

INCH-POUND

MS3114J
 10 June 1993
 SUPERSEDING
 MS3114H
 19 November 1987

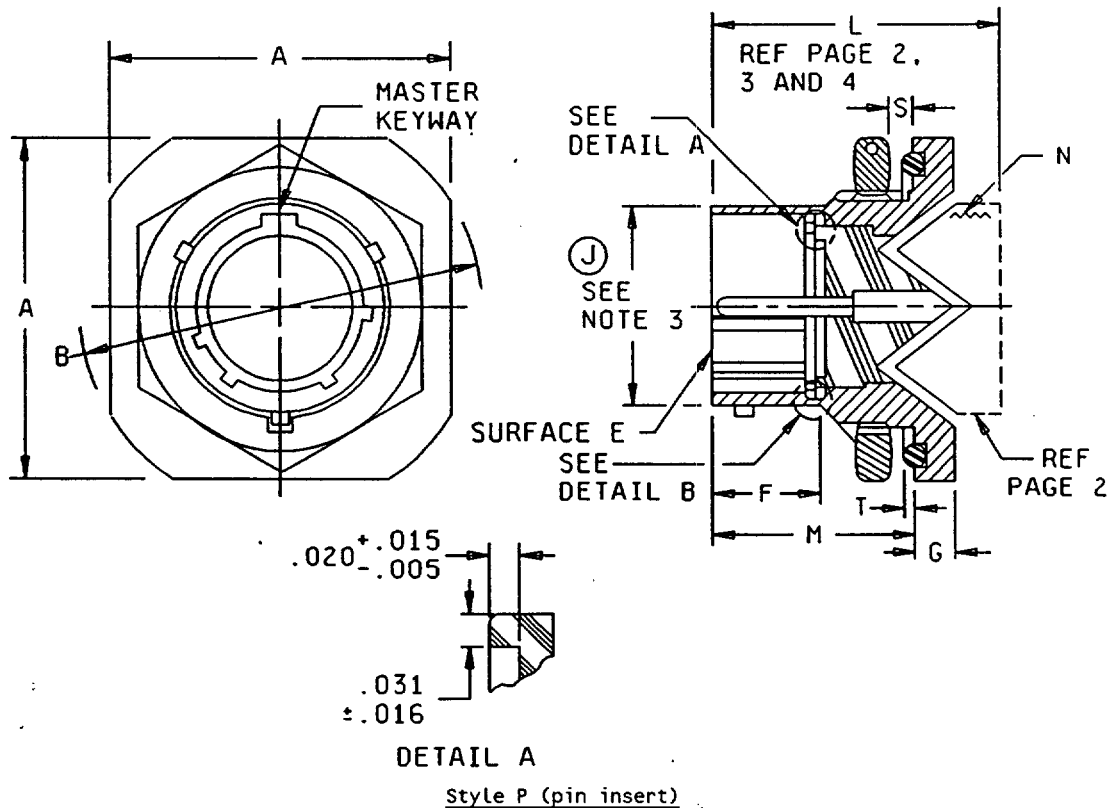
MILITARY SPECIFICATION SHEET

(J) CONNECTORS, RECEPTACLE, ELECTRICAL, SERIES 1, SOLDER TYPE, JAM NUT MOUNTING, BAYONET COUPLING, CLASSES E, F, H, AND P

