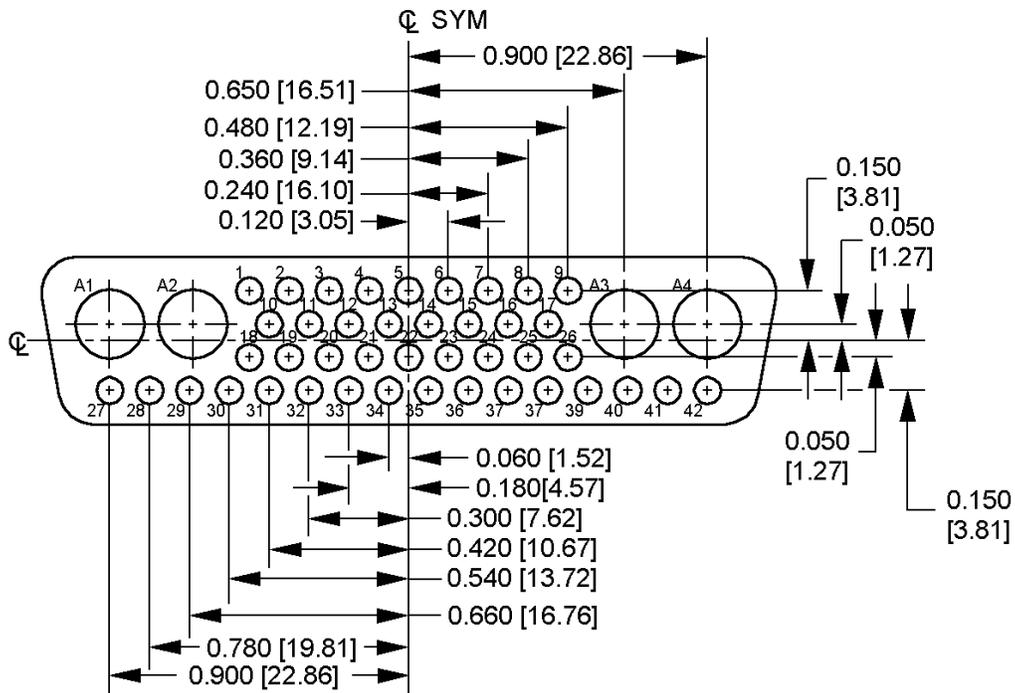


DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRIC, RECTANGULAR, MINIATURE,
COMBINATION INSERT ARRANGEMENT, PLUG, SOCKET CONTACTS, SHELL SIZE 5,
SIZE 20 SIGNAL CONTACTS AND SIZE 8 POWER AND SHIELDED,
CLASS G, M, N AND D

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-24308.



46W4

FIGURE 1. Insert arrangements, shell size 5, pin contacts.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerance for three place decimals is ± 0.005 inch (0.13 mm).
4. All dimensions are true position (TP).
5. Contact holes in insert shall be located on TP within a .005 inch (0.13 mm) diameter circle.
6. Reference documents shall be of the issue in effect on date of invitations for bid.

FIGURE 1. Insert arrangements, shell size 5, pin contacts – Continued.

