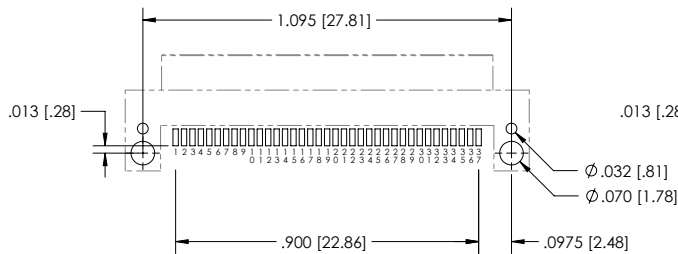
SIZE 21 - VIEW A



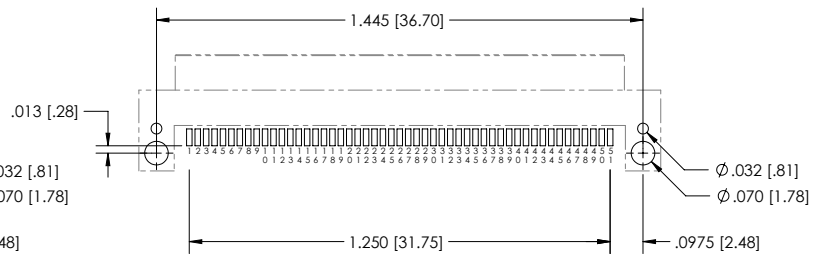
SIZE 25 - VIEW A



SIZE 31 - VIEW A

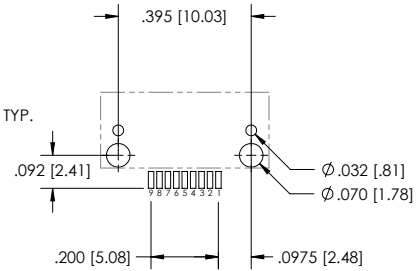
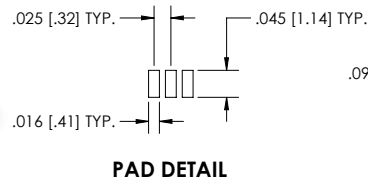
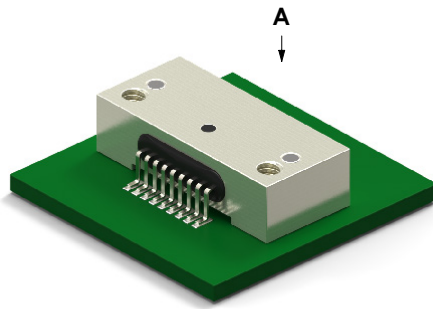


SIZE 37 - VIEW A

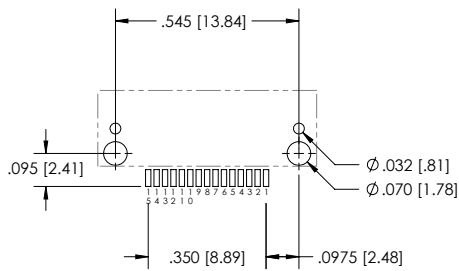


SIZE 51 - VIEW A

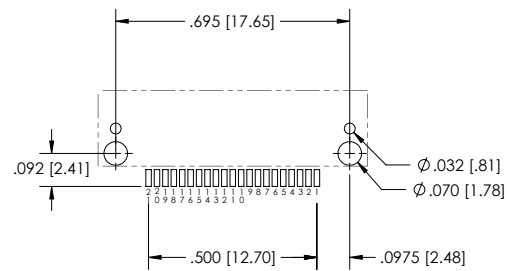
CIRCUIT CONNECTOR RIGHT ANGLE



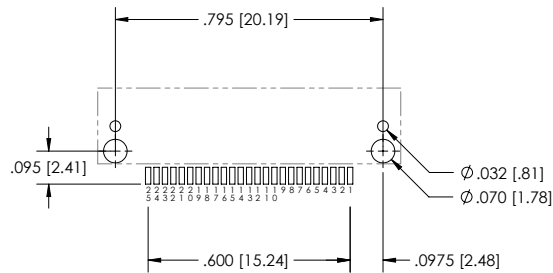
SIZE 9 - VIEW A



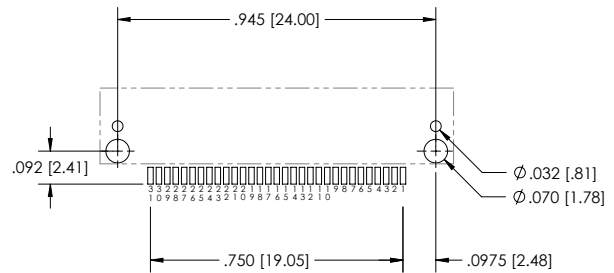
SIZE 15 - VIEW A



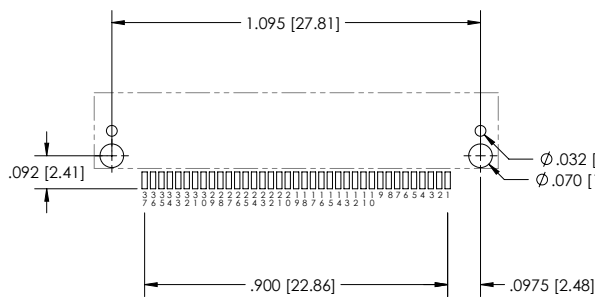
SIZE 21 - VIEW A



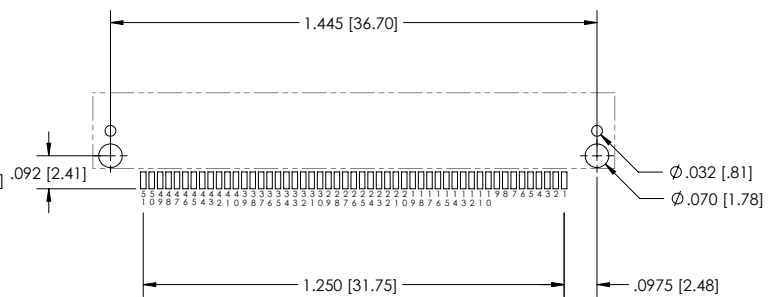
SIZE 25 - VIEW A



SIZE 31 - VIEW A



SIZE 37 - VIEW A



SIZE 51 - VIEW A

CIRCUIT CONNECTOR RIGHT ANGLE

- Metal Shell Connector
- Plated Thru Hole .050 x .050 (Style 8)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts

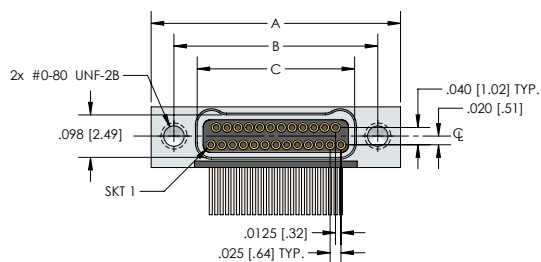
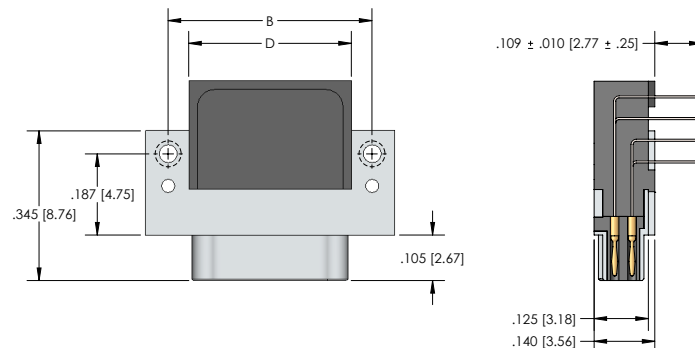
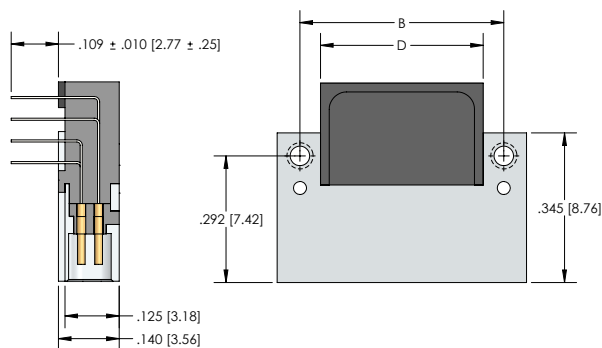
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

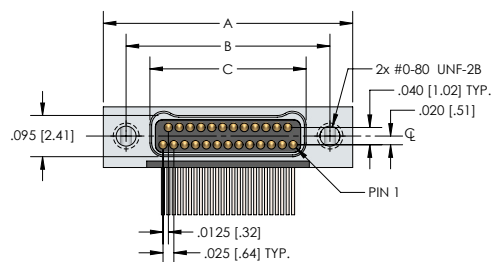
CN	M	8	L	25	2	P	Ø7	1	- SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN = Nano	M = Metal Shell	Style = 8	L = LCP	Ø9	2 = Single Row	P = Male / Pin (Plug Side)	Ø7 = Threaded Hole	1 = Tin plated (6Ø/4Ø)	Blank = Cadmium	*blank = 125C	*Blank = Threaded Mounting Holes
				15				2 = Gold plated (RoHS)		HT = 2ØØ°C	
				21		S = Female / Socket (Receptacle Side)			*SØ1 = Nickel		1 = Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		2 = Clearance Mounting Holes
				37							
				51					SØ6 = Olive-Drab Cadmium		3 = Solder Alignment Posts with Clearance Mounting Holes
				65							
									SØ7 = Titanium		
											
									SØ9 = Stainless		
											

ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 131 M&F or Click Here for Materials and Finishes Data

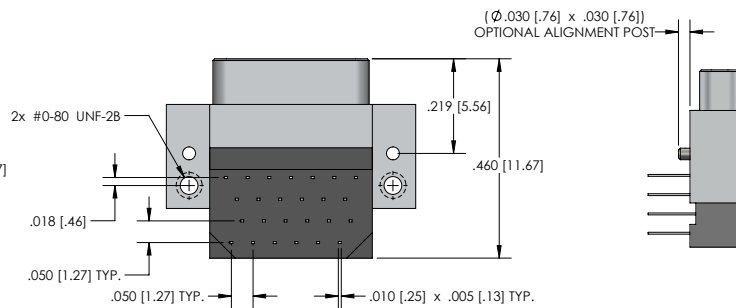
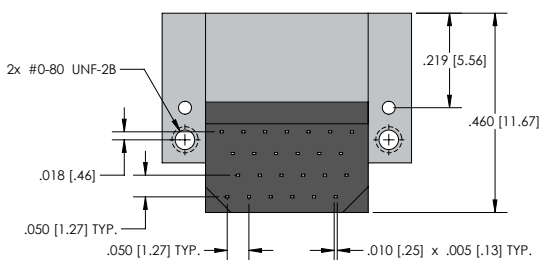
DIMENSIONS



RECEPTACLE (SOCKETS)

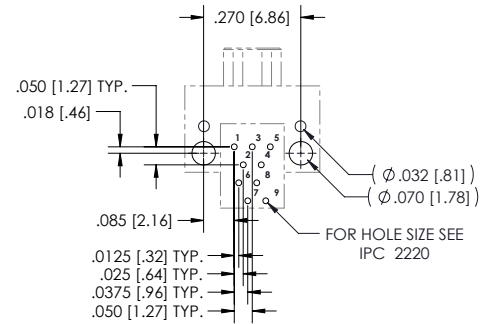
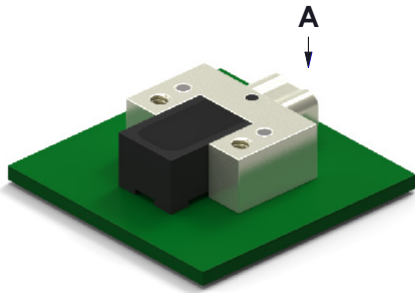


PLUG (PINS)

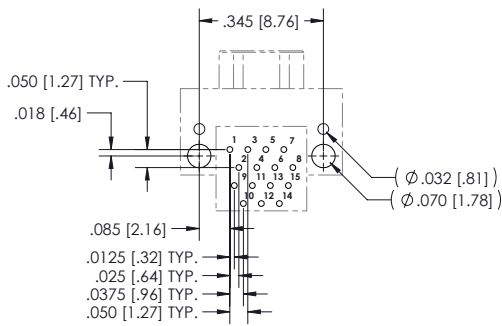


Size	CNM SERIES				
	A	B	Plug C	Receptacle	D
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]

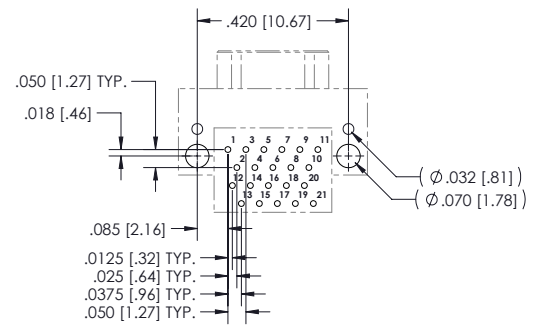
CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT



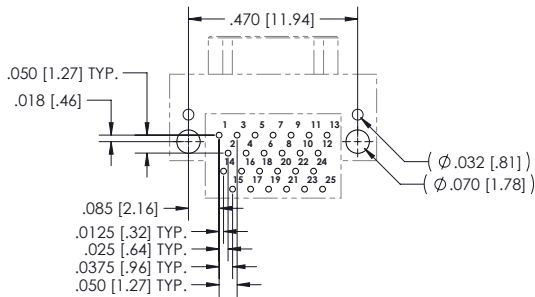
SIZE 9 - VIEW A



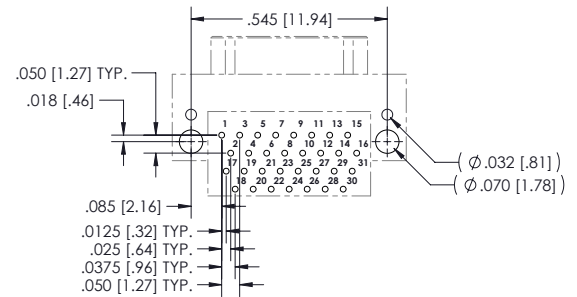
SIZE 15 - VIEW A



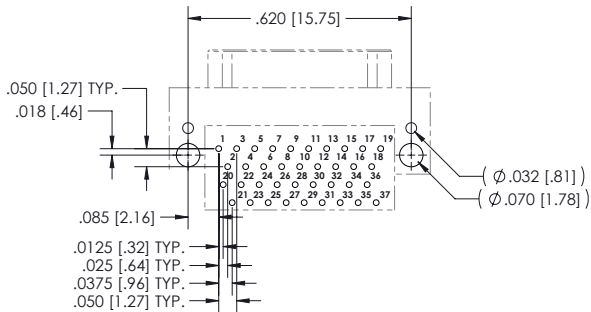
SIZE 21 - VIEW A



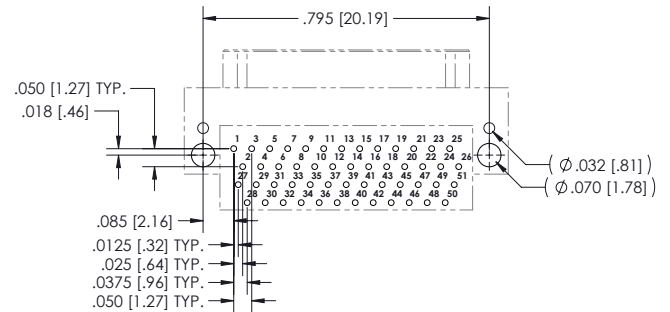
SIZE 25 - VIEW A



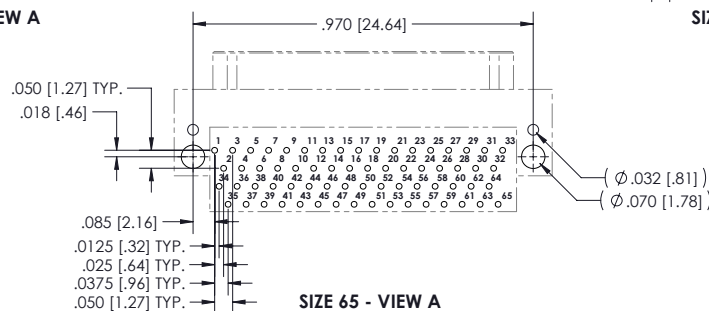
SIZE 31 - VIEW A



SIZE 37 - VIEW A

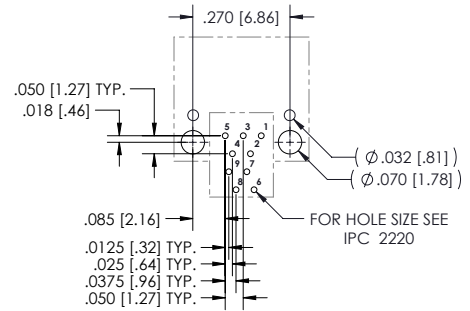
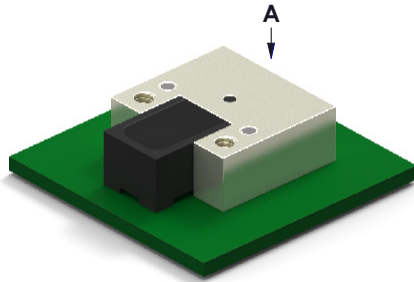


SIZE 51 - VIEW A

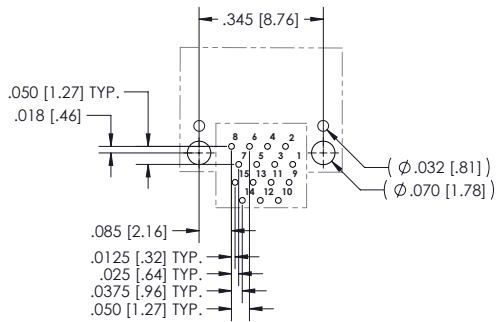


SIZE 65 - VIEW A

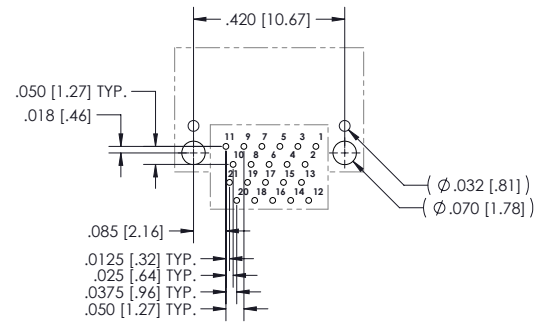
CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT



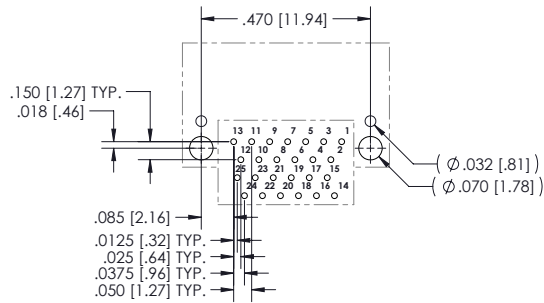
SIZE 9 - VIEW A



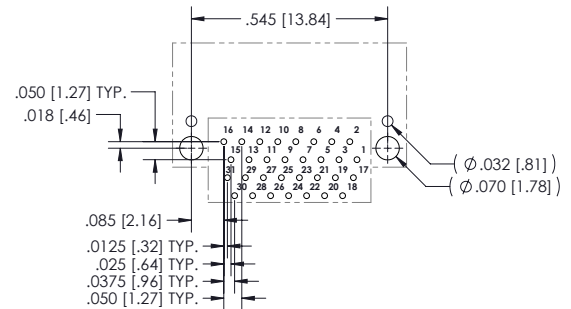
SIZE 15 - VIEW A



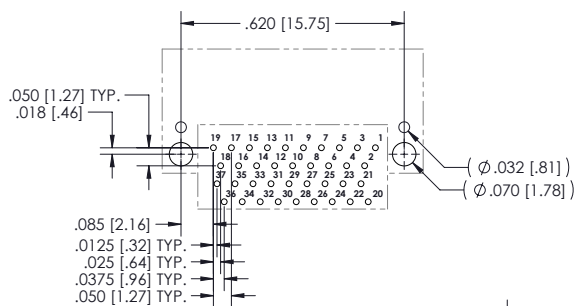
SIZE 21 - VIEW A



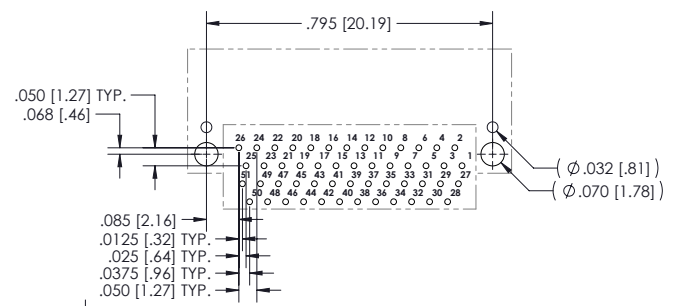
SIZE 25 - VIEW A



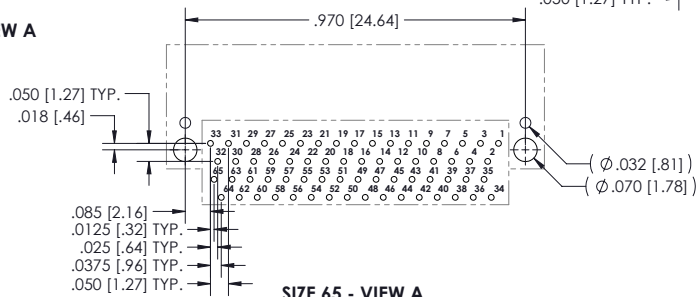
SIZE 31 - VIEW A



SIZE 37 - VIEW A



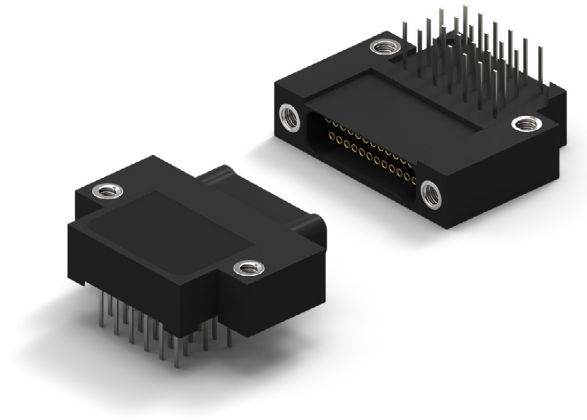
SIZE 51 - VIEW A



SIZE 65 - VIEW A

CIRCUIT CONNECTOR RIGHT ANGLE

- Plastic Shell Connector
- Plated Thru Hole .050 x .050 (Style 8)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



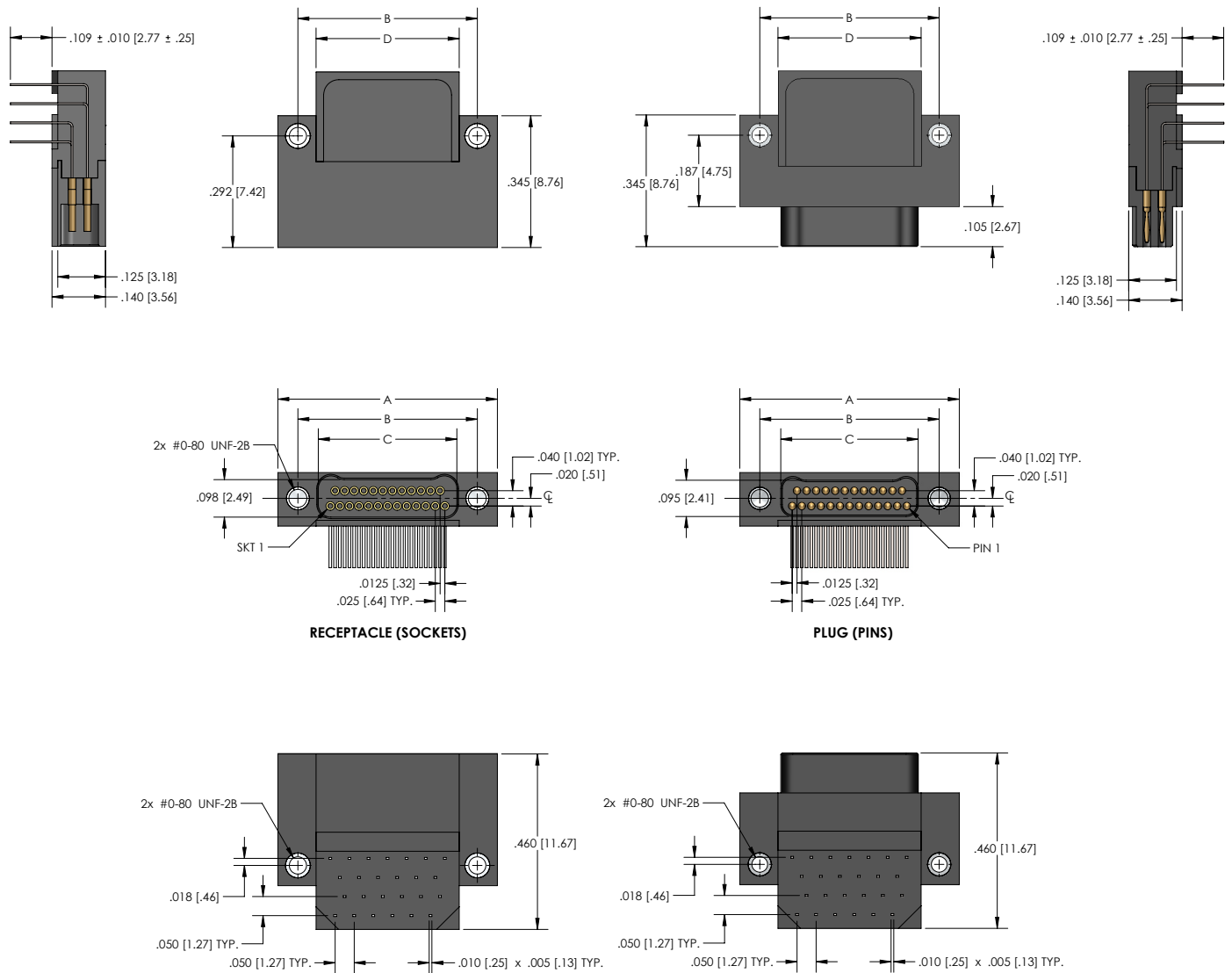
HOW TO ORDER

* Indicates preferred standard

CN	P	8	L	25	– 2	P	Ø7	1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Temp Range	Mounting Option
CN= Nano	P= Plastic Shell	Style=8	L=LCP	Ø9	2= Dual Row	P= Male/ Pin (Plug Side)	Ø7= Threaded Hole	1= Tin plated (60/40)	*blank = 125C	*Blank= Threaded Mounting Holes
				15				2= Gold plated (RoHS)	HT = 200°C	
				21		S= Female/ Socket (Receptacle Side)				
				25						
				31						
				37						
				51						
				65						

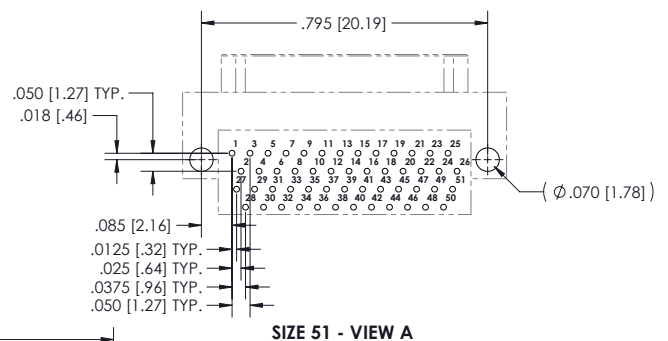
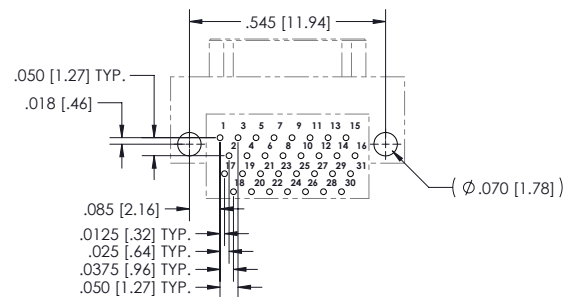
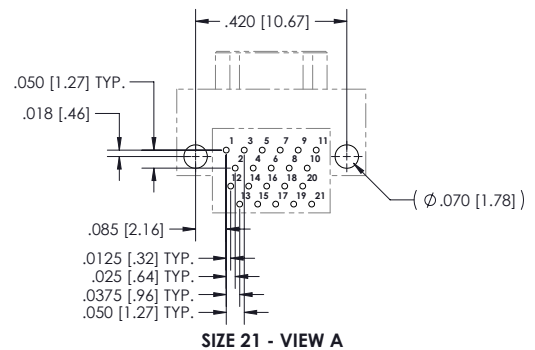
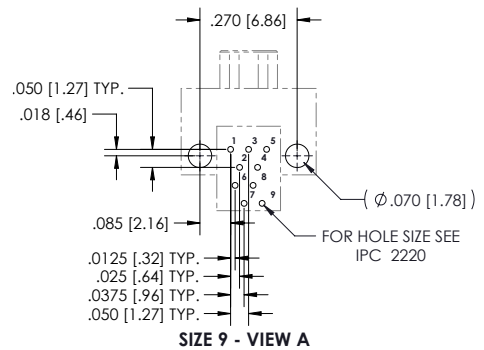
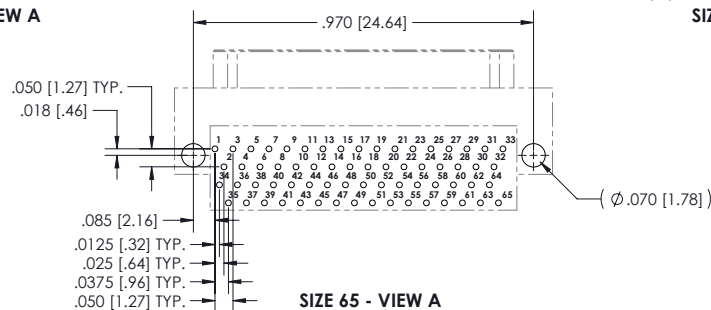
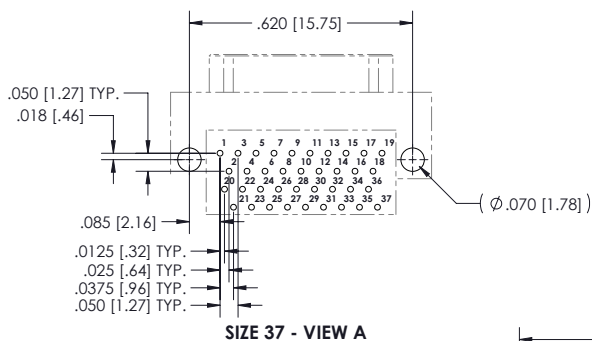
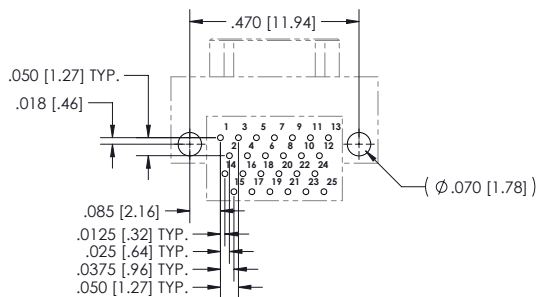
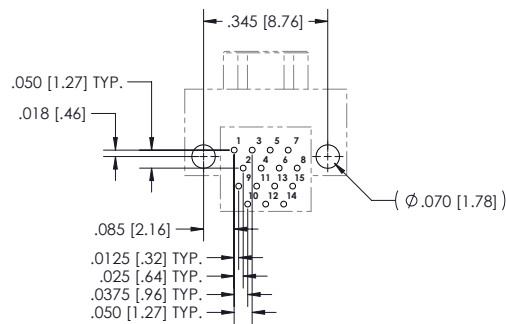
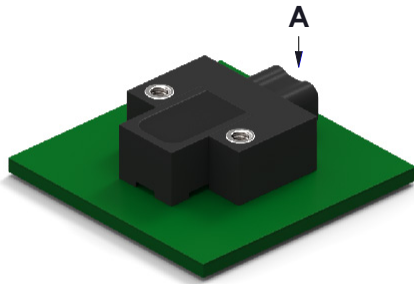
ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 126 M&F or Click Here for Materials and Finishes Data

DIMENSIONS

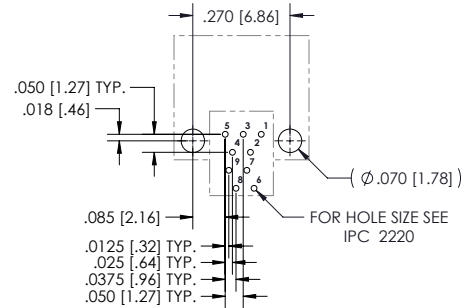
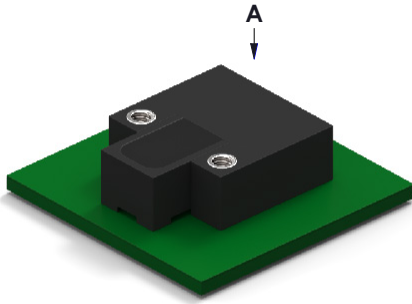


CNP SERIES					
Size	A	B	Plug C	Receptacle	D
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]

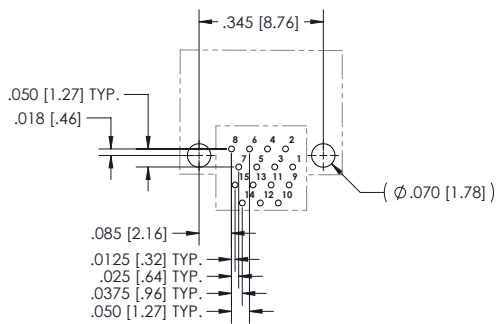
CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT



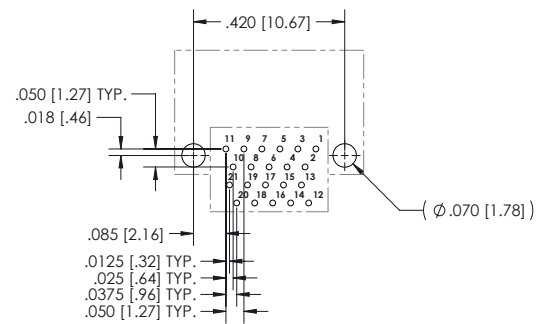
CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT



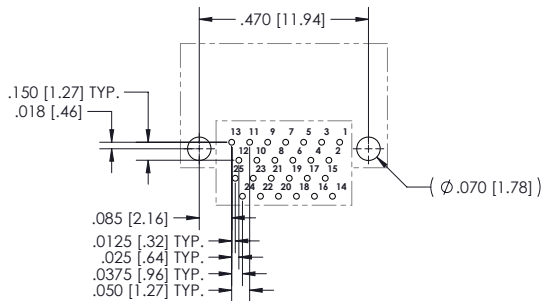
SIZE 9 - VIEW A



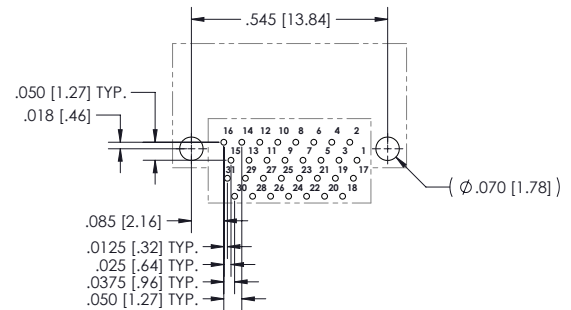
SIZE 15 - VIEW A



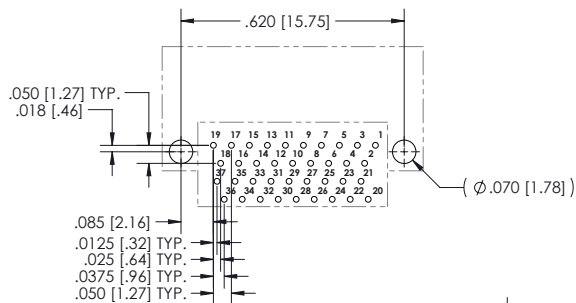
SIZE 21 - VIEW A



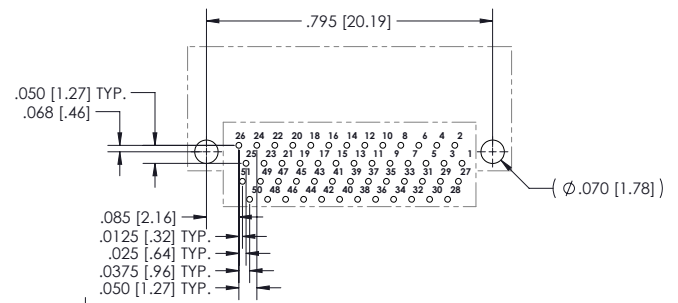
SIZE 25 - VIEW A



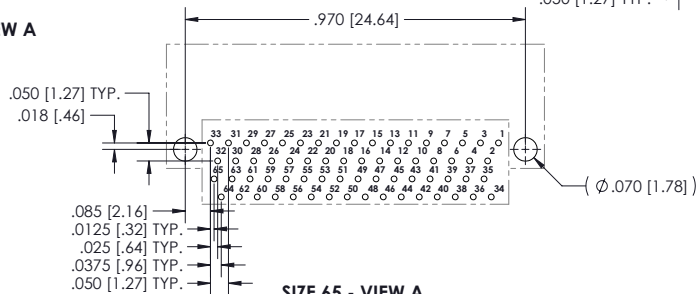
SIZE 31 - VIEW A



SIZE 37 - VIEW A



SIZE 51 - VIEW A



SIZE 65 - VIEW A

CIRCUIT CONNECTOR RIGHT ANGLE

- Metal Shell Connector
- Surface Mount .025 x .040 (Style 28)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts

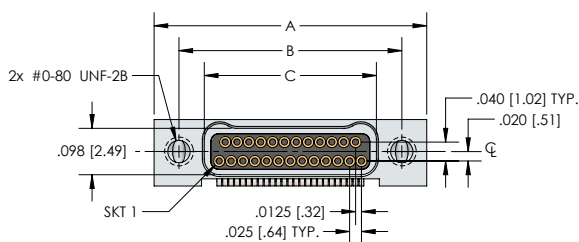
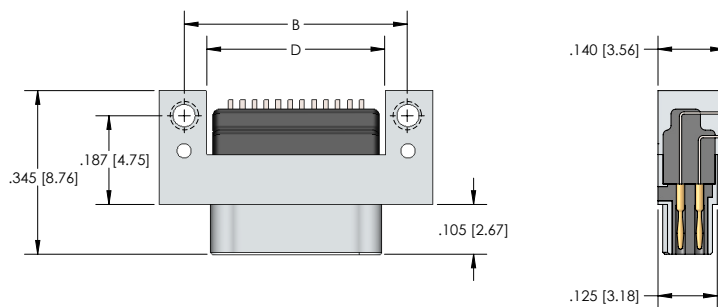
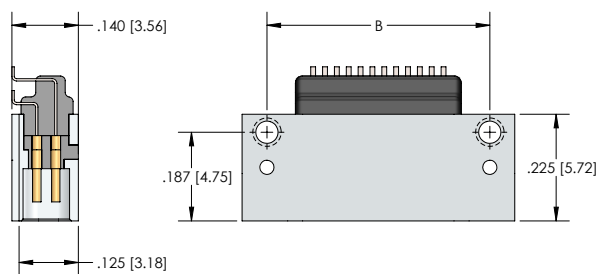
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

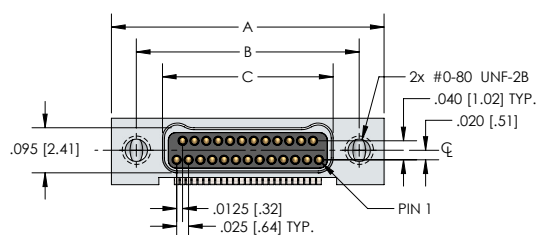
CN	M	28	L	25	- 2	P	Ø7	1	- SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN= Nano	M= Metal Shell	Style=28	L=LCP	Ø9	2= Dual Row	P=Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (60/40)	Blank= Cadmium	*blank = 125C	*Blank=Threaded Mounting Holes
				15				2=Gold plated (RoHS)		HT = 200°C	
				21		S=Female/Socket (Receptacle Side)			*SØ1= Nickel		1=Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		2=Clearance Mounting Holes
				37							
				51					SØ6 = Olive-Drab Cadmium		3=Solder Alignment Posts with Clearance Mounting Holes
				65							
									SØ7 =Titanium		
											
									SØ9=Stainless		
											

ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 131 M&F or Click Here for Materials and Finishes Data

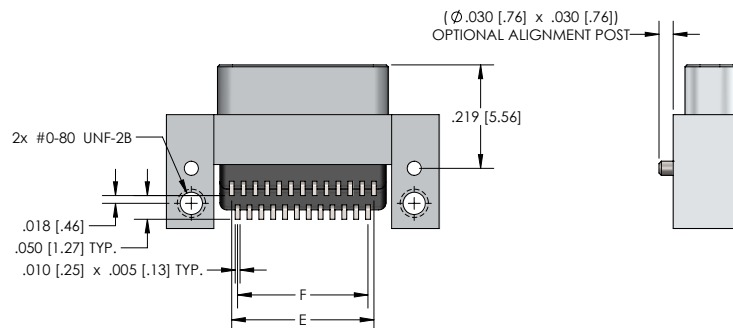
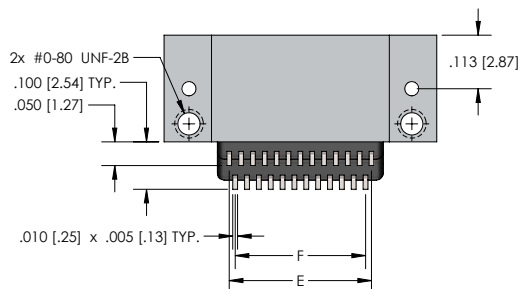
DIMENSIONS



RECEPTACLE (SOCKETS)



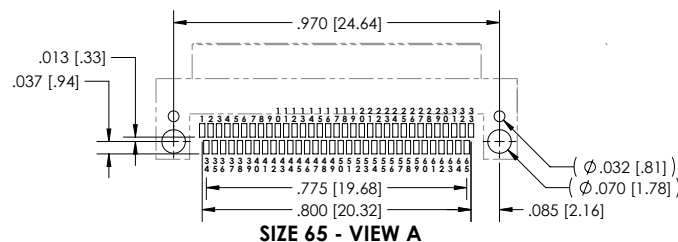
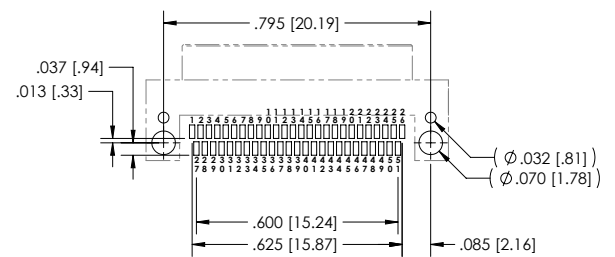
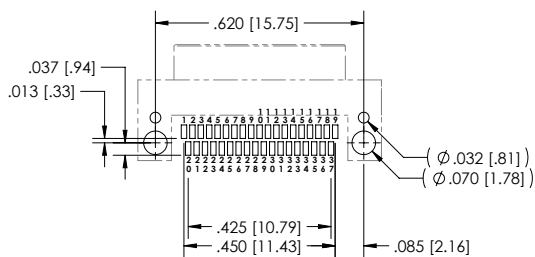
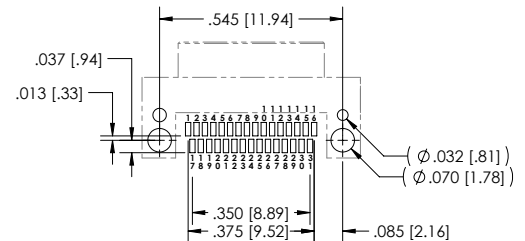
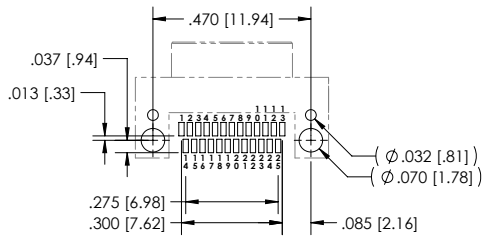
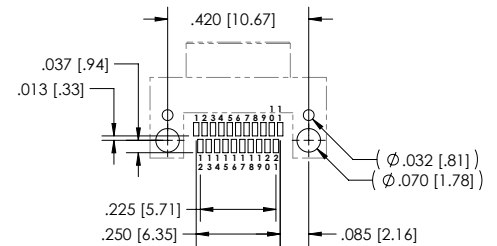
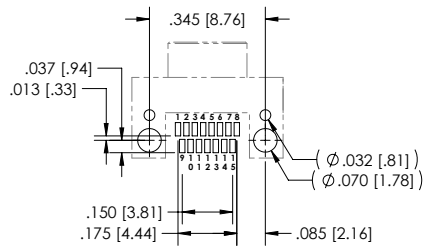
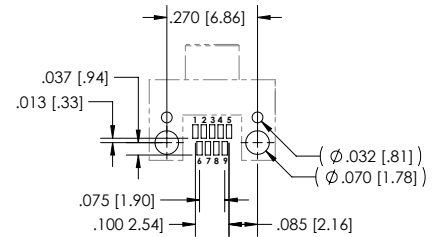
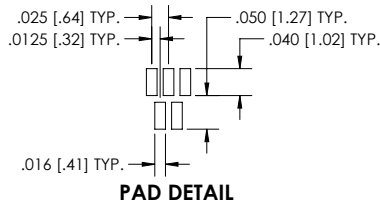
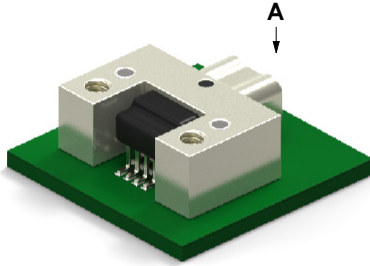
PLUG (PINS)



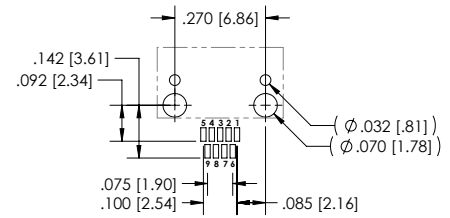
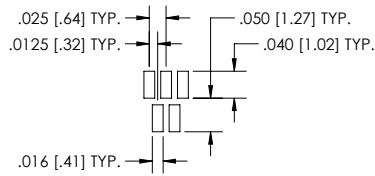
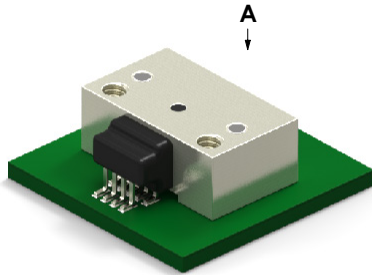
Size	CNM SERIES						
	A	B	Plug C	Receptacle	D	E	F
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]

CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT

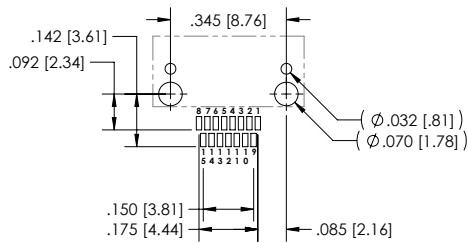
NANO D – PID 135



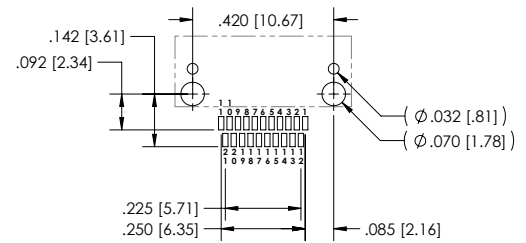
CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT



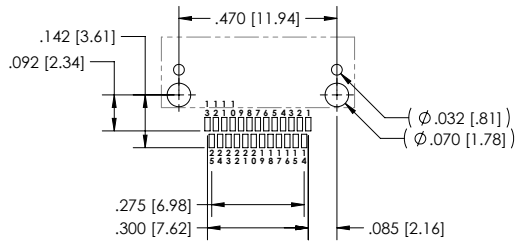
SIZE 9 - VIEW A



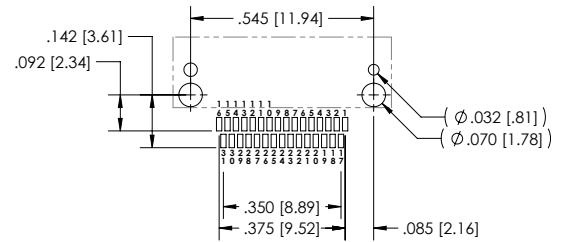
SIZE 15 - VIEW A



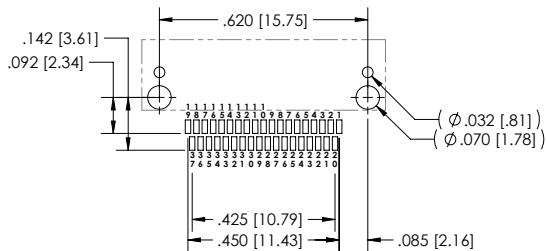
SIZE 21 - VIEW A



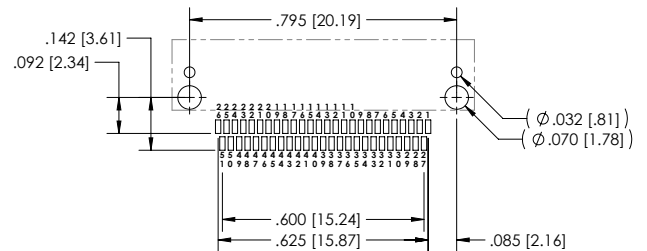
SIZE 25 - VIEW A



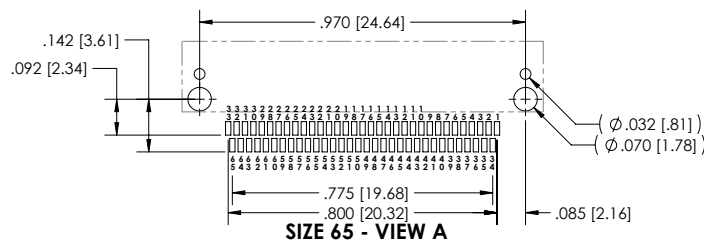
SIZE 31 - VIEW A



SIZE 37 - VIEW A

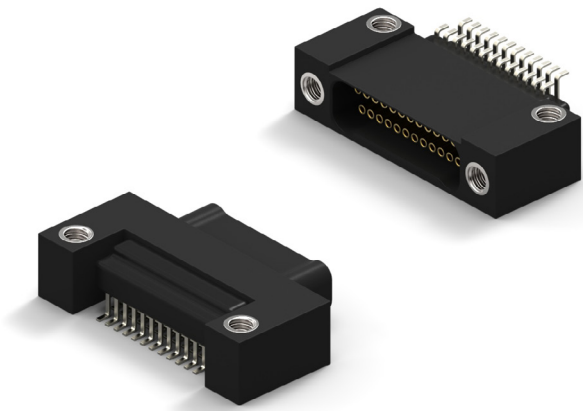


SIZE 51 - VIEW A



CIRCUIT CONNECTOR
RIGHT ANGLE

- Plastic Shell Connector
- Surface Mount .025 x .040 (Style 28)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



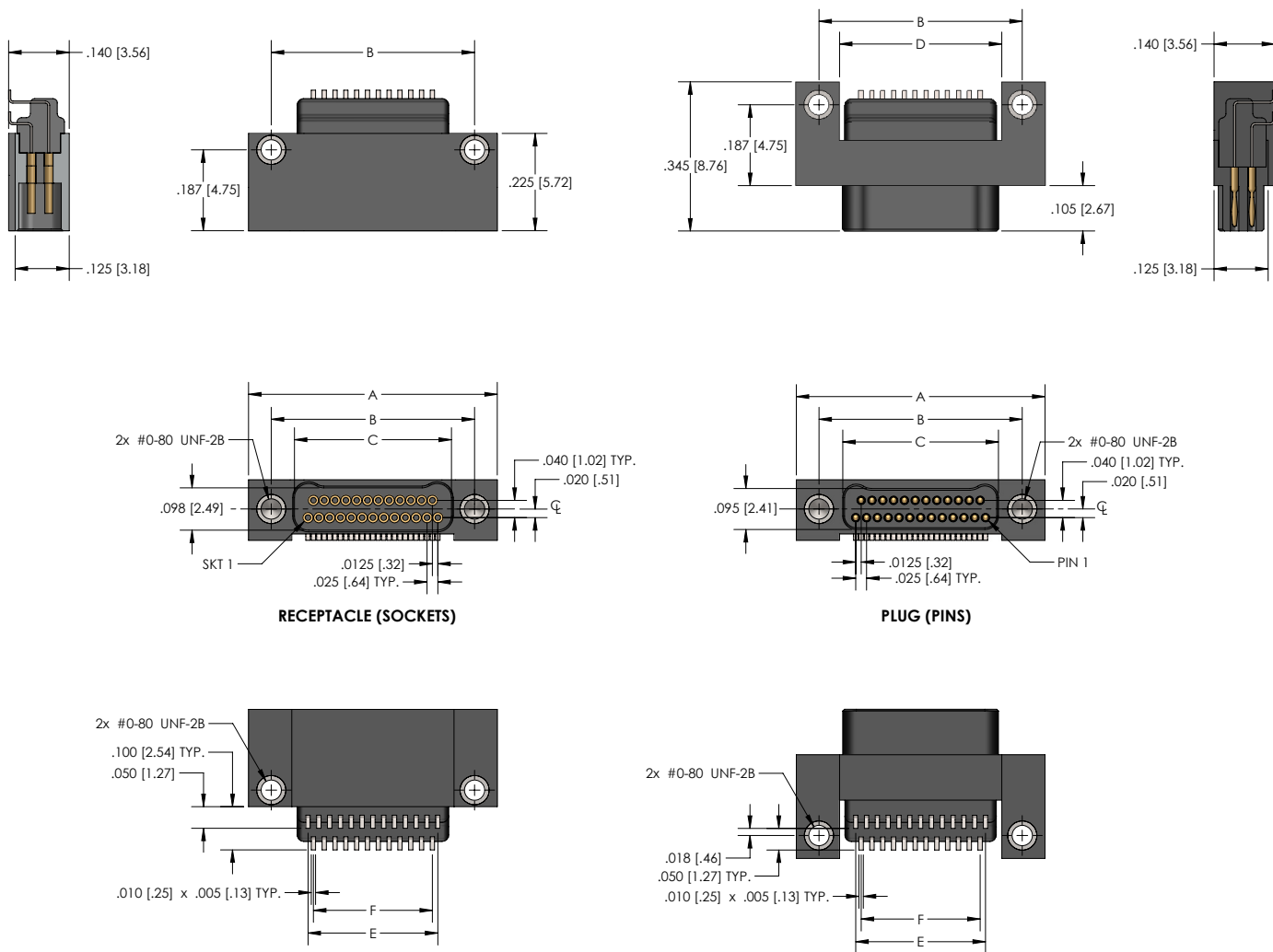
HOW TO ORDER

* Indicates preferred standard

CN	P	28	L	25	– 2	P	Ø7	1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Temp Range	Mounting Option
CN= Nano	P= Plastic Shell	Style=28	L=LCP	Ø9	2= Dual Row	P= Male/ Pin (Plug Side)	Ø7= Threaded Hole	1= Tin plated (6Ø/4Ø)	*blank = 125C	*Blank= Threaded Mounting Holes
				15				2= Gold plated (RoHS)	HT = 200°C	
				21		S= Female/ Socket (Receptacle Side)				
				25						
				31						
				37						
				51						
				65						

ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 126 M&F or Click Here for Materials and Finishes Data

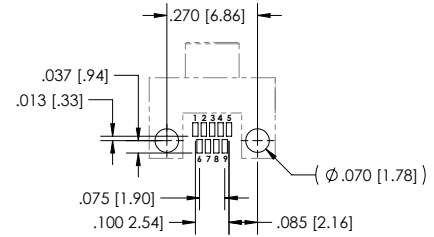
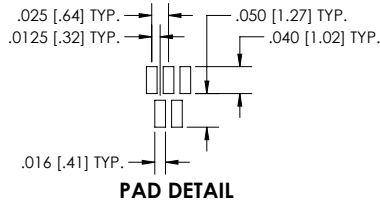
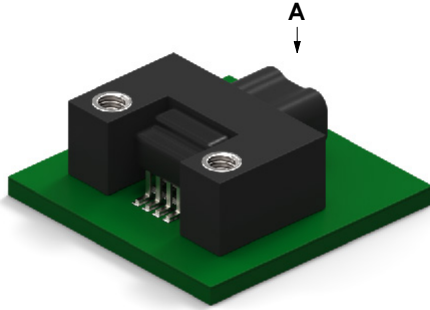
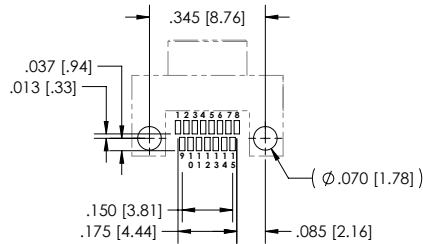
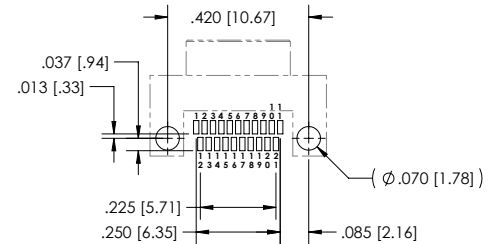
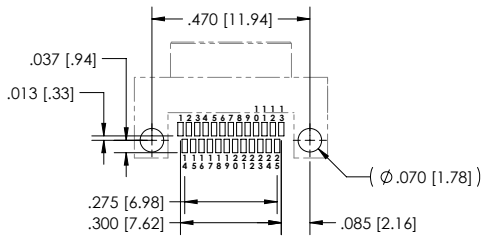
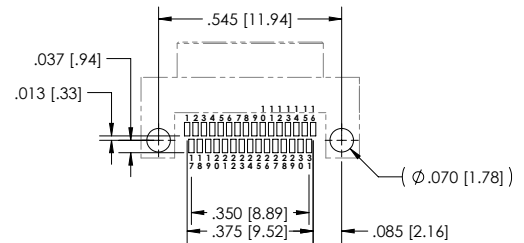
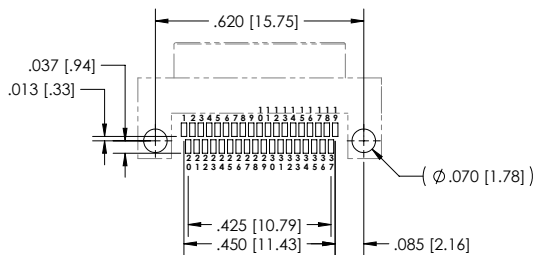
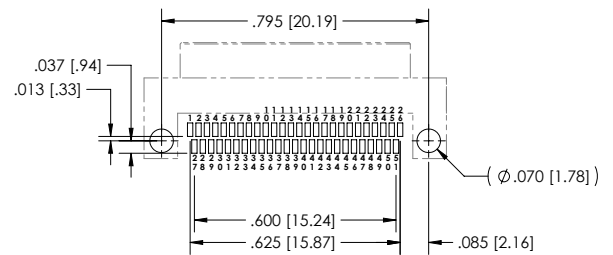
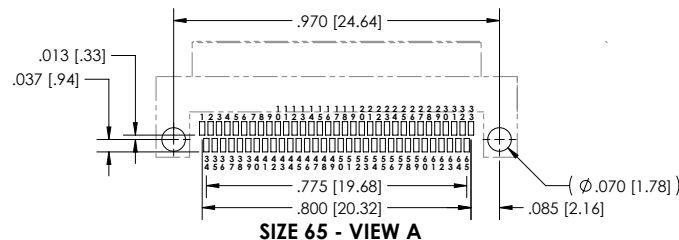
DIMENSIONS



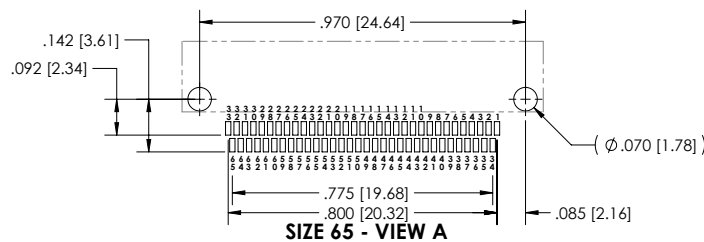
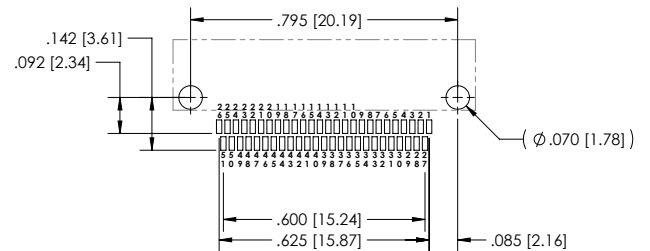
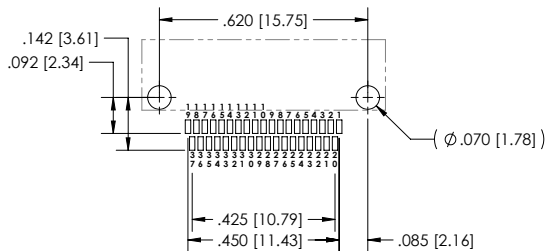
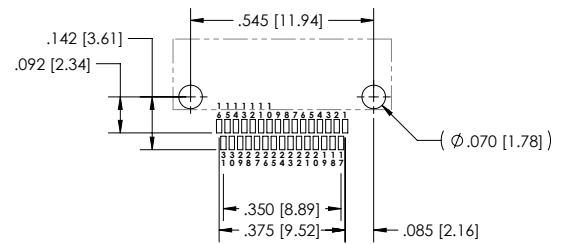
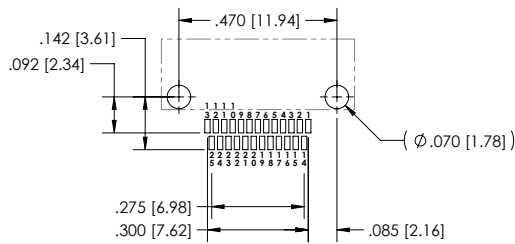
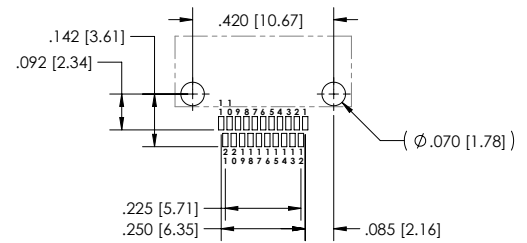
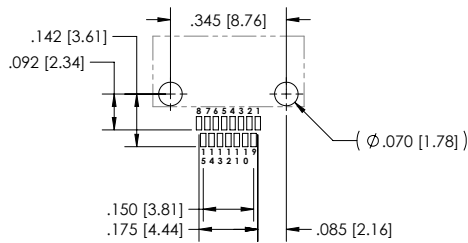
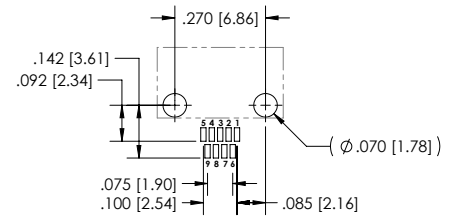
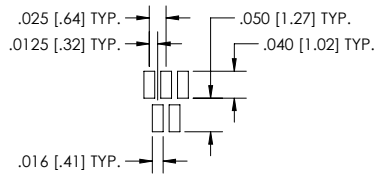
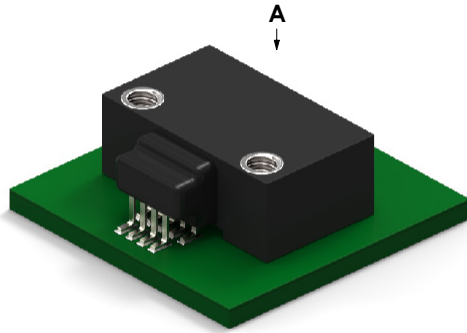
CNP SERIES								
Size	A	B	Plug	C	Receptacle	D	E	F
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]		.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]		.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]

CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT

NANO D – PID 136

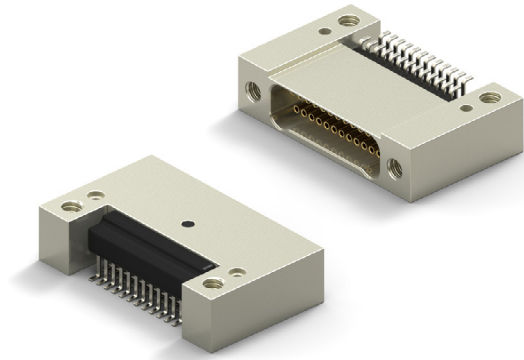
**SIZE 9 - VIEW A****SIZE 15 - VIEW A****SIZE 21 - VIEW A****SIZE 25 - VIEW A****SIZE 31 - VIEW A****SIZE 37 - VIEW A****SIZE 51 - VIEW A****SIZE 65 - VIEW A**

CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT



CIRCUIT CONNECTOR RIGHT ANGLE

- Metal Shell Connector
- Surface Mount .025 x .040 (Style 38)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



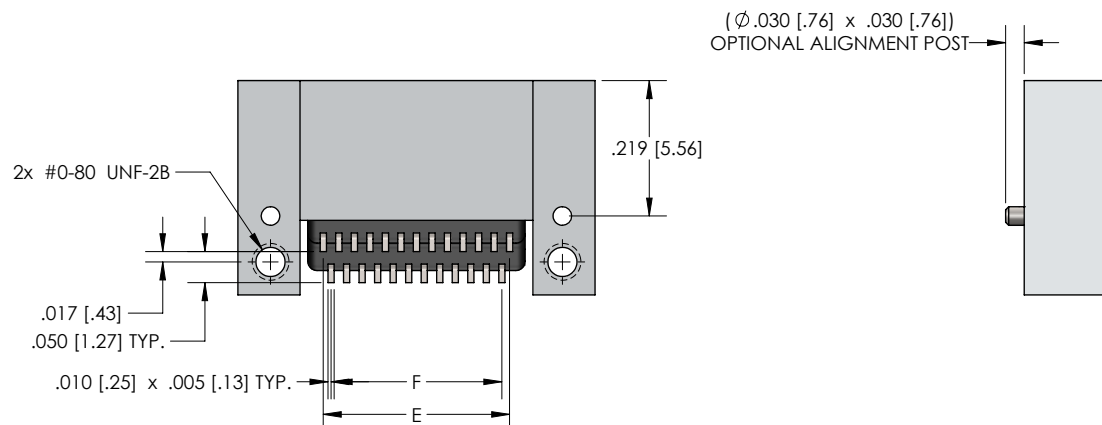
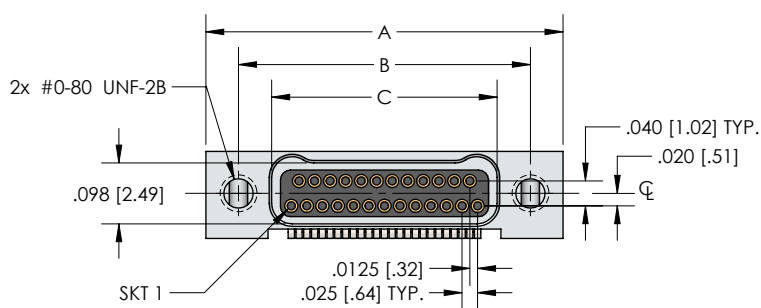
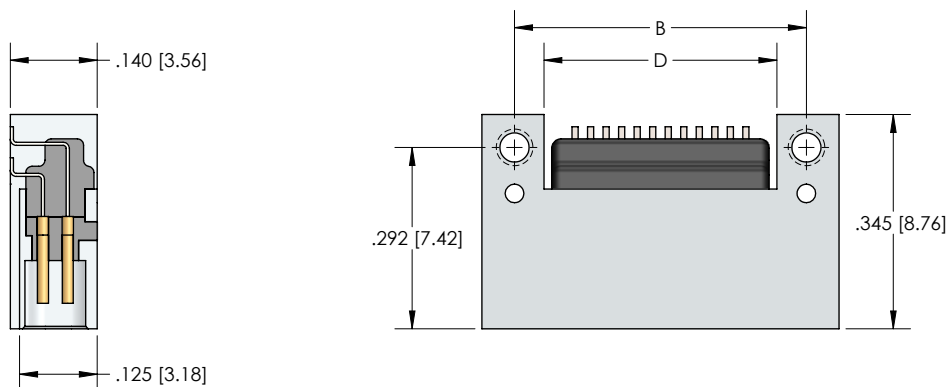
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	38	L	25	– 2	P	Ø7	1	– SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN= Nano	M= Metal Shell	STYLE=38	L=LCP	Ø9	2= Dual Row	S=Female/Socket (Receptacle Side)	Ø7=Threaded Hole	1= Tin plated (6Ø/4Ø)	Blank= Cadmium	*blank = 125C	*Blank=Threaded Mounting Holes
				15				2= Gold plated (RoHS)		HT = 200C	
				21					*SØ1= Nickel		1=Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		2= Clearance Mounting Holes
				37							
				51					SØ6 = Olive-Drab Cadmium		3=Solder Alignment Posts with Clearance Mounting Holes
				65							
									SØ7 =Titanium		
											