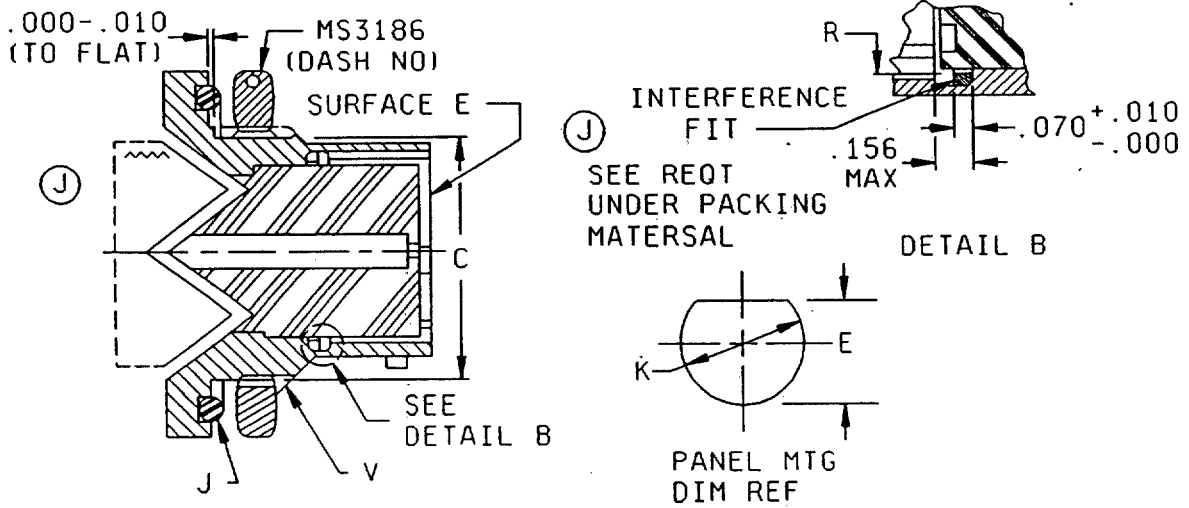
(J) INACTIVE FOR NEW DESIGN. USE MS3474 FOR CLASSES E, F, AND P.

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 the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-C-26482.



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Style S (socket insert)

Connector dimensions

Shell size	A max length	B dia +.000 -.032 across flange corner	C +.000 -.010 mtg flat	E +.010 -.005 Panel flat location	F Min mtg thd loc	G ±.020 Thk mtg flange	J O-ring seal MS29513-	K +.010 -.005 panel mtg hole	
8	.954	1.078	.530	.540	.384	.117	17	.572	
10	1.078	1.203	.655	.665			19	.697	
12	1.266	1.391	.818	.828			22	.885	
14	1.391	1.516	.942	.952			24	1.010	
16	1.516	1.641	1.066	1.076			26	1.135	
18	1.641	1.766	1.191	1.201			28	1.260	
20	1.828	1.954	1.316	1.326	.446	.148	128	1.385	
22	1.954	2.078	1.441	1.451			130	1.510	
24	2.078	2.203	1.566	1.576			.479	132	1.635

FIGURE 1. Dimensions and configurations for classes E, F, and P - Continued.

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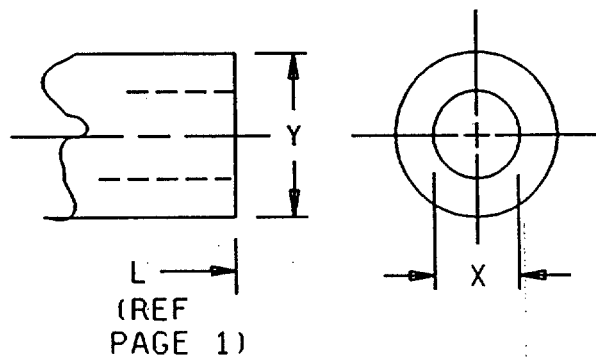
Connector dimensions - Continued.

Shell size	M +.031 .000 mtg flange location	N UNEF-2B accessory thread	R max ID gasket	S Panel thk ref		T ±.011 O-ring projection	V UNEF-2A mounting thread
				Min	Max		
8	.691	.625-24	.329	.062	.125	.023	.5625-24
10		.750-20	.457				.6875-24
12		.875-20	.564				.875-20
14		1.000-20	.689				1.000-20
16		1.125-18	.814				1.125-18
18		1.250-18	.907				1.250-18
20	.879	1.375-18	1.039	.250	.028	.028	1.375-18
22		1.500-18	1.164				1.500-18
24		1.625-18	1.289				1.625-18

FIGURE 1. Connectors and dimensions for classes E, F, and P - Continued.

