

INCH-POUND

MS3124F
w/AMENDMENT 1
29 April 2009
SUPERSEDING
MS3124F
07 November 2007

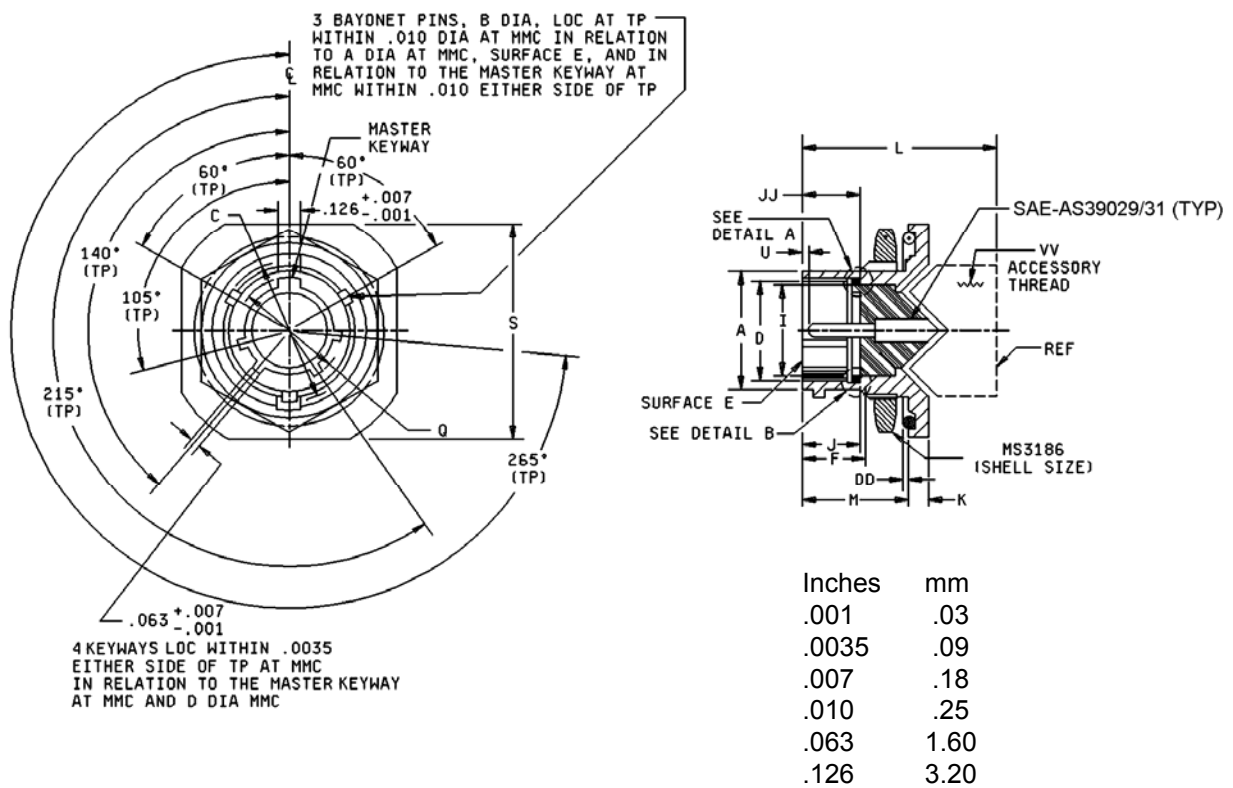
DETAIL SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRIC, CRIMP TYPE,
REAR MOUNTING, JAM NUT, BAYONET COUPLING, SERIES 1, CLASSES E, F AND P

Inactive for new design after 5 September 1975.