									SØ9=Stainless		
											

ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 131 M&F or Click Here for Materials and Finishes Data

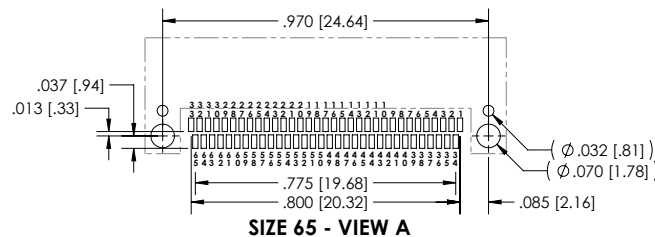
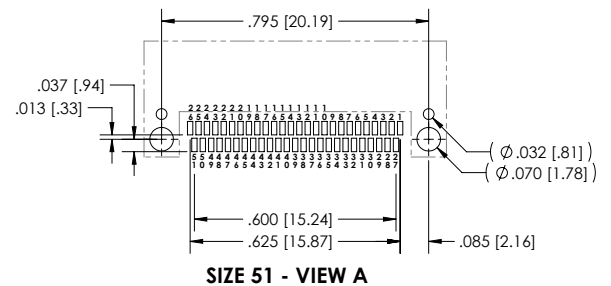
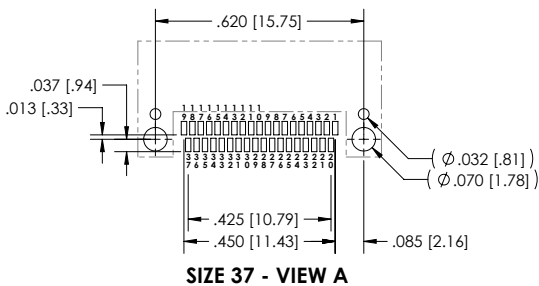
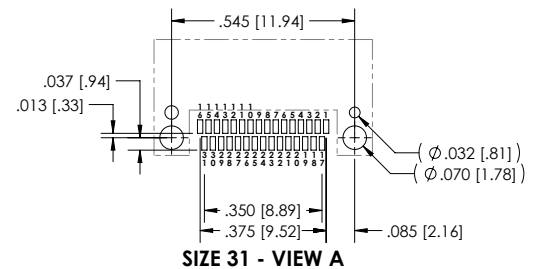
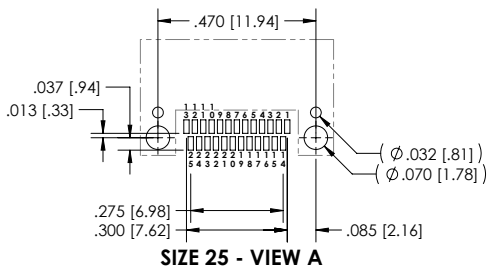
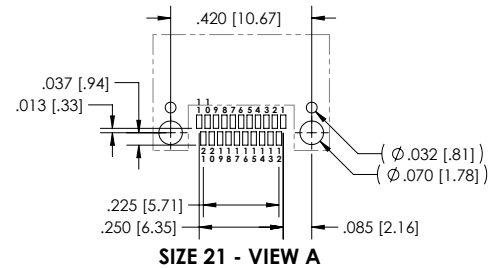
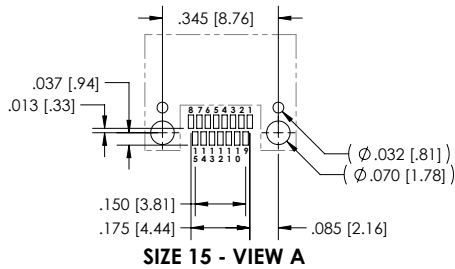
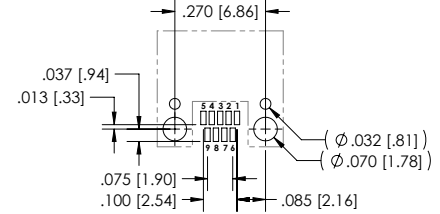
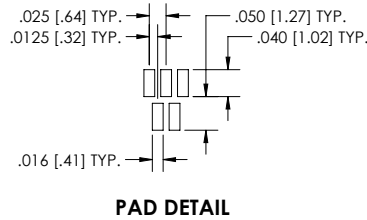
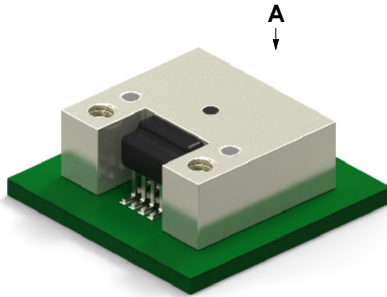
DIMENSIONS



Size	CNM SERIES						
	A	B	Plug	C	Receptacle	D	F
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]	.175 [4.44]	.075 [1.90]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]	.250 [6.35]	.150 [3.81]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]	.325 [8.25]	.225 [5.71]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]	.375 [9.52]	.275 [6.98]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]	.450 [11.43]	.350 [8.89]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]	.525 [13.33]	.425 [10.79]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]		.688 [17.47]	.700 [17.78]	.600 [15.24]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]		.863 [21.92]	.875 [22.22]	.775 [19.68]

CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT

NANO D – PID 137

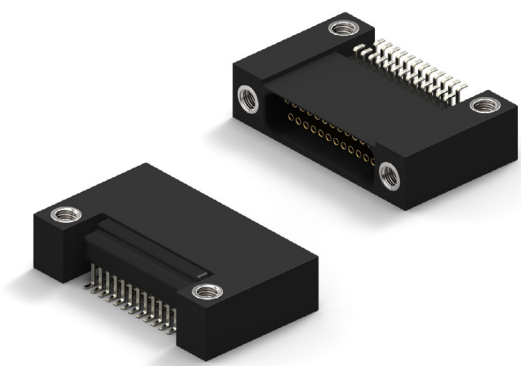


CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT

THIS PAGE LEFT
INTENTIONALLY BLANK

CIRCUIT CONNECTOR RIGHT ANGLE

- Plastic Shell Connector
- Surface Mount .025 x .040 (Style 38)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



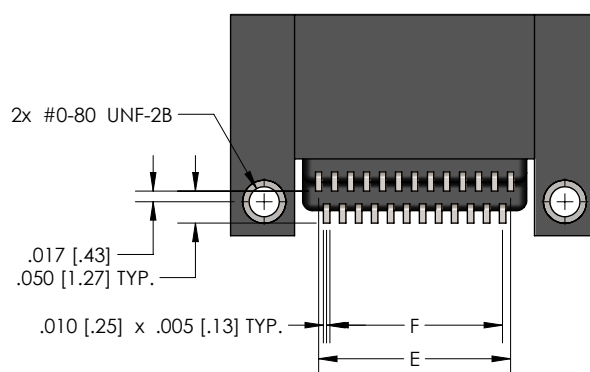
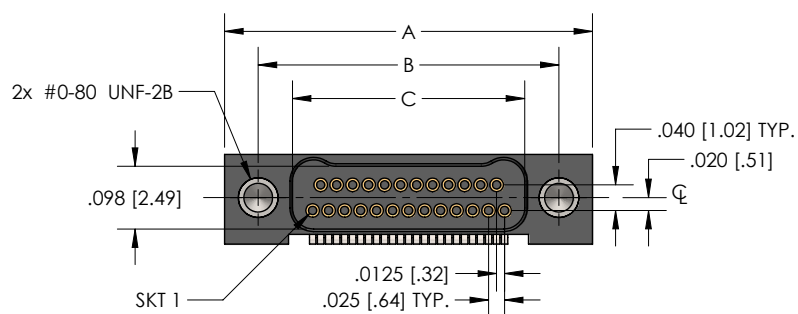
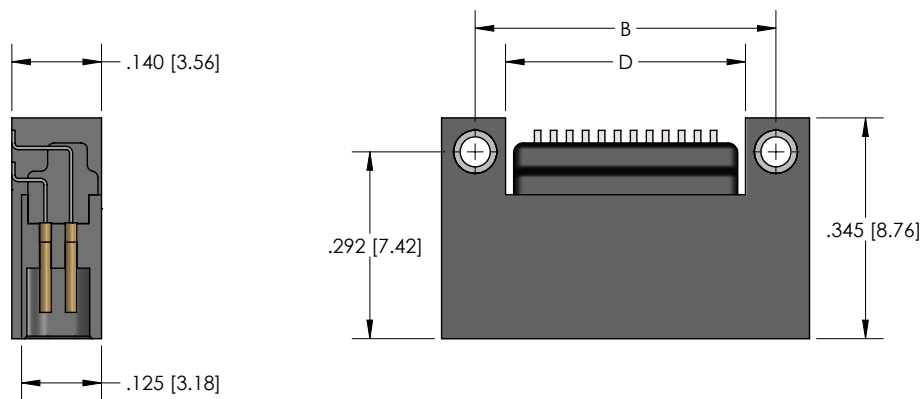
HOW TO ORDER

* Indicates preferred standard

CN	P	38	L	25	2	S	Ø7	1		
Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Temp Range	Mounting Option	
CN= Nano	P= Plastic	Style= 38	L= LCP	Ø9	2= Dual Row	S= Female/Socket (Receptacle Side)	Ø7= Threaded Hole	1= Tin plated (6Ø/4Ø)	*blank = 125C	*Blank= Threaded Mounting Holes
				15				2= Gold plated (RoHS)	HT = 200C	
				21						
				25						
				31						
				37						
				51						
				65						

ELECTRICAL PERFORMANCE DATA	Go to Page 26 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 26 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 26 See chart 126 M&F or Click Here for Materials and Finishes Data

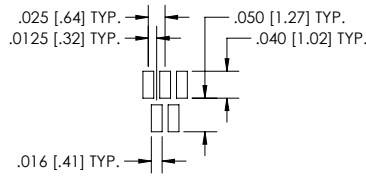
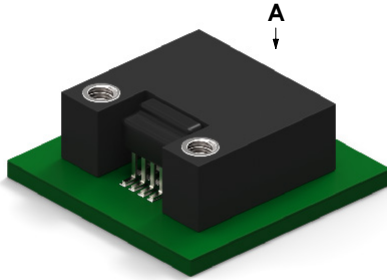
DIMENSIONS



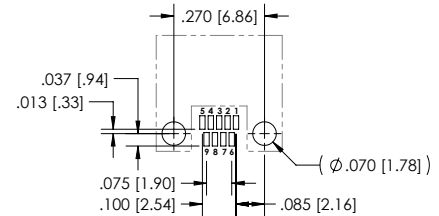
CNP SERIES								
Size	A	B	Plug C	Receptacle	D	E	F	
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]	
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]	
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]	
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]	
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]	
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]	
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]	
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]	

CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT

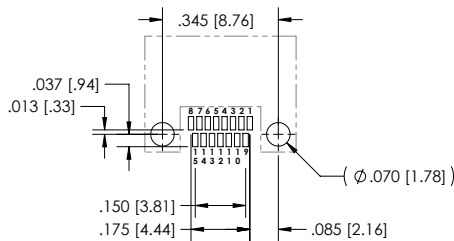
NANO D – PID 138



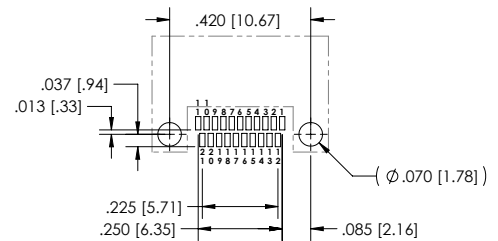
PAD DETAIL



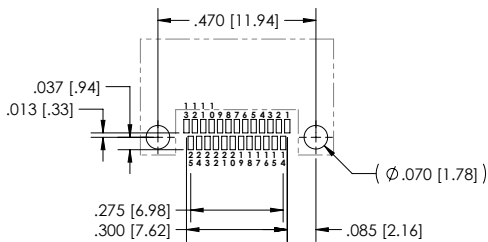
SIZE 9 - VIEW A



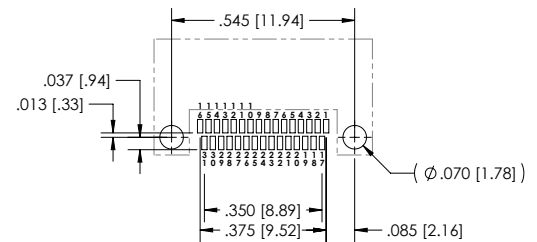
SIZE 15 - VIEW A



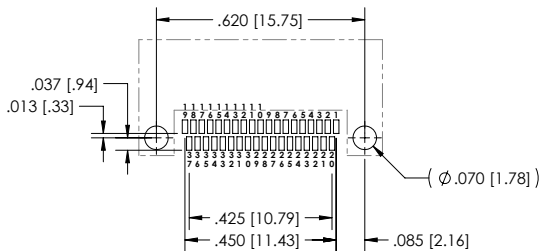
SIZE 21 - VIEW A



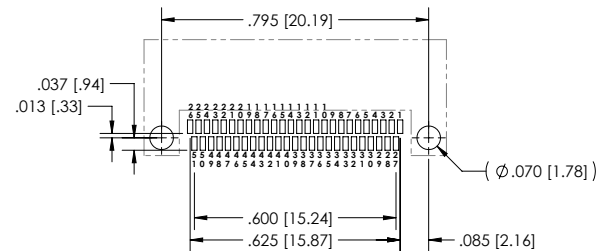
SIZE 25 - VIEW A



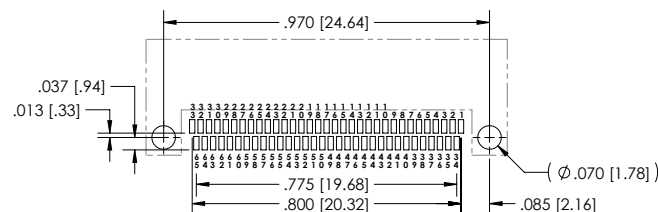
SIZE 31 - VIEW A



SIZE 37 - VIEW A



SIZE 51 - VIEW A



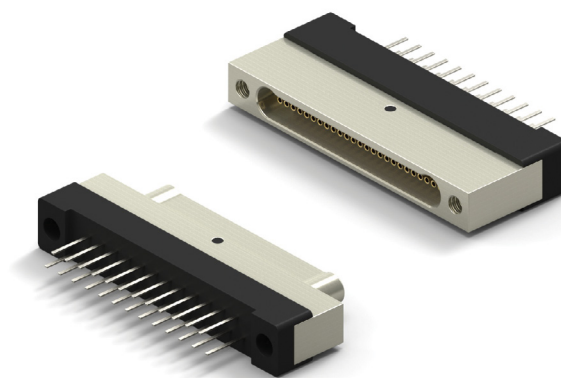
SIZE 65 - VIEW A

CIRCUIT CONNECTOR RIGHT ANGLE PCB LAYOUT

THIS PAGE LEFT
INTENTIONALLY BLANK

CIRCUIT CONNECTOR VERTICAL

- Metal Shell Connector
- Plated Thru Hole .050 x .050 (Style 6)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts



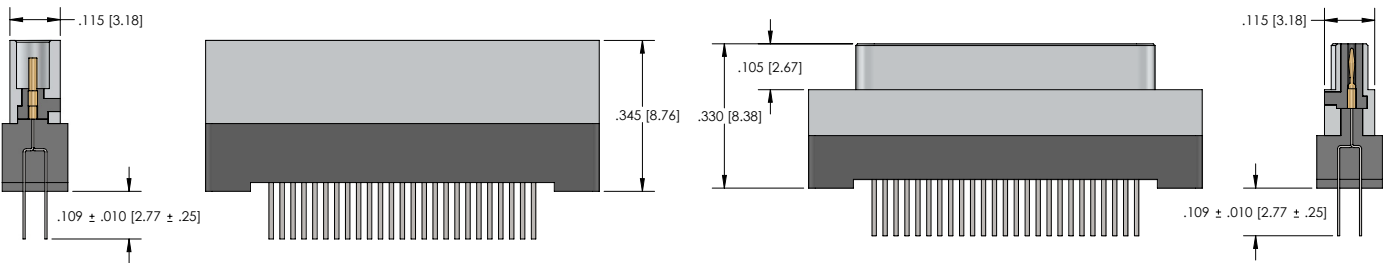
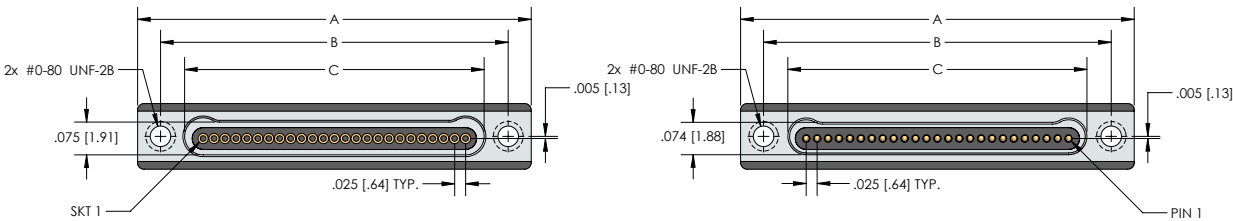
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	6	L	25	-1	P	Ø7	1	-SØ1	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range
CN=Nano	M= Metal Shell	Style=6	L=LCP	Ø9	1= Single Row	P=Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (6Ø/4Ø)	Blank= Cadmium	*blank = 125C
				15				2= Gold plated (RoHS)		HT = 200C
				21		S=Female/Socket (Receptacle Side)			*SØ1= Nickel	
				25						
				31					SØ3 = Black Anodize	
				37						
				51					SØ6 = Olive-Drab Cadmium	
										
									SØ7 =Titanium	
										
									SØ9=Stainless	
										

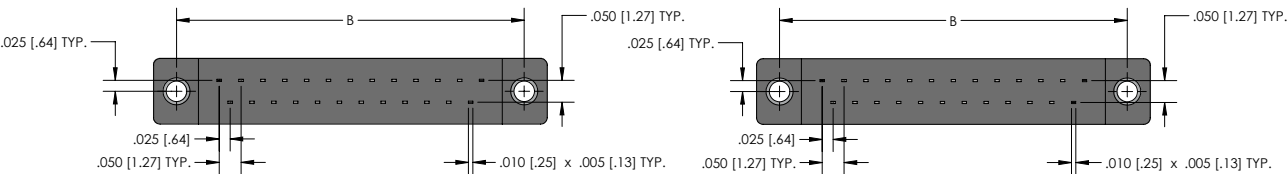
ELECTRICAL PERFORMANCE DATA	Go to Page 28 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 28 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 28 See chart 139 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



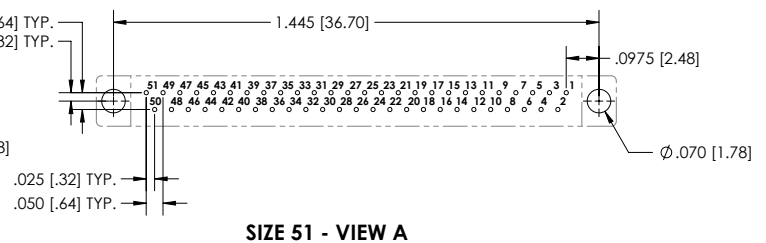
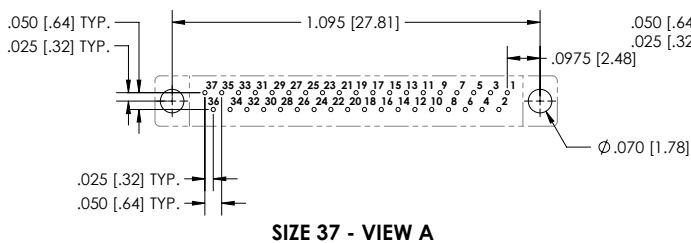
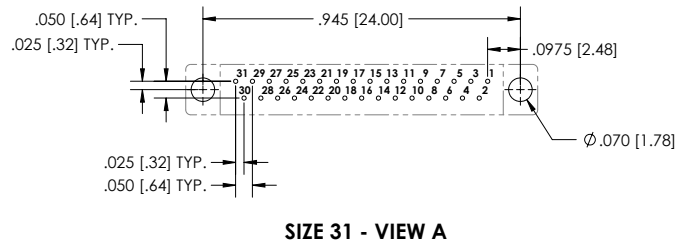
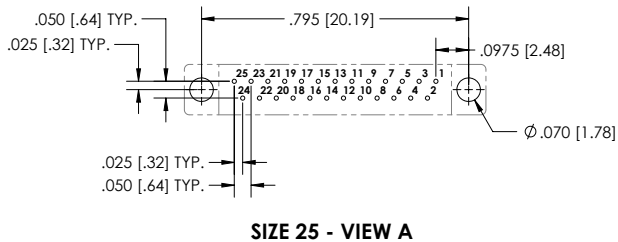
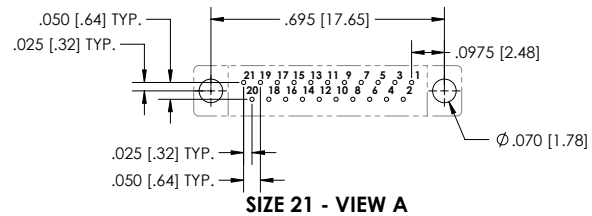
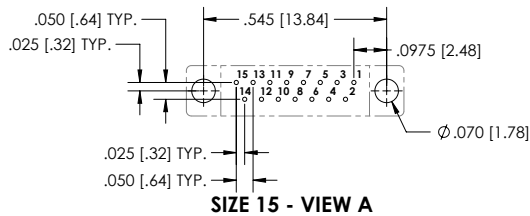
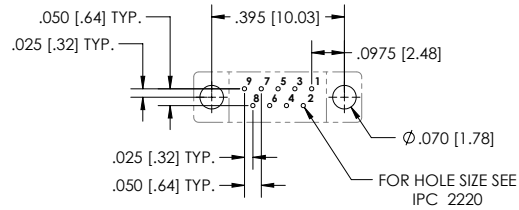
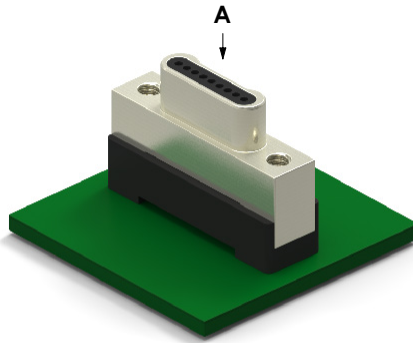
RECEPTACLE (SOCKETS)

PLUG (PINS)

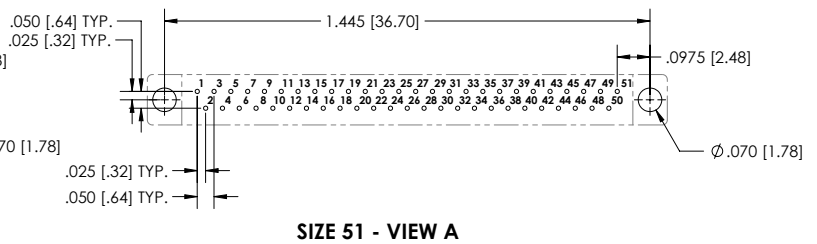
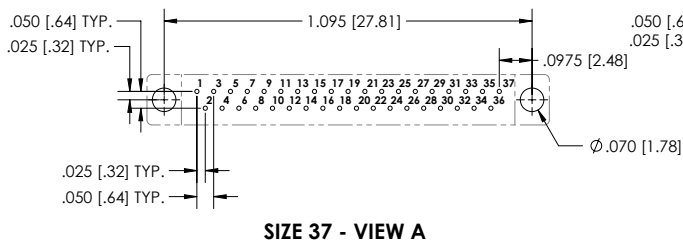
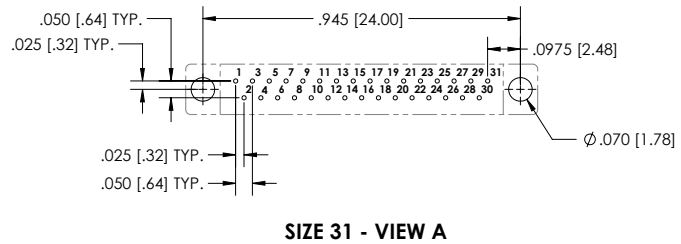
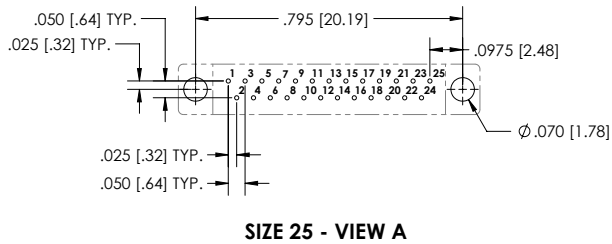
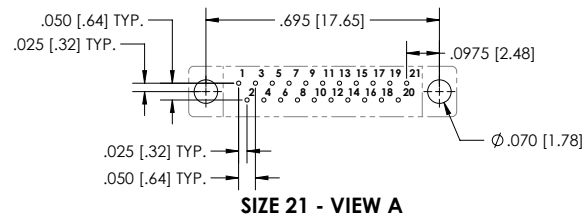
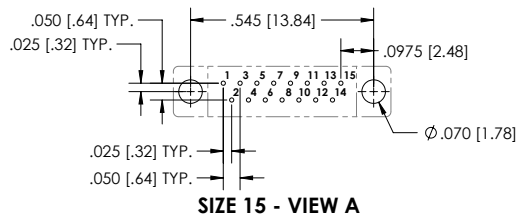
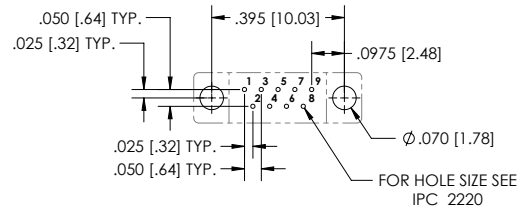
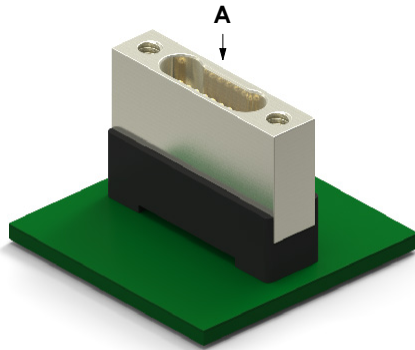


CNM SERIES					
Size	A	B	Plug C	Receptacle	D
9	.500 [12.70]	.395 [10.03]	.284 [7.21]	.285 [7.24]	.300 [7.62]
15	.650 [16.51]	.545 [13.84]	.434 [11.02]	.435 [11.05]	.450 [11.43]
21	.800 [20.32]	.695 [17.65]	.584 [14.83]	.585 [14.86]	.600 [15.24]
25	.900 [22.86]	.795 [20.19]	.684 [17.37]	.685 [17.40]	.700 [17.78]
31	1.050 [26.67]	.945 [24.00]	.834 [21.18]	.835 [21.21]	.850 [21.59]
37	1.200 [30.48]	1.095 [27.81]	.984 [24.99]	.985 [25.02]	1.000 [25.40]
51	1.550 [39.37]	1.445 [36.70]	1.334 [33.88]	1.335 [33.91]	1.350 [34.29]

CIRCUIT CONNECTOR VERTICAL PCB LAYOUT

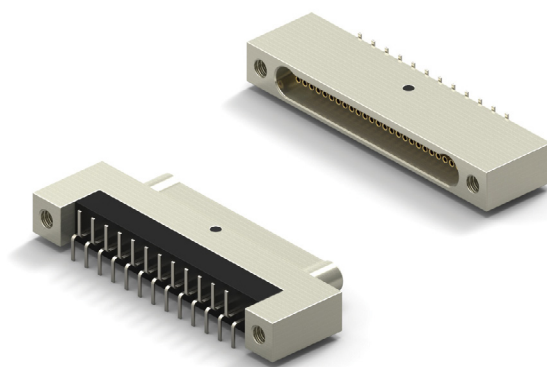


CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



CIRCUIT CONNECTOR VERTICAL

- Metal Shell Connector
- Surface Mount .025 x .075 (Style 26)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 51 Contacts



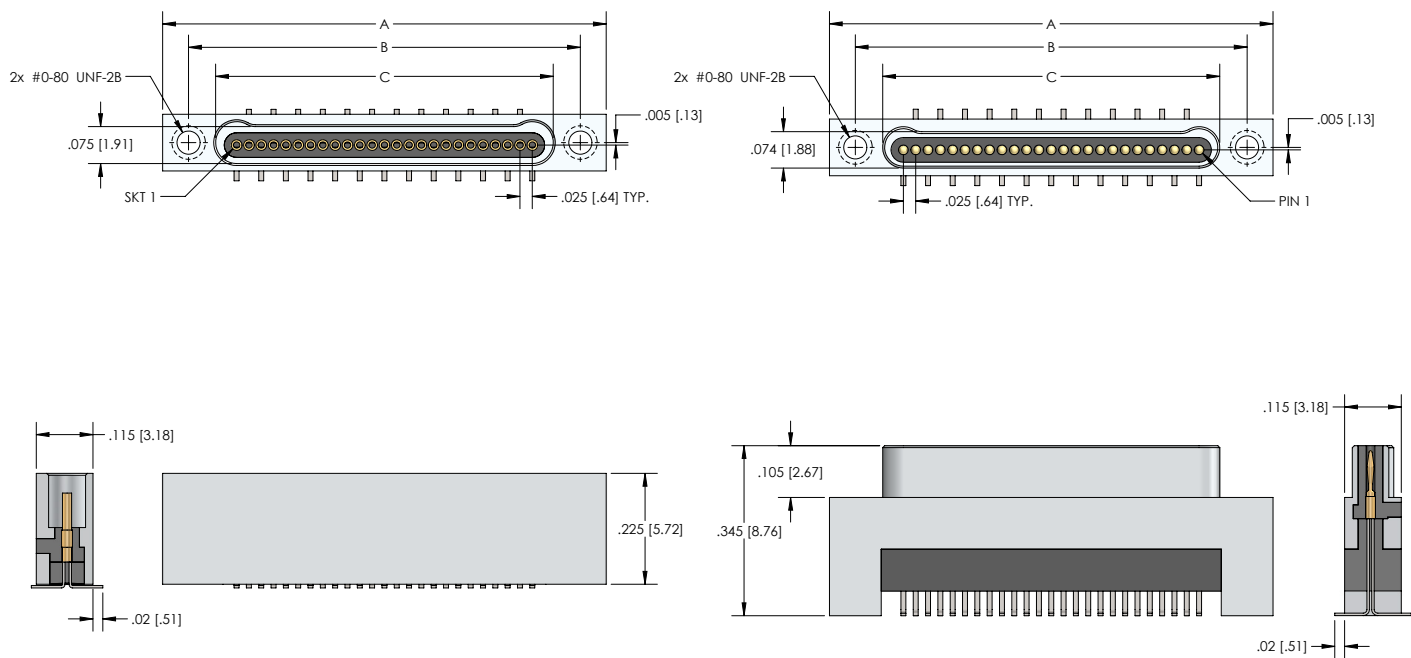
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	26	L	25	-1	P	Ø7	1	-SØ1	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range
CN=Nano	M= Metal Shell	Style=26	L=LCP	Ø9	1= Single Row	P=Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (60/40)	Blank= Cadmium	*blank = 125C
				15				2= Gold plated (RoHS)		HT = 200C
				21		S=Female/Socket (Receptacle Side)			*SØ1= Nickel	
				25						
				31					SØ3 = Black Anodize	
				37						
				51					SØ6 = Olive-Drab Cadmium	
										
									SØ7 =Titanium	
										
									SØ9=Stainless	
										

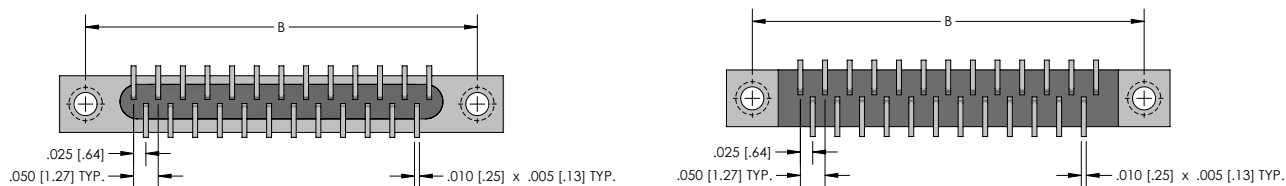
ELECTRICAL PERFORMANCE DATA	Go to Page 28 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 28 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 28 See chart 139 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



