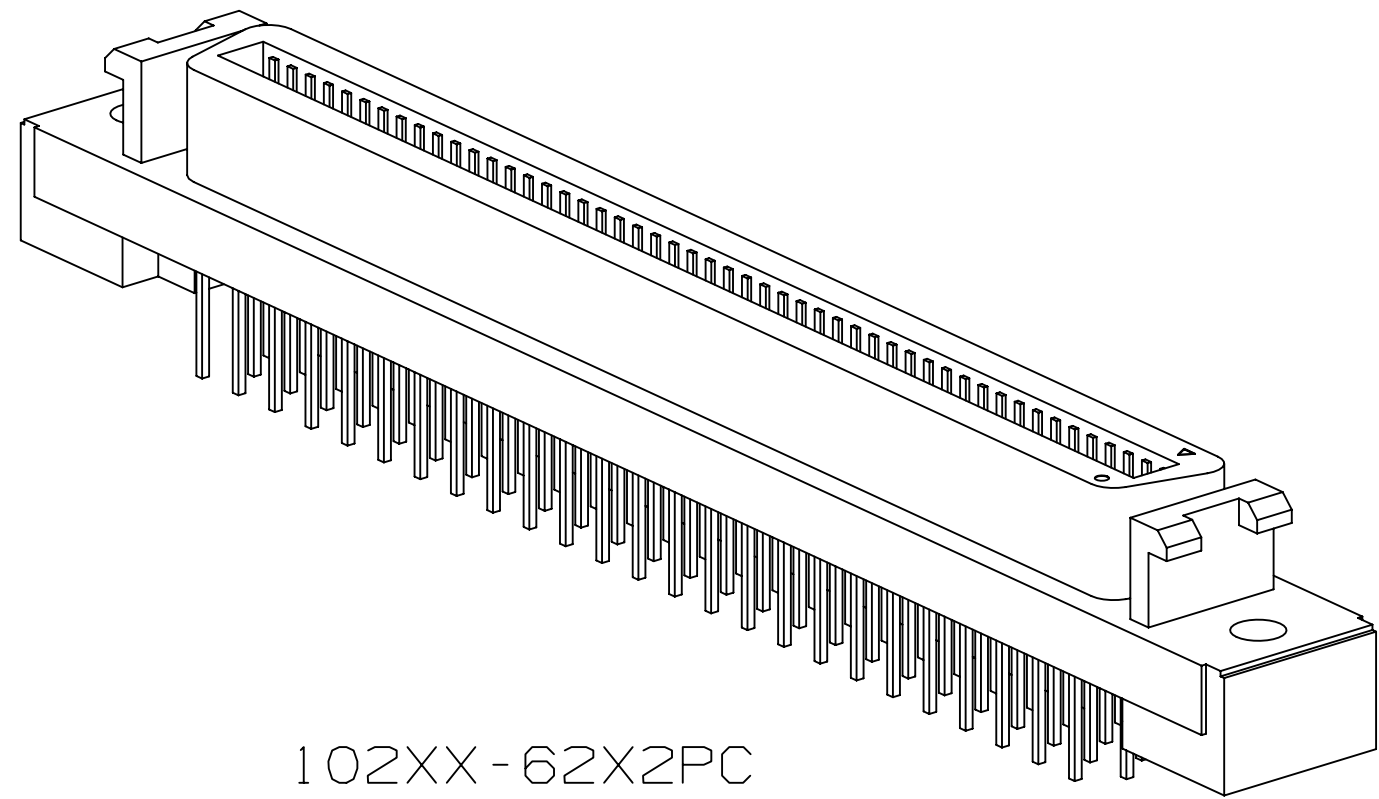


3M™ MINI D RIBBON (MDR) CONNECTORS, 102 SERIES
.050" BOARDMOUNT THROUGHT-HOLE VERTICAL RECEPTACLE - SHIELDED



102XX-62X2PC

2 PHYSICAL :

INSULATOR:
MATERIAL: GLASS FILLED POLYESTER (PBT) OR
GLASS FILLED POLYESTER (PCT) -
HIGH TEMP OPTION - SEE ORDERING INFORMATION
FLAMMABILITY: UL94V-0
COLOR: BLACK (PBT) OR BEIGE (PCT) - HIGH TMP - SEE ORDERING INFO.
CONTACT:
MATERIAL: COPPER ALLOY
PLATING:
UNDER PLATING: 100µ" [2.54µm] AVG. NICKEL-OVERALL
WIPING AREA: 30µ" [0.76µm] MIN. GOLD
SOLDER TAILS: GOLD FLASH OVER NICKEL
BODY:
MATERIAL: ZINC ALLOY
PLATING: NICKEL
SHROUD & LATCH HOOK:
MATERIAL: STEEL
PLATING: NICKEL
MARKINGS: 3M LOGO AND PART NUMBER

