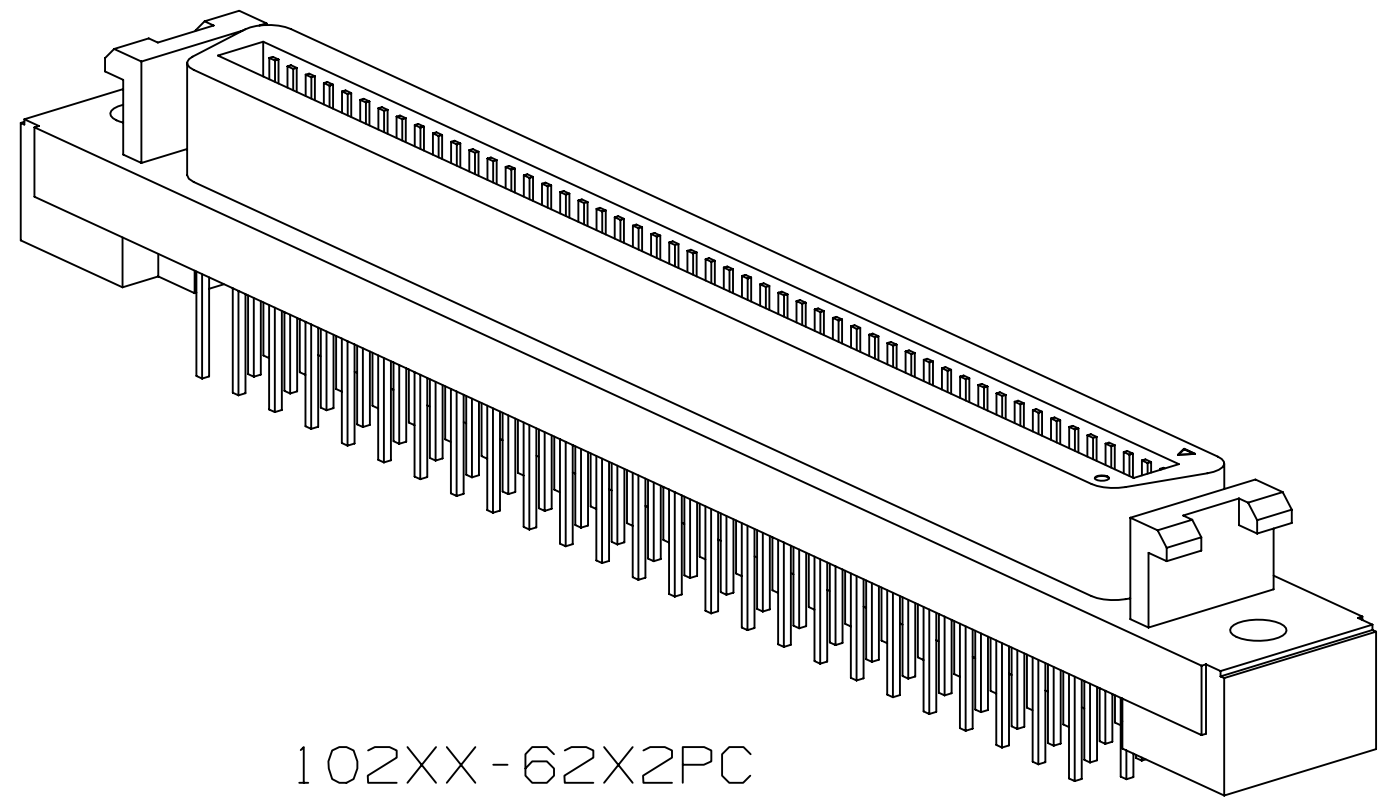


3M™ MINI D RIBBON (MDR) CONNECTORS, 102 SERIES
.050" BOARDMOUNT THROUGHT-HOLE VERTICAL