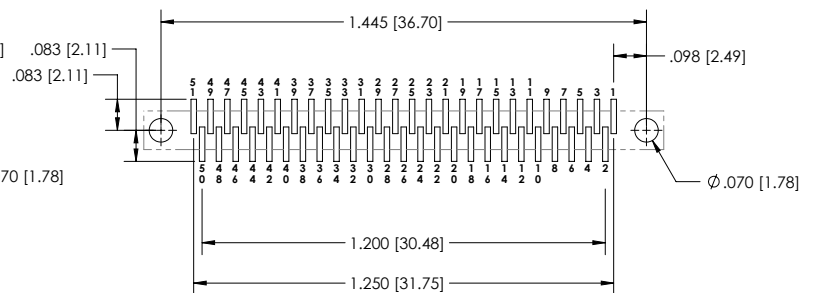
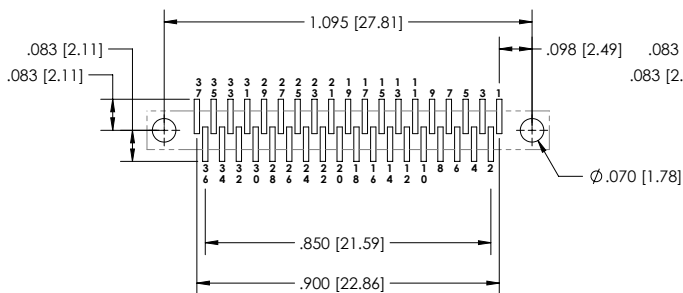
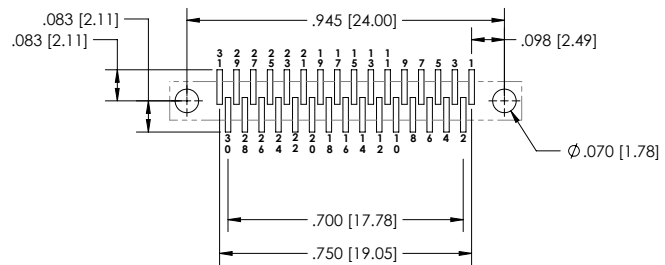
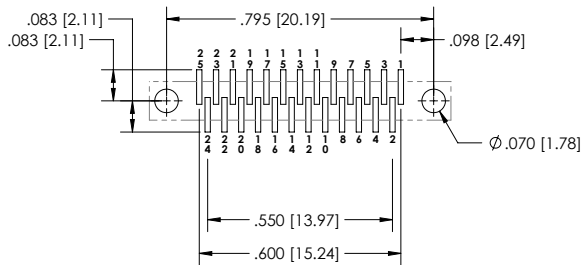
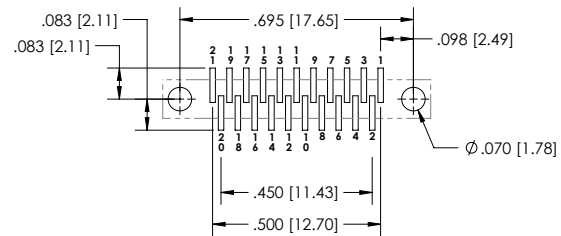
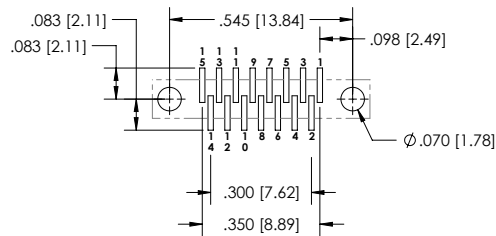
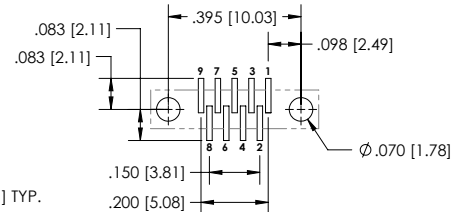
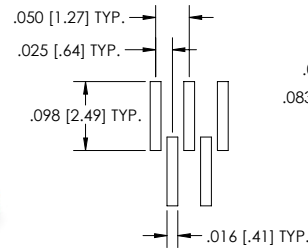
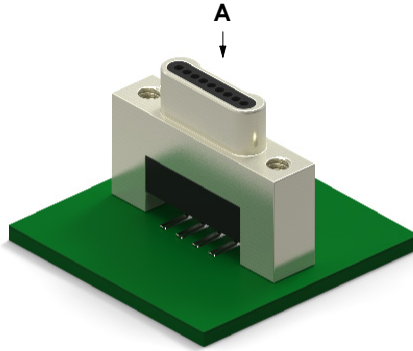
RECEPTACLE (SOCKETS)

PLUG (PINS)

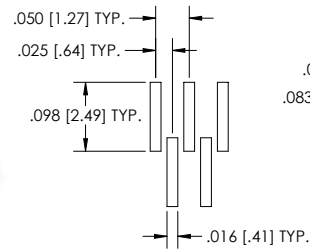
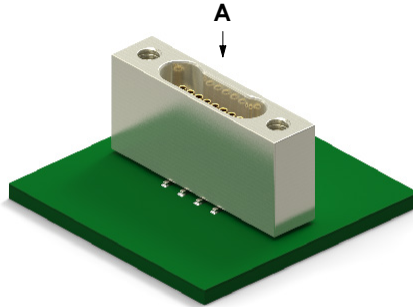


Size	CNM SERIES				
	A	B	Plug C	Receptacle	D
9	.500 [12.70]	.395 [10.03]	.284 [7.21]	.285 [7.24]	.300 [7.62]
15	.650 [16.51]	.545 [13.84]	.434 [11.02]	.435 [11.05]	.450 [11.43]
21	.800 [20.32]	.695 [17.65]	.584 [14.83]	.585 [14.86]	.600 [15.24]
25	.900 [22.86]	.795 [20.19]	.684 [17.37]	.685 [17.40]	.700 [17.78]
31	1.050 [26.67]	.945 [24.00]	.834 [21.18]	.835 [21.21]	.850 [21.59]
37	1.200 [30.48]	1.095 [27.81]	.984 [24.99]	.985 [25.02]	1.000 [25.40]
51	1.550 [39.37]	1.445 [36.70]	1.334 [33.88]	1.335 [33.91]	1.350 [34.29]

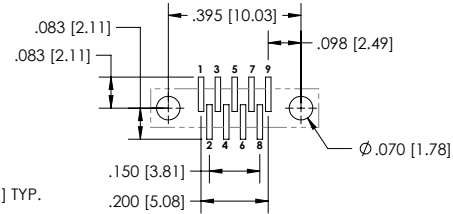
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



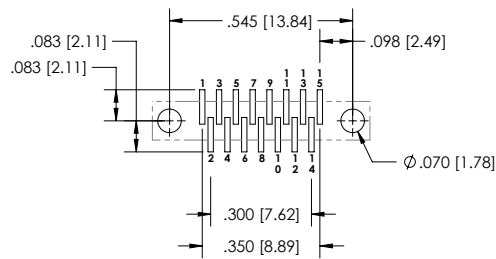
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



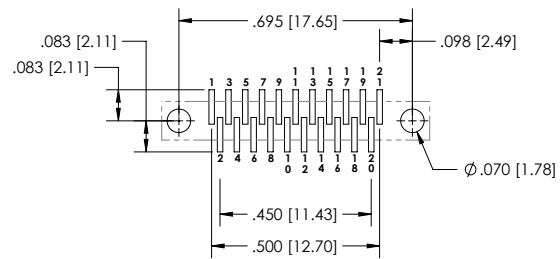
PAD DETAIL



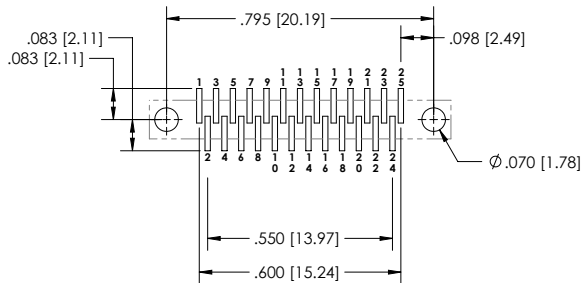
SIZE 9 - VIEW A



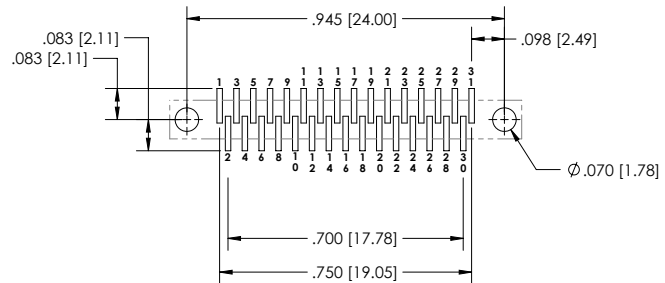
SIZE 15 - VIEW A



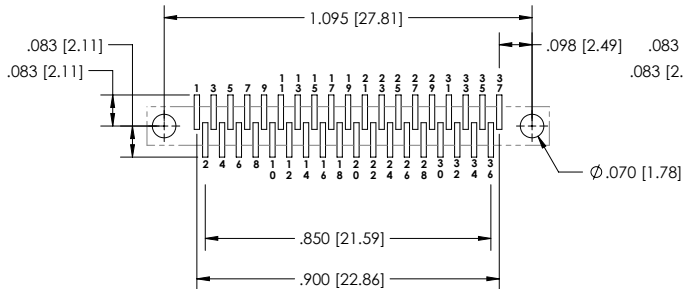
SIZE 21 - VIEW A



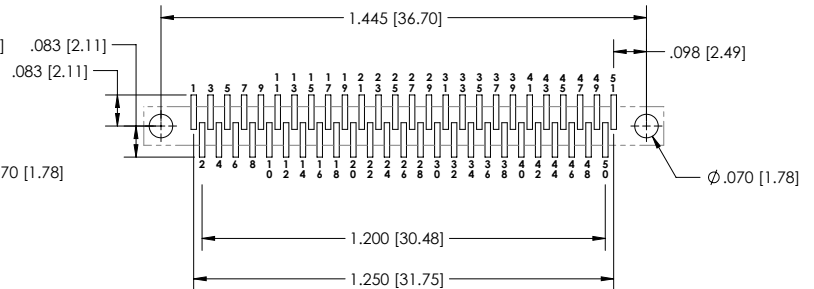
SIZE 25 - VIEW A



SIZE 31 - VIEW A



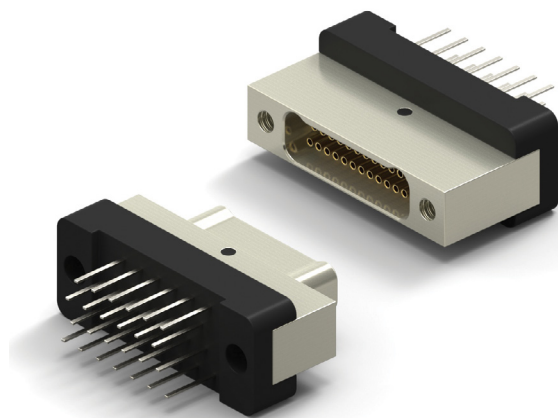
SIZE 37 - VIEW A



SIZE 51 - VIEW A

CIRCUIT CONNECTOR VERTICAL

- Metal Shell Connector
- Plated Thru Hole .050 x .050 (Style 6)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



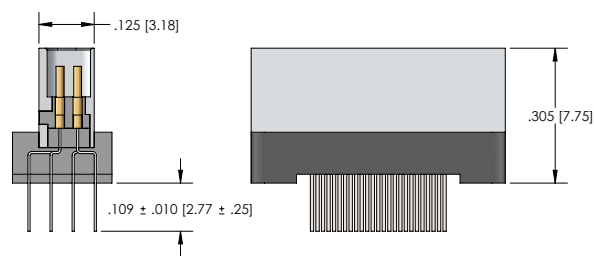
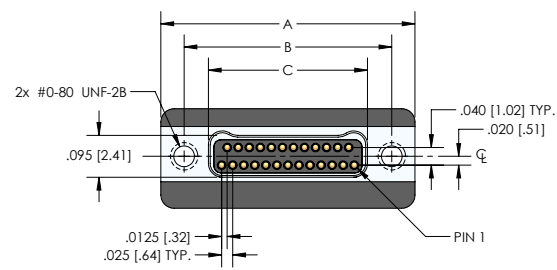
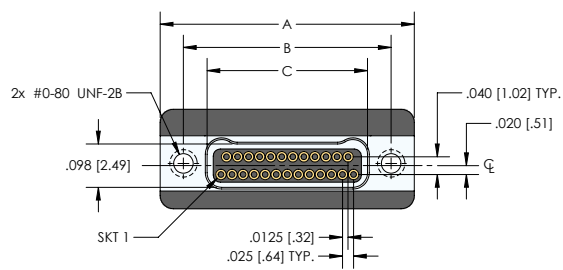
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

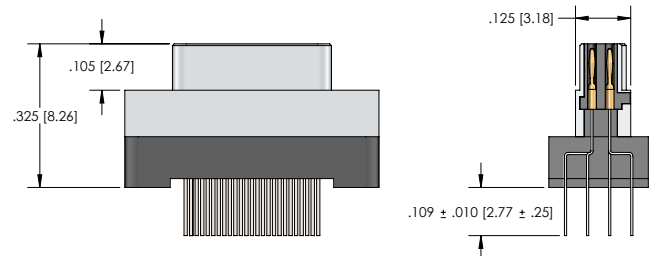
CN	M	6	L	25	-2	P	Ø7	1	-SØ1	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range
CN=Nano	M= Metal Shell	Style=6	L=LCP	Ø9	2= Dual Row	P= Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (6Ø/4Ø)	Blank= Cadmium	*blank = 125C
				15				2= Gold plated (RoHS)		HT = 200C
				21		S= Female/Socket (Receptacle Side)			*SØ1= Nickel	
				25						
				31					SØ3 = Black Anodize	
				37						
				51					SØ6 = Olive-Drab Cadmium	
				65						
									SØ7 = Titanium	
										
									SØ9=Stainless	
										

ELECTRICAL PERFORMANCE DATA	Go to Page 29 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 29 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 29 See chart 139 M&F or Click Here for Materials and Finishes Data

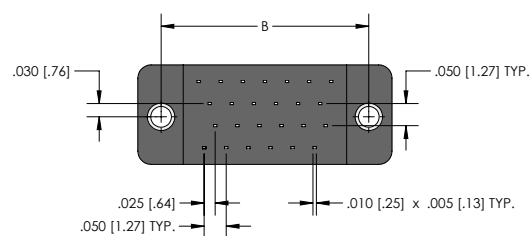
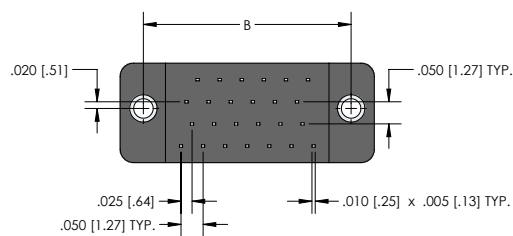
DIMENSIONS



RECEPTACLE (SOCKETS)

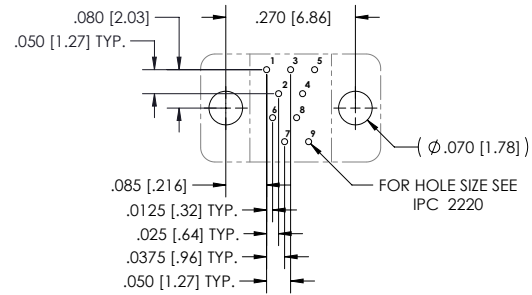
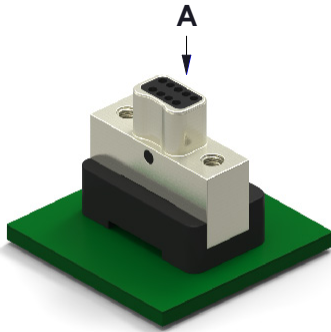


PLUG (PINS)

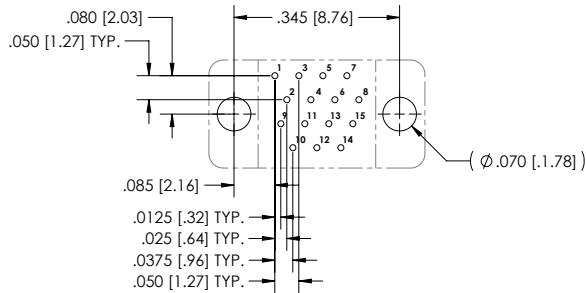


CNM6 SERIES					
Size	A	B	Plug C	Receptacle	D
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]

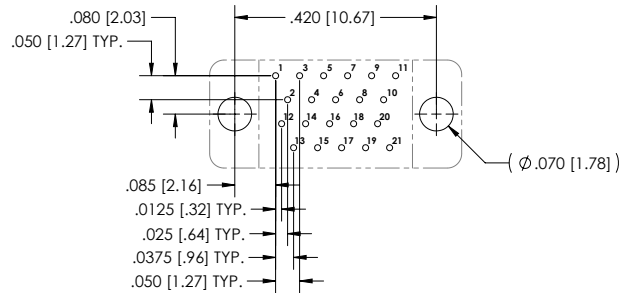
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



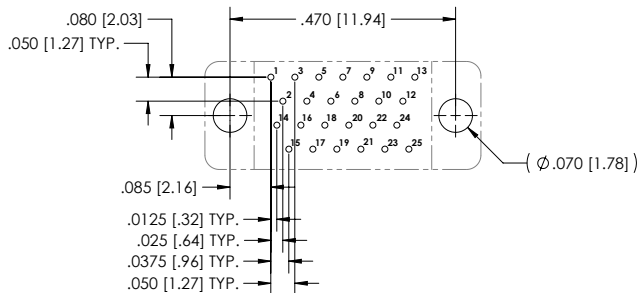
SIZE 9 - VIEW A



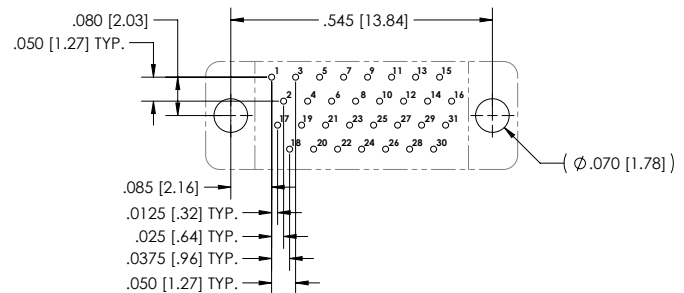
SIZE 15 - VIEW A



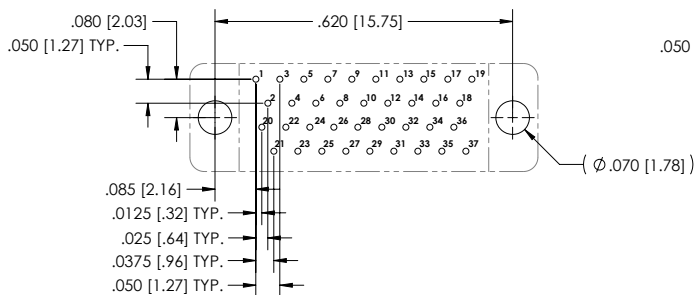
SIZE 21 - VIEW A



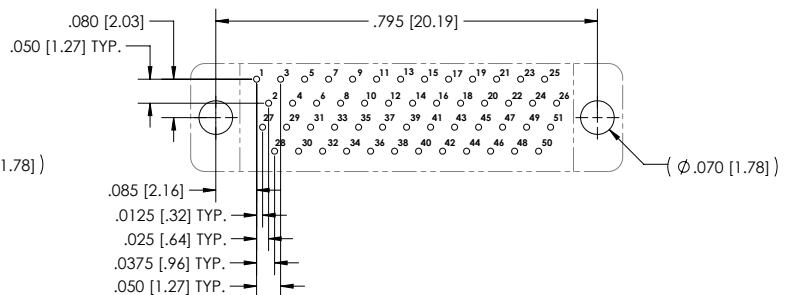
SIZE 25 - VIEW A



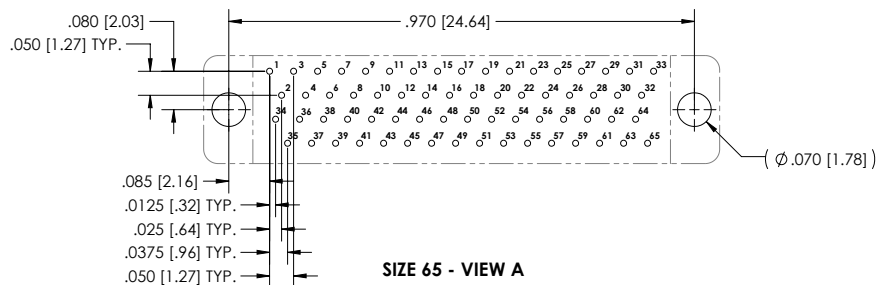
SIZE 31 - VIEW A



SIZE 37 - VIEW A

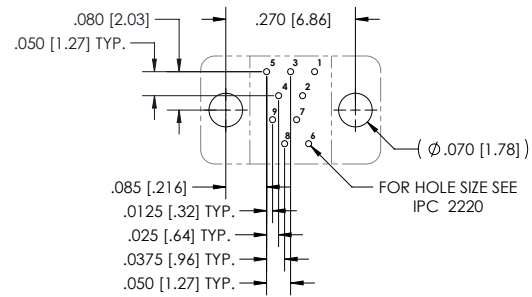
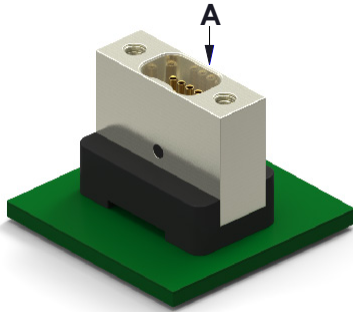


SIZE 51 - VIEW A

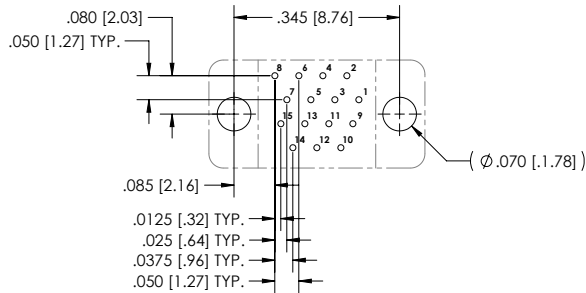


SIZE 65 - VIEW A

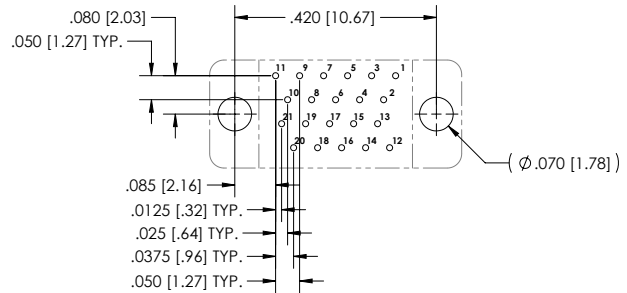
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



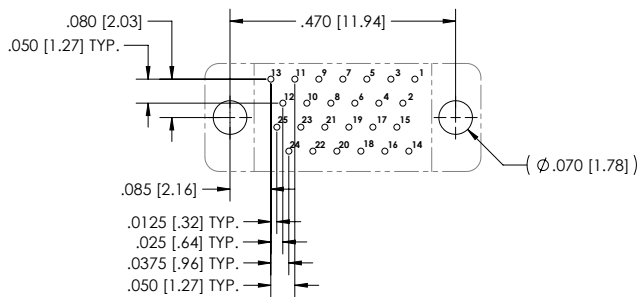
SIZE 9 - VIEW A



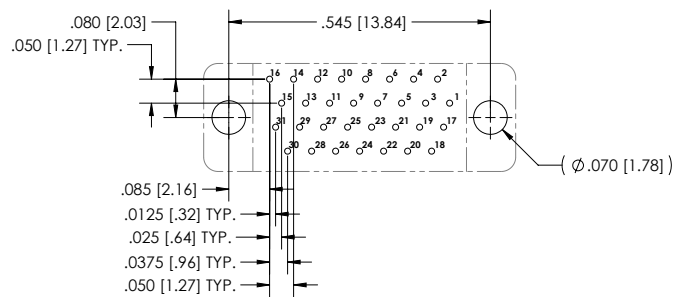
SIZE 15 - VIEW A



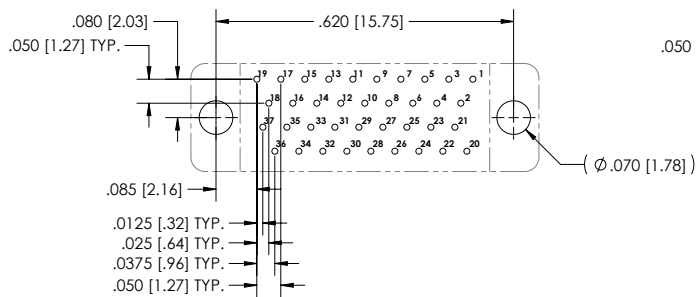
SIZE 21 - VIEW A



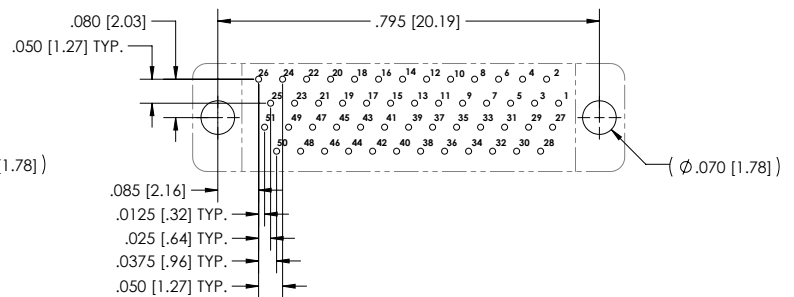
SIZE 25 - VIEW A



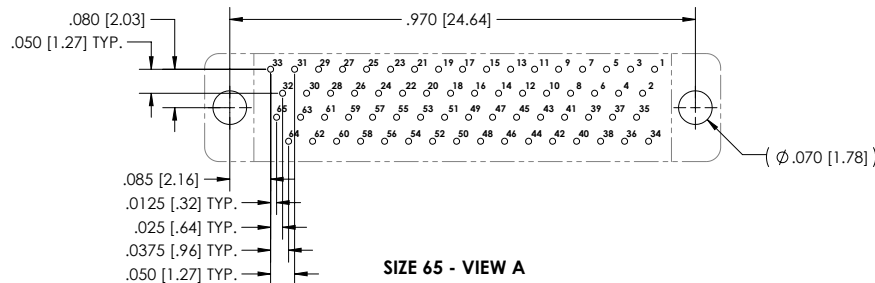
SIZE 31 - VIEW A



SIZE 37 - VIEW A



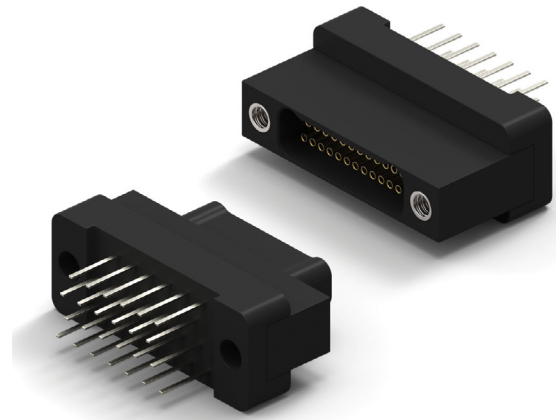
SIZE 51 - VIEW A



SIZE 65 - VIEW A

CIRCUIT CONNECTOR VERTICAL

- Plastic Shell Connector
- Plated Thru Hole .050 x .050 (Style 6)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



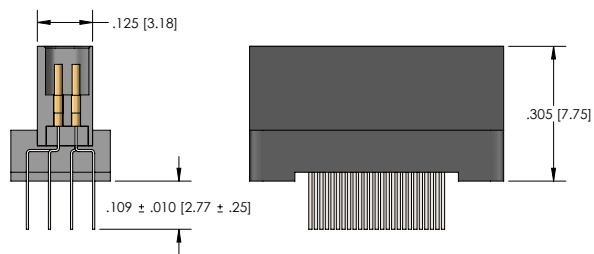
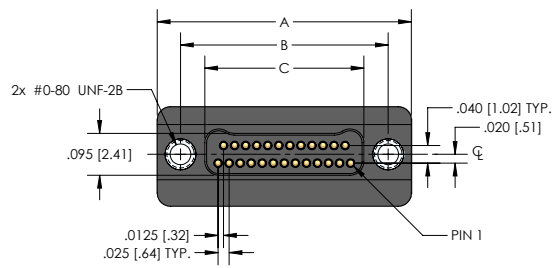
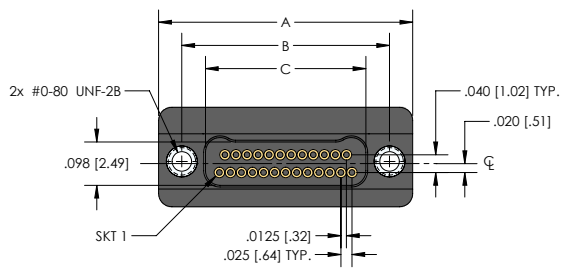
HOW TO ORDER

* Indicates preferred standard

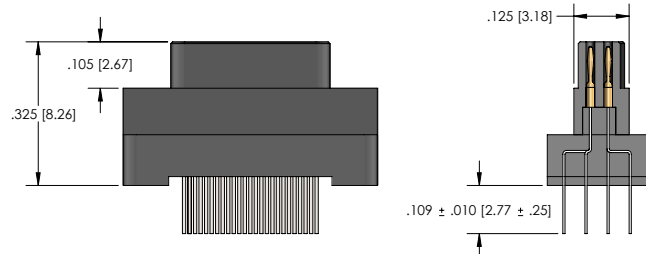
CN	P	6	L	25	-2	P	Ø7	1	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Temp Range
CN= Nano	P= Plastic	Style= 6	L= LCP	Ø9	2= Dual Row	P= Male/ Pin (Plug Side)	Ø7= Threaded Hole	1= Tin plated (6Ø/4Ø)	*blank = 125C
				15				2= Gold plated (RoHS)	HT = 200C
				21		S= Female/ Socket (Receptacle Side)			
				25					
				31					
				37					
				51					
				65					

ELECTRICAL PERFORMANCE DATA	Go to Page 29 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 29 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 29 See chart 142 M&F or Click Here for Materials and Finishes Data

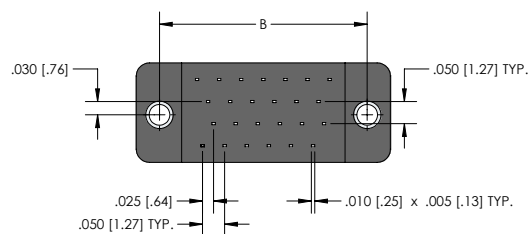
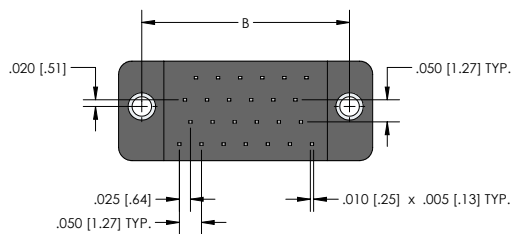
DIMENSIONS



RECEPTACLE (SOCKETS)

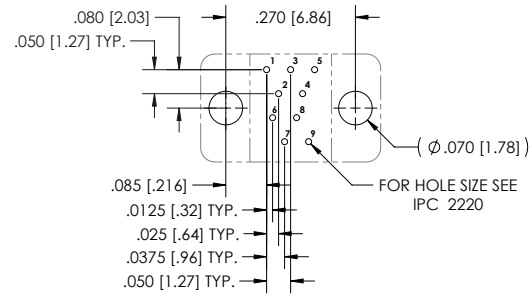
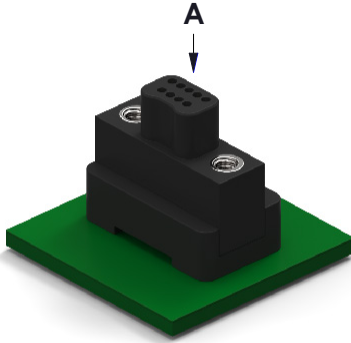


PLUG (PINS)

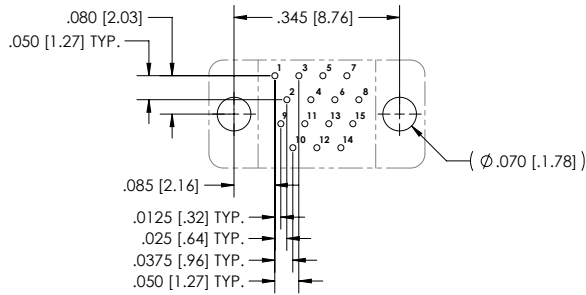


Size	CNP6 SERIES				
	A	B	Plug C	Receptacle	D
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]

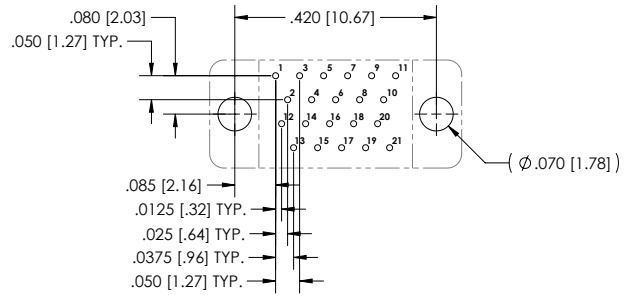
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