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CLASS E



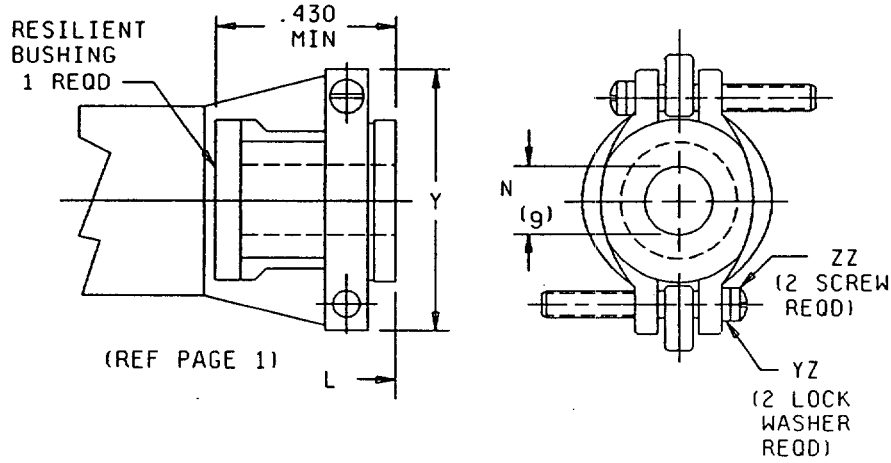
Connector dimensions for class E

Shell size	L max Overall length	X dia min ID	Y dia max OD
8	1.344	.269	.750
10		.359	.875
12		.469	1.000
14		.589	1.125
16		.717	1.250
18		.779	1.375
20	1.594	.901	1.531
22		1.009	1.656
24	1.641	1.123	1.781

FIGURE 1. Dimensions and configurations for classes E, F, and P - Continued.

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CLASS F



Connector dimensions for class F

Shell size	L max overall length	X dia min open	Y max	V max closed	N free dia ±.010 (see note 4)	ZZ screw threads	YZ Lockwashers MS35338 or MS35333 types (see note 5)
8	1.906	.234	.828	.187	.125	6-32 UNC	MS35338-98 or -41 MS35333-105 or -36 or -37
10		.297	.891	.187	.188		
12		.422	1.016	.281	.312		
14		.547	1.141	.325	.375		
16	2.047	.609	1.203	.356	.500	8-32 UNC	MS35338-99 or -42 MS35333-106 or -38
18	2.078	.734	1.469	.456	.625		
20	2.328			.519	.625		
22		.922	1.656	.750			
24	2.453	.984	1.750	.657	.800		

DIMENSIONS WITH BUSHING REMOVED.

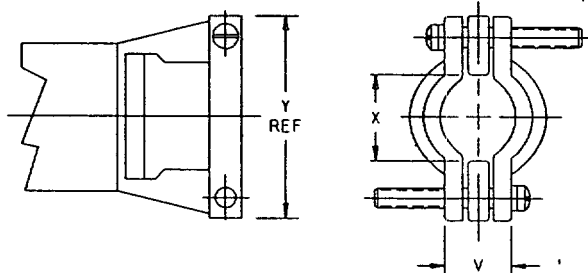
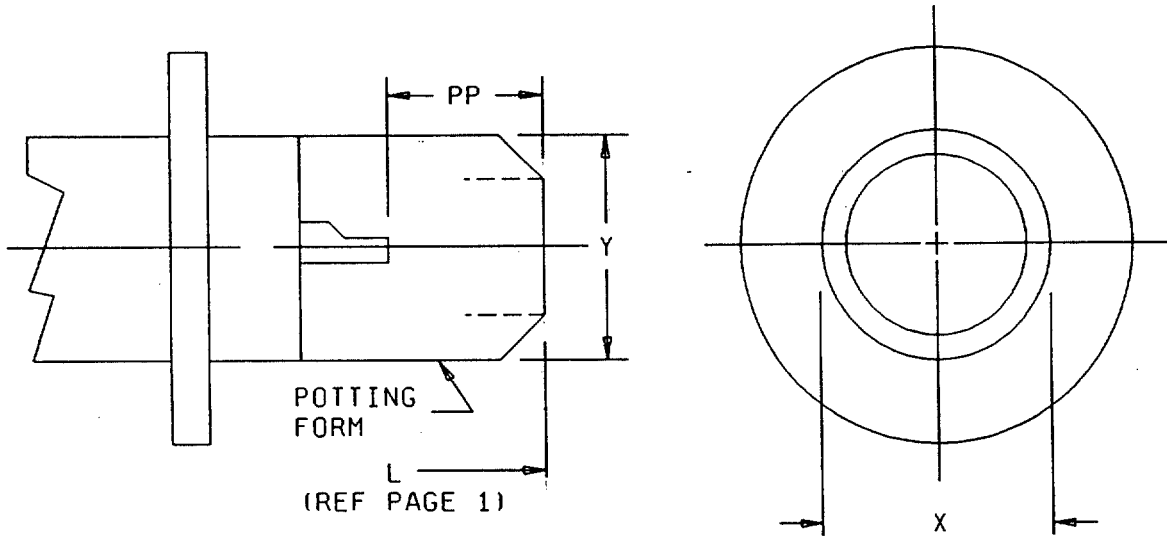


FIGURE 1. Dimensions and configuration for classes E, F, and P - Continued.