2 ELECTRICAL :

CURRENT RATING: 1A
INSULATION RESISTANCE: >5 X 10⁹Ω AT 500 V_{DC}
WITHSTANDING VOLTAGE: 500V_{RMS} FOR 1 MINUTE

2 ENVIRONMENTAL :

TEMPERATURE RATING: -55°C TO +85°C
PBT INSULATOR PROCESS RATING: SOLDER DIP TEST -260°C FOR 10 SEC.,
2 TIMES AFTER 100°C MAX. PREHEAT, 60 SEC.
MAX. DURATION.
PCT INSULATOR PROCESS RATING: HIGH TEMP. OPTION: 260°C (PROFILE PER J-STD-020C)

ORDERING INFORMATION

X 102XX-62X2PC

BLANK = STAND, PBT INSULATOR
N = HIGH TEMP. OPTION, PCT INSULATOR

CONTACT QTY.
A0 = 100 POS.
(SEE TABLE)

LOCKSTAND THREAD
0 = M2.6 (SPECIAL)
1 = M2.5 (STANDARD)

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UL
UL FILE NO: E68080

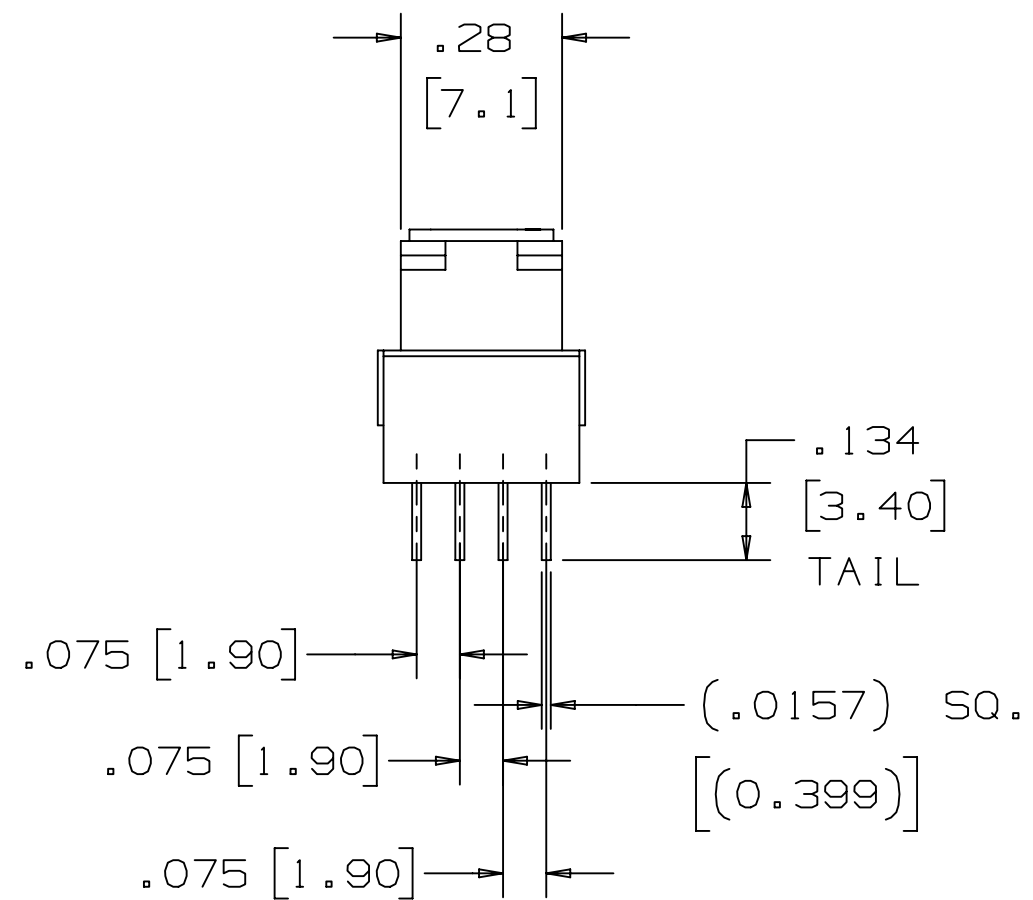
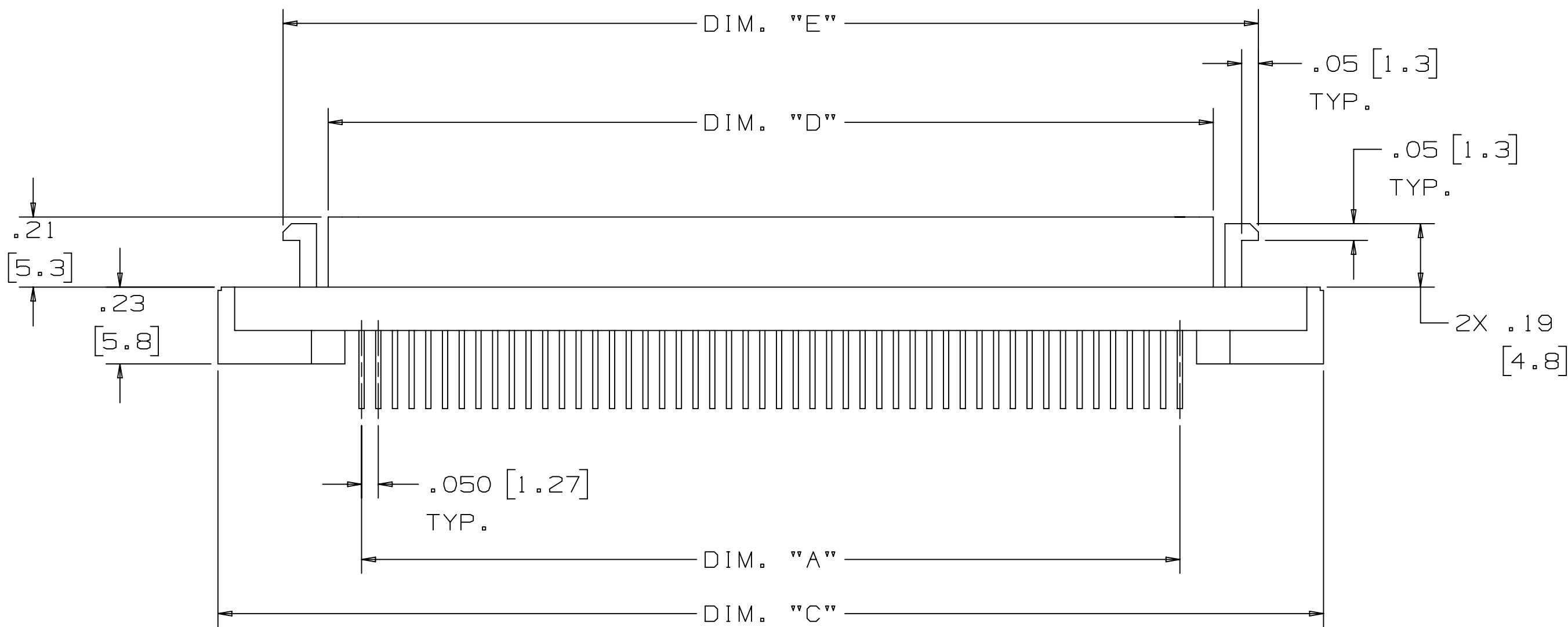
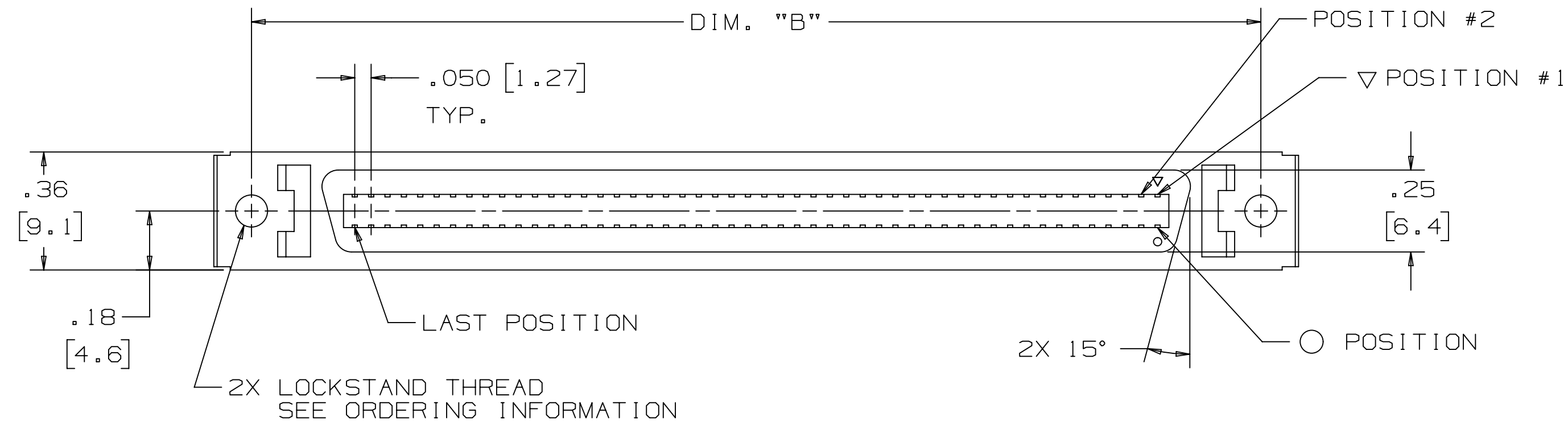
DIMENSIONS: INCHES [MM]
[MM] IS FOR REF. ONLY