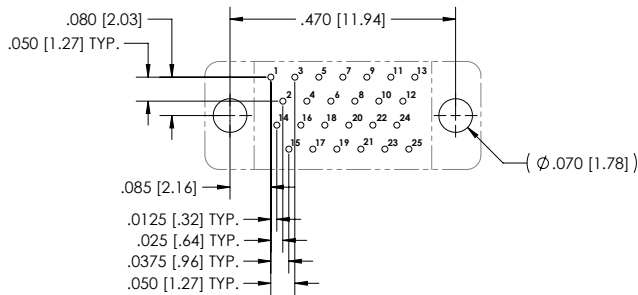
SIZE 9 - VIEW A



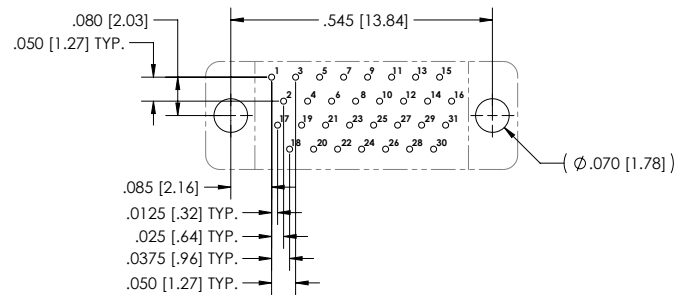
SIZE 15 - VIEW A



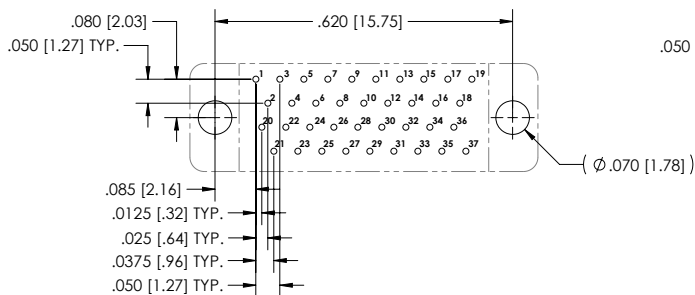
SIZE 21 - VIEW A



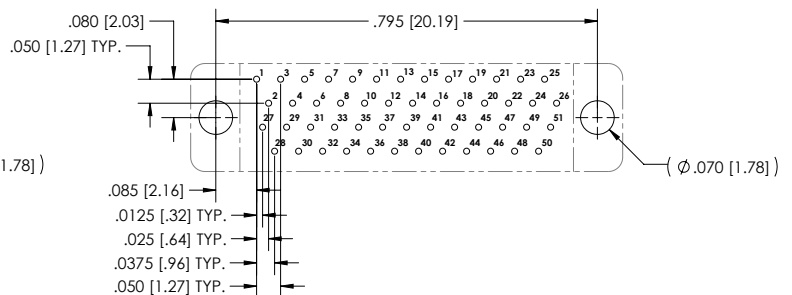
SIZE 25 - VIEW A



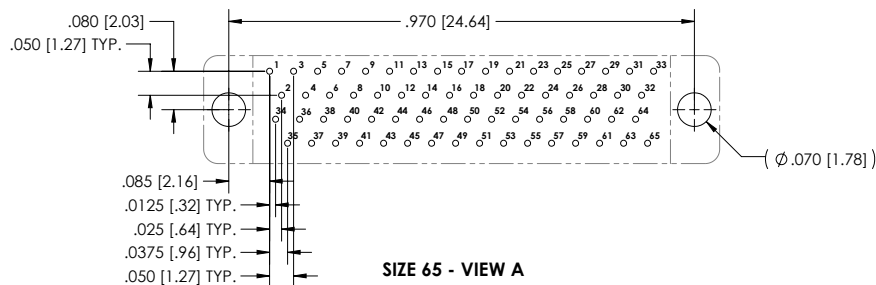
SIZE 31 - VIEW A



SIZE 37 - VIEW A

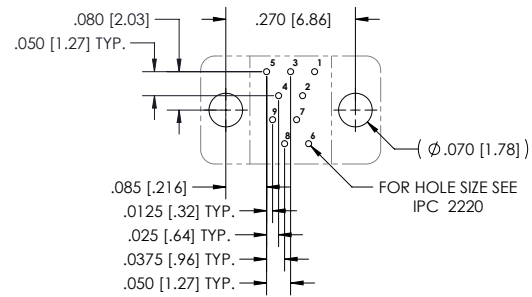
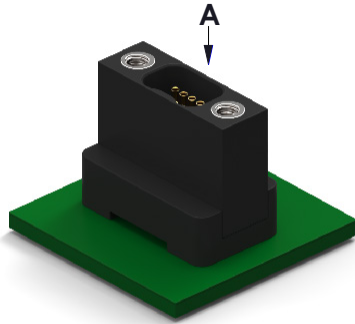


SIZE 51 - VIEW A

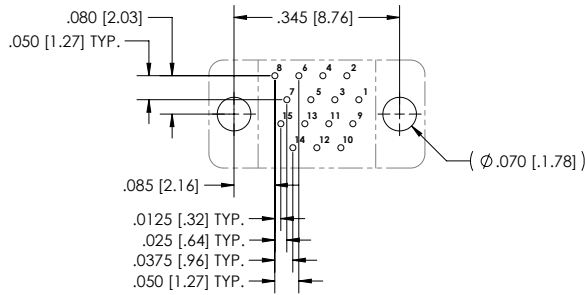


SIZE 65 - VIEW A

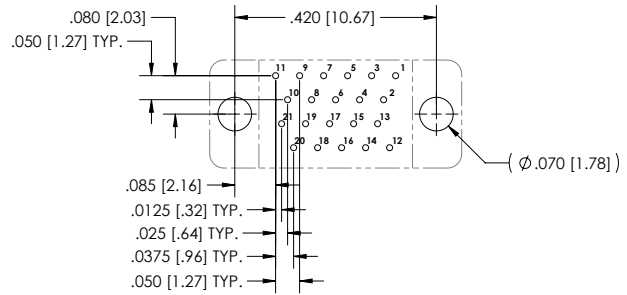
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



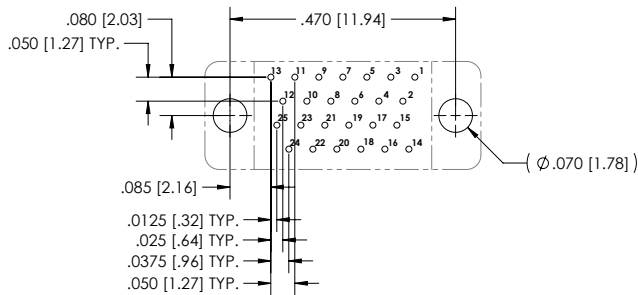
SIZE 9 - VIEW A



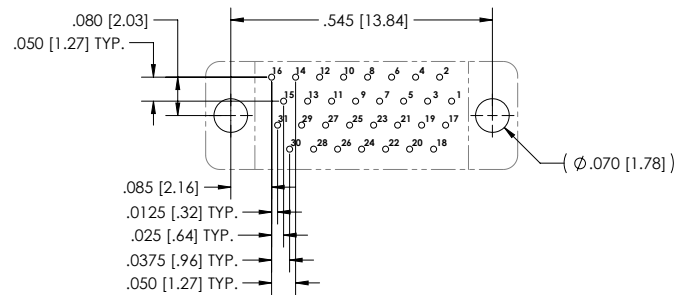
SIZE 15 - VIEW A



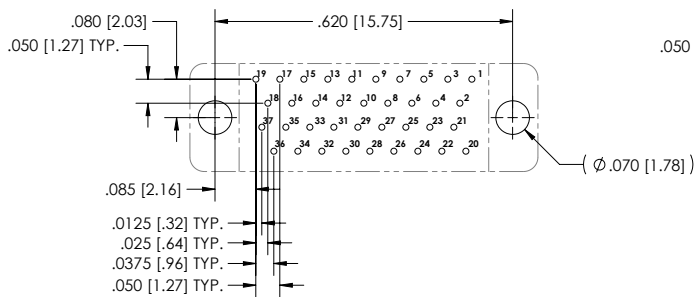
SIZE 21 - VIEW A



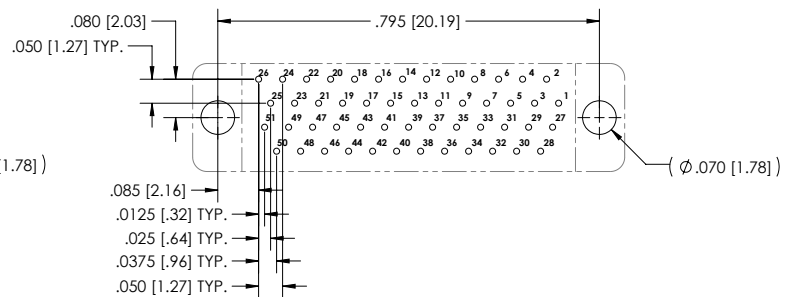
SIZE 25 - VIEW A



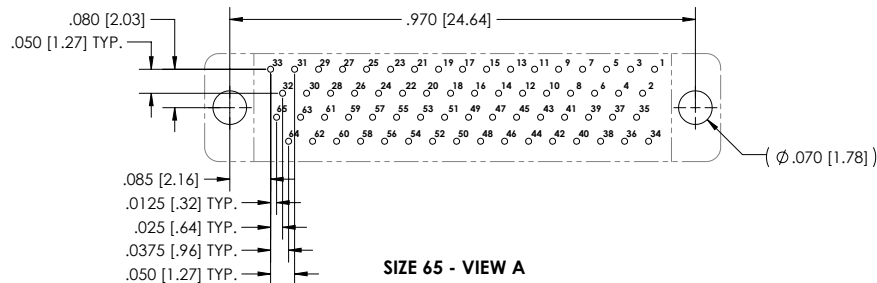
SIZE 31 - VIEW A



SIZE 37 - VIEW A



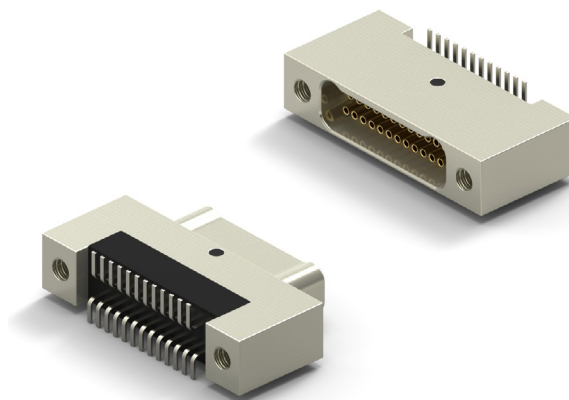
SIZE 51 - VIEW A



SIZE 65 - VIEW A

CIRCUIT CONNECTOR VERTICAL

- Metal Shell Connector
- Surface Mount .025 x .075 (Style 26)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



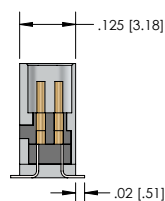
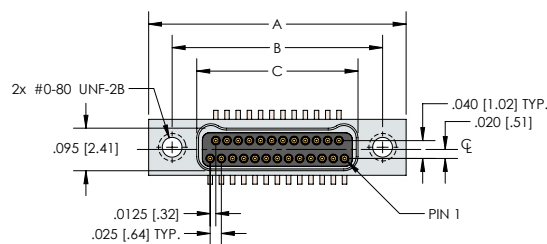
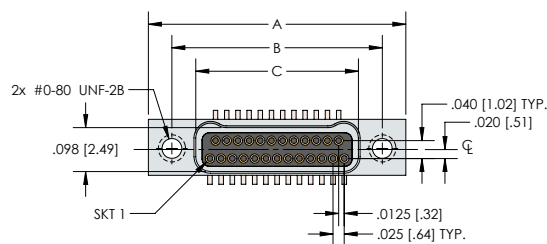
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

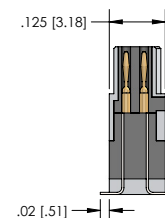
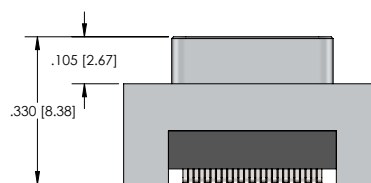
CN	M	26	L	25	-2	P	Ø7	1	-SØ1	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range
CN=Nano	M= Metal Shell	STYLE=26	L=LCP	Ø9	2= Dual Row	P=Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (60/40)	Blank= Cadmium	*blank = 125C
				15				2= Gold plated (RoHS)		HT = 200C
				21		S=Female/Socket (Receptacle Side)			*SØ1= Nickel	
				25						
				31					SØ3 = Black Anodize	
				37						
				51					SØ6 =Olive-Drab Cadmium	
				65						
									SØ7 =Titanium	
										
									SØ9=Stainless	
										

ELECTRICAL PERFORMANCE DATA	Go to Page 29 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 29 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 29 See chart 139 M&F or Click Here for Materials and Finishes Data

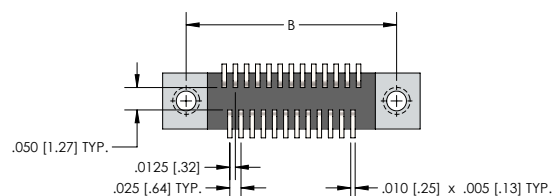
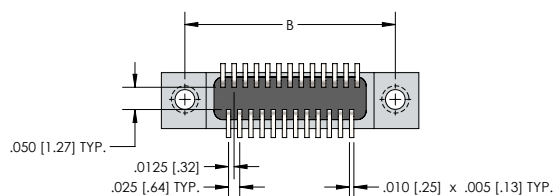
DIMENSIONS



RECEPTACLE (SOCKETS)



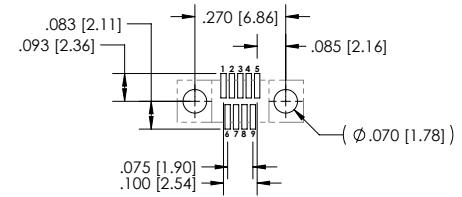
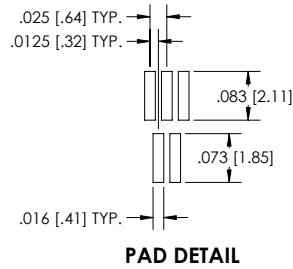
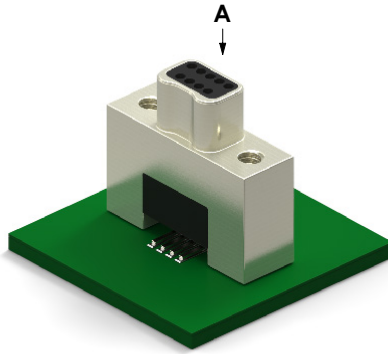
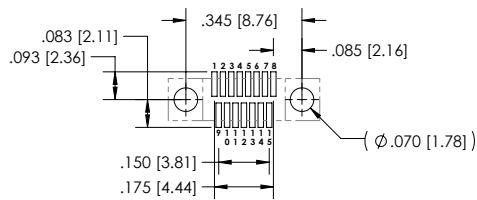
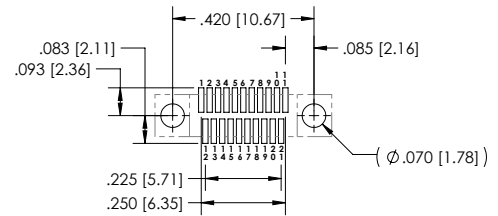
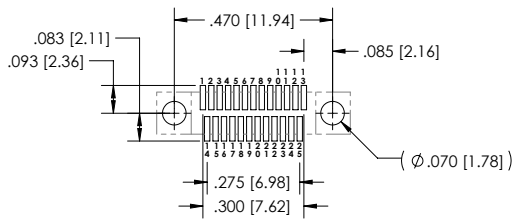
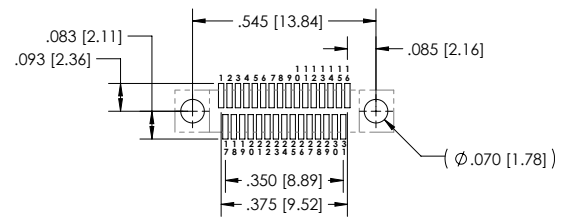
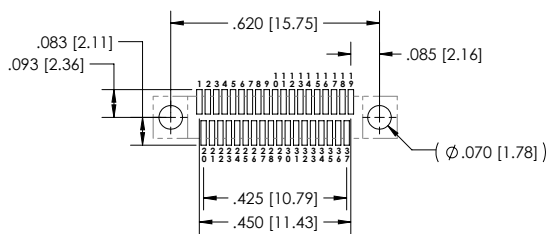
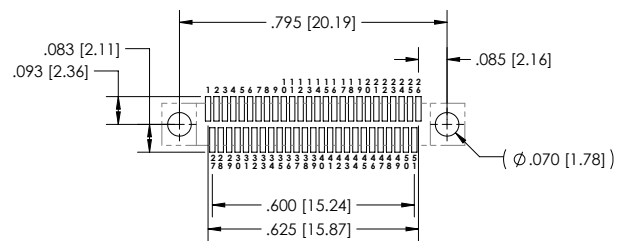
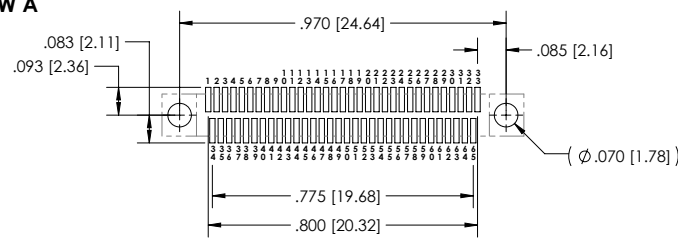
PLUG (PINS)



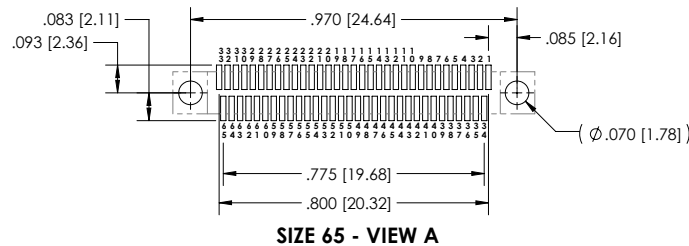
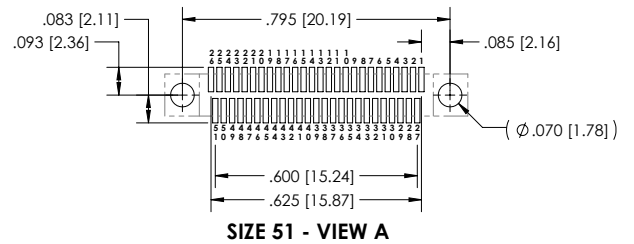
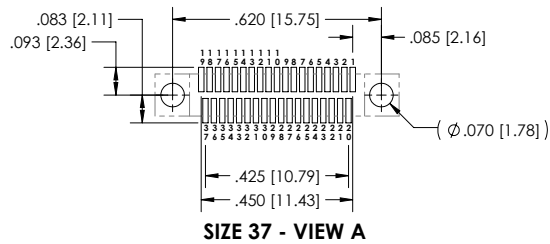
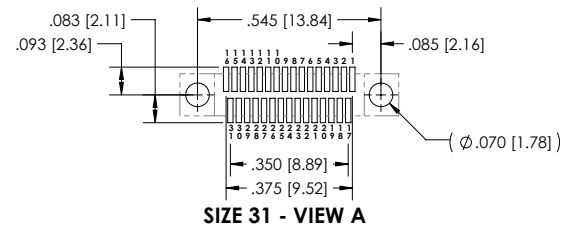
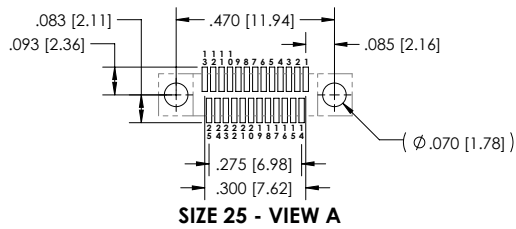
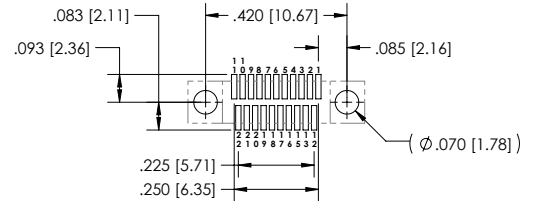
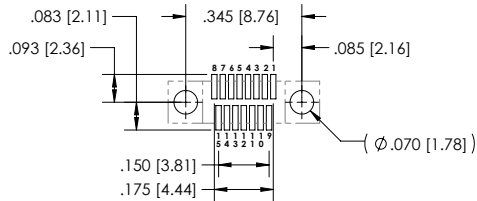
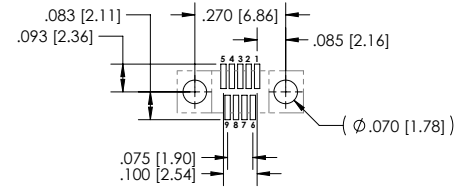
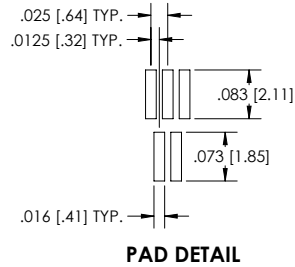
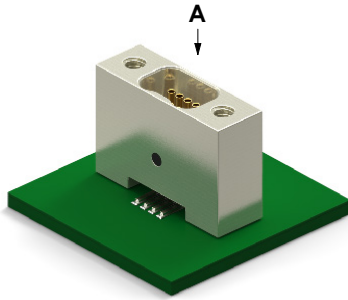
CNM26 SERIES								
Size	A	B	Plug C	Receptacle	D	E	F	
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]	
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]	
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]	
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]	
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]	
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]	
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]	
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]	

CIRCUIT CONNECTOR VERTICAL PCB LAYOUT

NANO D – PID 143

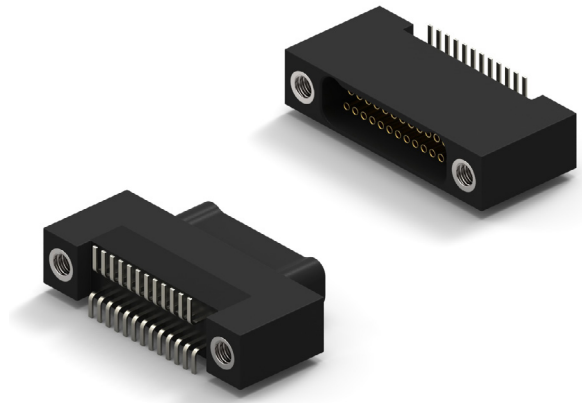
**SIZE 9 - VIEW A****SIZE 15 - VIEW A****SIZE 21 - VIEW A****SIZE 25 - VIEW A****SIZE 31 - VIEW A****SIZE 37 - VIEW A****SIZE 51 - VIEW A****SIZE 65 - VIEW A**

CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



CIRCUIT CONNECTOR VERTICAL

- Plastic Shell Connector
- Surface Mount .025 x .075 (Style 26)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



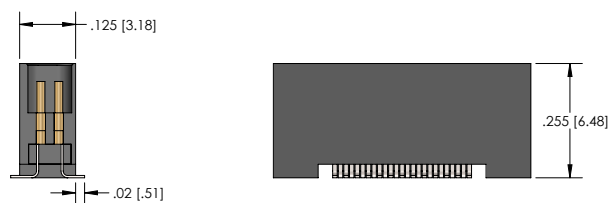
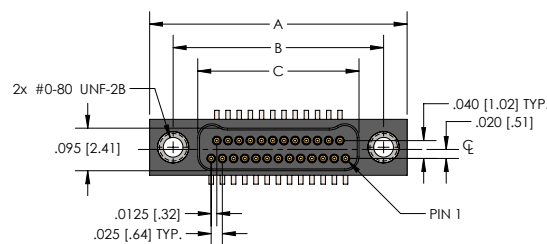
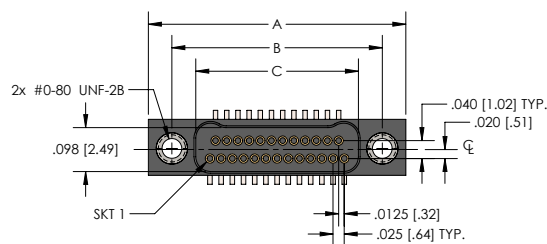
HOW TO ORDER

* Indicates preferred standard

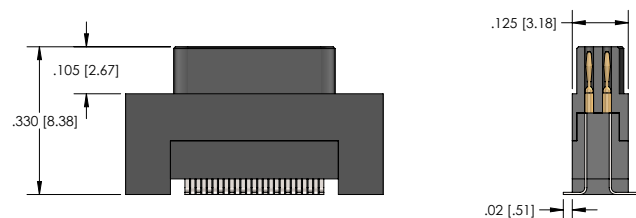
CN	P	26	L	25	-2	P	Ø7	1	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Temp Range
CN= Nano	P= Plastic	Style=26	L=LCP	Ø9	2= Dual Row	P= Male/ Pin (Plug Side)	Ø7= Threaded Hole	1= Tin plated (6Ø/4Ø)	*blank = 125C
				15				2= Gold plated (RoHS)	HT = 200C
				21		S= Female/ Socket (Receptacle Side)			
				25					
				31					
				37					
				51					
				65					

ELECTRICAL PERFORMANCE DATA	Go to Page 29 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 29 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 29 See chart 142 M&F or Click Here for Materials and Finishes Data

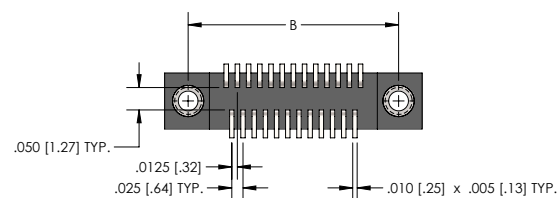
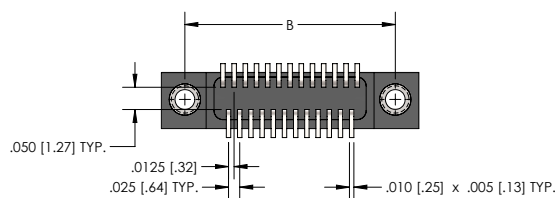
DIMENSIONS



RECEPTACLE (SOCKETS)

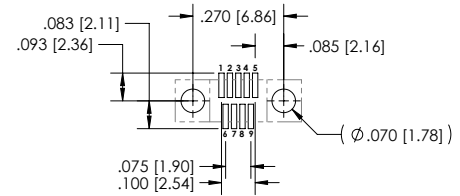
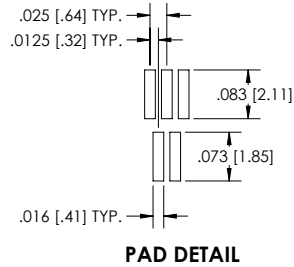
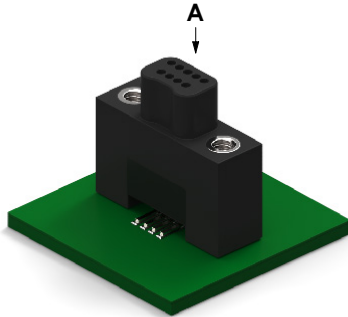


PLUG (PINS)

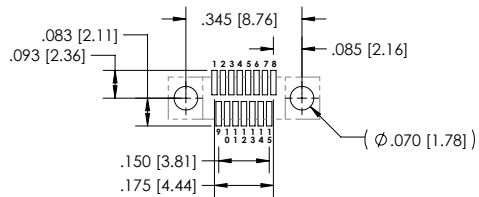


CNP26 SERIES								
Size	A	B	Plug	C	Receptacle	D	E	F
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]		.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]		.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]

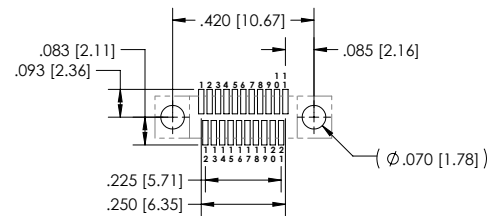
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



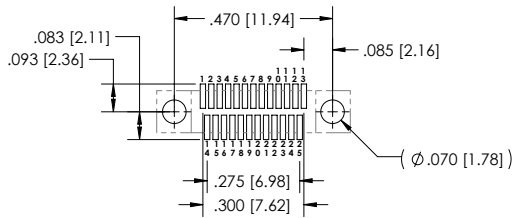
SIZE 9 - VIEW A



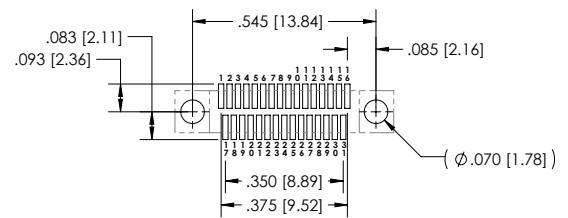
SIZE 15 - VIEW A



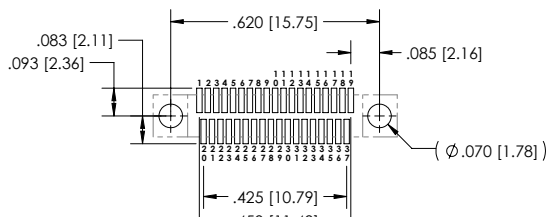
SIZE 21 - VIEW A



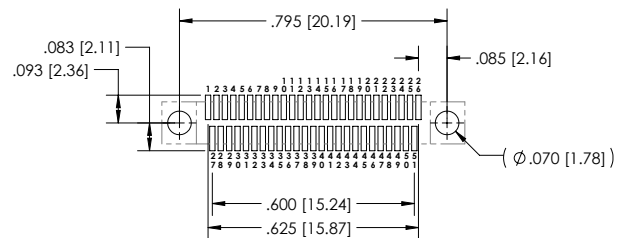
SIZE 25 - VIEW A



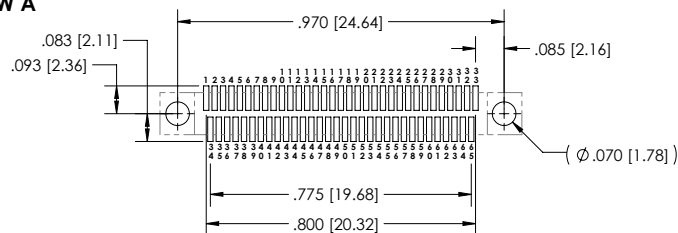
SIZE 31 - VIEW A



SIZE 37 - VIEW A

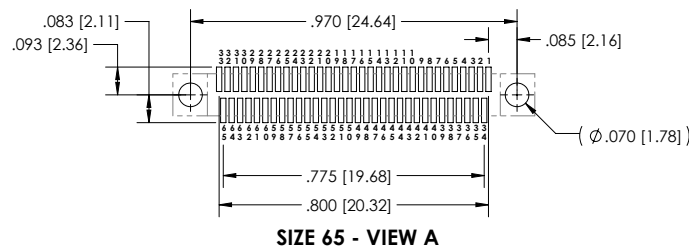
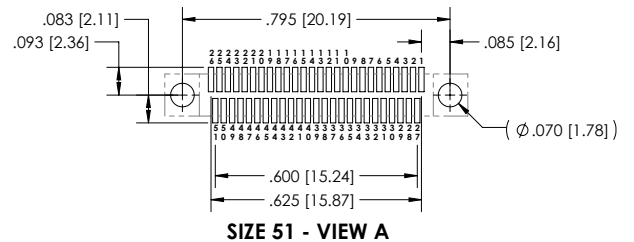
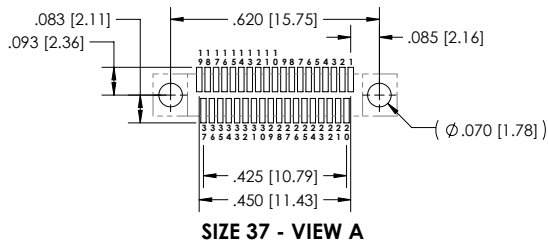
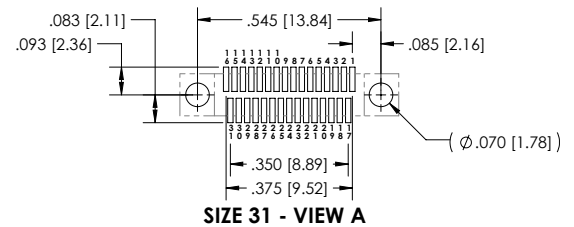
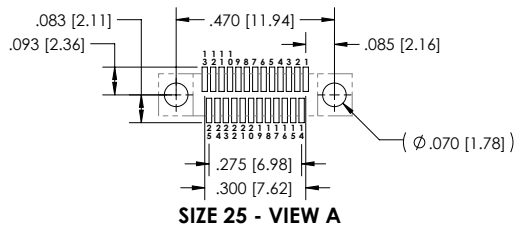
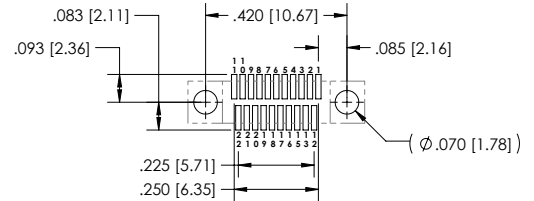
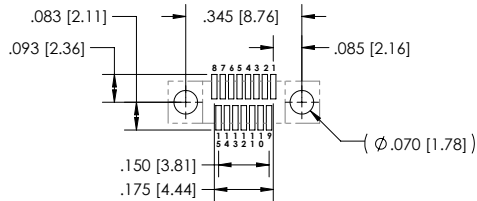
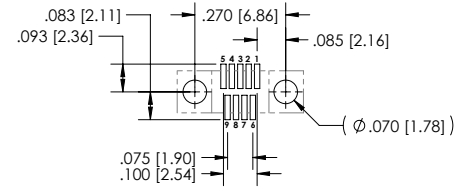
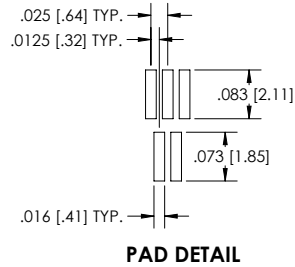
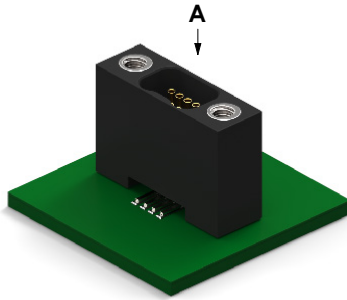