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

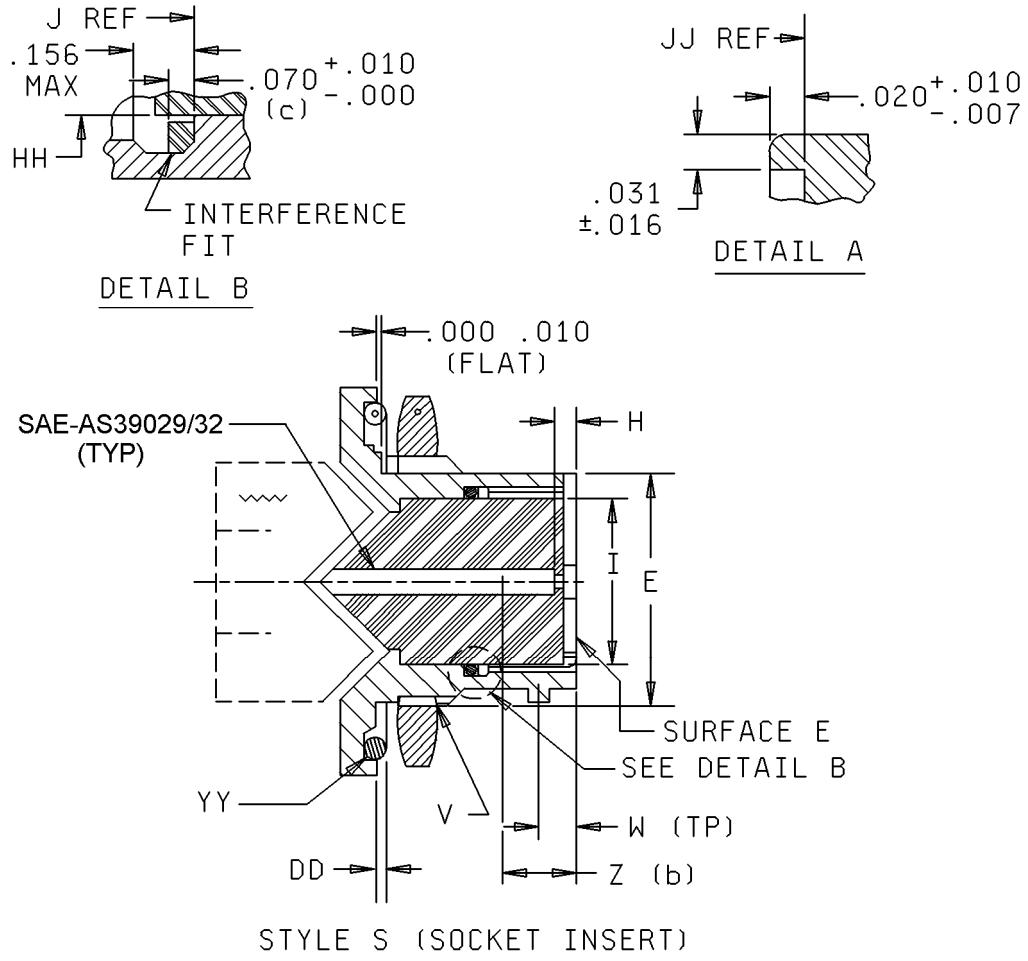
The requirements for acquiring the product described herein
shall consist of this specification sheet and MIL-DTL-26482.



STYLE P (PIN INSERT)

FIGURE 1. Receptacle, dimensions, classes E, F and P.

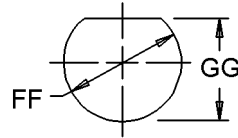
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Inches	mm
.007	.18
.010	.25
.020	.51
.031	.79
.070	1.78
.156	3.96

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

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PANEL MTG
DIMS REF

Shell size	DD +.011 O-ring protection	HH max ID gasket	FF +.010 -.005 panel mounting hole	GG +.010 -.005 panel flat location
8	.023 (.58)	.329 (8.36)	.572 (14.53)	.540 (13.72)
10		.457 (11.61)	.697 (17.70)	.665 (16.89)
12		.564 (14.33)	.885 (22.48)	.828 (21.03)
14		.689 (17.50)	1.010 (25.65)	.952 (24.18)
16		.814 (20.68)	1.135 (28.83)	1.076 (27.33)
18		.907 (23.04)	1.260 (32.00)	1.201 (30.51)
20	.028 (.71)	1.032 (26.21)	1.385 (35.18)	1.326 (33.68)
22		1.164 (29.57)	1.510 (38.35)	1.451 (36.86)
24		1.259 (31.98)	1.635 (41.53)	1.576 (40.03)

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

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Shell size	A dia +.001 -.005 OD	B dia +.006 -.002 bay pin	C dia +.000 -.016 over bay pins	D dia +.005 -.001 ID	E +.000 -.010 mounting flat	F min mounting thread location	G +.000 -.032 across flange corner
8	.473 (12.01)	.078 (1.98)	.563 (14.30)	.362 (9.19)	.530 (13.46)	.384 (9.75)	1.078 (27.38)
10	.590 (14.99)		.680 (17.27)	.490 (12.45)	.655 (16.64)		1.203 (30.56)
12	.750 (19.05)		.859 (21.82)	.607 (15.42)	.818 (20.78)		1.391 (35.33)
14	.875 (22.23)		.984 (24.99)	.732 (18.59)	.942 (23.93)		1.516 (38.51)
16	1.000 (25.40)		1.108 (28.14)	.857 (21.77)	1.066 (27.08)		1.641 (41.68)
18	1.125 (28.58)		1.233 (31.32)	.962 (24.43)	1.191 (30.25)		1.766 (44.86)
20	1.250 (31.75)		1.358 (34.49)	1.087 (27.61)	1.316 (33.43)		.446 (11.33)
22	1.375 (34.93)	1.483 (37.67)	1.212 (30.78)	1.441 (36.60)		2.078 (52.78)	
24	1.500 (38.10)	.125 (3.18)	1.610 (40.89)	1.337 (33.96)	1.566 (39.78)	.479 (12.17)	2.203 (55.96)