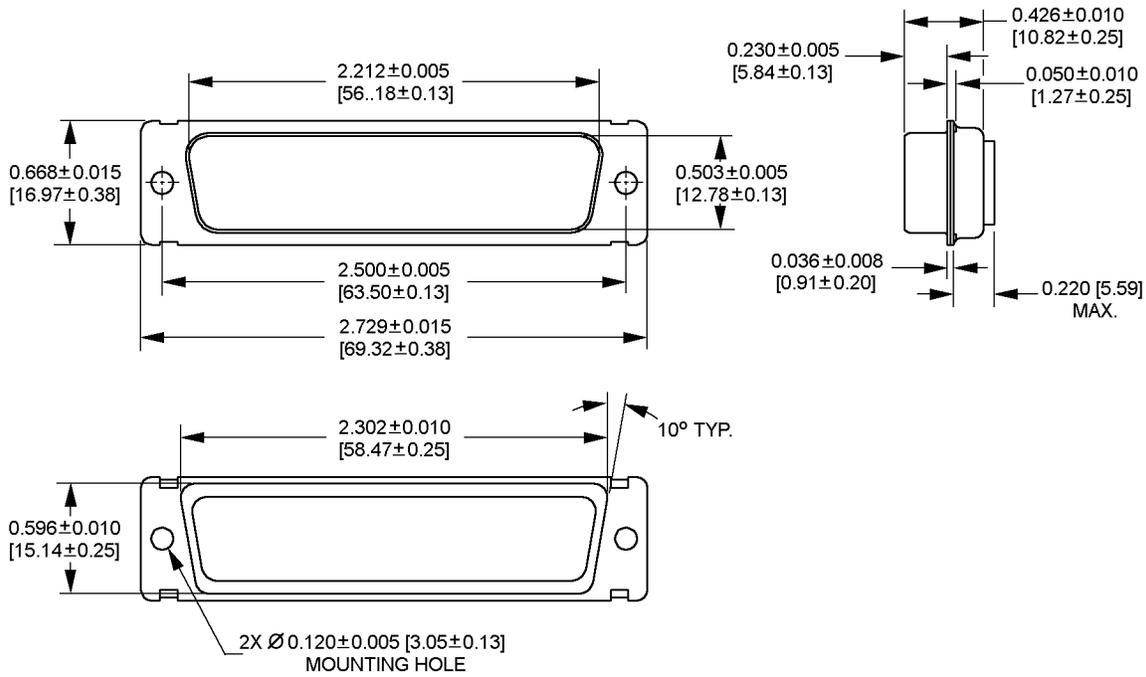
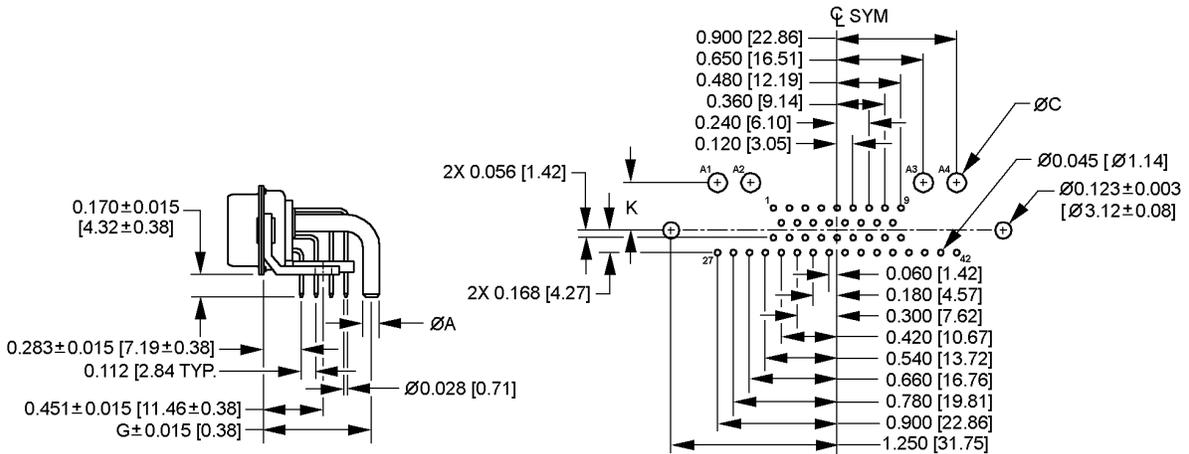
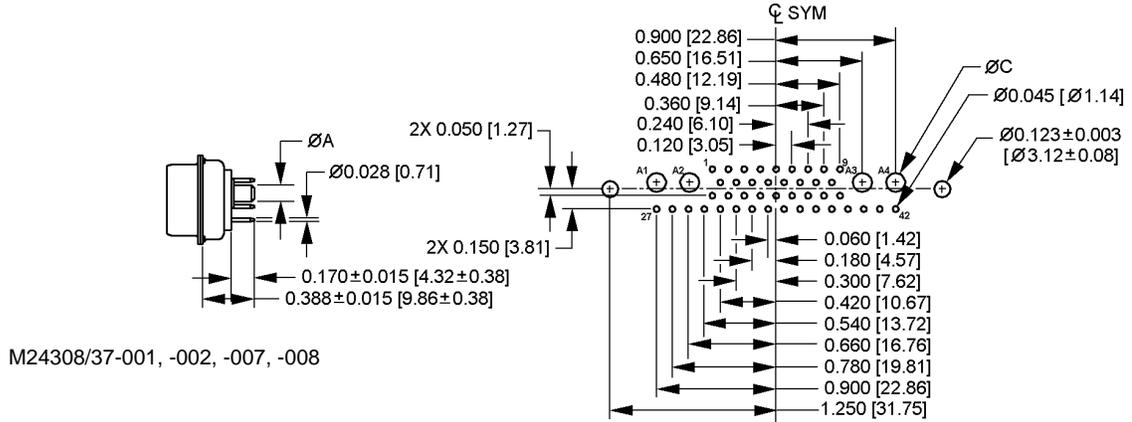


FIGURE 2. Dimensions shell size 4.