RECEPTACLE - SHIELDED



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

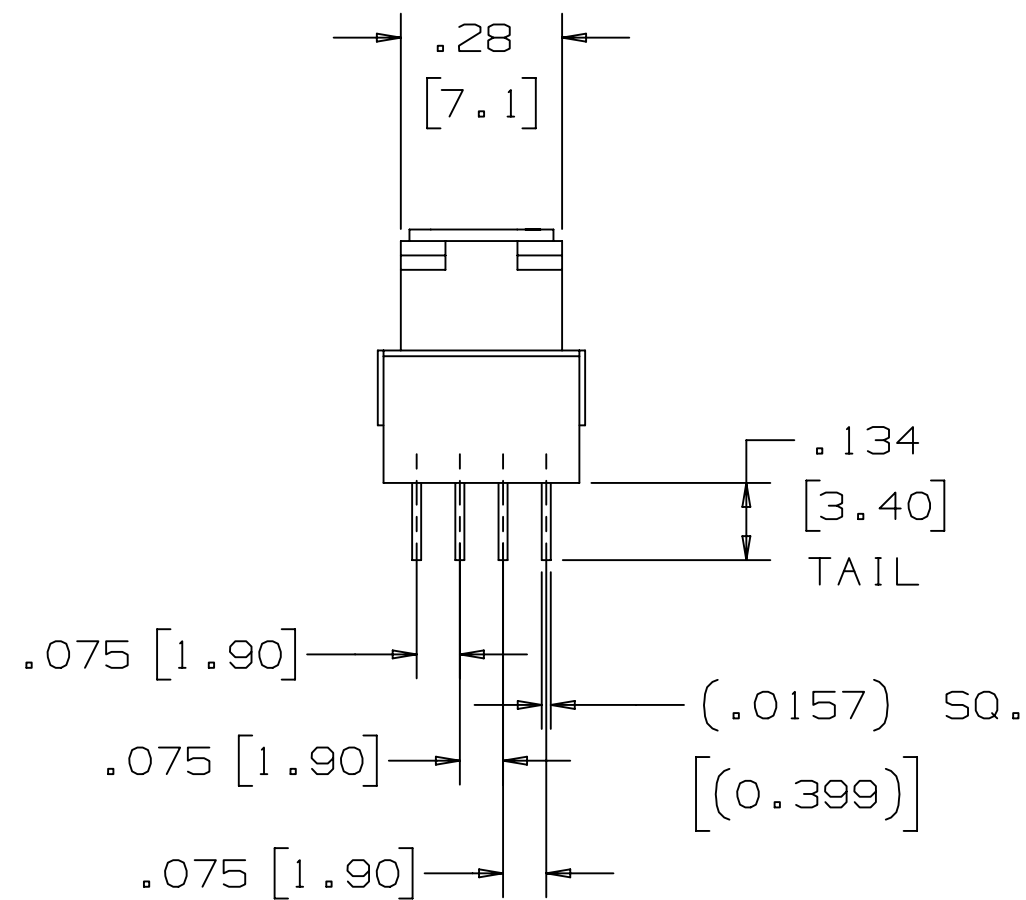
