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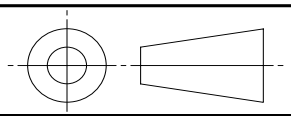
THIRD ANGLE PROJECTION



CUSTODIAN: SAE AE-8/AE-8C1

PROCUREMENT SPECIFICATION: MIL-C-81582

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CONNECTOR, PLUG, ELECTRIC, BAYONET COUPLING, LANYARD RELEASE, RFI SHIELDED, CRIMP-TYPE CONTACTS, CLASS E

AS81582/2
SHEET 1 OF 5

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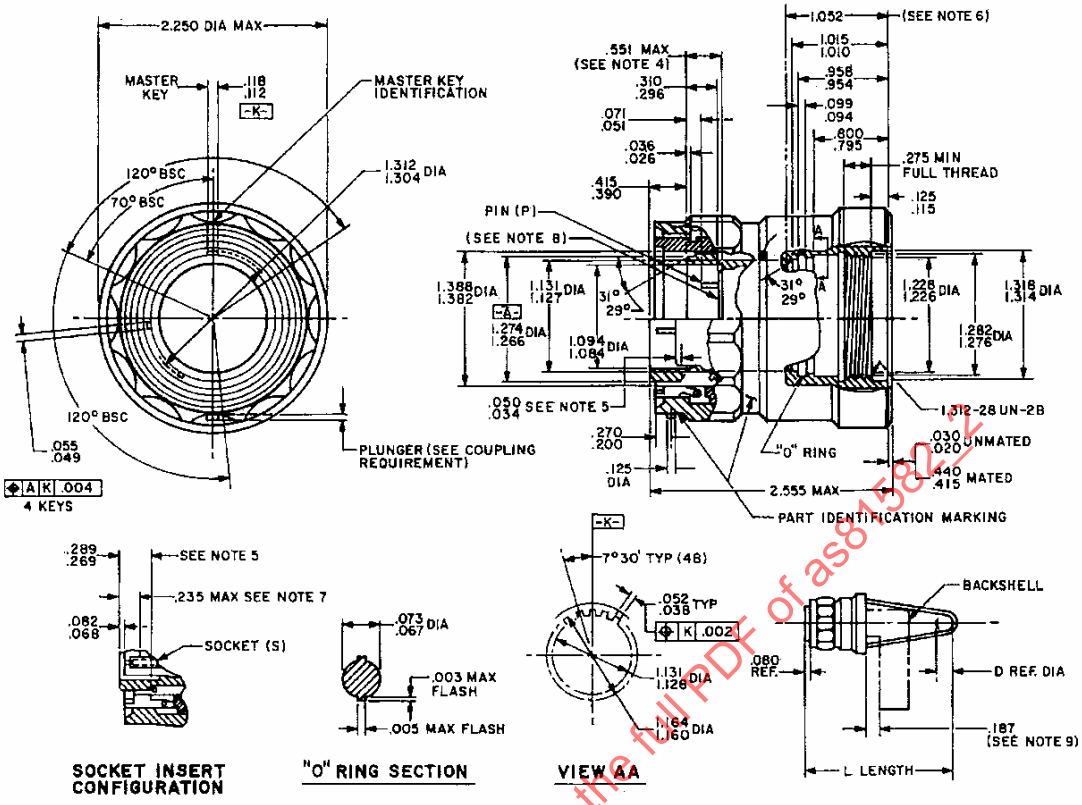

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
2. ALL DIMENSIONS ARE AFTER PLATING.
3. NORMAL MATING KEY LOCATION SHOWN (SEE 1.2.1.6).
4. DISTANCE FROM FRONT OF SHELL TO THE POINT AT WHICH THE FACE OF A GAGE HAVING THE SAME BASIC GEOMETRY AS THE MATING SHELL ENGAGES AT MMC.
5. DISTANCE FROM SHOULDER OF PAWL TO FACE OF INSERT WHEN CONNECTOR IS FULLY MATED.
6. DISTANCE FROM BACK OF CONNECTOR SHELL TO THE POINT AT WHICH THE BACKSHELL BOTTOMS AGAINST THE CONNECTOR SHELL.
7. DISTANCE FROM FRONT OF SHELL TO THE POINT AT WHICH A GAGE PIN, HAVING THE SAME BASIC DIAMETER AS THE MATING CONTACT WITH A SQUARE END, ENGAGES THE SOCKET CONTACT SPRING.
8. POSITION OF INSERT IN UNMATED CONNECTOR INSERT MOVES FORWARD DURING MATING.
9. MINIMUM ALLOWABLE CLEARANCE FOR TRAVEL OF COUPLING RING WHILE UNCOUPLING.

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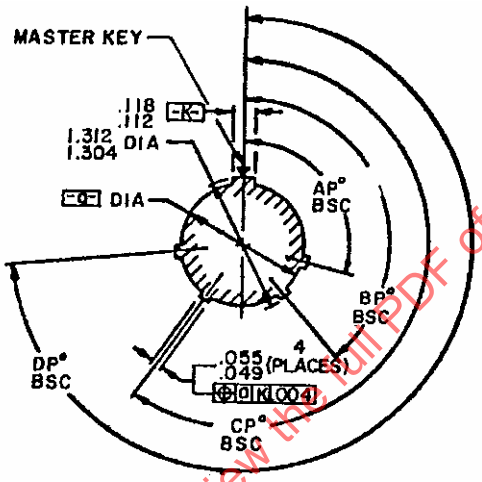
INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
.002	.05	.067	1.70	.235	5.97	.954	24.23	1.228	31.19
.003	.08	.068	1.73	.269	6.83	.958	24.33	1.266	32.16
.004	.10	.071	1.80	.270	6.86	1.010	25.65	1.274	32.36
.005	.13	.073	1.85	.275	6.99	1.015	25.78	1.276	32.41
.020	.51	.080	2.03	.289	7.34	1.052	26.72	1.282	32.56
.026	.66	.082	2.08	.296	7.52	1.084	27.53	1.304	33.12
.030	.76	.094	2.39	.310	7.87	1.094	27.79	1.312	33.32
.034	.87	.099	2.51	.390	9.91	1.127	28.63	1.314	33.38
.036	.91	.112	2.84	.415	10.54	1.128	28.65	1.318	33.48
.038	.97	.115	2.92	.440	11.18	1.131	28.73	1.382	35.10
.049	1.24	.118	3.00	.551	14.00	1.160	29.46	1.388	35.26
.050	1.27	.125	3.18	.795	20.19	1.164	29.57	2.250	57.15
.051	1.30	.187	4.75	.800	20.32	1.226	31.14	2.555	64.90
.052	1.32	.200	5.08						
.055	1.40								