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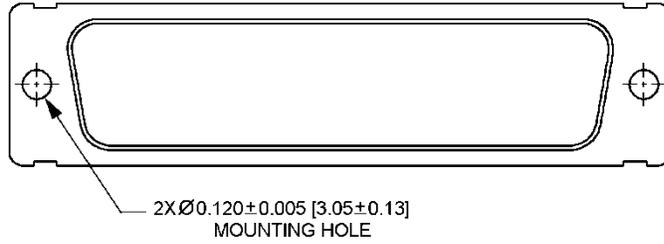
PIN M24308/38	ØA	ØC	G	J	K
-001, -002	0.078 (1.98)	0.098	---	---	---
-007, 00-8	0.125 (3.18)	0.145	---	---	---
-003, -004	0.078 (1.98)	0.098	0.339	0.339	0.000
-009, -010	0.125 (3.18)	0.145	0.810	0.339	0.471
-005, -006	0.078 (1.98)	0.098	0.420	0.420	0.000
-011, -012	0.125 (3.18)	0.145	0.810	0.420	0.390

FIGURE 3. Terminations and layout arrangement for 46W4 power connector.

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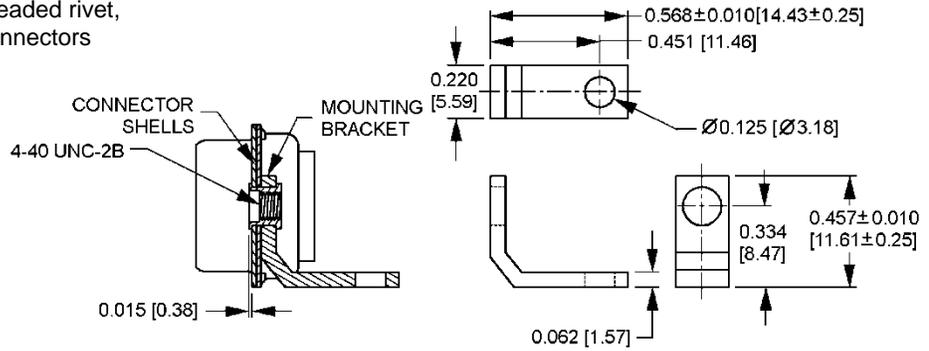
Configuration A:

Ø .120 (3.05 mm) mounting hole,
straight termination connectors



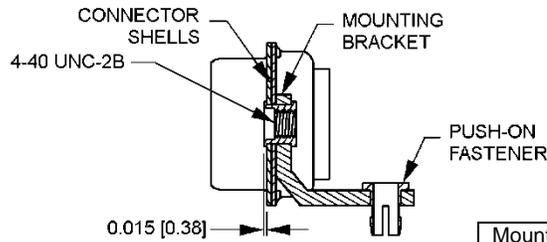
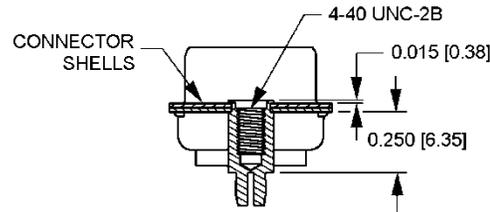
Configuration B and C:

Mounting bracket and threaded rivet,
right angle termination connectors



Configuration D:

Swaged spacer with
push on fastener



Configuration E and F:

Mounting bracket and threaded
rivet with push on fastener,
right angle termination connectors

Mounting bracket configuration	L	M	Mounting type
B	0.395	0.512	0.125 hole
C	0.470	0.587	0.125 hole
E	0.395	0.512	Fastener
F	0.470	0.587	Fastener

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerance for three place decimals is ±.005 inch (0.13 mm).

FIGURE 4. Mounting configurations.

REQUIREMENTS:

Dimensions and configurations:

Insert arrangements shall be in accordance with figure 1.

Shell configuration shall be in accordance with figure 2.

Termination and layout arrangement figures 3.

Mounting configurations shall be in accordance with figure 4.

Materials and finishes:

Mounting brackets half hard brass, UNS-C26000 in accordance with ASTM B36/B36M, zinc plate (0.000050-0.000130 inches) with dichromate seal in accordance with ASTM B633 Type II.