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CLASS P



Connector dimensions for class P

Shell size	L max overall length	X dia min ID	Y dia max OD	PP min
8	1.391	.317	.608	.250
10		.434	.734	
12		.548	.858	
14		.673	.984	
16		.798	1.110	
18		.899	1.234	
20	1.641	1.024	1.360	
22		1.149	1.484	
24	1.703	1.274	1.610	

FIGURE 1. Dimensions and configurations for classes E, F, and P - Continued.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	0.13	.375	9.52	.691	17.55	1.024	26.01	1.451	36.86
.010	0.25	.384	9.75	.697	17.70	1.039	26.39	1.469	37.31
.011	0.28	.422	10.72	.717	18.21	1.066	27.08	1.484	37.69
.015	0.38	.430	10.92	.734	18.64	1.076	27.33	1.500	38.10
.016	0.41	.434	11.02	.750	19.05	1.078	27.38	1.510	38.35
.020	0.51	.446	11.33	.779	19.79	1.110	28.19	1.516	38.51
.023	0.58	.456	11.58	.798	20.27	1.123	28.52	1.531	38.89
.028	0.71	.457	11.61	.800	20.32	1.125	28.58	1.566	39.78
.031	0.79	.469	11.91	.814	20.68	1.135	28.83	1.576	40.03
.032	0.81	.479	12.17	.818	20.78	1.141	28.98	1.549	40.49
.062	1.57	.500	12.70	.828	21.03	1.149	29.18	1.610	40.89
.070	1.78	.519	13.18	.858	21.79	1.164	29.59	1.625	41.28
.117	2.97	.530	13.46	.875	22.22	1.191	30.25	1.635	41.53
.125	3.18	.540	13.72	.879	22.33	1.201	30.51	1.641	41.68
.148	3.75	.547	13.89	.885	22.48	1.203	30.56	1.656	42.06
.156	3.96	.548	13.92	.891	22.63	1.234	31.34	1.703	43.26
.187	4.75	.5625	14.288	.899	22.83	1.250	31.75	1.750	44.45
.188	4.78	.564	14.33	.901	22.89	1.260	32.00	1.766	44.86
.234	5.94	.572	14.53	.907	23.04	1.266	32.16	1.781	45.24
.250	6.35	.589	14.96	.912	23.16	1.275	32.39	1.828	46.43
.259	6.58	.608	15.44	.922	23.42	1.289	32.74	1.906	48.41
.281	7.14	.609	15.47	.942	23.93	1.316	33.43	1.954	49.63
.297	7.54	.625	15.88	.952	24.18	1.326	33.68	2.047	51.99
.312	7.92	.655	16.64	.954	24.23	1.344	34.14	2.078	52.78
.317	8.05	.657	16.69	.984	24.99	1.360	34.54	2.203	55.96
.325	8.26	.665	16.89	1.000	25.40	1.375	34.92	2.328	59.13
.329	8.36	.673	17.09	1.009	25.63	1.385	35.18	2.453	62.31
.356	9.04	.6875	17.462	1.010	25.65	1.391	35.33		
.359	9.12	.689	17.50	1.016	25.81	1.441	36.60		