DESIGN REFERENCE		NEXT ASSEMBLY	
ACROSS CODES			
DIVISION		DIVISION CODE DEPP	
DO NOT SCALE DRAWING	SCALE	TOLERANCES EXCEPT AS NOTED	
THIRD ANGLE PROJECTION		INCHES 0 ±.1 .00 ±.01 .000 ±.005 .0000 ±.0002	
INTERPRET PER ASME Y14.5 - 2018		MILLIMETERS 0 ± .0 ± .00 ± .000 ±	
MAX. SURFACE ROUGHNESS ALL SURFACES		ANGLES ±	
MARKED ONLY			

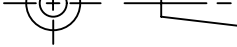
D	123358	JUN 03,2025	JNC	FJR
C	105842	REVISION JUL 13,2022 REDRAWN REVISE TEMP RATING	JNC	FJR
B	16859	NOV 26,2022 REMOVE NON-ROHS	BAC	ARM
A	16859	MAR 05,2007 PRODUCTION RELEASE	BAC	DFC
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	CAS	DATE JUL 13,2022	DATE	DATE
CHKD		DATE JUL 13,2022	DATE	DATE
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MDR CONN, SHIELDED, .050" BMT THRU-HOLE VERT RECEPTACLE				
CAGE NUMBER	SIZE	DRAWING NO.	REV.	
D	102	78-5100-0427-4	D	
MODEL	102	DET LISTS	YES	NO
SHT	1	OF	4	

3M™ MINI D RIBBON (MDR) CONNECTORS, 102 SERIES

CONTACT QTY.	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"
14	.300 [7.62]	.93 [23.6]	1.16 [29.5]	.50 [12.6]	.77 [19.5]
20	.450 [11.43]	1.08 [27.5]	1.31 [33.4]	.65 [16.4]	.92 [23.4]
26	.600 [15.24]	1.23 [31.3]	1.46 [37.2]	.80 [20.2]	1.07 [27.2]
36	.850 [21.59]	1.48 [37.6]	1.71 [43.5]	1.05 [26.6]	1.32 [33.5]
40	.950 [24.13]	1.58 [40.2]	1.81 [46.1]	1.15 [29.1]	1.42 [36.1]
50	1.200 [30.48]	1.83 [46.5]	2.06 [52.4]	1.40 [35.5]	1.67 [42.4]
68	1.650 [41.91]	2.28 [57.9]	2.51 [63.8]	1.85 [46.9]	2.12 [53.8]
80	1.950 [49.53]	2.58 [65.6]	2.81 [71.5]	2.15 [54.5]	2.42 [61.5]
100	2.540 [62.23]	3.08 [78.3]	3.31 [84.2]	2.65 [67.2]	2.92 [74.2]