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

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Shell size	H + .000 - .020 socket insert location	I dia max insert	J + .010 packing location	JJ + .000 - .020 pin insert location	K \pm .016 thick mounting flange	M + .031 - .000 mounting flange location
8	.025 (.64)	.285 (7.24)	.382 (9.70)	.332 (8.43)	.117 (2.97)	.691 (17.55)
10		.402 (10.21)				
12		.516 (13.11)				
14		.641 (16.28)				
16		.766 (19.46)				
18		.855 (21.72)				
20	.087 (2.21)	.980 (24.89)	.444 (11.28)	.394 (10.01)	.148 (3.76)	.879 (22.33)
22		1.105 (28.07)				
24		1.229 (31.22)				.912 (23.16)

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

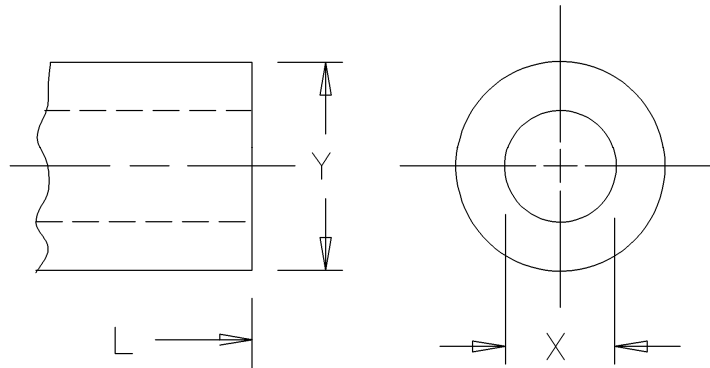
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Shell size	P panel thickness (ref)		Q dia +.005 -.006 over keyways	S max length side	U +.010 -.020 pin contact location	V class 2A mounting thread
	min	max				
8	.062 (1.57)	.125 (3.18)	.412 (10.46)	.828 (21.03)	.085 (2.16)	9/16-24
10			.540 (13.72)	.954 (24.23)		11/16-24
12			.689 (17.50)	1.047 (26.59)		7/8-20
14			.814 (20.68)	1.141 (28.98)		1-20
16			.939 (23.85)	1.234 (31.34)		1-1/8-18
18			1.039 (26.39)	1.326 (33.68)		1-1/4-18
20			.250 (6.35)			1.164 (29.57)
22	1.289 (32.74)	1.578 (40.08)			1-1/2-18	
24	1.414 (35.92)	1.703 (43.26)			1-5/8-18	

Shell size	W (TP) bay pin location	Z (b) + .000 - .078 socket contact spring location	YY O-ring seal SAE-AS29513-	VV class 2B accessory thread	
8	.100 (2.54)		017	5/8-24	
10			019	3/4-20	
12			.153 (3.89)	022	7/8-20
14				024	1-20
16				026	1-1/8-18
18				028	1-1/4-18
20			.215 (5.46)	128	1-3/8-18
22	130	1-1/2-18			
24	.109 (2.77)	132		1-5/8-18	