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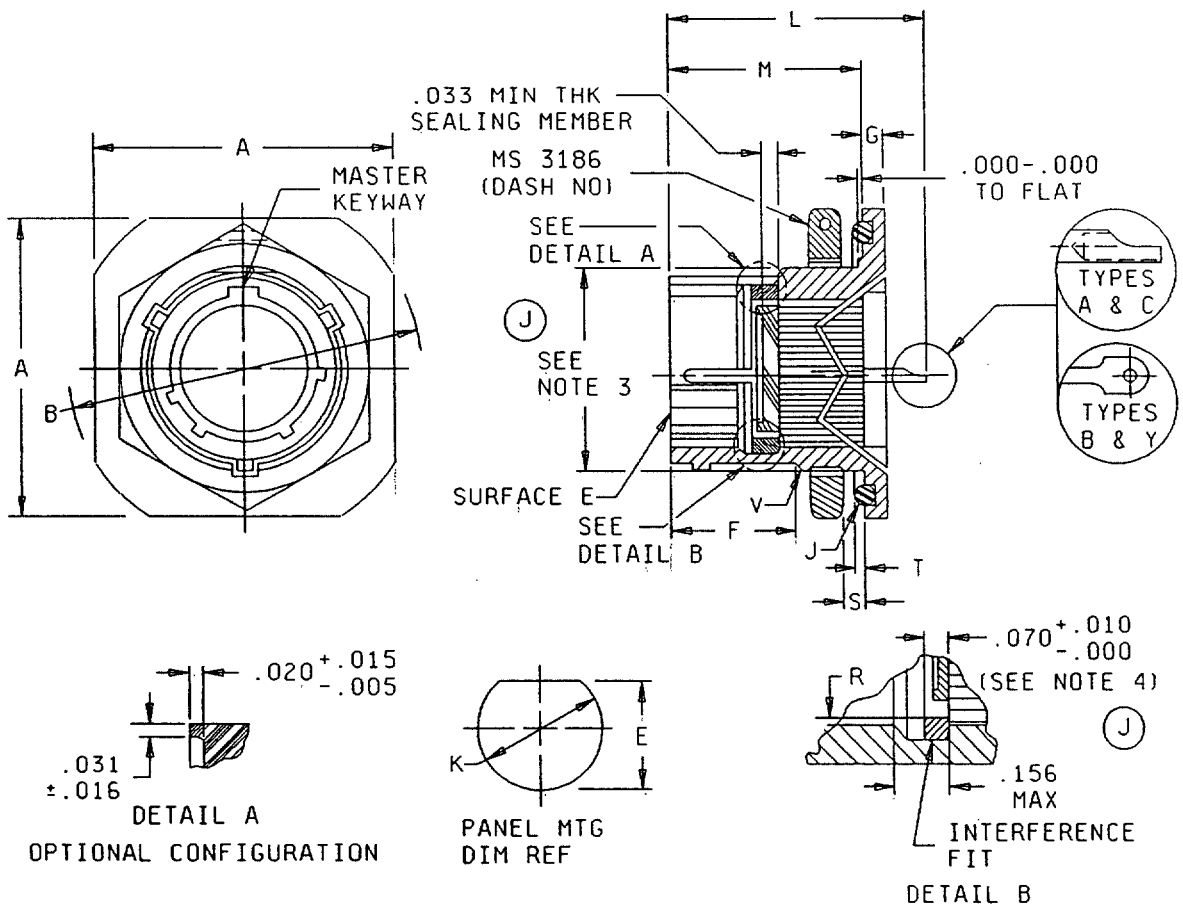
NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Interchangeability dimensions shall be in accordance MIL-C-26482.
4. Use MS3420 bushing if reduced opening is required.
5. Lockwashers may be captive.
6. Not for Air Force use. Use MS3474W in lieu of MS3114 class E, F, and P.
7. True position (TP) tolerances specified are in accordance with ANSI Y14.5.

FIGURE 1. Dimensions and configurations for classes E, F, and P - Continued.

