

INCH-POUND

MS3120G
29 April 2009
SUPERSEDING
MS3120F
6 June 2003

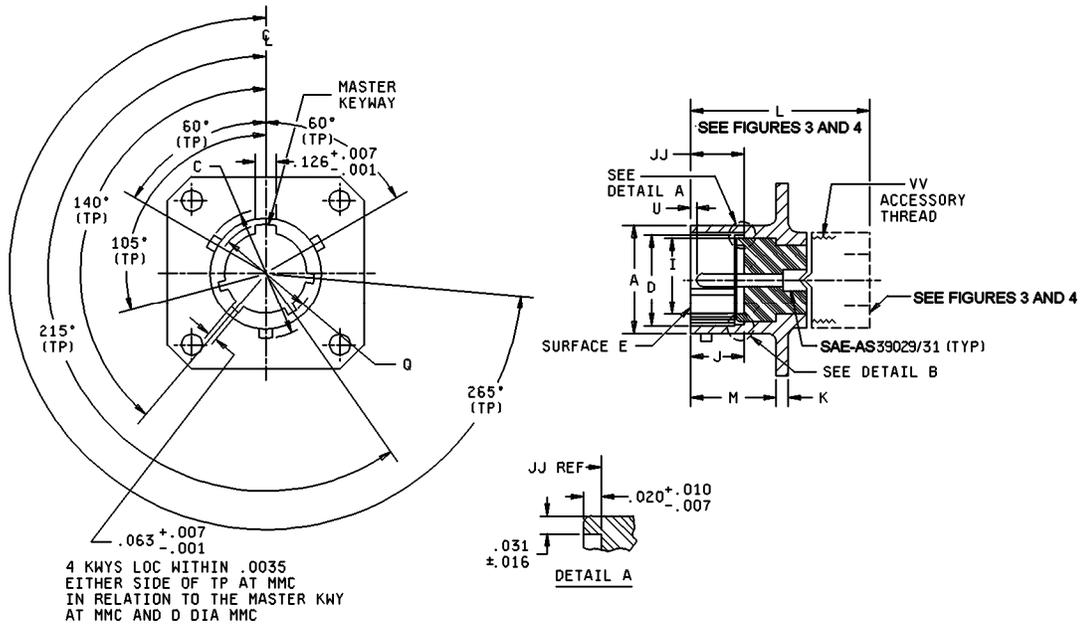
DETAIL SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRICAL, CRIMP TYPE,
WALL MOUNTING, FLANGE, NO. 4 HOLES, 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 and MIL-DTL-26482.



STYLE P (PIN INSERT)

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

MS3120G

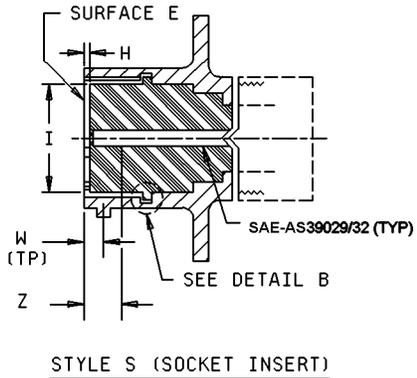
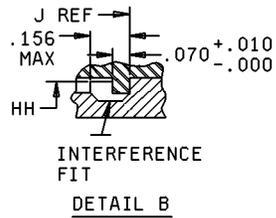
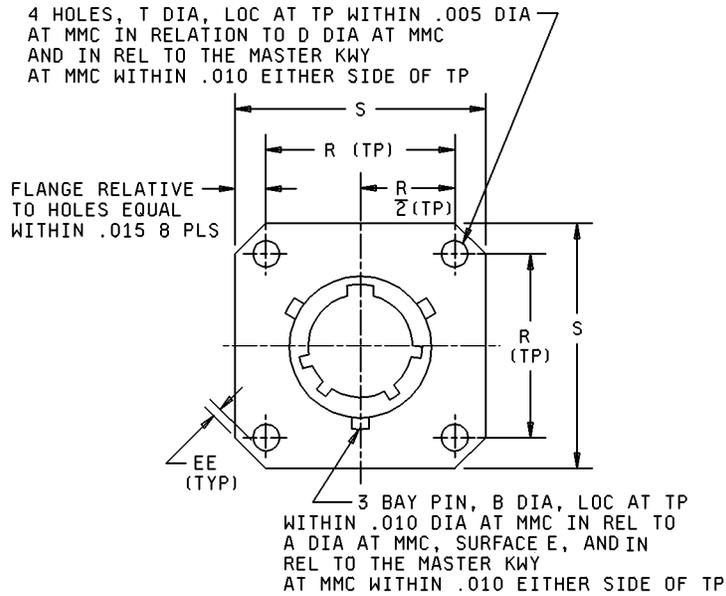