D	123358	JUN 03,2025 REVISE TABLE 1 50P	JNC	FJR
C	105842	JUL 13,2022 REDRAWN REVISE TEMP RATING	JNC	FJR
B	16859	NOV 26,2022 REMOVE NON-ROHS	BAC	ARM
A	16859	MAR 05,2007 PRODUCTION RELEASE	BAC	DFC
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
REF CST	IGNONE	DATE JUL 13,2022	MFG	DATE
CHKD		DATE	APPR. F. RODRIGUEZ	DATE JUL 13,2022

DESIGN REFERENCE		NEXT ASSEMBLY		REV		ECO		ISSUE DATE AND DESCRIPTION		DRFT		CHKD	
ACCESS CODES				DRFT CASTIGLIONE		DATE JUL 13, 2022		MFG		DATE			
				CHKD		DATE		APPROV. RODRIGUEZ		DATE JUL 13, 2022			
DIVISION				DIVISION CODE DEPP				 3M Center St. Paul, MN 55144 © 3M COPYRIGHT 2025 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.					
DO NOT SCALE DRAWING		SCALE		TOLERANCES EXCEPT AS NOTED									
				INCHES .00 ± .01 .000 ± .005 .0000 ± .0002		TITLE MDR CONN, SHIELDED, Ø50" BMT THRU-HOLE VERT RECEPTACLE							
THIRD ANGLE PROJECTION				MILLIMETERS .00 ± .01 .000 ± .005 .0000 ± .0002		CAGE NUMBER D 5 DRAWING NO. 78-5100-0427-4							
INTERPRET PER ASME Y14.5 - 2018 MAX SURFACE ROUGHNESS ☒ ALL SURFACES ☐ MARKED ONLY				ANGLES .00 ± .01 .000 ± .005		MODEL 102 DET. LISTS ☒ YES ☐ NO SHT 2 OF 4							

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3M™ MINI D RIBBON (MDR) CONNECTORS, 102 SERIES
.050" BOARDMOUNT THROUGHT-HOLE VERTICAL RECEPTACLE - SHIELDED

TABLE 2		
CONTACT QTY.	DIM. "A"	DIM. "B"
20	.450 [11.43]	1.081 [27.45]
36	.850 [21.59]	1.481 [37.61]
40	.950 [24.13]	1.581 [40.15]
68	1.650 [41.91]	2.281 [57.93]
80	1.950 [49.53]	2.581 [65.55]
100	2.450 [62.23]	3.081 [78.25]