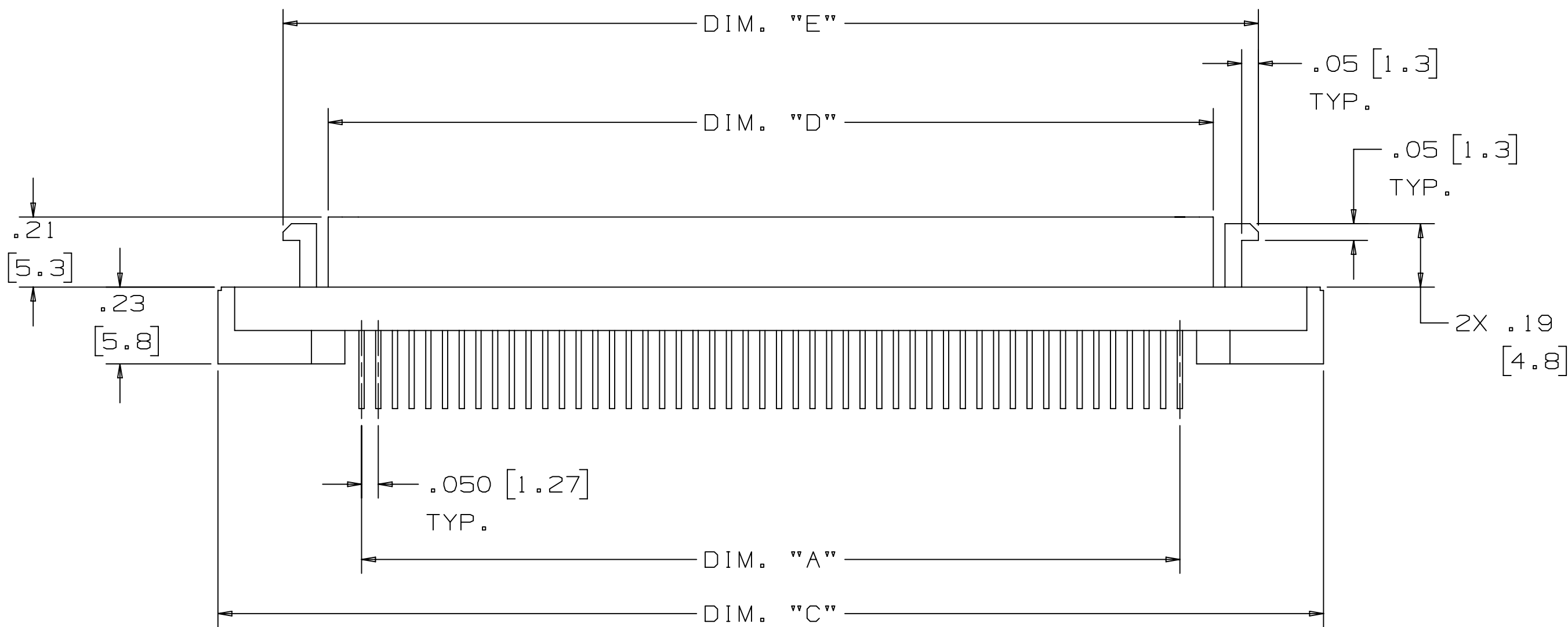
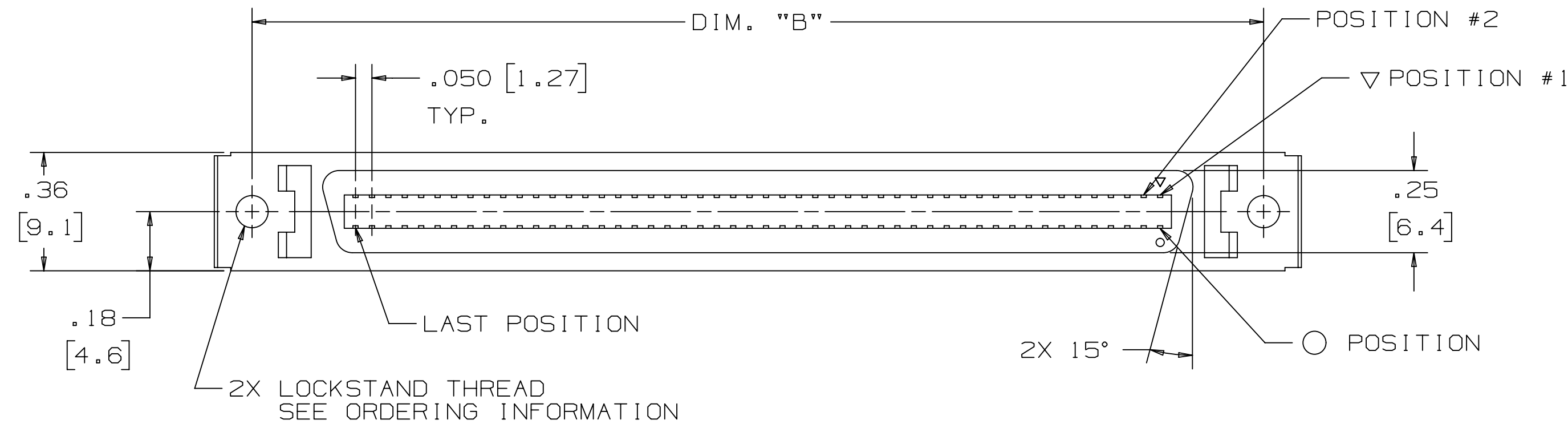
DIMENSIONS: INCHES [MM]
[MM] IS FOR REF. ONLY