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

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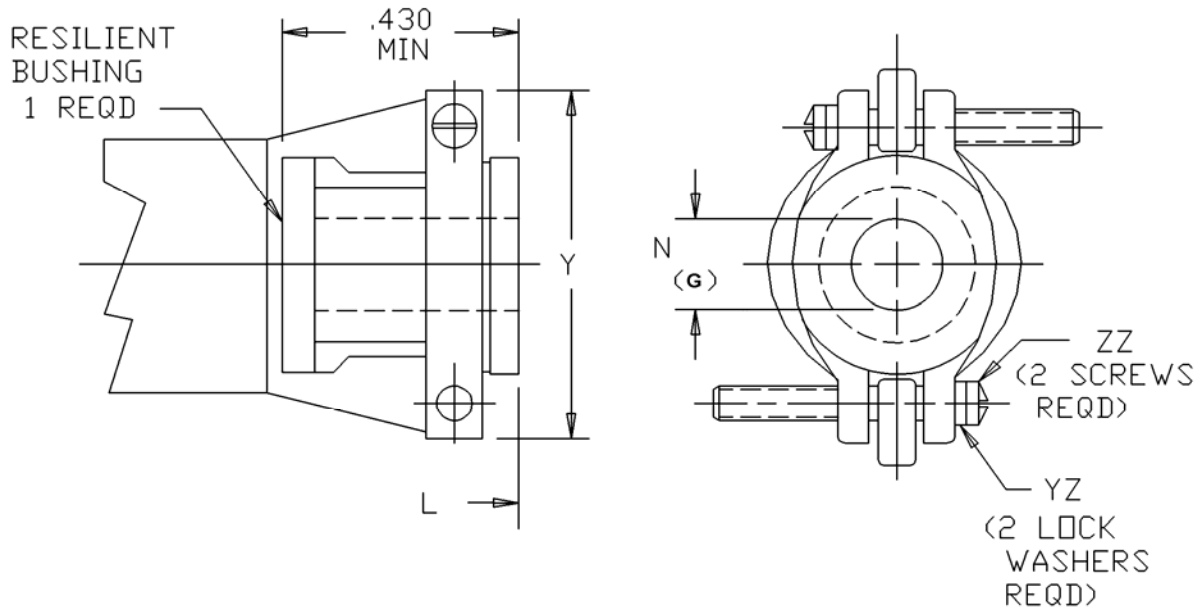


Dimensions for class E

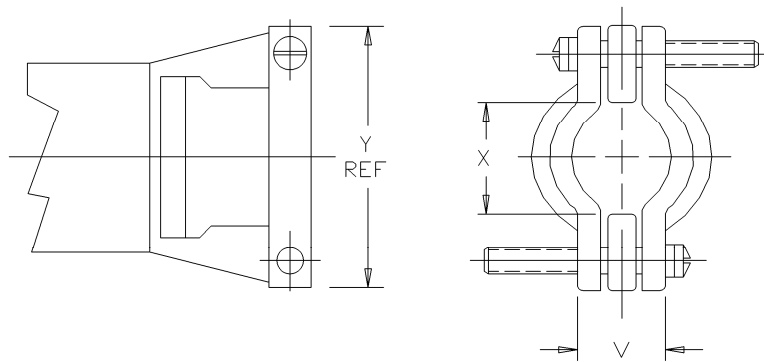
Shell size	L max over-all length	X dia min ID	Y dia max OD
8	1.552 (39.42)	.259 (6.58)	.750 (19.05)
10		.359 (9.12)	.875 (22.23)
12		.469 (11.91)	1.000 (25.40)
14		.589 (14.96)	1.125 (28.58)
16		.717 (18.21)	1.250 (31.75)
18		.779 (19.79)	1.375 (34.93)
20	1.709 (43.41)	.901 (22.89)	1.531 (38.89)
22		1.009 (25.63)	1.656 (42.06)
24		1.123 (28.52)	1.781 (45.24)

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

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Class F



Inch mm
.430 10.92

Class F, bushing removed

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

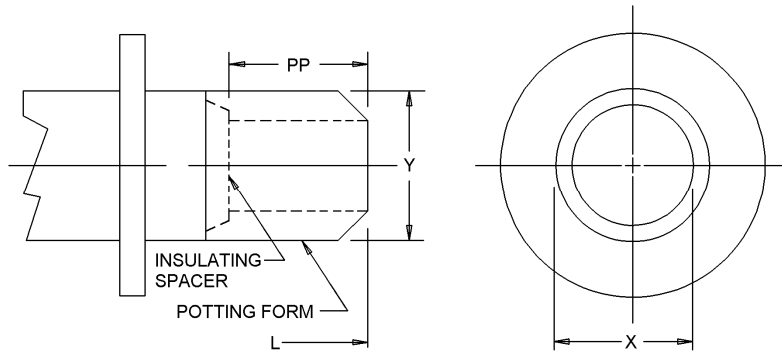
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Shell size	L max over-all length	X diameter min open	Y max	V max closed
8	2.422 (61.52)	.234 (5.94)	.828 (21.03)	.187 (4.75)
10		.297 (7.54)	.891 (22.63)	.187 (4.75)
12		.422 (10.72)	1.016 (25.81)	.281 (7.14)
14		.547 (13.89)	1.141 (28.98)	.325 (8.26)
16	2.537 (64.44)	.609 (15.47)	1.203 (30.56)	.356 (9.04)
18		.734 (18.64)	1.469 (37.31)	.456 (11.58)
20	2.824 (71.73)	.922 (23.42)	1.656 (42.06)	.519 (13.18)
22				
24	2.900 (73.66)	.984 (24.99)	1.750 (44.45)	.657 (16.69)