SIZE 51 - VIEW A



SIZE 65 - VIEW A

CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



CIRCUIT CONNECTOR VERTICAL

- Metal Shell Low Profile Male Connector
- Surface Mount .025 x .075 (Style 36)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts

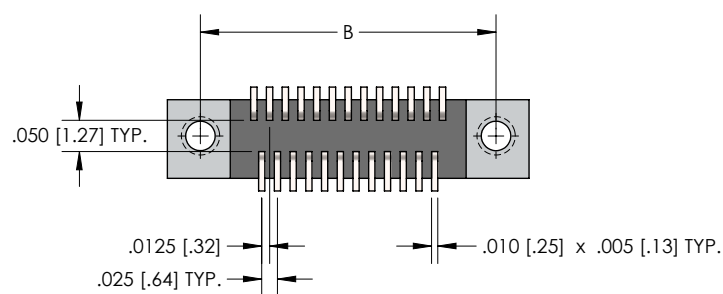
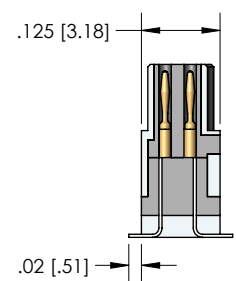
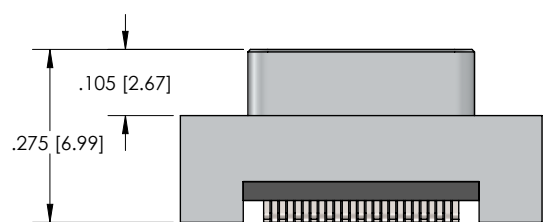
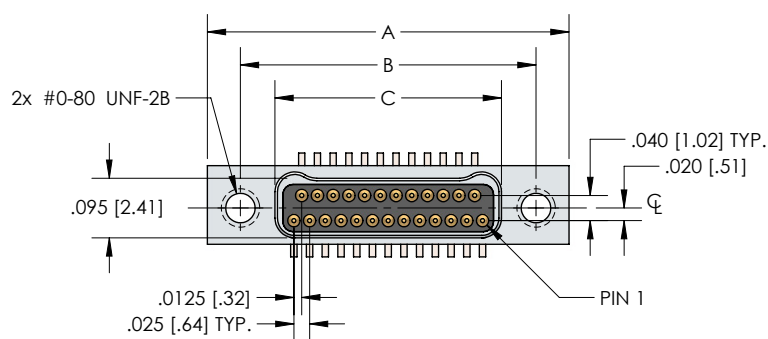
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	36	L	25	-2	P	Ø7	1	- SØ1	
Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	
CN=Nano	M= Metal Shell	STYLE=36	L=LCP	Ø9	2= Dual Row	P=Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (60/40)	Blank= Cadmium	*blank = 125C
				15				2= Gold plated (RoHS)		HT = 200C
				21					*SØ1 = Nickel	
				25						
				31					SØ3 = Black Anodize	
				37						
				51					SØ6 = Olive-Drab Cadmium	
				65						
									SØ7 = Titanium	
										
									SØ9 = Stainless	
										

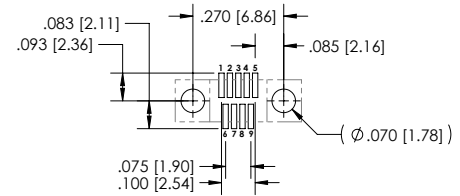
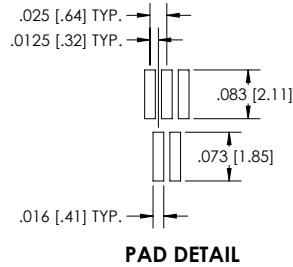
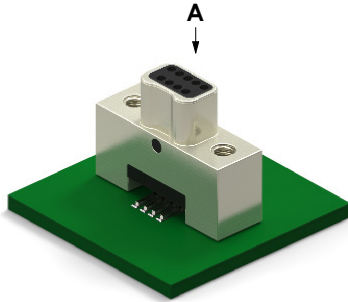
ELECTRICAL PERFORMANCE DATA	Go to Page 29 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 29 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 29 See chart 145 M&F or Click Here for Materials and Finishes Data

DIMENSIONS

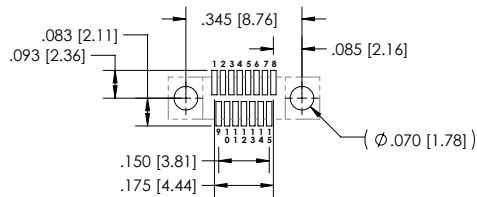


CNM36 SERIES								
Size	A	B	Plug C	Receptacle	D	E	F	
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]	
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]	
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]	
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]	
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]	
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]	
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]	
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]	

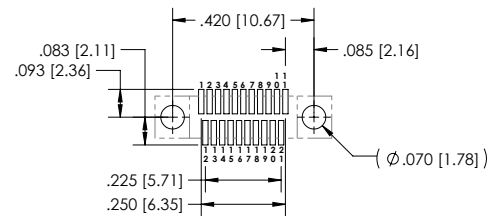
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



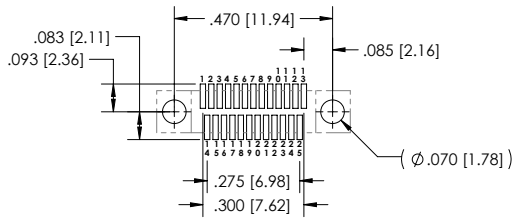
SIZE 9 - VIEW A



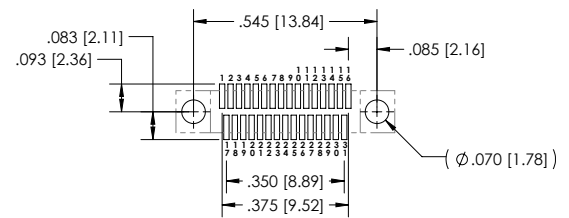
SIZE 15 - VIEW A



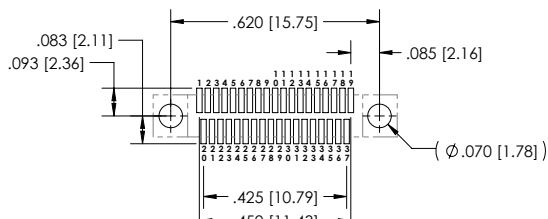
SIZE 21 - VIEW A



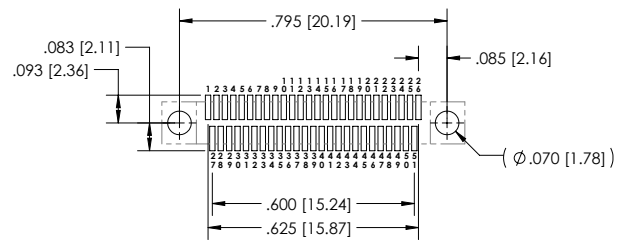
SIZE 25 - VIEW A



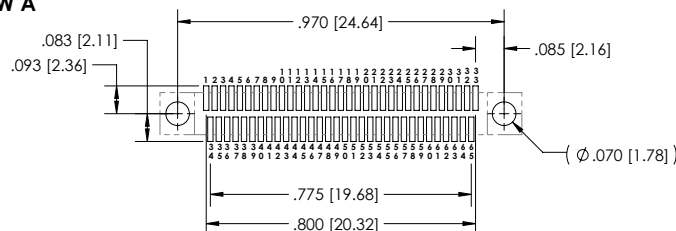
SIZE 31 - VIEW A



SIZE 37 - VIEW A



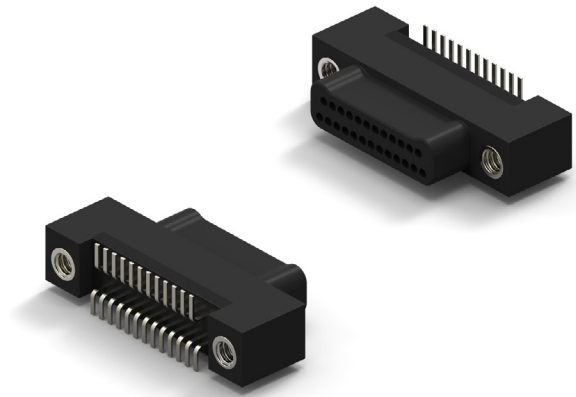
SIZE 51 - VIEW A



SIZE 65 - VIEW A

CIRCUIT CONNECTOR VERTICAL

- Plastic Shell Low Profile Male Connector
- Surface Mount .025 x .075 (Style 36)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



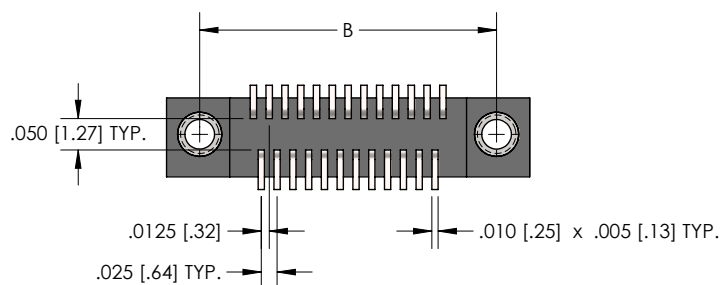
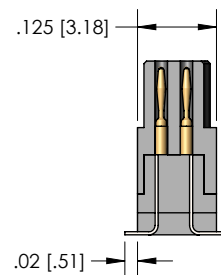
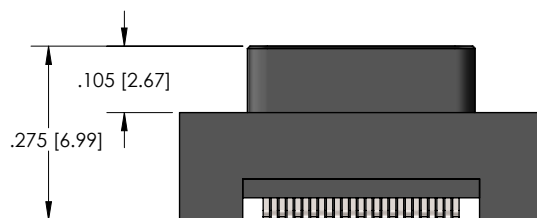
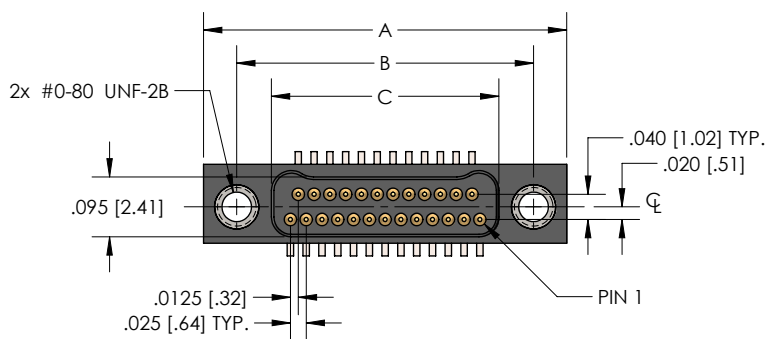
HOW TO ORDER

* Indicates preferred standard

CN	P	36	L	25	-2	P	Ø7	1	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Temp Range
CN=Nano	P=Plastic	Style=36	L=LCP	Ø9	2= Dual Row	P=Male/Pin (Plug Side)	Ø7=Threaded Hole	1= Tin plated (6Ø/4Ø)	*blank = 125C
				15				2= Gold plated (RoHS)	HT = 200C
				21					
				25					
				31					
				37					
				51					
				65					

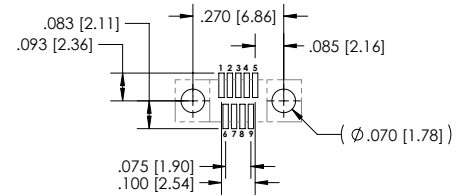
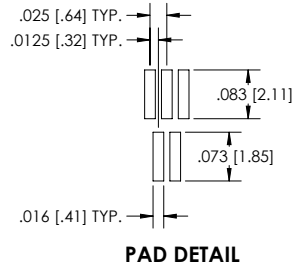
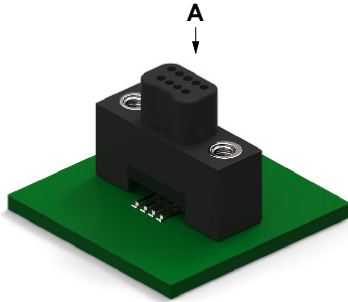
ELECTRICAL PERFORMANCE DATA	Go to Page 29 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 29 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 29 See chart 146 M&F or Click Here for Materials and Finishes Data

DIMENSIONS

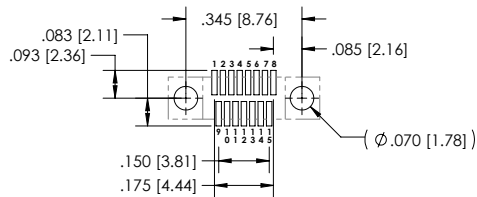


CNP36 SERIES								
Size	A	B	Plug	C	Receptacle	D	E	F
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]		.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]		.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]

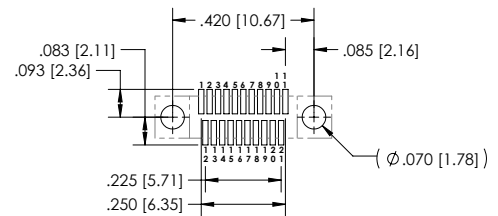
CIRCUIT CONNECTOR VERTICAL PCB LAYOUT



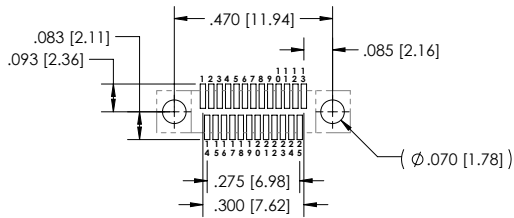
SIZE 9 - VIEW A



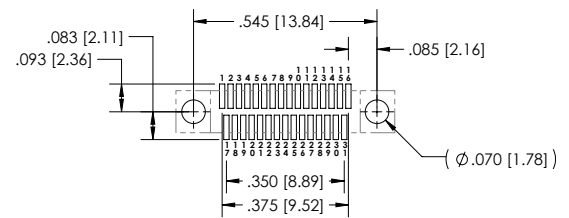
SIZE 15 - VIEW A



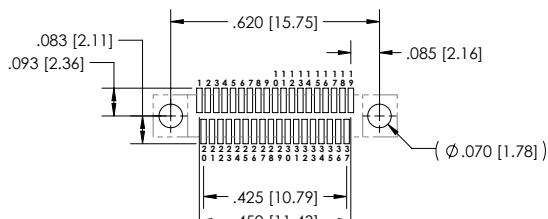
SIZE 21 - VIEW A



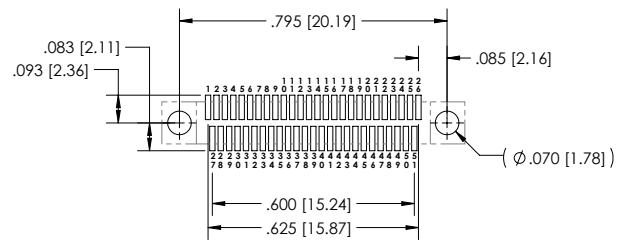
SIZE 25 - VIEW A



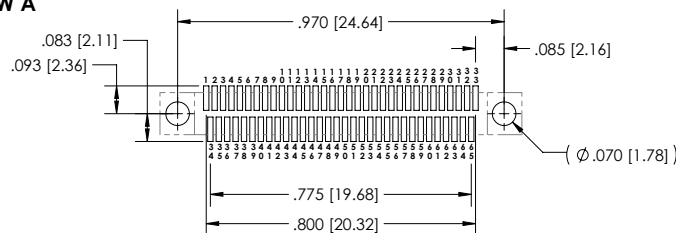
SIZE 31 - VIEW A



SIZE 37 - VIEW A



SIZE 51 - VIEW A

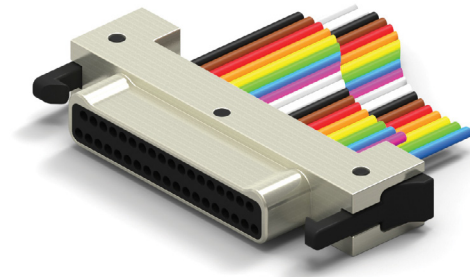


SIZE 65 - VIEW A

THIS PAGE LEFT
INTENTIONALLY BLANK

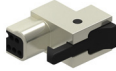
LATCHING WIRED CONNECTOR

- Metal Shell Connector w/Wire Leads
- Quick Disconnect Latch Mechanism
- Operating Temperature -50° C to 200° C
- 9 to 37 Contacts



HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

N	M	L	25	2	P	Ø4	- 30	F	6	- 18	- SØ1	
	Series	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Wire Gauge	Wire Type	Color Code	Length	Finish**	Temp Range
N= Nano	M= Metal	L= LCP	Ø9	2= Dual Row	P= Male/Pin (Plug Side)	Ø4= Latch	3Ø*	C=Solid Wire, uninsulated	1=White	*18.Ø	Blank= Cadmium	*blank = 125C
			15				32	*F=Stranded, w/ Teflon insulation, per NEMA HP3-ET	3= Tin plated (6Ø/4Ø) (solid wire)	*36.Ø		HT = 200C
			21		S=Female/Socket (Receptacle Side)		34	Y=Stranded w/ Tefzel insulation, per SAE AS22759/33	4= Gold plated (RoHS) (solid wire)		*SØ1= Nickel	
			25					X=Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)	*6 = 10 solid colors, repeating			
			31					T=Flat Integral Tail			SØ3 = Black Anodize	
			37									
											SØ6 =Olive-Drab Cadmium	
												
											SØ7 =Titanium	
												
											SØ9=Stainless	
												

ELECTRICAL PERFORMANCE DATA

Go to Page 30 See chart 133 E or Click Here for Electrical Performance Data

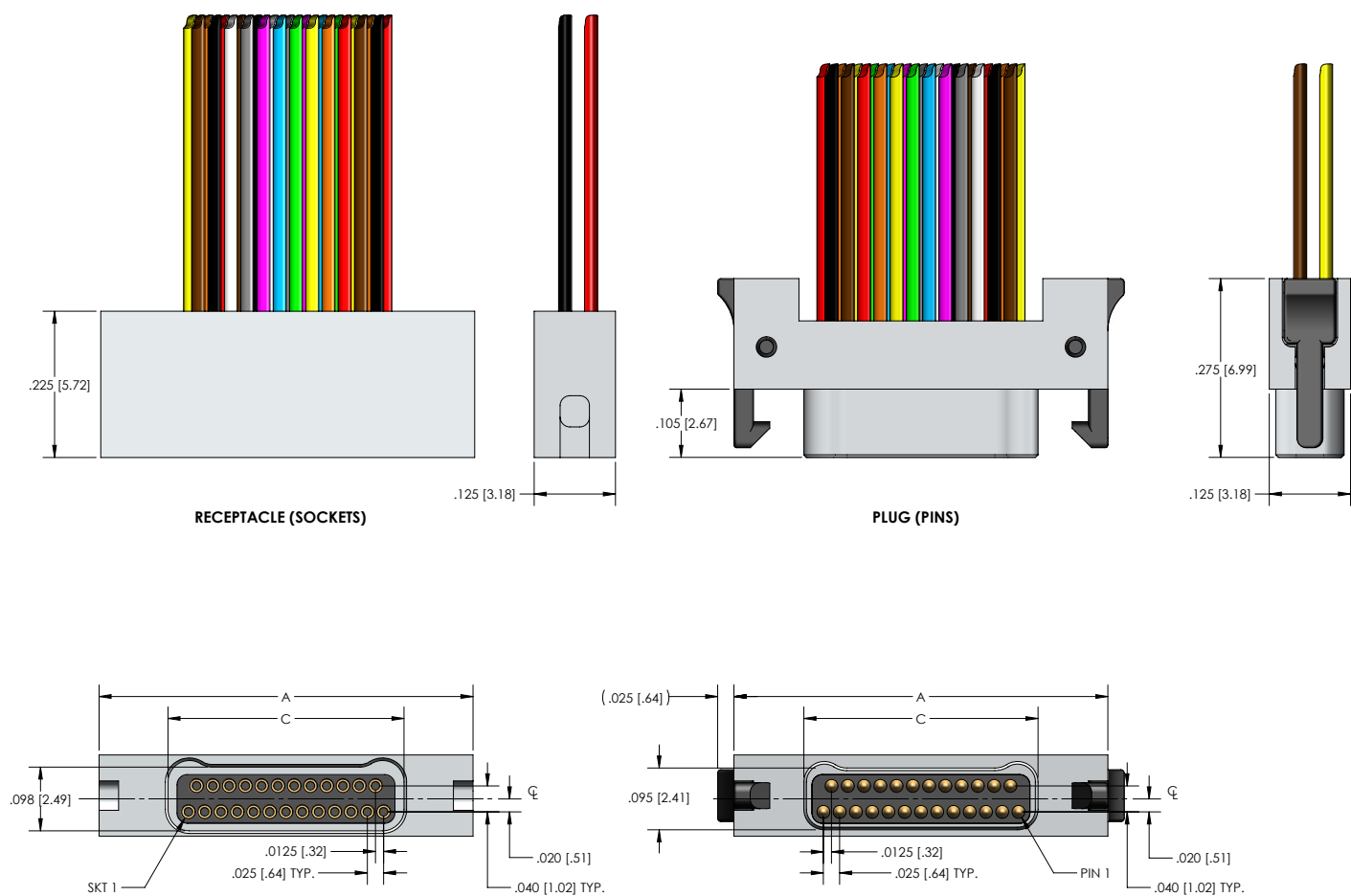
MECHANICAL PERFORMANCE DATA

Go to Page 30 See chart 123 M or Click Here for Mechanical Performance Data

MATERIALS DATA

Go to Page 30 See chart 149 M&F or Click Here for Materials and Finishes Data

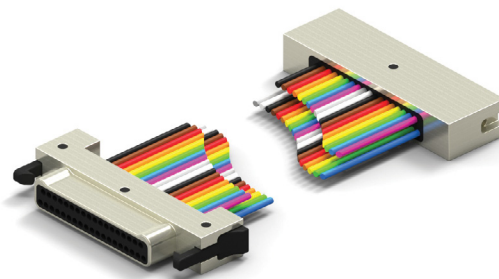
DIMENSIONS



Size	NM SERIES		
	A	Plug C Receptacle	
9	.375 [9.52]	.160 [4.06]	.163 [4.14]
15	.450 [11.43]	.235 [5.97]	.238 [6.04]
21	.525 [13.33]	.310 [7.87]	.313 [7.95]
25	.575 [14.60]	.360 [9.14]	.363 [9.22]
31	.650 [16.51]	.435 [11.05]	.438 [11.12]
37	.725 [18.41]	.510 [12.95]	.513 [13.03]

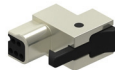
LATCHING WIRED CONNECTOR

- Metal Shell Connector w/Wire Leads
- Quick Disconnect Latch Mechanism
- Operating Temperature -50° C to 200° C
- 9 to 37 Contacts



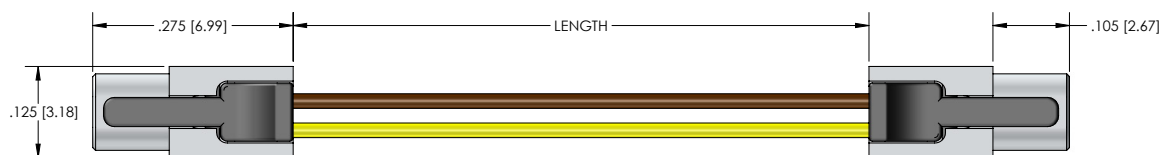
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

N	M	L	25	- 2	P	Ø2	/NMLX-2XX	- 3Ø	F	6	- 18.Ø	-SØ1		
	Series	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Detail of Other End of the Harness	Wire Gauge	Wire Type	Color Code	Length	Finish**	Temp Range	
N= Nano	M= Metal	L= LCP	Ø9	2= Dual Row	P= Male/Pin (Plug Side)	Ø4=Latch	Refer to the left columns for filling out the x	3Ø*	*F=Stranded, w/ Teflon insulation, per NEMA HP3-ET	1=White	*18.Ø	Blank= Cadmium	*blank = 125C	
			15					32	Y=Stranded w/ Tefzel insulation, per SAE AS22759/33	*6 = 10 solid colors, repeating	*36.Ø		HT = 200°C	
			21		S=Female/ Socket (Receptacle Side)			34	X=Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)			*SØ1= Nickel		
			25											
			31										SØ3 = Black Anodize	
			37										SØ6 = Olive-Drab Cadmium	
													SØ7 = Titanium	
													SØ9 = Stainless	
														

ELECTRICAL PERFORMANCE DATA	Go to Page 30 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 30 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 30 See chart 149 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



PLUG

PLUG



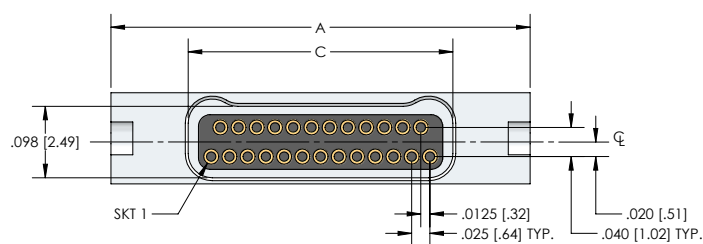
PLUG

RECEPTACLE

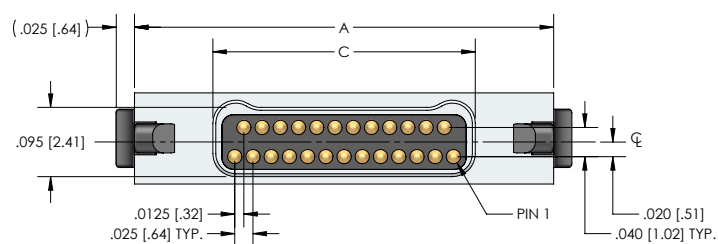


RECEPTACLE

RECEPTACLE



RECEPTACLE (SOCKETS)



PLUG (PINS)

Size	NM SERIES		
	A	Plug C	Receptacle
9	.375 [9.52]	.160 [4.06]	.163 [4.14]
15	.450 [11.43]	.235 [5.97]	.238 [6.04]
21	.525 [13.33]	.310 [7.87]	.313 [7.95]
25	.575 [14.60]	.360 [9.14]	.363 [9.22]
31	.650 [16.51]	.435 [11.05]	.438 [11.12]
37	.725 [18.41]	.510 [12.95]	.513 [13.03]

LATCHING CIRCUIT RIGHT ANGLE CONNECTOR

- Metal Shell Connector
- Plated Thru Hole .050 x .050 (Style 6)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts

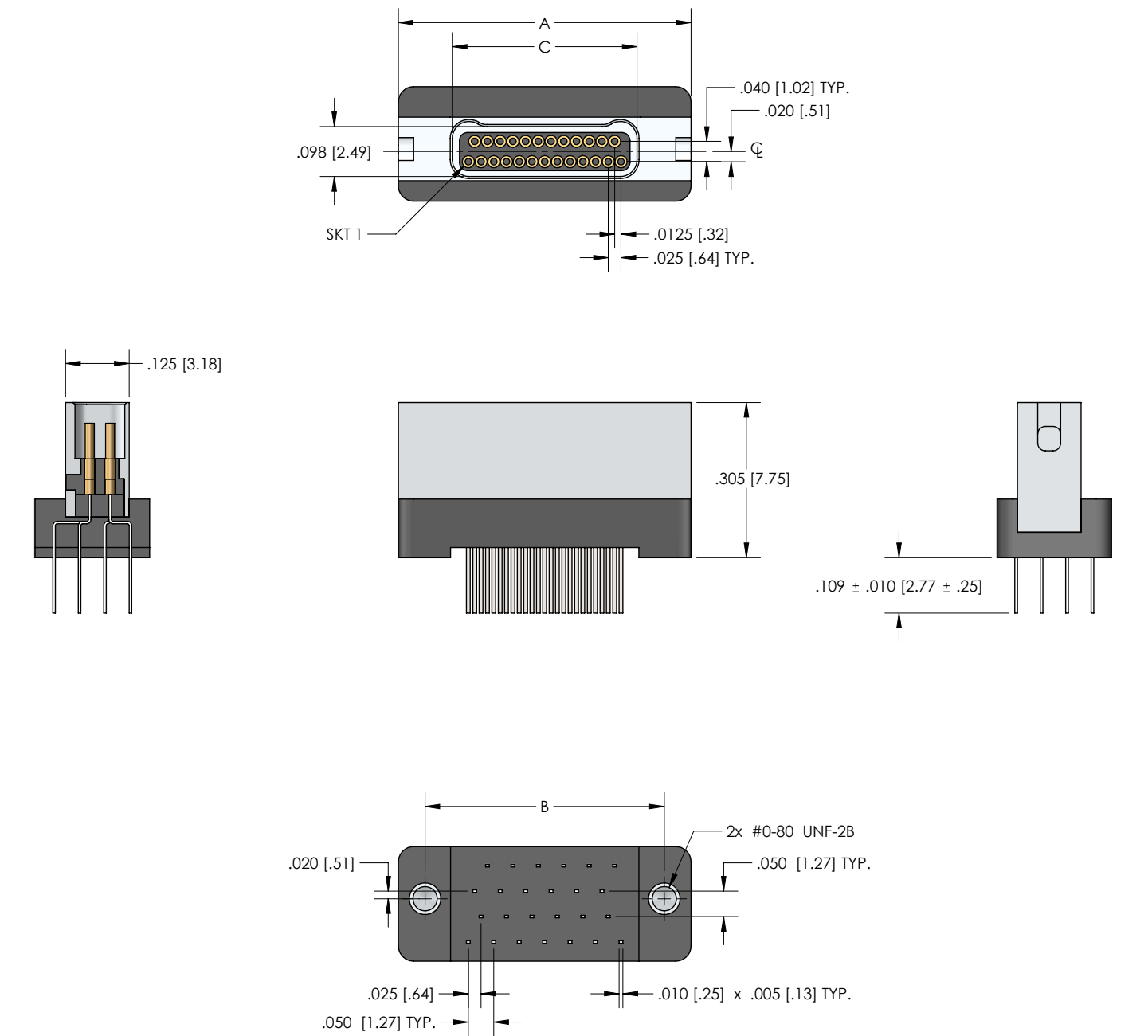
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

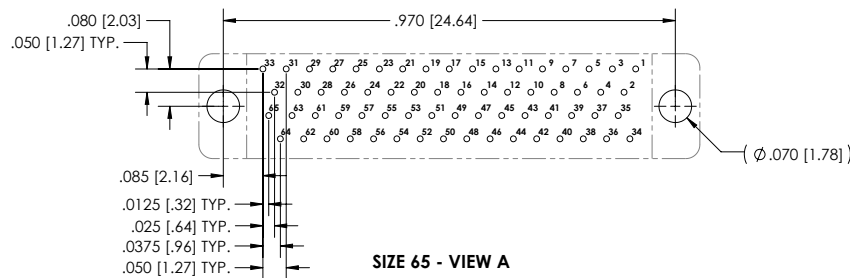
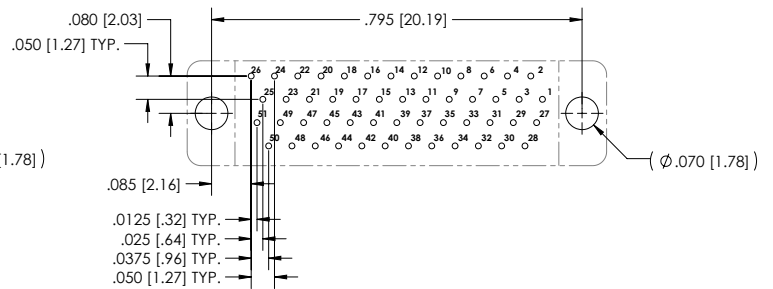
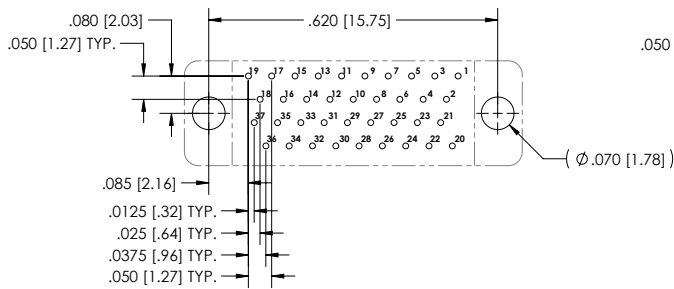
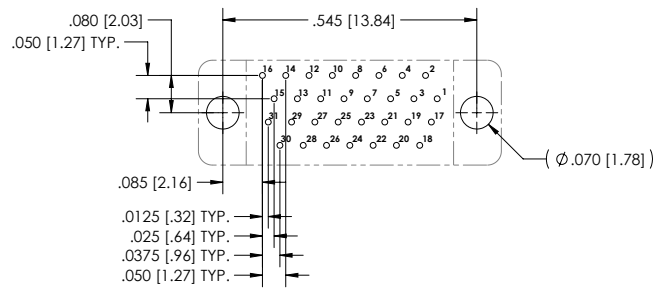
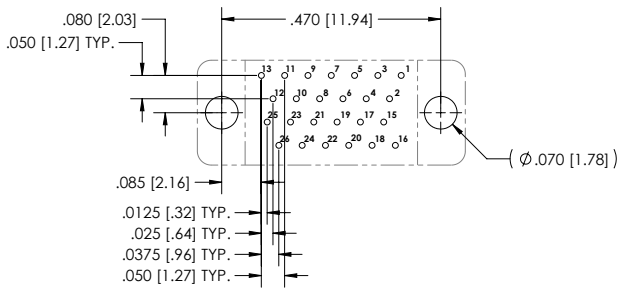
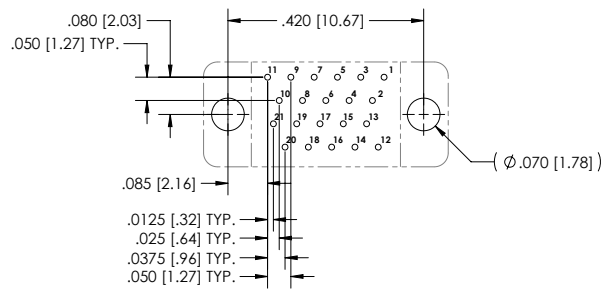
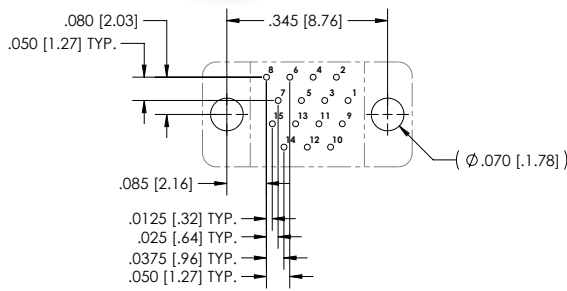
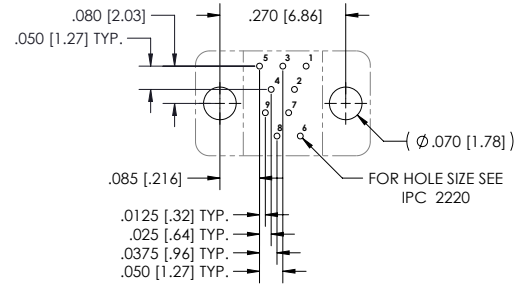
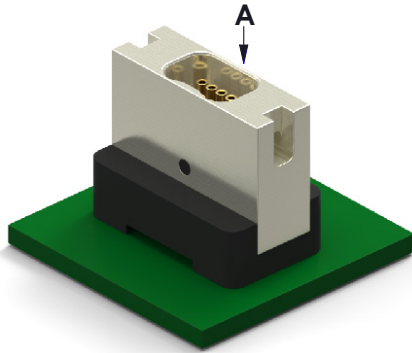
CN	M	6	L	25	-2	S	Ø4	1	-SØ1	
Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	
CN= Nano	M= Metal Shell	Style=6	L=LCP	Ø9	2= Dual Row	S= Female/Socket (Receptacle Side)	Ø4=Latch	1= Tin plated (6Ø/4Ø)	Blank= Cadmium	*blank = 125C
				15				2= Gold plated (RoHS)		HT = 200C
				21					*SØ1= Nickel	
				25						
				31					SØ3 = Black Anodize	
				37						
				51					SØ6 = Olive-Drab Cadmium	
				65						
									SØ7 = Titanium	
										