DESIGN REFERENCE		NEXT ASSEMBLY	
XXXXXX	CODES		
DIVISION		DIVISION CODE	
DO NOT SCALE DRAWING		DEPP	
THIRD ANGLE PROJECTION		TOLERANCES EXCEPT AS NOTED	
INTERPRET PER ASME Y14.5 - 2018		INCHES	
MAX. SURFACE ROUGHNESS		MILLIMETERS	
ALL SURFACES		ANGLES	
MARKED ONLY			

D	123358	JUN 03,2025	JNC	FJR
C	105842	REVISION JUL 13,2022 REVISION REVISION REVISION	JNC	FJR
B	16859	NOV 26,2022	BAC	ARM
A	16859	MAR 05,2007	BAC	DFC
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	CST	GLT	ONE	
CHKD		DATE	DATE	DATE
		JUL 13,2022	JUL 13,2022	JUL 13,2022
		APPR	F. RODRIGUEZ	
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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
.050" BOARDMOUNT THROUGH-HOLE VERTICAL RECEPTACLE - SHIELDED

TABLE 1					
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]



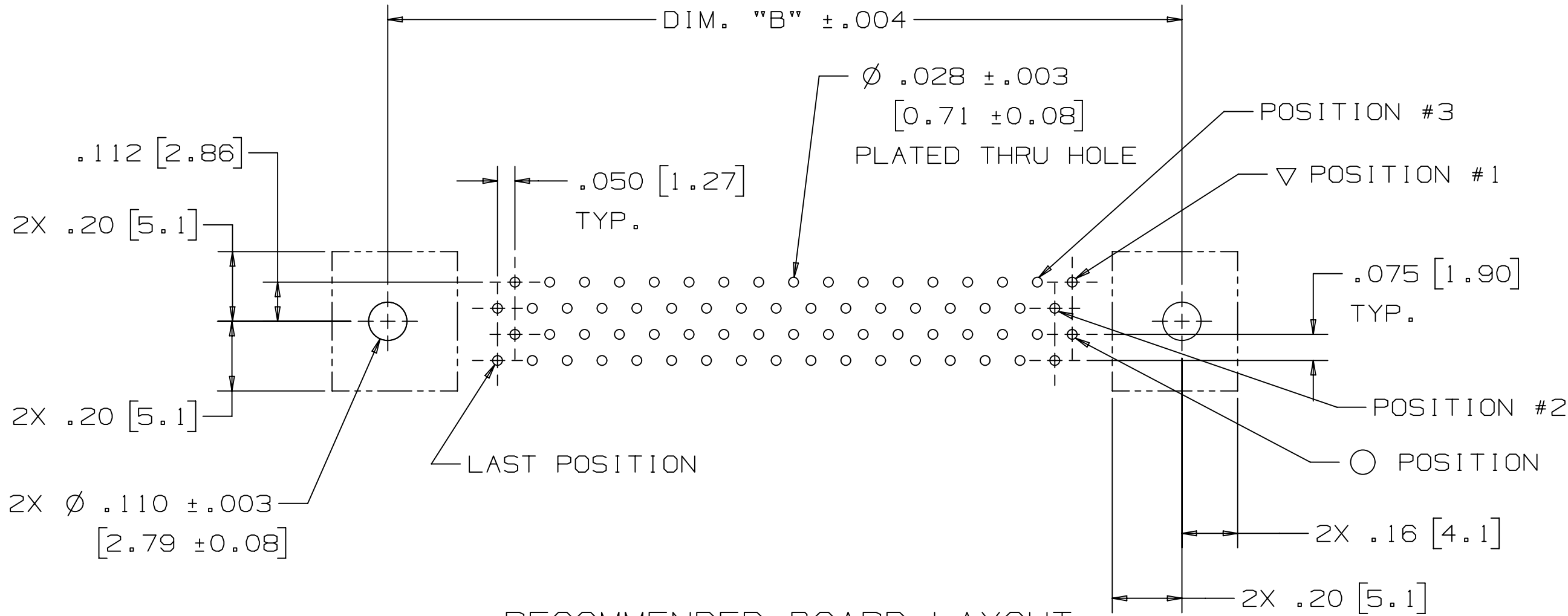
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DESIGN REFERENCE		NEXT ASSEMBLY	
XXXXXX	XXXXXX	XXXXXX	XXXXXX
DIVISION	SCALE	DIVISION CODE	DEPP
DO NOT SCALE DRAWING	SCALE	TOLERANCES EXCEPT AS NOTED	
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2018	MILLIMETERS	
MAX. SURFACE ROUGHNESS	ALL SURFACES	ANGLES	
MARKED ONLY			
REV.	ECO	ISSUE DATE AND DESCRIPTION	DRFT
CHKD	CASTIGLIONE	DATE	DATE
CHKD	DATE	APPR. F. RODRIGUEZ	DATE
D	123358	JUN 03, 2025	JNC
C	105842	REVISION TABLE 1 50P	FJR
B	16859	REDRAWN	
A	16859	REVISION TEMP RATING	
		NOV 26, 2022	BAC
		REMOVE NON-ROHS	ARM
		MAR 05, 2007	BAC
		PRODUCTION RELEASE	DFC
TITLE			
MDR CONN, SHIELDED, .050" BMT THRU-HOLE VERT RECEPTACLE			
CAGE NUMBER	SIZE	DRAWING NO.	REV.
D	102	78-5100-0427-4	D
MODEL	102	LISTS	YES
		NO	SHT 2 OF 4