Spacer with push fastener, phosphor bronze, UNS-C54400 in accordance with ASTM B139/B139M.

Finish: Gold in accordance with MIL-DTL-45204, type II, grade C, class 1 or equivalent over copper in accordance with SAE AMS 2418.

Push fastener with mounting brackets, beryllium copper, UNS-C17300 in accordance with ASTM B196/B196M.

Finish: Gold in accordance with MIL-DTL-45204, type II, grade C, class 1 or equivalent over copper in accordance with SAE AMS 2418.

Electrical:

Size 20 signal contacts:

Current rating:	7.5 amps nominal
Initial contact resistance:	.008 ohms maximum
Proof voltage:	1000 V r.m.s.

Power contacts:

.078 dia:	10 amps
.125 dia:	40 amps
Initial contact resistance:	.0005 ohms maximum

Shielded contacts:

Nominal impedance:	50 ohms
Insertion loss:	-0.46 dB at 1 GHz
	-1.5 dB at 2 GHz
VSWR:	1.15 average at 1 GHz
	1.56 average at 2 GHz

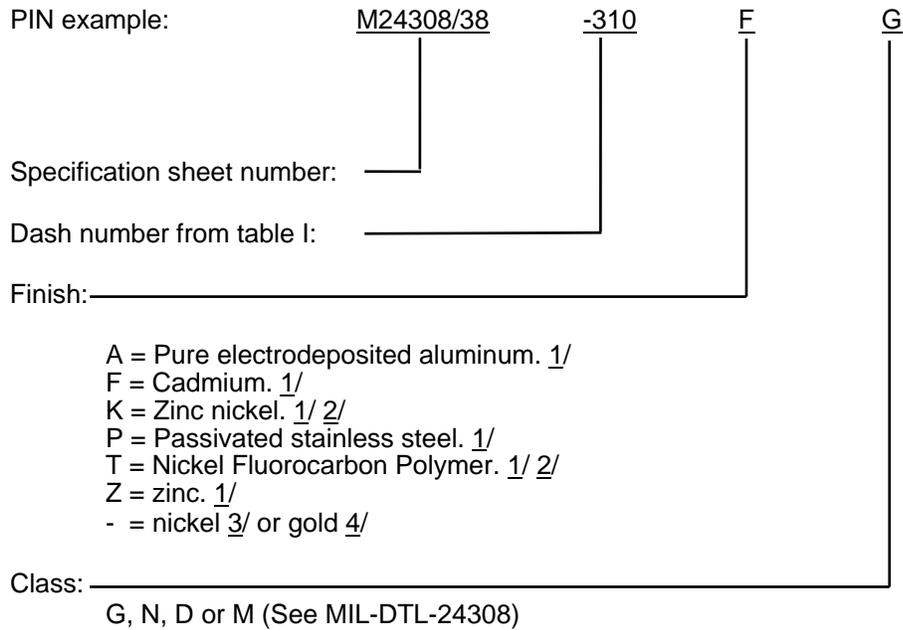
Proof voltage:	1000 V r.m.s.
Initial contact resistance:	.008 ohms maximum

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TABLE I. PIN and dash numbers.

PIN	Insert arrangement (see figure 1)	Size 8 contact	Termination type	Mounting configuration (see figure 4)
M24308/38-001	46W4	0.078	Straight	A
M24308/38-002		0.078	Straight	D
M24308/38-003		0.078	Right angle	B
M24308/38-004		0.078	Right angle	E
M24308/38-005		0.078	Right angle	C
M24308/38-006		0.078	Right angle	F
M24308/38-007		0.125	Straight	A
M24308/38-008		0.125	Straight	D
M24308/38-009		0.125	Right angle	B
M24308/38-010		0.125	Right angle	E
M24308/38-011		0.125	Right angle	C
M24308/38-012		0.125	Right angle	F

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NOTES:

- 1/ Finish for class G or N.
- 2/ Not for use with class N or M
- 3/ Finish for class D.
- 4/ Finish for class M.

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Referenced documents. In addition to MIL-DTL-24308, this document references the following:

MIL-DTL-45204
ASTM B36/B36M
ASTM B139/B139M
ASTM B196/B196M
ASTM B633
SAE AMS 2418

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force – 85
NASA - NA
DLA - CC

Preparing activity:
DLA - CC

(Project: 5935-2014-093)

Review activities:

Army - AT, CR4, MI
Navy - AS, CG, MC, SH
Air Force – 99
MISC - MDA

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil/> .