Shell size	N free dia $\pm .010$	ZZ screw threads	YZ lockwashers NASM35338 NASM35333
8	.110 (2.79)	6-32 UNC	NASM35338 -98 or -41 NASM35333 -105 or -37
10	.173 (4.39)		
12	.297 (7.54)		
14	.360 (9.14)		
16	.485 (12.32)	8-32 UNC	NASM35338 -99 or -42 NASM35333 -106 or -38
18	.610 (15.49)		
20	.610 (15.49)		
22	.735 (18.67)		
24	.785 (19.94)		

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

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Dimensions for class P

Shell size	L max over-all length	X dia min	Y dia max	PP min
8	1.675 (42.55)	.317 (8.05)	.608 (15.44)	.250 (6.35)
10		.434 (11.02)	.734 (18.64)	
12		.548 (13.92)	.858 (21.79)	
14		.673 (17.09)	.984 (24.99)	
16		.798 (20.27)	1.110 (28.19)	
18		.899 (22.83)	1.234 (31.34)	
20	1.963 (49.86)	1.024 (26.01)	1.360 (34.54)	
22	1.963 (49.86)	1.149 (29.18)	1.484 (37.69)	
24	2.025 (51.44)	1.274 (32.36)	1.610 (40.89)	

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Distance between end of shell and the point at which a gage pin having the same basic diameter as the mating contact and a square face first engages socket contact spring.
3. Packing material shall meet the requirements of ASTM-D2000.
4. True position (TP) tolerances specified are in accordance with ASME Y14.5M.
5. For class F: Use MS3420 bushing if reduced opening is required. Lockwashers may be captivated.

FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

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REQUIREMENTS:

Dimensions and configuration: See figure 1.

Connector mating: This connector mates with MS3121 and MS3126.

Insert arrangement shall be in accordance with MIL-STD-1669.

Sealing member: Bonded to vitreous insert.

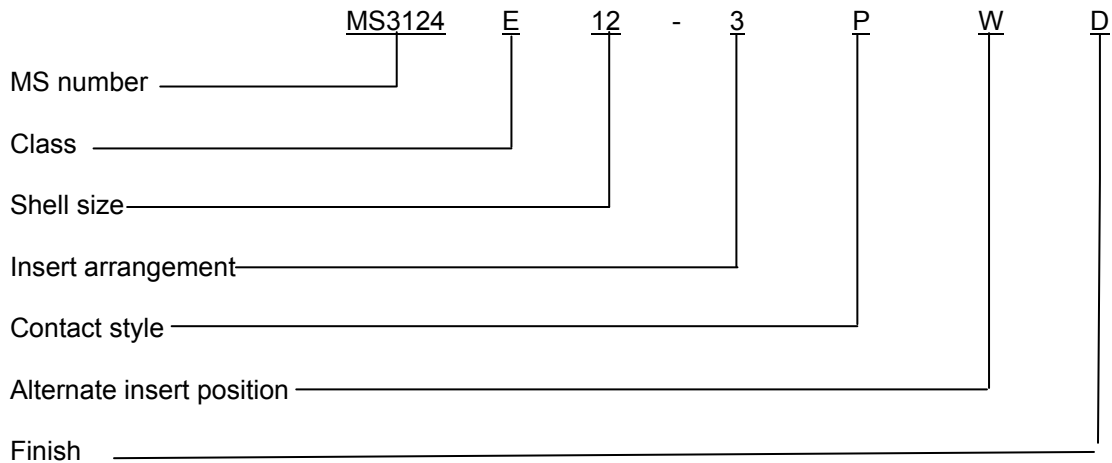
Packing material shall meet the requirements of ASTM-D2000.

Finishes: A finish designator shall not be included in the PIN when finish W is required. See MIL-DTL-26482 for alternative finishes D, T and Z for classes E, F and P.

Material:

- a. Shell - aluminum alloy.
- b. Bayonet pins (B dia) - stainless steel, passivated.

Part or Identifying Number (PIN) example:



Note: When finish W is required, no finish designator is used (class W is the default finish).

Amendment Notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

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Referenced documents. In addition to MIL-DTL-26482, this document references the following:

MS3121
MS3126
MS3186
MS3420
MIL-STD-1669
ASME Y14.5M
ASTM-D2000
SAE-AS29513
SAE-AS39029/31
SAE-AS39029/32
NASM35333
NASM35338

CONCLUDING MATERIAL

Custodians:

Army - CR
Air Force - 85
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-2008-130)

Review activities:

Army - AR, MI

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