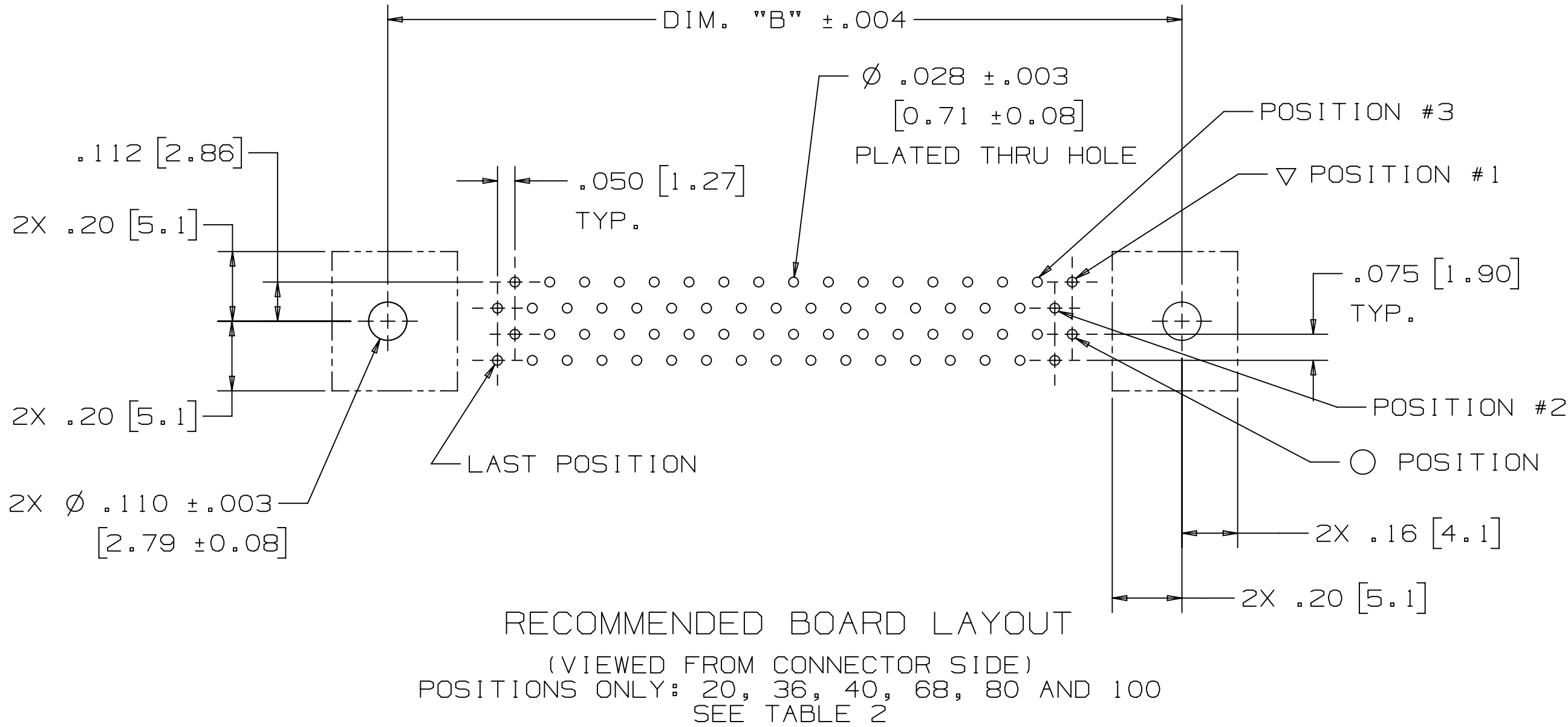


TABLE 3		
CONTACT QTY.	DIM. "A"	DIM. "B"
14	.300 [7.62]	.931 [23.64]
26	.600 [15.24]	1.231 [31.26]
50	1.200 [30.48]	1.831 [46.50]