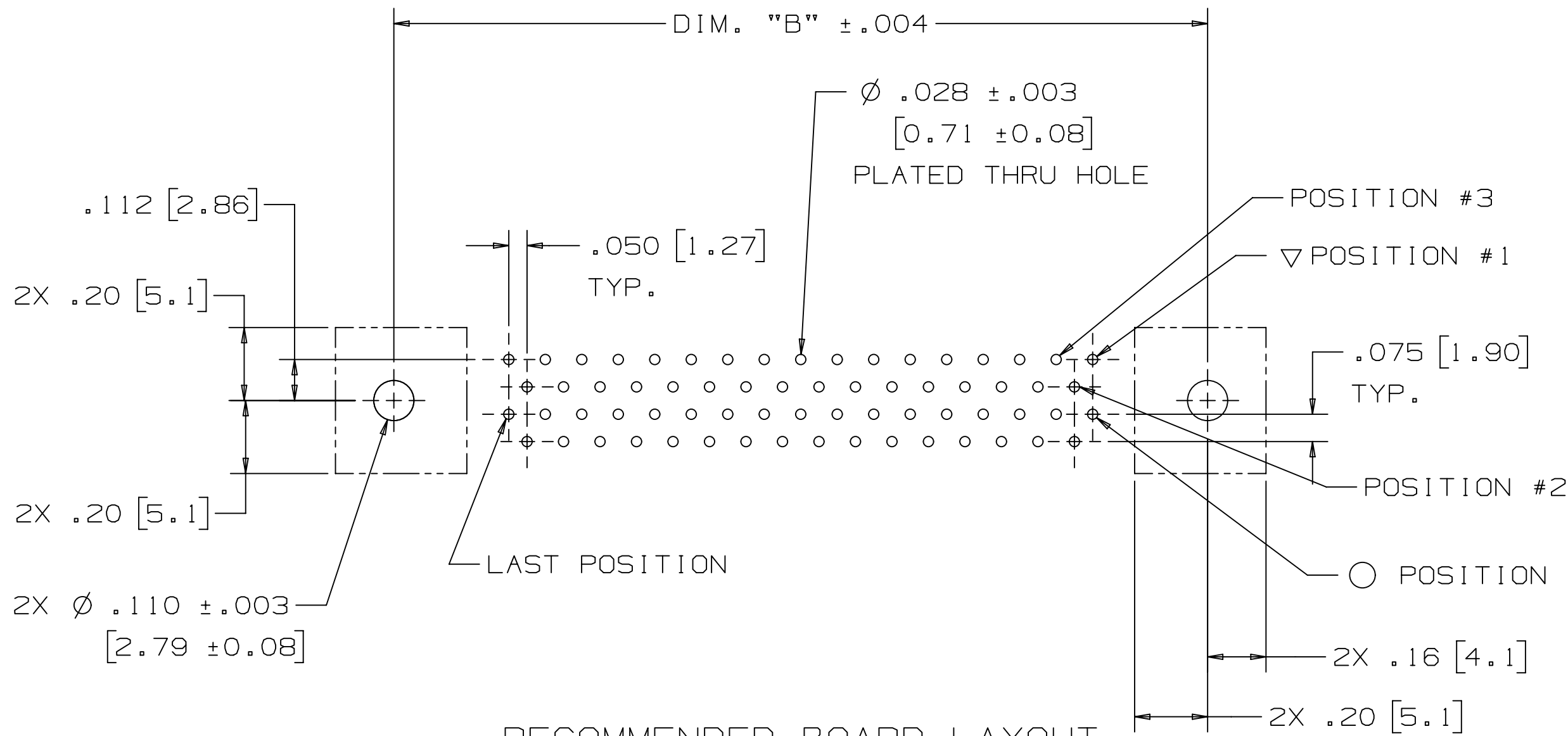
3M™ MINI D RIBBON (MDR) CONNECTORS, 102 SERIES
.050" BOARDMOUNT THROUGH-HOLE VERTICAL RECEPTACLE - SHIELDED