FIGURE 1. Receptacle, dimensions, classes E, F and P – Continued.

MS3120G

Shell size	A dia +.001 -.005 OD	B +.006 -.002 bay pin dia	C dia +.000 -.016 over bay pins	D dia +.005 -.001 ID	H +.000 -.020 socket insert location
8	.473	.078	.563	.362	.025
10	.590		.680	.490	
12	.750		.859	.607	
14	.875		.984	.732	
16	1.000		1.108	.857	
18	1.125		1.233	.962	
20	1.250		1.358	1.087	
22	1.375	1.483	1.212	.087	
24	1.500	.125	1.610		1.337

Shell size	I max insert dia	J ±.010 packing location	JJ +.000 -.020 pin insert location	K +.016 thick mounting flange	M +.031 -.000 mounting flange location
8	.285	.382 (9.70)	.332 (8.43)	.062 (1.57)	.431 (10.95)
10	.402				
12	.516				
14	.641				
16	.766				
18	.855				
20	.980	.444 (11.28)	.394 (10.01)	.094 (2.39)	.556 (14.12)
22	1.105				.589 (14.96)
24	1.229				

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

MS3120G

Shell size	Q +.005 -.006 dia over keyways	R (TP) mounting holes	S max length side	T ±.005 dia mounting holes	U +.010 -.020 pin contact location
8	.412	.594	.828	.120 (3.05)	.085 (2.16)
10	.540	.719	.954		
12	.689	.812	1.047		
14	.814	.906	1.141		
16	.939	.969	1.234		
18	1.039	1.062	1.326		
20	1.164	1.156	1.453		
22	1.289	1.250	1.578		.147 (3.73)
24	1.414	1.375	1.703		

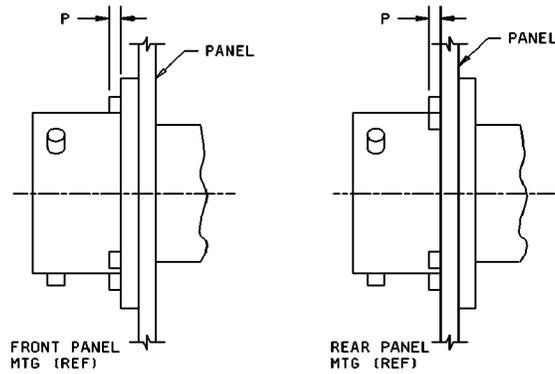
Shell size	W (TP) bay pin location	Z +.000 -.078 socket contact spring location (see note 2)	V V class 2A accessory thread	EE min edge dist
8	.100 (2.54)	.153 (3.89)	7/16-28	.035 (0.89)
10			9/16-24	
12			11/16-24	
14			13/16-20	
16			15/16-20	
18			1-1/16-18	
20		.215 (5.46)	1-3/16-18	.050 (1.27)
22			1-5/16-18	
24	1-7/16-18			

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.