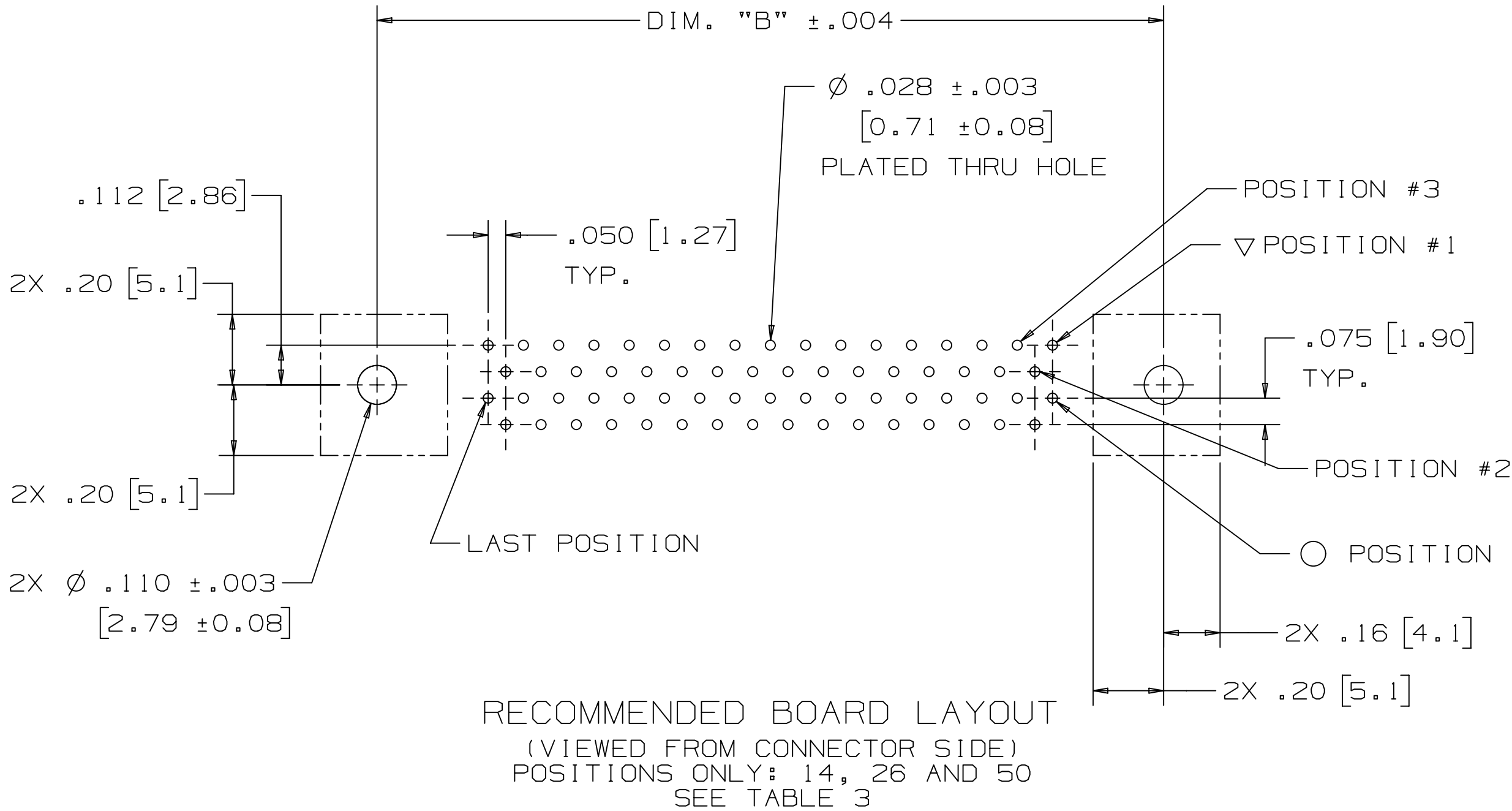
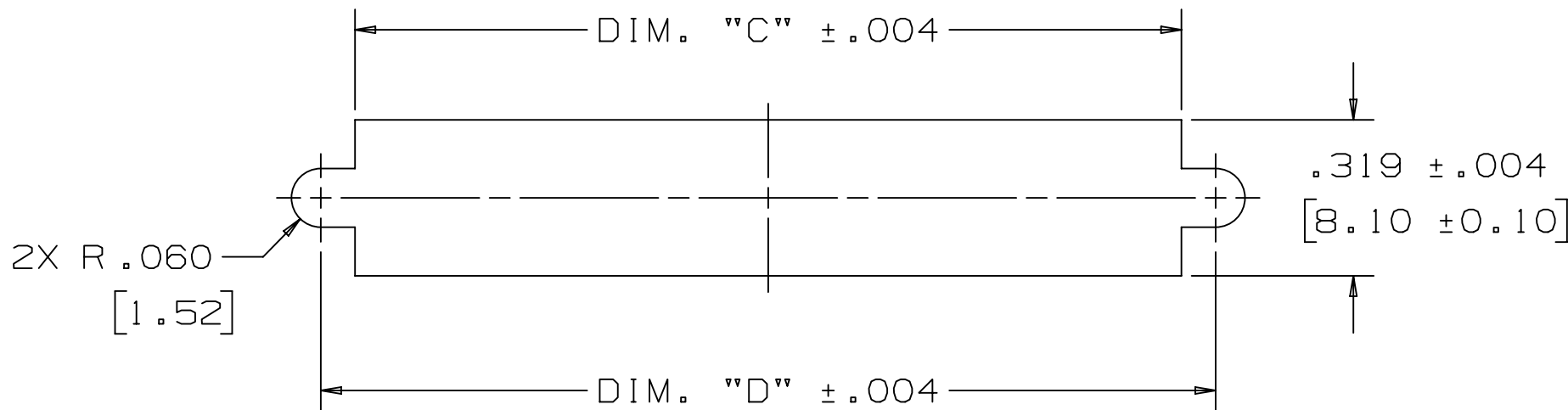


TABLE 4		
CONTACT QTY.	DIM. "C"	DIM. "D"
14	.78 [20.0]	.93 [23.64]
20	.94 [23.8]	1.08 [27.45]
26	1.09 [27.6]	1.23 [31.26]
36	1.33 [33.9]	1.48 [37.61]
40	1.44 [36.5]	1.58 [40.15]
50	1.69 [42.8]	1.83 [46.50]
68	2.13 [54.2]	2.28 [57.93]
80	2.44 [61.9]	2.58 [65.55]
100	2.94 [74.6]	3.08 [78.25]



RECOMMENDED PANEL CUT-OUT
NOTE: PANEL THICKNESS: .079 [2.00] MAX.
SEE TABLE 4

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NOTES	
1.	RECOMMENDED PC BOARD THICKNESS OF .062".