									SØ9=Stainless	
										

ELECTRICAL PERFORMANCE DATA	Go to Page 31 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 31 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 31 See chart 131 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



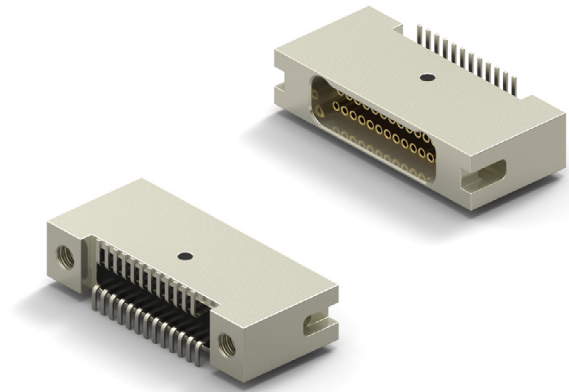
M SERIES				
Size	A	Plug C	Receptacle	D
9	.375 [9.52]	.160 [4.06]	.163 [4.14]	.175 [4.44]
15	.450 [11.43]	.235 [5.97]	.238 [6.04]	.250 [6.35]
21	.525 [13.33]	.310 [7.87]	.313 [7.95]	.325 [8.25]
25	.575 [14.60]	.360 [9.14]	.363 [9.22]	.375 [9.52]
31	.650 [16.51]	.435 [11.05]	.438 [11.12]	.450 [11.43]
37	.725 [18.41]	.510 [12.95]	.513 [13.03]	.525 [13.33]
51	.900 [22.86]	.685 [17.40]	.688 [17.47]	.700 [17.78]
65	1.075 [27.30]	.860 [21.84]	.863 [21.92]	.875 [22.22]



THIS PAGE LEFT
INTENTIONALLY BLANK

LATCHING CIRCUIT VERTICAL CONNECTOR

- Metal Shell Connector
- Surface Mount .025 x .075 (Style 26)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 65 Contacts



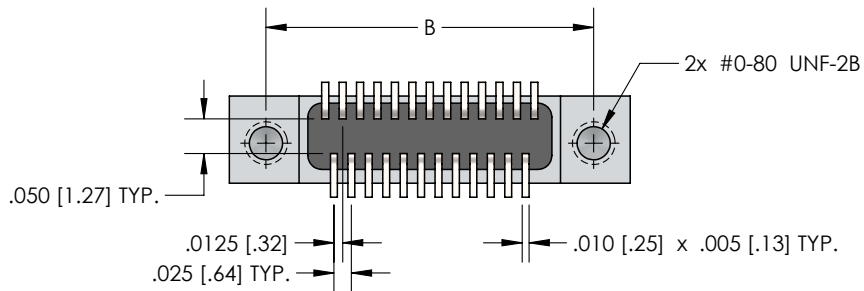
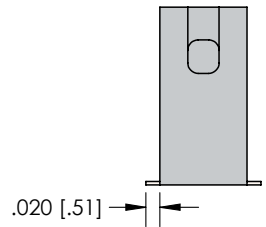
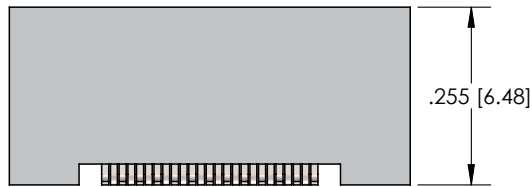
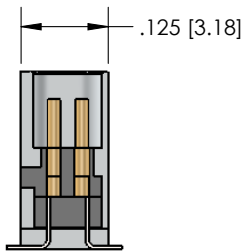
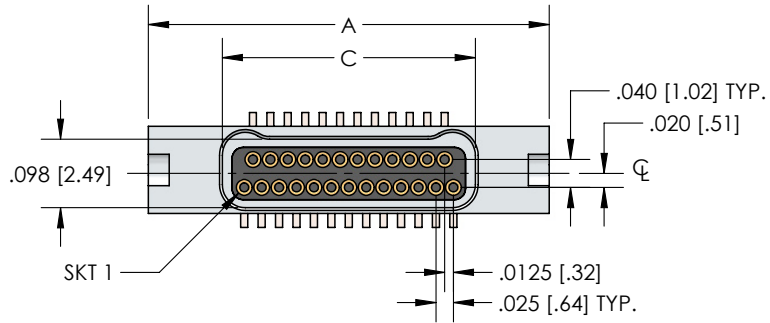
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	26	L	25	- 2	S	04	1	- S01	
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range
CN=Nano	M= Metal Shell	Style=26	L=LCP	Ø9	2= Dual Row	S=Female/Socket (Receptacle Side)	Ø4=Latch	1= Tin plated (60/40)	Blank= Cadmium	*blank = 125C
				15				2= Gold plated (RoHS)		HT = 200C
				21					*S01= Nickel	
				25						
				31					S03 = Black Anodize	
				37						
				51					S06 = Olive-Drab Cadmium	
				65						
									S07 =Titanium	
										
									S09=Stainless	
										

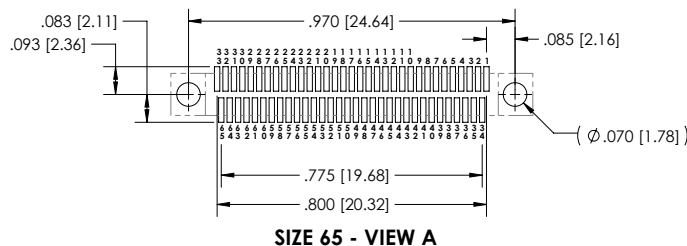
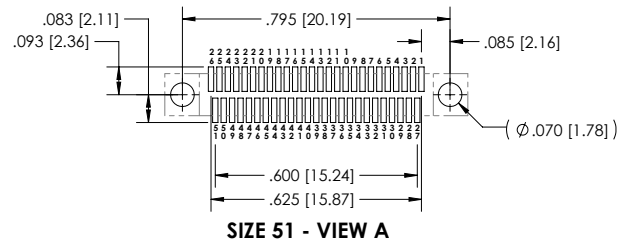
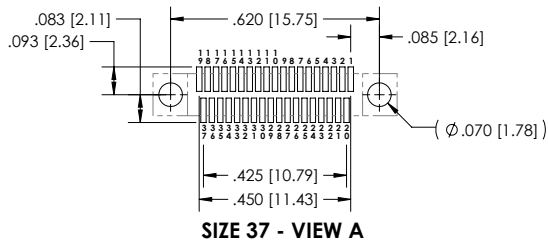
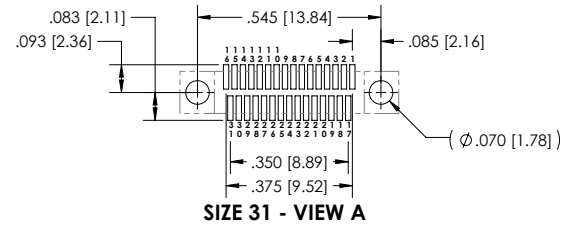
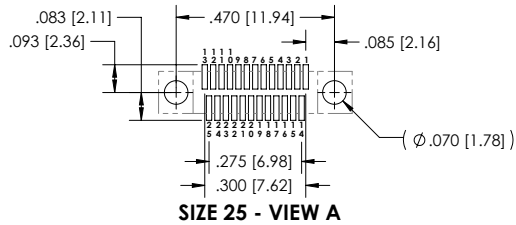
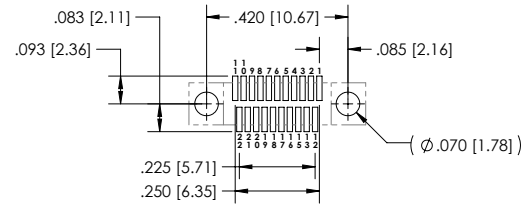
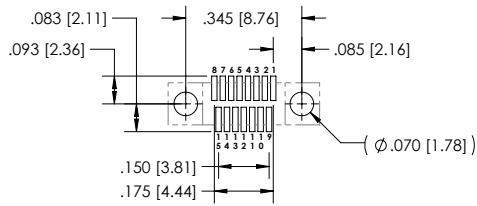
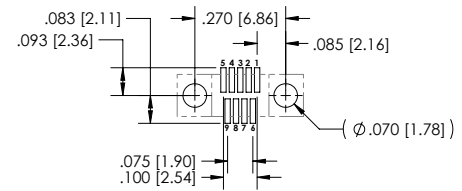
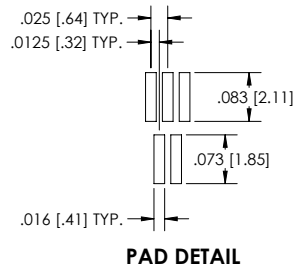
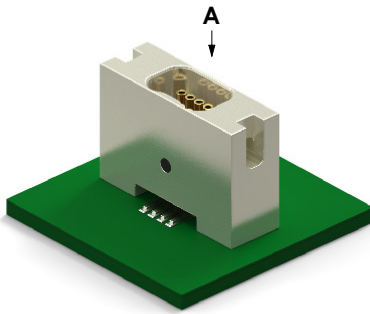
ELECTRICAL PERFORMANCE DATA	Go to Page 31 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 31 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 31 See chart 131 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



	CNM SERIES					
Size	A	Plug C	Receptacle	D	E	F
9	.375 [9.52]	.160 [4.06]	.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]
15	.450 [11.43]	.235 [5.97]	.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]
21	.525 [13.33]	.310 [7.87]	.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]
25	.575 [14.60]	.360 [9.14]	.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]
31	.650 [16.51]	.435 [11.05]	.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]
37	.725 [18.41]	.510 [12.95]	.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]
51	.900 [22.86]	.685 [17.40]	.688 [17.47]	.700 [17.78]	.625 [15.87]	.600 [15.24]
65	1.075 [27.30]	.860 [21.84]	.863 [21.92]	.875 [22.22]	.800 [20.32]	.775 [19.68]

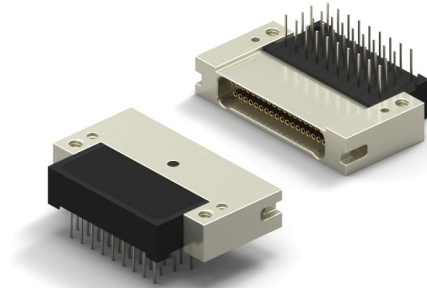
LATCHING CIRCUIT VERTICAL CONNECTOR



THIS PAGE LEFT
INTENTIONALLY BLANK

LATCHING CIRCUIT RIGHT ANGLE CONNECTOR

- Metal Shell Connector
- Quick Disconnect Latch Mechanism
- Plated Thru Hole .050 x .050 (Style 8)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 37 Contacts



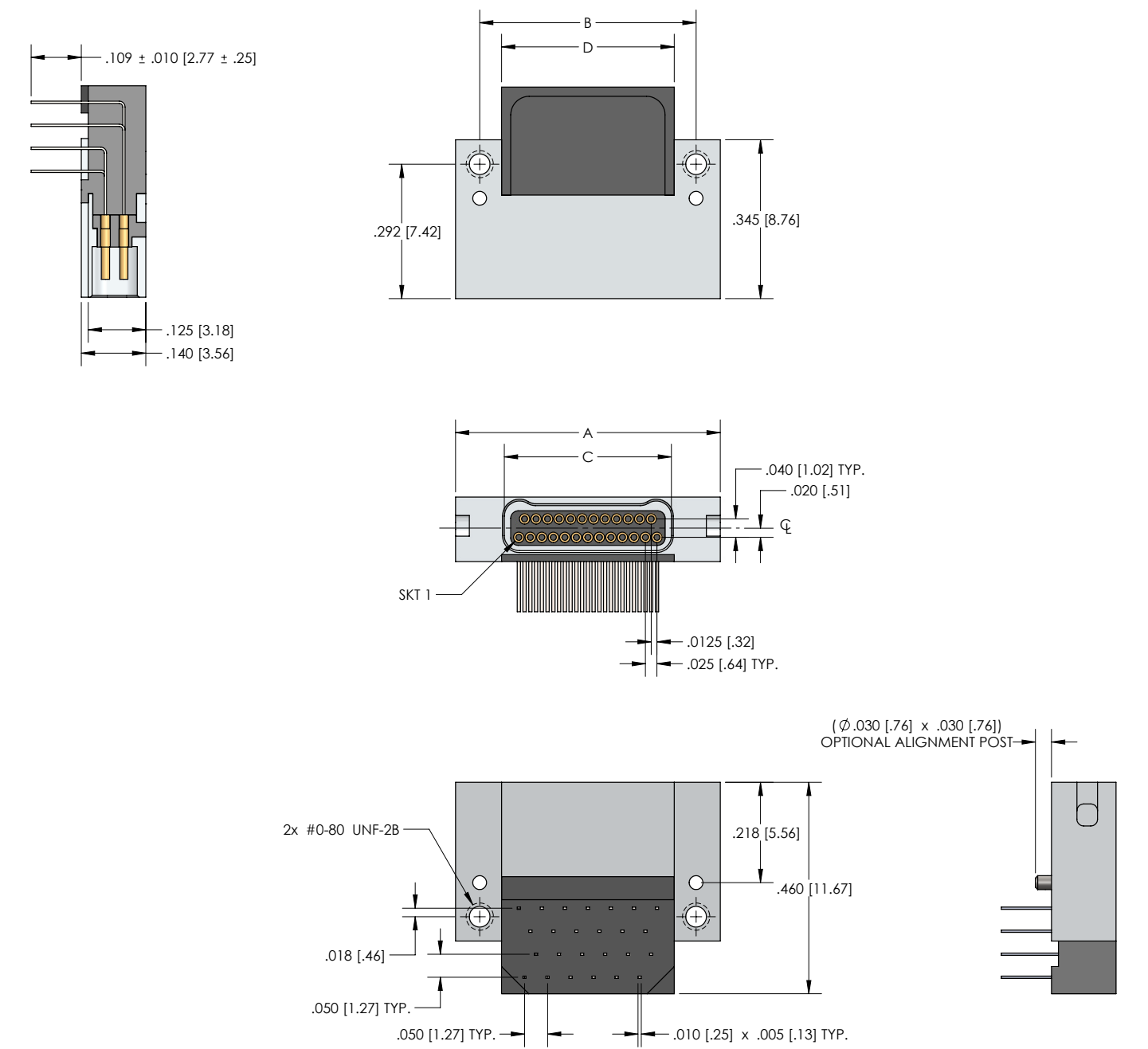
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	8	L	25	2	S	Ø4	1	- SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN= Nano	M= Metal Shell	Style=8	L=LCP	Ø9	2= Dual Row	S= Female/Socket (Receptacle Side)	Ø4= Latch	1= Tin plated (60/40)	Blank= Cadmium	*blank = 125C	*Blank= Threaded Mounting Holes
				15				2= Gold plated (RoHS)		HT = 200°C	
				21					*SØ1= Nickel		1= Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		
				37							
									SØ6 = Olive-Drab Cadmium		
											
									SØ7 = Titanium		
											
									SØ9=Stainless		
											

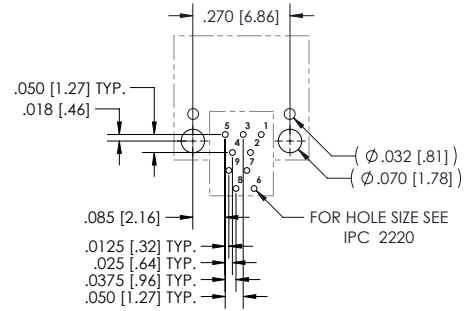
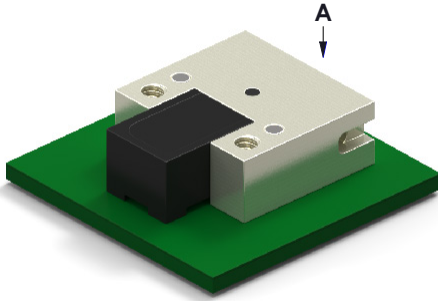
ELECTRICAL PERFORMANCE DATA	Go to Page 31 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 31 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 31 See chart 131 M&F or Click Here for Materials and Finishes Data

DIMENSIONS

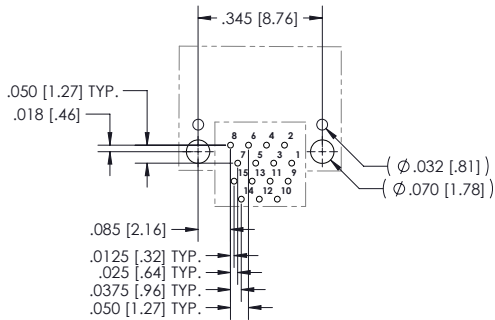


Size	CNM SERIES				
	A	B	Plug C	Receptacle	D
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]

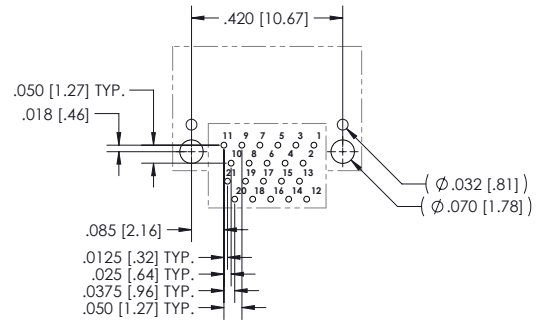
LATCHING CIRCUIT RIGHT ANGLE CONNECTOR PCB LAYOUT



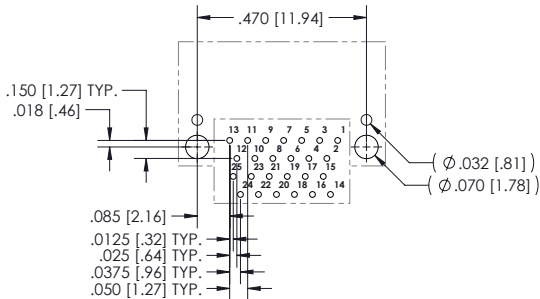
SIZE 9 - VIEW A



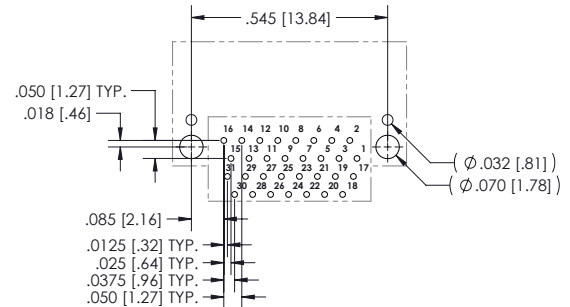
SIZE 15 - VIEW A



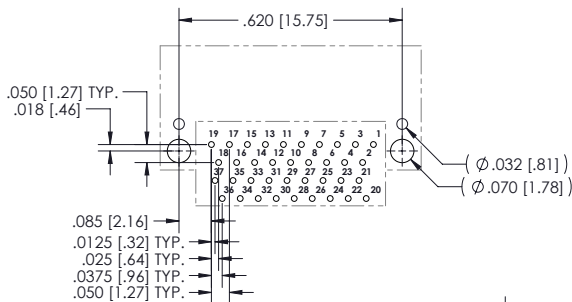
SIZE 21 - VIEW A



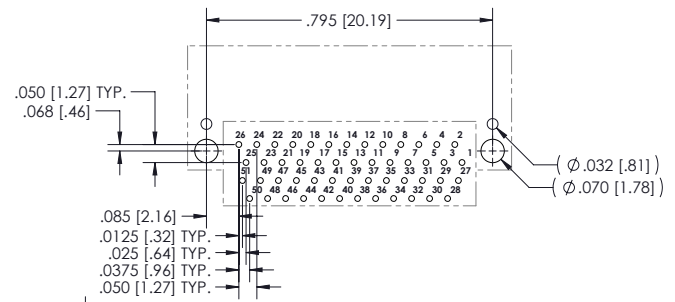
SIZE 25 - VIEW A



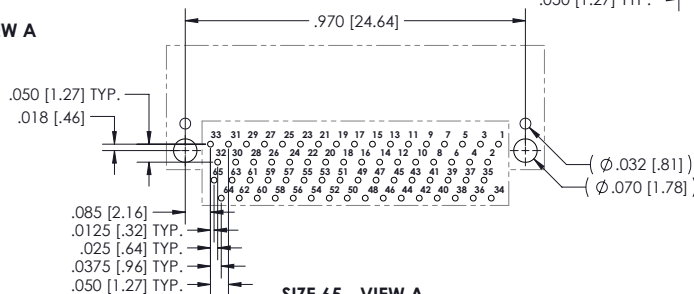
SIZE 31 - VIEW A



SIZE 37 - VIEW A



SIZE 51 - VIEW A

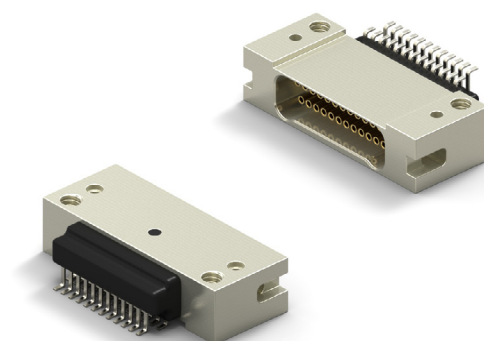


SIZE 65 - VIEW A

THIS PAGE LEFT
INTENTIONALLY BLANK

LATCHING CIRCUIT RIGHT ANGLE CONNECTOR

- Metal Shell Connector
- Quick Disconnect Latch Mechanism
- Surface Mount .025 x .040 (Style 28)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 37 Contacts



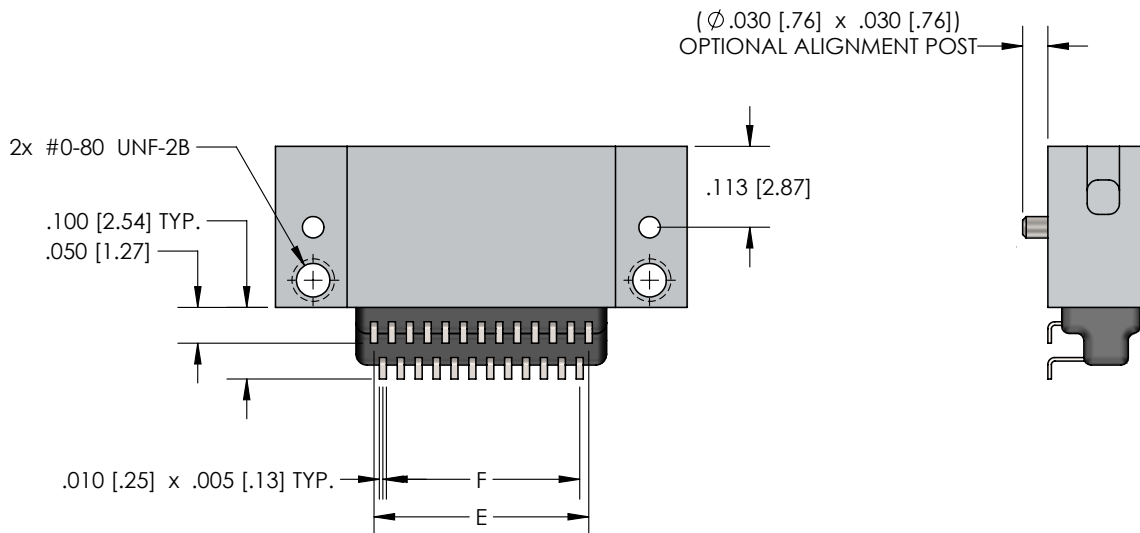
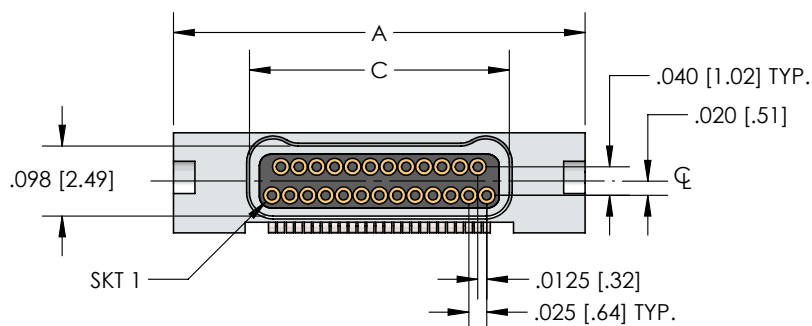
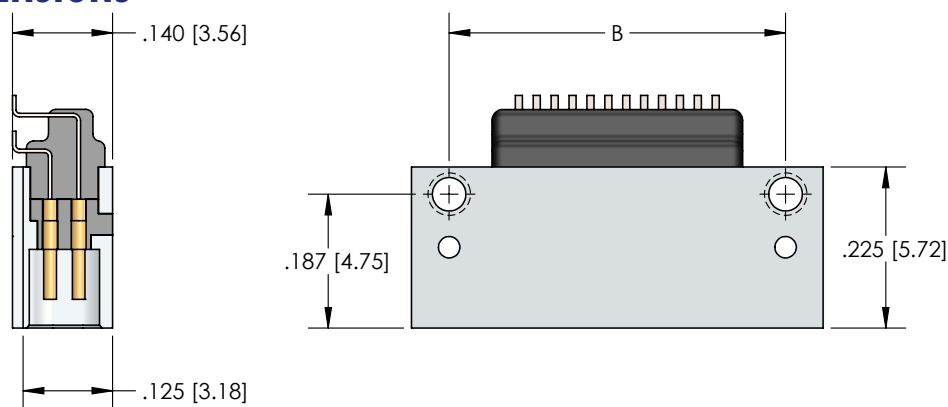
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	28	L	25	– 2	S	Ø4	1	– SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN= Nano	M= Metal Shell	Style=28	L=LCP	Ø9	2= Dual Row	S=Female/Socket (Receptacle Side)	Ø4=Latch	1= Tin plated (6Ø/4Ø)	Blank= Cadmium	*blank = 125C	*Blank=Threaded Mounting Holes
				15				2= Gold plated (RoHS)		HT = 2ØØ°C	
				21					*SØ1= Nickel		1=Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		
				37							
									SØ6 =Olive-Drab Cadmium		
											
									SØ7 =Titanium		
											
									SØ9=Stainless		
											

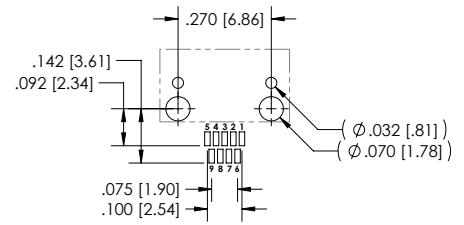
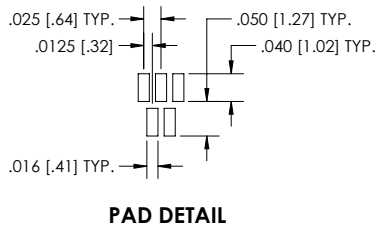
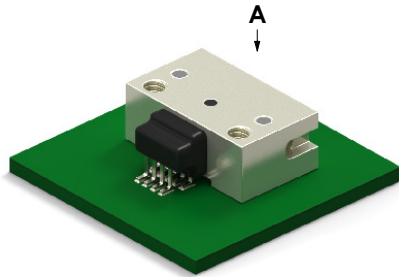
ELECTRICAL PERFORMANCE DATA	Go to Page 31 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 31 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 31 See chart 131 M&F or Click Here for Materials and Finishes Data

DIMENSIONS

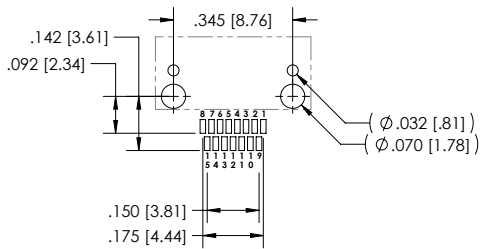


CNM SERIES							
Size	A	B	Plug C	Receptacle	D	E	F
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]

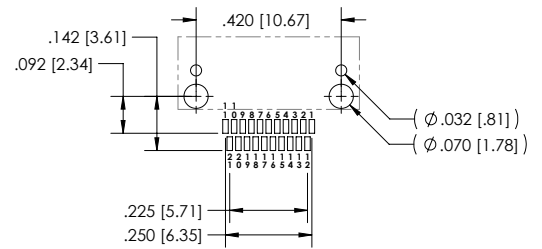
LATCHING CIRCUIT RIGHT ANGLE CONNECTOR PCB LAYOUT



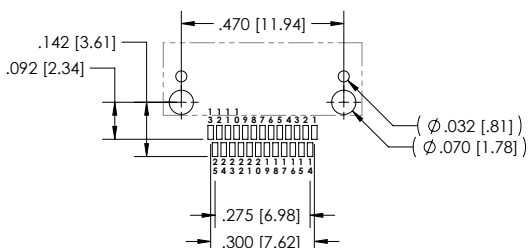
SIZE 9 - VIEW A



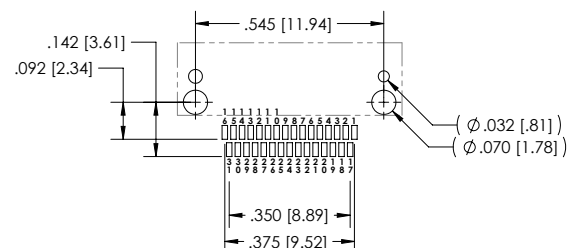
SIZE 15 - VIEW A



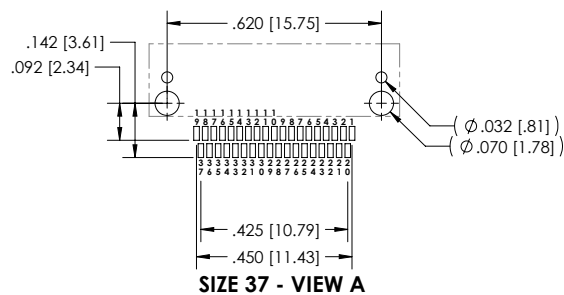
SIZE 21 - VIEW A



SIZE 25 - VIEW A



SIZE 31 - VIEW A



SIZE 37 - VIEW A

THIS PAGE LEFT
INTENTIONALLY BLANK

LATCHING CIRCUIT RIGHT ANGLE CONNECTOR

- Metal Shell Connector
- Quick Disconnect Latch Mechanism
- Surface Mount .025 x .040 (Style 38)
- 1 Piece Contact
- Flat Tail Termination
- Operating Temperature -50° C to 200° C
- 9 to 37 Contacts