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

MS3120G



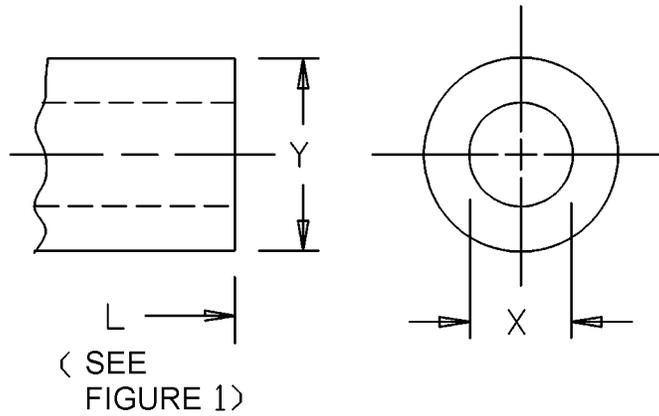
Shell size	HH max ID gasket	P max
8	.329 (8.36)	.087 (2.21)
10	.457 (11.61)	
12	.564 (14.33)	
14	.689 (17.50)	
16	.814 (20.68)	
18	.907 (23.04)	
20	1.039 (26.39)	.212 (5.38)
22	1.164 (29.57)	
24	1.289 (32.74)	

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Interchangeability dimensions shall be in accordance with MIL-DTL-26482.

FIGURE 2. Panel dimensions, classes E, F and P.

MS3120G



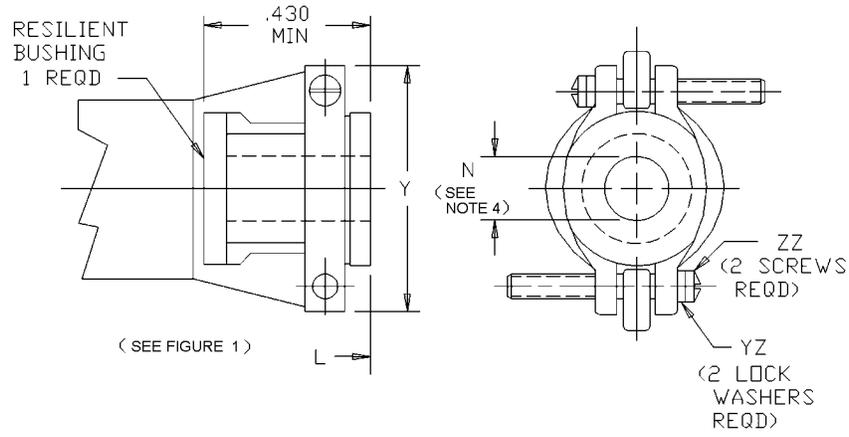
Shell size	L max over-all length	X dia min ID	Y dia max OD
8	1.552 (39.42)	.259 (6.58)	.608 (15.44)
10		.359 (9.12)	.734 (18.64)
12		.469 (11.91)	.858 (21.79)
14		.589 (14.96)	.984 (24.99)
16		.717 (18.21)	1.110 (28.19)
18		.779 (19.79)	1.234 (31.34)
20	1.709 (43.41)	.901 (22.89)	1.360 (34.54)
22		1.009 (25.63)	1.484 (37.69)
24		1.123 (28.52)	1.610 (40.89)

NOTES:

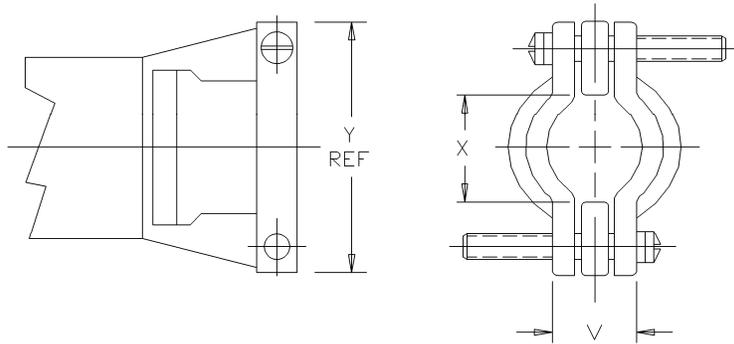
1. Dimensions are in inches. Metric equivalents are given for information only.
2. Interchangeability dimensions shall be in accordance with MIL-DTL-26482.

FIGURE 3. Receptacle, dimensions, class E.

MS3120G



Bushing installed



Bushing removed

FIGURE 4. Receptacle, dimensions, class F.