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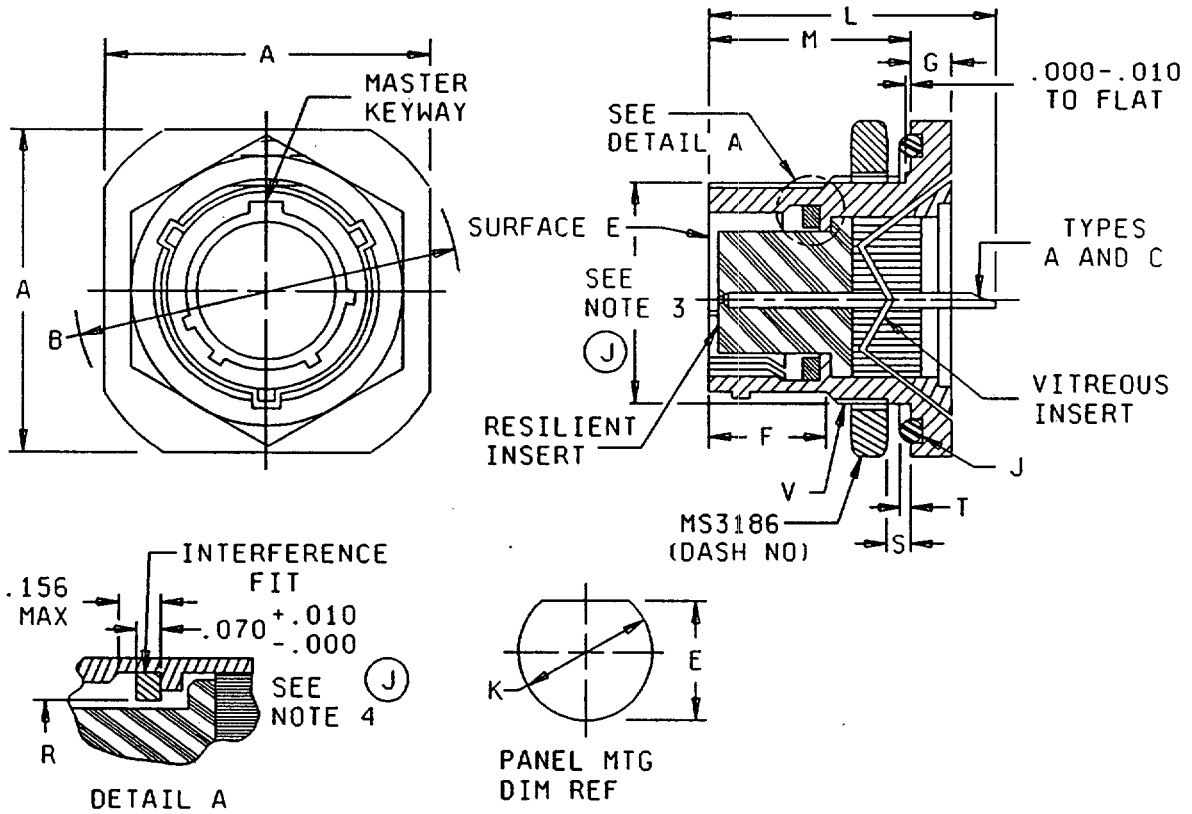
J INACTIVE FOR NEW DESIGN.
USE MS3474 FOR CLASS H.



Class H receptacles, style-P (pin insert)

FIGURE 2. Dimensions and configurations for class H, style P (pin insert).

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Class H receptacles, style S (socket insert)

FIGURE 2. Dimensions and configurations for class H, style S (socket insert) - Continued.

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Connector dimensions

Shell size	A max length	B dia +.000 -.032 across flange corner	C +.000 -.010 mtg flat	E +.010 -.005 panel mtg hole	F min mtg thd loc	G ±.020 thk mtg flange	J O-ring seal MS29513-	K +.010 -.005 panel mtg hole	
8	.954	1.078	.530	.540	.384	.117	17	.572	
10	1.078	1.203	.655	.665			19	.697	
12	1.266	1.391	.818	.828			22	.885	
14	1.391	1.516	.942	.952			24	1.010	
16	1.516	1.641	1.066	1.076			26	1.135	
18	1.641	1.766	1.191	1.201			28	1.260	
20	1.828	1.954	1.316	1.326	.446	.148	128	1.385	
22	1.954	2.078	1.441	1.451			130	1.510	
24	2.078	2.203	1.566	1.576			.479	132	1.635

Material and finish:

Shell (types A and B), passivated stainless steel with gold plated contacts.
 Shell (types C and Y), tin-plated ferrous alloy with tin plated contacts.
 (Tin plating shall be no more than 97% pure tin and 3% lead).
 Bayonet pins, passivated stainless steel.

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FIGURE 2. Dimensions and configuration for class H - Continued.