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]



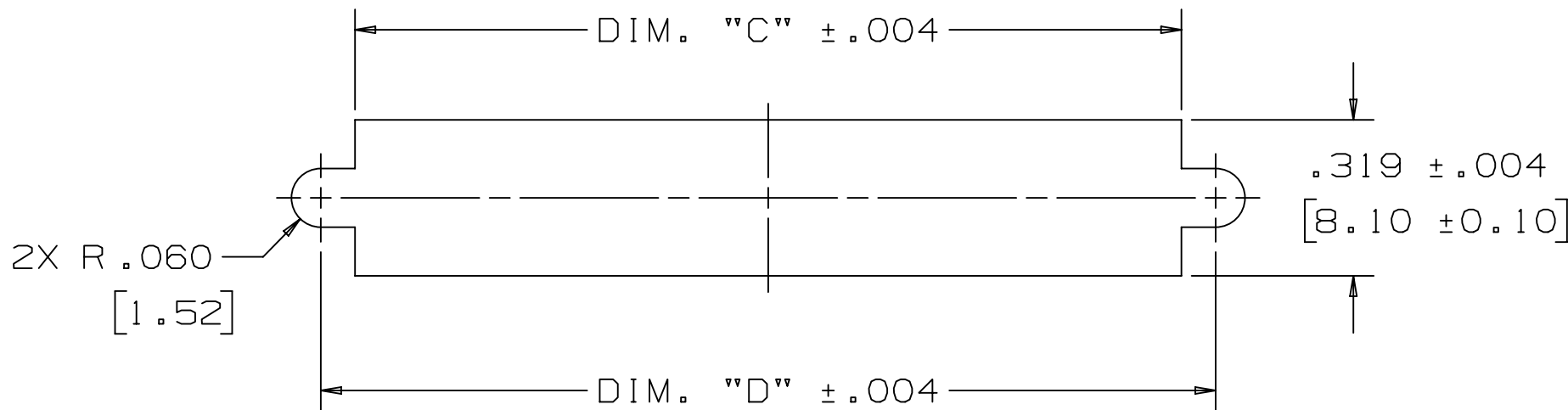
RECOMMENDED BOARD LAYOUT
(VIEWED FROM CONNECTOR SIDE)
POSITIONS ONLY: 20, 36, 40, 68, 80 AND 100
SEE TABLE 2

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]



RECOMMENDED BOARD LAYOUT
(VIEWED FROM CONNECTOR SIDE)
POSITIONS ONLY: 14, 26 AND 50
SEE TABLE 3

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	
		YES NO	
		SHT	
		3 OF 4	

8

7

6

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1

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

.050" BOARDMOUNT THROUGHT-HOLE VERTICAL RECEPTACLE - SHIELDED

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DESIGN REFERENCE

NEXT ASSEMBLY

REV

ECO

ISSUE DATE AND DESCRIPTION

DRFT

CHKD

DRFT

CASTIGLIONE

DATE

JUL 13, 2022

APPR

F. RODRIGUEZ

DATE

JUL 13, 2022

CHKD

DATE

JUL 13, 2022

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

MAX SURFACE ROUGHNESS

ALL SURFACES

MARKED ONLY

SCALE

TOLERANCES EXCEPT AS NOTED

INCHES

±.1

±.01

±.005

±.0002

MILLIMETERS

0

±

±.00

±.000

±

INTERPRET PER ASME Y14.5 - 2018

ALL SURFACES

MARKED ONLY

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TITLE

MDR CONN, SHIELDED,
.050" BMT THRU-HOLE
VERT RECEPTACLE

CAGE NUMBER

SIZE

DRAWING NO.

REV.

D

78-5100-0427-4

D

MODEL

102

DET

LISTS

YES

NO

SHT 4 OF 4

8

7

6

5

4

3

2

1