MS3120G

Shell size	L max over-all length	X dia 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				.519 (13.18)
22	2.824 (71.73)	.922 (23.42)	1.656 (42.06)	
24	2.900 (73.66)	.984 (24.99)	1.750 (44.45)	.657 (16.69)

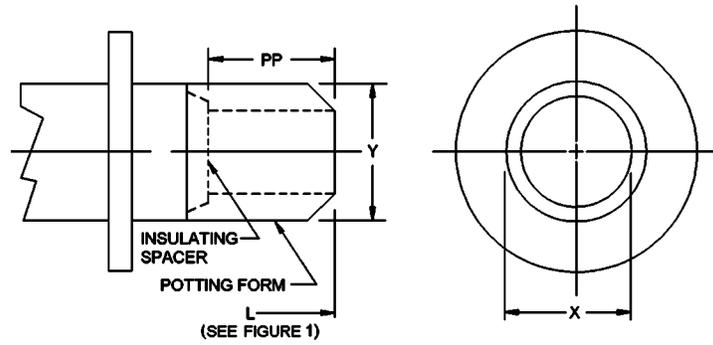
Shell size	N free dia (see note 4)	ZZ screw threads	YZ lock washers NASM35338 or NASM35333
8	.125 (3.18)	6-32 UNC	NASM35338 -98 or -41 NASM35333 -105 or -37
10	.188 (4.78)		
12	.312 (7.92)		
14	.375 (9.53)		
16	.500 (12.70)		
18	.625 (15.88)	8-32 UNC	NASM35338 -99 or -42 NASM35333 -106 or -38
20	.625 (15.88)		
22	.750 (19.05)		
24	.800 (20.32)		

NOTES:

1. Dimensions are in inches. Metric equivalents are given for information only.
2. Interchangeability dimensions shall be in accordance with MIL-DTL-26482.
3. Use MS3420 bushing if reduced opening is required.
4. Lockwashers may be captivated.

FIGURE 4. Receptacle, dimensions, class F – Continued.

MS3120G



Shell size	L max over-all length	X dia min ID	Y dia max OD	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. Intermateability dimensions shall be in accordance with MIL-DTL-26482.

FIGURE 5. Receptacle, dimensions, class P – Continued.

MS3120G

REQUIREMENTS:

Dimensions and configuration: See figures 1 through 5.

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.

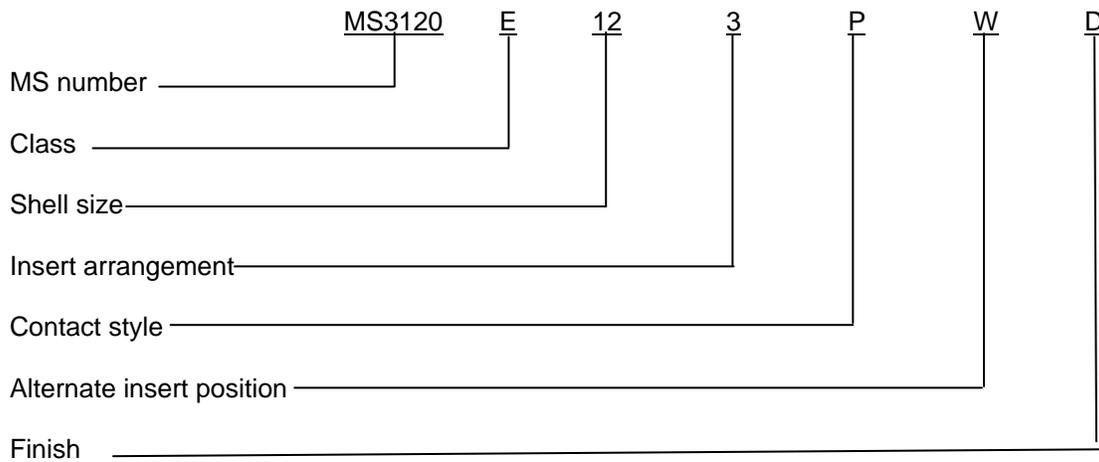
Finishes: A finish designator shall not be included in the PIN when finish W is required.

See MIL-DTL-26482 for available 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: No finish designator is used when finish W is required (finish W is the default finish).

Changes from previous issue: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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

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

MS3120G

CONCLUDING MATERIAL

Custodians:

Army - CR
Air Force - 85
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-2007-181)

Review activities:

Army - CR4, MI
Air Force - 99

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 <http://assist.daps.dla.mil>.