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Connector dimensions - Continued

Shell size	L max	M +.031 .000 mtg flange location	R max ID gasket	S panel thk ref		T ±.011 O-ring projection	V UNEF-2A mounting thread
				Min	Max		
8	.875	.691	.329	.062	.125	.023	.5625-24
10			.457				.6875-24
12			.564				.875-20
14			.689				1.000-20
16			.814				1.125-18
18			.907				1.250-18
20	1.094	.879	1.039	.250	.028		1.375-18
22			1.164				1.500-18
24			1.289				1.625-18

Material and finish:

Shell (types A and B), passivated stainless steel with gold plated contacts.

Shell (types C and Y), tin-plated ferrous alloy with tin plated contacts.

(Tin plating shall be no more than 97% pure tin and 3% lead).

Bayonet pins, passivated stainless steel.

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FIGURE 2. Dimensions and configuration for class H - Continued.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	0.13	.250	6.35	.814	20.68	1.078	27.38	1.441	36.60
.010	0.25	.329	8.36	.818	20.78	1.094	27.79	1.451	36.69
.011	0.28	.384	9.75	.828	21.03	1.125	28.58	1.500	38.10
.015	0.38	.446	11.33	.875	22.22	1.135	28.83	1.510	38.35
.016	0.41	.457	11.61	.879	22.33	1.164	29.59	1.516	38.51
.020	0.51	.479	12.17	.885	22.48	1.191	30.25	1.566	39.78
.023	0.58	.530	13.46	.907	23.04	1.201	30.51	1.576	40.03
.028	0.71	.540	13.72	.912	23.16	1.203	30.56	1.625	41.28
.031	0.79	.5625	14.288	.942	23.93	1.250	31.75	1.635	41.53
.032	0.81	.564	14.33	.952	24.18	1.260	32.00	1.641	41.68
.033	0.84	.572	14.53	.954	24.23	1.266	32.16	1.766	44.86
.062	1.57	.655	16.64	1.000	25.40	1.289	32.74	1.828	46.43
.070	1.78	.665	16.89	1.010	25.65	1.316	33.43	1.954	49.63
.117	2.97	.6875	17.462	1.024	26.01	1.326	33.68	2.078	52.78
.125	3.18	.689	17.50	1.039	26.39	1.375	34.92	2.203	55.96
.148	3.75	.691	17.55	1.066	27.08	1.385	35.18		
.156	3.96	.697	17.70	1.076	27.33	1.391	35.33		

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Interchangeability dimensions shall be in accordance MIL-C-26482.
4. Sealing member bonded to vitreous insert.
5. Not for Air Force use. Use MS3449 in lieu of MS3114 class H.
6. True position (TP) tolerances specified are in accordance with ANSI Y14.5.

FIGURE 2. Dimensions and configurations for class H - Continued.

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REQUIREMENTS:

Dimensions and configuration: See figure 1 and 2.

ⓐ Connector mating: This connector mates with MS3116.

For insert arrangement: See MIL-STD-1669.

Sealing member: Bonded to vitreous insert.

Packing: Packing material shall meet the requirements of MIL-STD-417.

ⓐ Part or Identifying Number (PIN) example:

Figure 1.

A. PIN for classes E, F, and P:

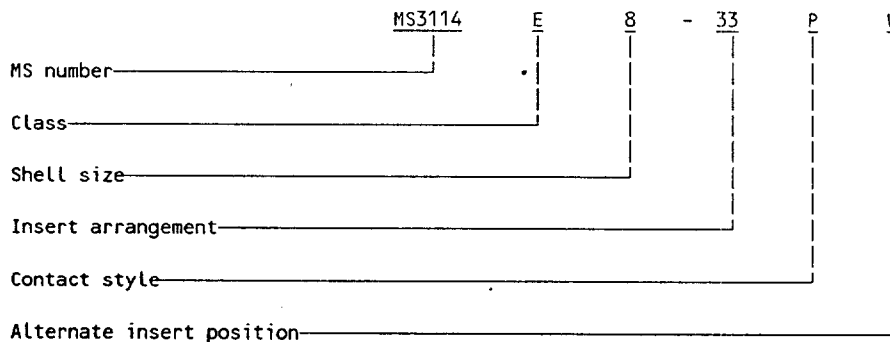
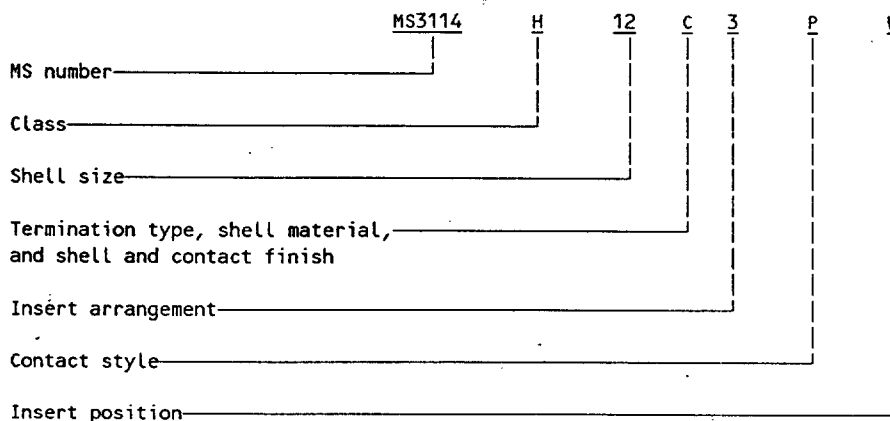