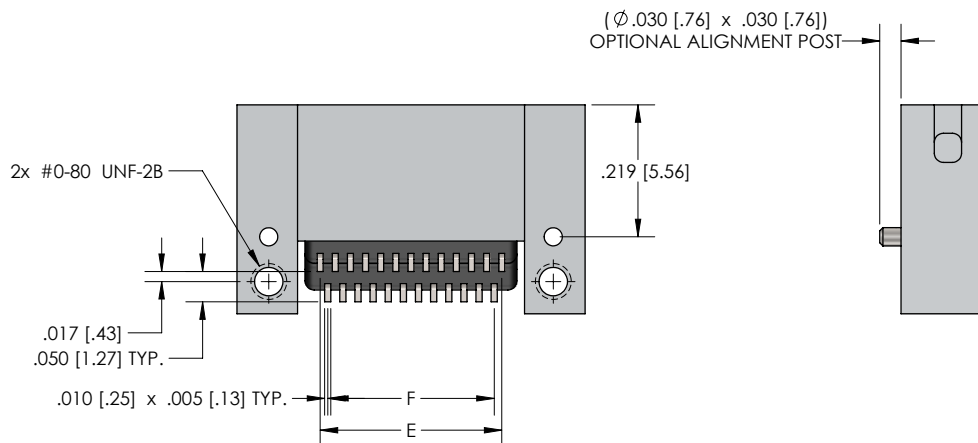
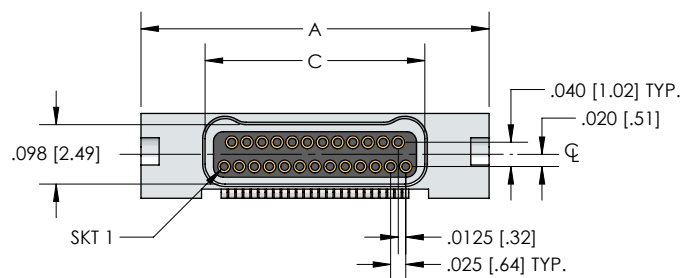
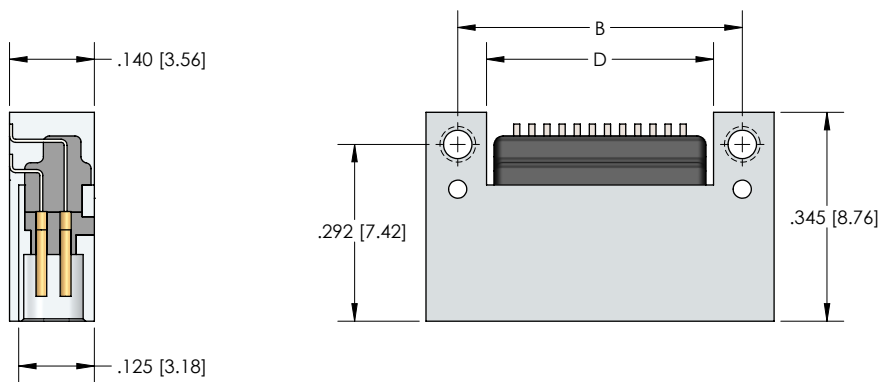
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

CN	M	38	L	25	2	S	Ø4	1	- SØ1		
	Series	Style	Insulator	Contacts	Insulator Type	Contact Gender	Hardware	Color Code	Finish**	Temp Range	Mounting Option
CN = Nano	M = Metal Shell	Style = 38	L = LCP	Ø9	2 = Dual Row	S = Female/Socket (Receptacle Side)	Ø4 = Latch	1 = Tin plated (60/40)	Blank = Cadmium	*blank = 125C	*Blank = Threaded Mounting Holes
				15				2 = Gold plated (RoHS)		HT = 200°C	
				21					*SØ1 = Nickel		1 = Solder Alignment Posts with Threaded Mounting Holes
				25							
				31					SØ3 = Black Anodize		
				37							
									SØ6 = Olive-Drab Cadmium		
											
									SØ7 = Titanium		
											
									SØ9 = Stainless		
											

ELECTRICAL PERFORMANCE DATA	Go to Page 31 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 31 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 31 See chart 131 M&F or Click Here for Materials and Finishes Data

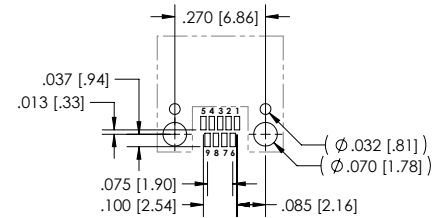
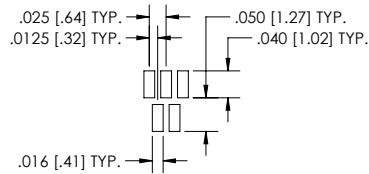
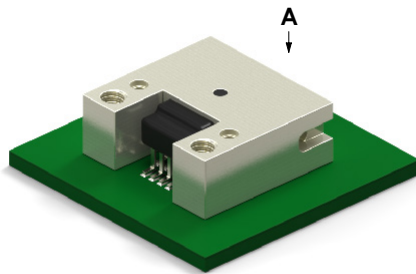
DIMENSIONS



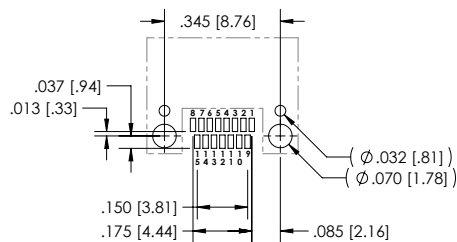
	CNM SERIES							
Size	A	B	Plug	C	Receptacle	D	E	F
9	.375 [9.52]	.270 [6.86]	.160 [4.06]		.163 [4.14]	.175 [4.44]	.100 [2.54]	.075 [1.90]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]		.238 [6.04]	.250 [6.35]	.175 [4.44]	.150 [3.81]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]		.313 [7.95]	.325 [8.25]	.250 [6.35]	.225 [5.71]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]		.363 [9.22]	.375 [9.52]	.300 [7.62]	.275 [6.98]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]		.438 [11.12]	.450 [11.43]	.375 [9.52]	.350 [8.89]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]		.513 [13.03]	.525 [13.33]	.450 [11.43]	.425 [10.79]

LATCHING CIRCUIT RIGHT ANGLE CONNECTOR PCB LAYOUT

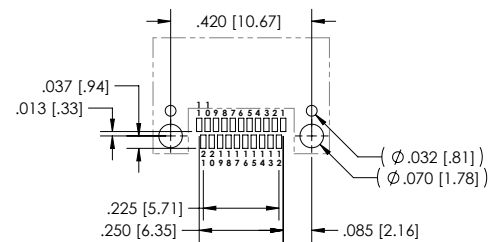
NANO D – PID 156



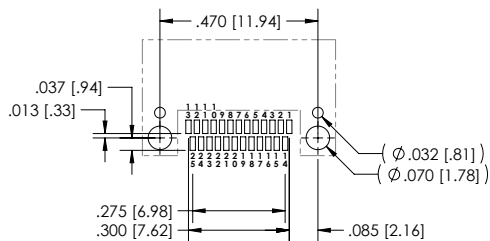
SIZE 9 - VIEW A



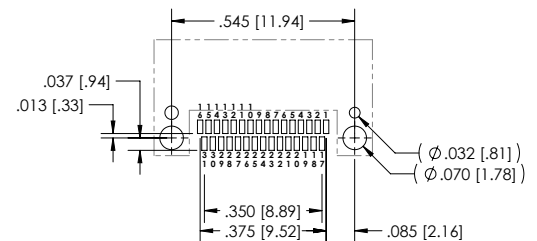
SIZE 15 - VIEW A



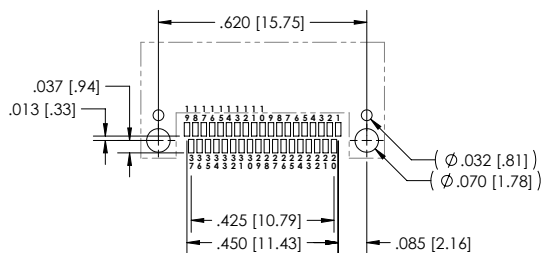
SIZE 21 - VIEW A



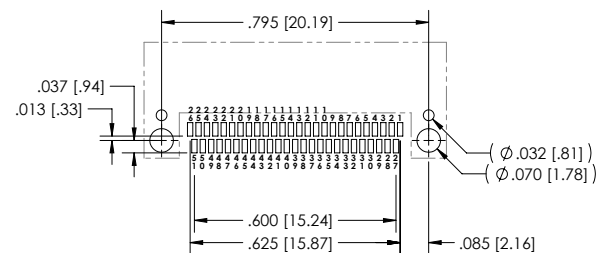
SIZE 25 - VIEW A



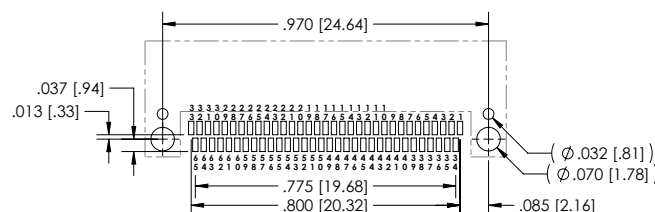
SIZE 31 - VIEW A



SIZE 37 - VIEW A



SIZE 51 - VIEW A

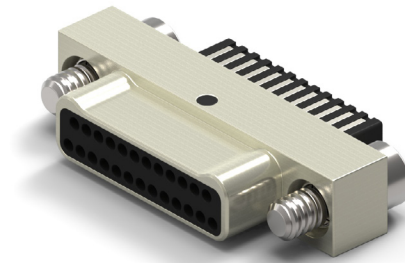


SIZE 65 - VIEW A

THIS PAGE LEFT
INTENTIONALLY BLANK

FIELD SOLDERABLE CONNECTOR

- Metal Shell Connector w/Flat Leads
- Operating Temperature -50° C to 200°C
- 9 to 65 Contacts



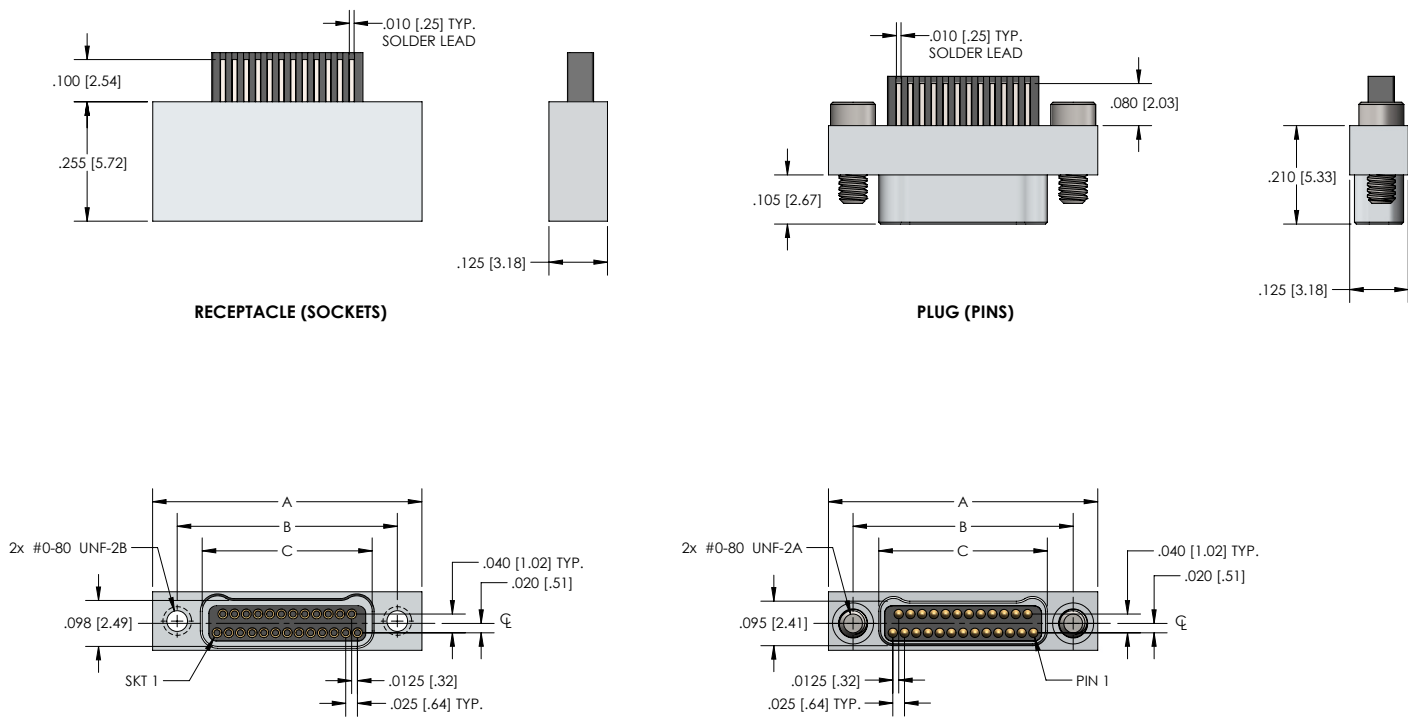
HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

N	M	L	25	-	2	N	Ø2	3	-	SØ1	
	Series	Insulator	Contacts		Insulator Type	Contact Gender	Hardware	Color Code		Finish**	Temp Range
N = Nano	M = Metal	L = LCP	Ø9		2 = Dual Row	N = Male/ Pin (Plug Side)	Ø1 = Phillips Head Jackscrew	3 = Tin plated (6Ø/4Ø)		Blank = Cadmium	*blank = 125C
			15					4 = Gold plated (RoHS)			HT = 200°C
			21			T = Female/Socket (Receptacle Side)	Ø2 = Allen Head Jackscrew			*SØ1 = Nickel	
			25								
			31				Ø5 = Slotted Head Jackscrew			SØ3 = Black Anodize	
			37								
			51				Ø6 = Floating Phillips Head Jackscrew (Female Only)			SØ6 = Olive-Drab Cadmium	
			65								
							Ø7 = Threaded Hole			SØ7 = Titanium	
											
							Ø8 = Floating Allen Head Jackscrew (Female Only)			SØ9 = Stainless	
											
							Ø9 = Floating Slotted Head Jackscrew (Female Only)				
											

ELECTRICAL PERFORMANCE DATA	Go to Page 32 See chart 133 E or Click Here for Electrical Performance Data
MECHANICAL PERFORMANCE DATA	Go to Page 32 See chart 123 M or Click Here for Mechanical Performance Data
MATERIALS DATA	Go to Page 32 See chart 126 M&F or Click Here for Materials and Finishes Data

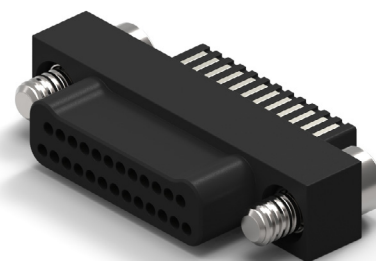
DIMENSIONS



NM SERIES				
Size	A	B	Plug C	Receptacle
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]

FIELD SOLDERABLE CONNECTOR

- Plastic Shell Connector w/Flat Leads
- Operating Temperature -50° C to 200°C
- 9 to 65 Contacts



HOW TO ORDER

* Indicates preferred standard

N	P	L	25	–	2	N	Ø2	–	3	
	Series	Insulator	Contacts		Insulator Type	Contact Gender	Hardware		Lead Finish	Temp Range
N= Nano	P= Plastic	L= LCP	Ø9		2= Dual Row	N= Male/ Pin (Plug Side)	Ø1= Phillips Head Jackscrew		*3= Tin plated (6Ø/4Ø)	*blank = 125C
			15						4= Gold plated (RoHS)	HT = 200°C
			21			T= Female/ Socket (Receptacle Side)	Ø2= Allen Head Jackscrew			
			25							
			31				Ø5= Slotted Head Jackscrew			
			37							
			51				Ø6= Floating Phillips Head Jackscrew (Female Only)			
			65							
							Ø7= Threaded Hole			
										
							Ø8= Floating Allen Head Jackscrew (Female Only)			
										
							Ø9= Floating Slotted Head Jackscrew (Female Only)			
										

ELECTRICAL PERFORMANCE DATA

Go to Page 32 See chart 133 E or Click Here for Electrical Performance Data

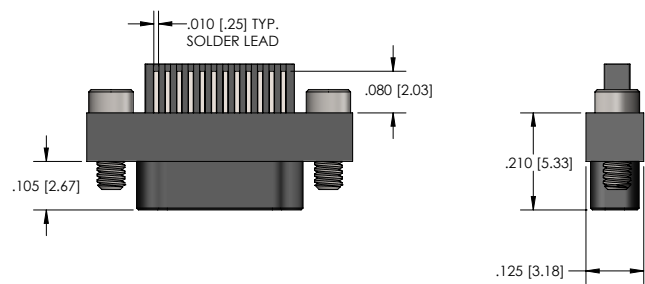
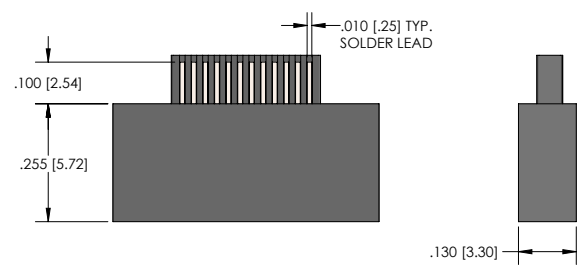
MECHANICAL PERFORMANCE DATA

Go to Page 32 See chart 123 M or Click Here for Mechanical Performance Data

MATERIALS DATA

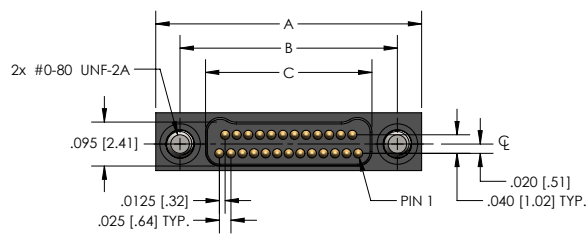
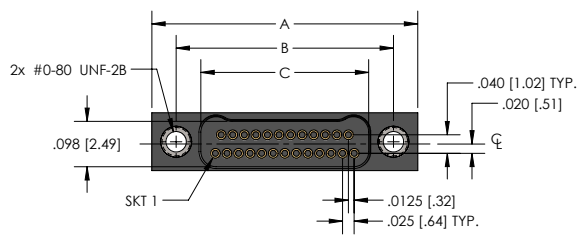
Go to Page 32 See chart 126 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



RECEPTACLE (SOCKETS)

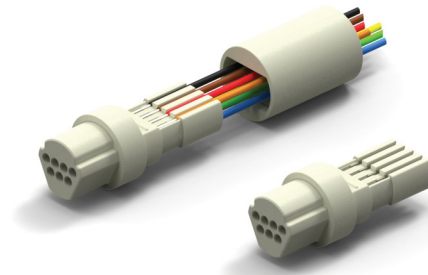
PLUG (PINS)



Size	NP SERIES			
	A	B	Plug C	Receptacle
9	.375 [9.52]	.270 [6.86]	.160 [4.06]	.163 [4.14]
15	.450 [11.43]	.345 [8.76]	.235 [5.97]	.238 [6.04]
21	.525 [13.33]	.420 [10.67]	.310 [7.87]	.313 [7.95]
25	.575 [14.60]	.470 [11.94]	.360 [9.14]	.363 [9.22]
31	.650 [16.51]	.545 [13.84]	.435 [11.05]	.438 [11.12]
37	.725 [18.41]	.620 [15.75]	.510 [12.95]	.513 [13.03]
51	.900 [22.86]	.795 [20.19]	.685 [17.40]	.688 [17.47]
65	1.075 [27.30]	.970 [24.64]	.860 [21.84]	.863 [21.92]

FIELD SOLDERABLE CONNECTOR

- Plastic Shell Connector w/Flat Leads
- Operating Temperature -50° C to 200°C
- 7 Contacts



HOW TO ORDER

* Indicates preferred standard

RN	P	O	P	- Ø7	N	- 3	
	Series	Mounting Style	Material/ Plating	Connector Size	Contact Gender	Color Code	Temp Range
RN = Round Nano	P = Plastic	O = Inline	P = Plastic	Ø7	N = Male/Pin (Plug Side)	3 = Tin plated (60/40)	*blank = 125C
						4 = Gold plated (RoHS)	HT = 200°C
					T = Female/Socket (Receptacle Side)		
							

ELECTRICAL PERFORMANCE DATA

Go to Page 32 See chart 133 E or Click Here for Electrical Performance Data

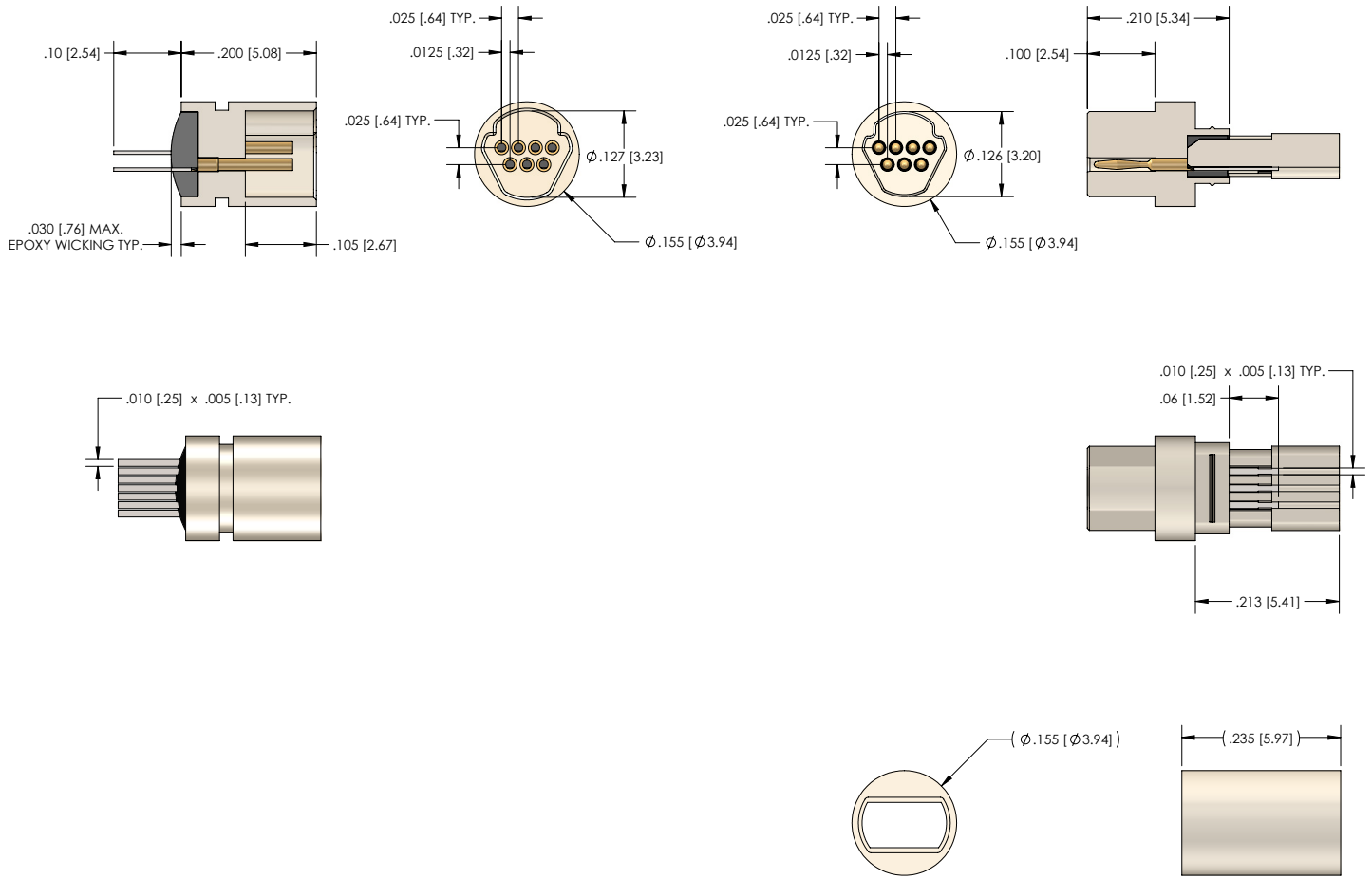
MECHANICAL PERFORMANCE DATA

Go to Page 32 See chart 123 M or Click Here for Mechanical Performance Data

MATERIALS DATA

Go to Page 32 See chart 126 M&F or Click Here for Materials and Finishes Data

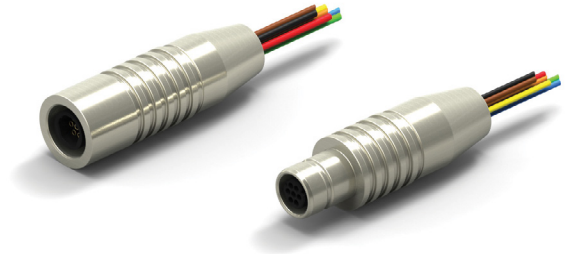
DIMENSIONS



BACKSHELL SHOWN UNASSEMBLED FOR
PART CLARIFICATION ONLY

CIRCULAR WIRED CONNECTOR

- Metal Shell Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 7, 12 and 19 Contacts
- IP67 Option



HOW TO ORDER

* Indicates preferred standard ** Consult factory for other plating options

RN	B	Ø	- Ø7	P	- 3Ø	F	6	- 18	A	- SØ1	
	Series	Mounting Style	Connector Size	Contact Gender	Wire Gauge	Wire Type	Color Code	**Length	Modifications	Finish**	Temp Range
RN= Round Nano	B=Break Away	Ø=Inline	Ø7	P=Male/Pin (Plug Side)	3Ø*	*F=Stranded, w/Teflon insulation, per NEMA HP3-ET	1=White	*18.Ø	Blank=No Modifications	*SØ1= Nickel	*blank = 125C
			12		32	Y=Stranded w/Tefzel insulation, per SAE AS22759/33	*6 = 10 solid colors, repeating	*36.Ø	A=With Sealing O-ring (IP-67)		HT = 200°C
			19	S=Female/Socket (Receptacle Side)	34	A=Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)				SØ3 = Black Anodize	
											
										SØ9=Stainless	
											

ELECTRICAL PERFORMANCE DATA

Go to Page 33 See chart 123 E or Click Here for Electrical Performance Data

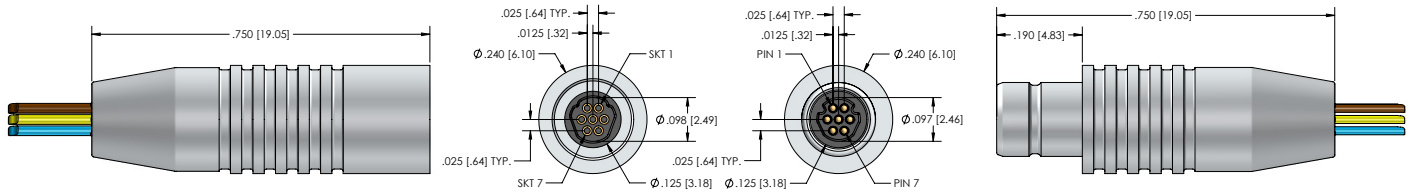
MECHANICAL PERFORMANCE DATA

Go to Page 33 See chart 123 M or Click Here for Mechanical Performance Data

MATERIALS DATA

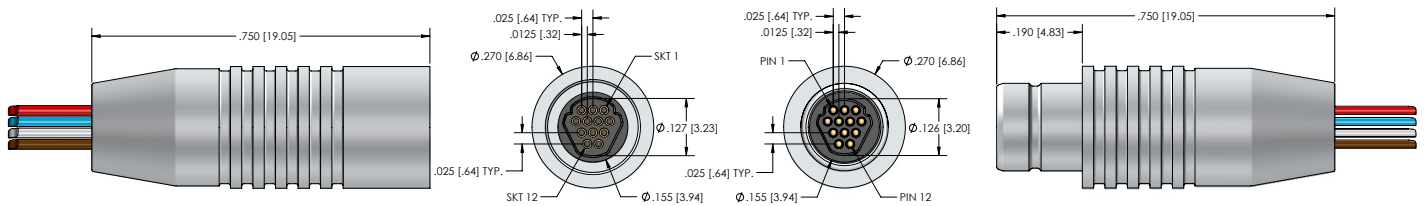
Go to Page 33 See chart 113 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



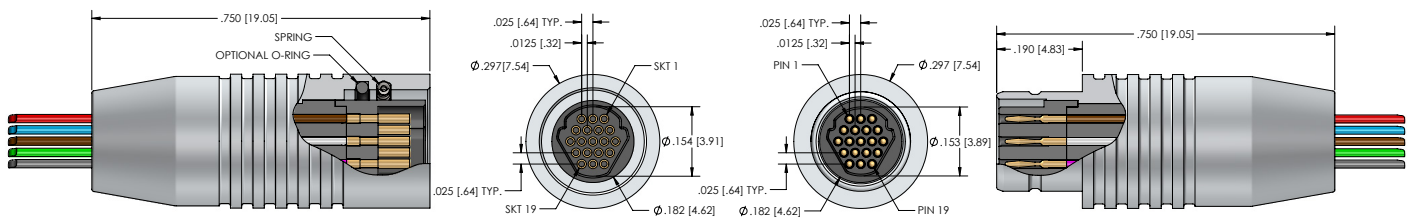
7 POSITION RECEPTACLE

7 POSITION PLUG



12 POSITION RECEPTACLE

12 POSITION PLUG

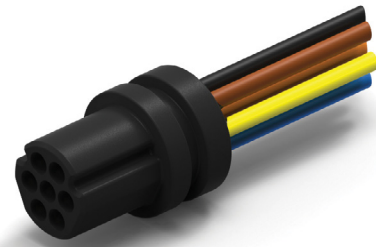


19 POSITION RECEPTACLE

19 POSITION PLUG

CIRCULAR WIRED CONNECTOR

- Plastic Connector w/Wire Leads
- Operating Temperature -50° C to 200° C
- 7, 12 and 19 Contacts



HOW TO ORDER

* Indicates preferred standard

RN	P	O	P	- Ø7	P	- 3Ø	F	6	- 18.Ø	
	Type	Mounting Style	Material/Plating	Connector Size	Contact Gender	Wire Gauge	Wire Type	Color Code	Length	Temp Range
RN= Round Nano	P=Plastic (No Shell)	O=Inline	P=Plastic	Ø7	P=Male/Pin (Plug Side)	3Ø*	*F=Stranded, w/Teflon insulation, per NEMA HP3-ET	1=White	*18.Ø	*blank = 125C
				12		32	Y=Stranded w/Tefzel insulation, per SAE AS22759/33	*6 = 10 solid colors, repeating	*36.Ø	HT = 200°C
				19	S=Female/Socket (Receptacle Side)	34	A=Stranded, per DSCC Ø4Ø47-3ØA (White, 3Ø AWG only)			
										

ELECTRICAL PERFORMANCE DATA

Go to Page 33 See chart 123 E or Click Here for Electrical Performance Data

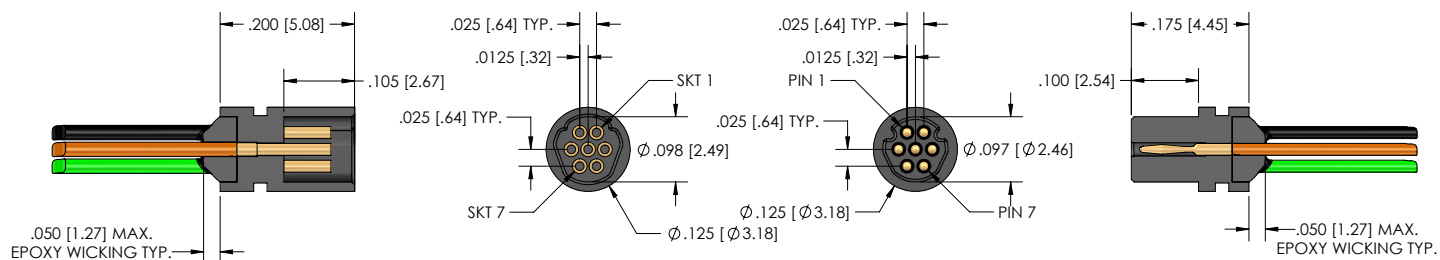
MECHANICAL PERFORMANCE DATA

Go to Page 33 See chart 123 M or Click Here for Mechanical Performance Data

MATERIALS DATA

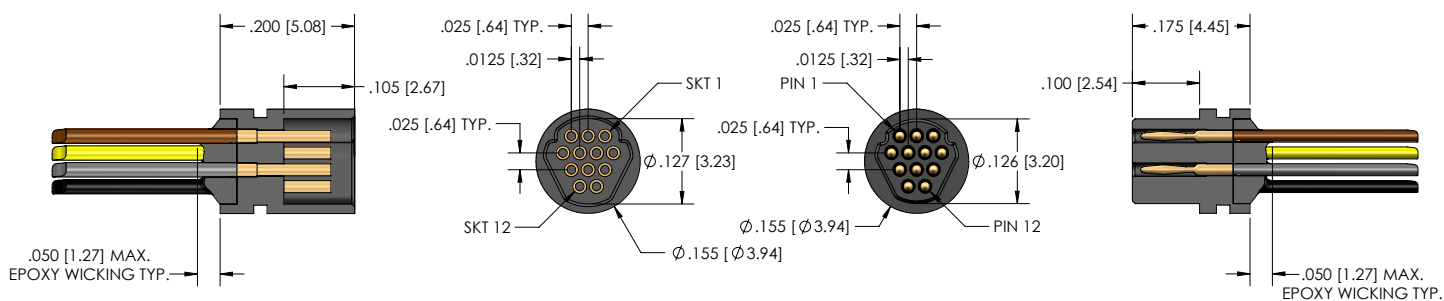
Go to Page 33 See chart 122 M&F or Click Here for Materials and Finishes Data

DIMENSIONS



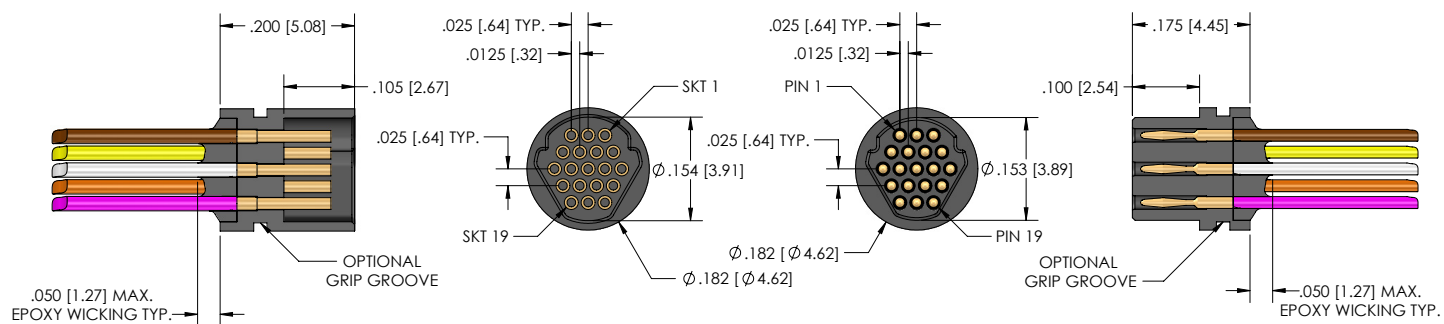
7 POSITION RECEPTACLE

7 POSITION PLUG



12 POSITION RECEPTACLE

12 POSITION PLUG



19 POSITION RECEPTACLE

19 POSITION PLUG