DESIGN REFERENCE		NEXT ASSEMBLY	
DESIGN CODES		DIVISION CODE	DEPP
DIVISION		TOLERANCES EXCEPT AS NOTED	
DO NOT SCALE DRAWING		INCHES	.0 ±.1 .00 ±.01 .000 ±.005 .0000 ±.0002
THIRD ANGLE PROJECTION		MILLIMETERS	0 ± .0 ± .00 ± .000 ±
MAX. SURFACE ROUGHNESS		ALL SURFACES	0.00 ±
MARKED ONLY		ANGLES	±
CAGE NUMBER		SIZE	DRAWING NO.
D		102	78-5100-0427-4
MODEL		LISTS	YES ☒ NO ☐ SHT 3 OF 4

D	123358	JUN 03,2025	JNC	FJR
C	105842	REVISION JUL 13,2022 REDRAWN REVISE TEMP RATING	JNC	FJR
B	16859	NOV 26,2022 REMOVE NON-ROHS	BAC	ARM
A	16859	MAR 05,2007 PRODUCTION RELEASE	BAC	DFC
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	CASTIGLIONE	DATE JUL 13,2022	DATE	DATE
CHKD		DATE JUL 13,2022	DATE	DATE

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TITLE		MDR CONN, SHIELDED, .050" BMT THRU-HOLE VERT RECEPTACLE	
CAGE NUMBER		DRAWING NO.	
D		78-5100-0427-4	
MODEL		LISTS	
102		YES ☒ NO ☐ SHT 3 OF 4	

3M™ MINI D RIBBON (MDR) CONNECTORS, 102 SERIES

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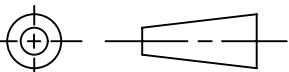
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D	123538	JUN 03,2025	JNC	FJR																	
C	105842	JUL 13,2022	JNC	FJR																	
B	16859	NOV 26,2022	BAC	ARM																	
A	16859	MAR 05,2007	BAC	DFC																	
		PRODUCTION RELEASE																			
DESIGN REFERENCE		NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD														
ADDRESS CODES			DFT CASTIGLIONE		DATE JUL 13,2022	MFG	DATE														
			CHKD		DATE	APPL F. RODRIGUEZ	DATE JUL 13,2022														
DIVISION		DIVISION CODE DEPP	© 3M COPYRIGHT 2025																		
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		TOLERANCES EXCEPT AS NOTED INCHES <table><tr><td>.0</td><td>± .1</td></tr><tr><td>.00</td><td>± .01</td></tr><tr><td>.000</td><td>± .005</td></tr><tr><td>.0000</td><td>± .0002</td></tr></table> MILLIMETERS <table><tr><td>.0</td><td>±</td></tr><tr><td>.00</td><td>±</td></tr><tr><td>.000</td><td>±</td></tr></table> ANGLES ± THIRD ANGLE PROJECTION INTERPRET PER ASME Y14.5 - 2018 MAX SURFACE ROUGHNESS ALL SURFACES MARKED ONLY						.0	± .1	.00	± .01	.000	± .005	.0000	± .0002	.0	±	.00	±	.000	±
.0	± .1																				
.00	± .01																				
.000	± .005																				
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			TITLE MDR CONN, SHIELDED, 050" BMT THRU-HOLE VERT RECEPTACLE <table><tr><td>CAGE NUMBER</td><td>SIZE</td><td>DRAWING NO.</td><td>REV.</td></tr><tr><td>D</td><td></td><td>78-5100-0427-4</td><td>D</td></tr></table>					CAGE NUMBER	SIZE	DRAWING NO.	REV.	D		78-5100-0427-4	D						
CAGE NUMBER	SIZE	DRAWING NO.	REV.																		
D		78-5100-0427-4	D																		
			MODEL 102 LISTS YES ☐ NO ☒ SHT 4 OF 4																		

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