Figure 2.

A. PIN for classes H:

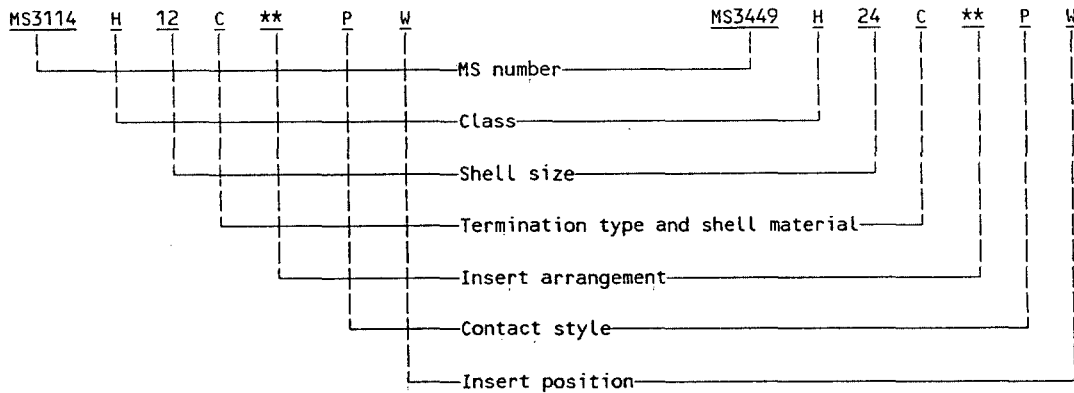
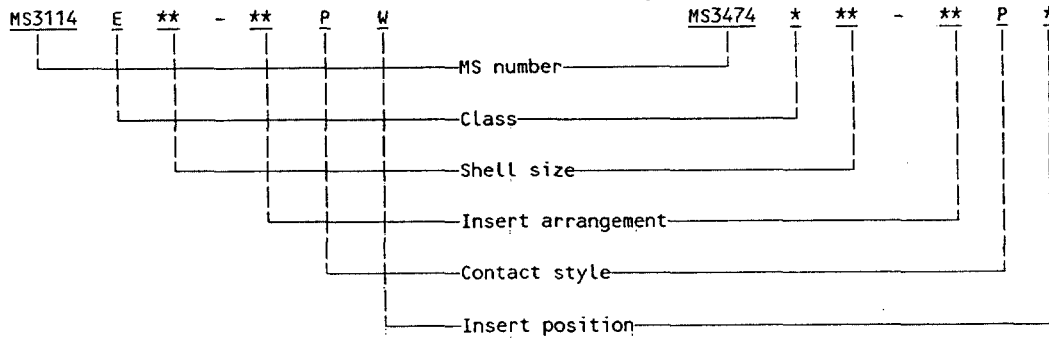


ⓐ Qualification:

QPL evaluating activity: Defense Electronics Supply Center, (DESC-E), Dayton, OH 45444.

MS3114J

(J) Superseding data:



CONCLUDING MATERIAL

Custodians:

Army - CR
 Navy - AS
 Air Force - 85

Review activities:

Army - AR
 Navy - EC, SH
 Air Force - 11, 17, 99
 DLA - ES

User activity:

Army - AV

Preparing activity:

Army - CR

Agent:

DLA - ES

(Project 5935-3904)