KEYWAY POSITIONS
PLUG TYPE SHELL
SHELL SIZE 22
FRONT FACE VIEW

KEY AND KEYWAY POSITION NUMBER	AP° BASIC	BP° BASIC	CP° BASIC	DP° BASIC
A (NORMAL)	105	140	215	265
B	18	149	192	259
C	92	152	222	342
D	84	152	204	334
E	24	135	199	240
F	98	152	268	330

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REQUIREMENTS:

INSERT ARRANGEMENTS: SEE MIL-STD-1672.

SERVICE RATING: I.

SOCKET CONTACTS: SOCKET CONTACTS SHALL CONFORM TO MIL-C-39029/5.

PIN CONTACTS: PIN CONTACTS SHALL CONFORM TO MIL-C-39029/4.

GROMMET SEALING PLUGS: GROMMET SEALING PLUGS SHALL CONFORM TO MS27488.

WEIGHT INCLUDING CONTACTS BUT LESS LANYARD: 0.55 POUNDS MAXIMUM.

MATING: THIS CONNECTOR MATES WITH M81582/1 RECEPTACLES.

CONNECTORS: ALL REQUIREMENTS OF MIL-C-81582 FOR INDIVIDUAL CONNECTORS APPLY, EXCEPT AS FOLLOWS:

DIELECTRIC MATERIAL: RIGID DIELECTRIC MATERIAL SHALL BE GLASS FILLED MOLDABLE EPOXY ON SOCKET CONTACT CONNECTORS.

COUPLING: IN ADDITION TO THE COUPLING REQUIREMENTS OF MIL-C-81582, THE COUPLING MECHANISM SHALL BE CAPTIVE TO THE PLUG SHELL. VISUAL AND MECHANICAL INDICATION OF THE FULLY MATED CONDITION OF THE CONNECTOR ASSEMBLY SHALL BE GIVEN BY A PLUNGER EXTENDING APPROXIMATELY 1/16 INCH BEYOND THE CONNECTOR SHELL PERIPHERY. THE PLUNGER SHALL RETRACT WHEN COUNTERPART CONNECTORS ARE NOT IN THE LOCKED POSITION. THE PLUNGER SHALL BE A CONTRASTING COLOR TO THE SHELL.

BAYONET PINS (ENGAGEMENT OF CONNECTORS): NOT APPLICABLE.

CONTACT RETENTION: THE FOLLOWING TABLE SHALL BE SUBSTITUTED FOR THE CONTACT RETENTION-AXIAL LOADS TABLE OF MIL-C-81582.

CONTACT SIZE	AXIAL LOAD (POUNDS-MAXIMUM)
20-20	20
16-16	25
12-12	30

LANYARD RELEASE FORCE: 40 ±10 POUNDS.

LUBRICATING OIL: AIRCRAFT ENGINE LUBRICATING OIL CONFORMING TO MIL-L-9236 SHALL BE SUBSTITUTED FOR LUBRICATING OIL MIL-L-23699 IN THE SOLVENT IMMERSION TEST.

SOLVENT IMMERSION TEST: IN JP-4 FUEL ONLY, THE FRONT INSERT OF THE CONNECTOR SHALL BE IMMERSED. THIS TEST SHALL BE PERFORMED ON TEST SAMPLE NUMBER FOUR IN THE QUALIFICATION INSPECTION FOR REMOVABLE CONTACT TYPE CONNECTOR TABLE.

MATING AND UNMATING FORCES: MATING AND UNMATING FORCES REQUIREMENTS SHALL APPLY, EXCEPT AS FOLLOWS:

1. MATING AND UNMATING FORCE (WITH CONTACTS) 50 INCH-POUNDS MAXIMUM.
2. UNMATING FORCE (WITH CONTACTS) 20 INCH-POUNDS MINIMUM.
3. UNMATING FORCE (WITHOUT CONTACTS) 15 INCH-POUNDS MINIMUM.

DURABILITY: THE FOLLOWING PARAGRAPH SHALL BE SUBSTITUTED FOR THE DURABILITY PARAGRAPH IN MIL-C-81582. COUNTERPART CONNECTORS SHALL SHOW NO MECHANICAL OR ELECTRICAL DEFECTS DETRIMENTAL TO THE OPERATION OF THE CONNECTORS AFTER 1,500 CYCLES OF COUPLING AND UNCOUPLING. AFTER 500 CYCLES, THE CONNECTORS SHALL COMPLY WITH THE COUPLING TORQUE REQUIREMENTS. AFTER 1,500 CYCLES, THE CONNECTORS SHALL COMPLY WITH THE COUPLING TORQUE REQUIREMENTS, EXCEPT THAT THE TORQUE REQUIRED TO DISENGAGE THE CONNECTORS MAY BE 30 PERCENT LOWER THAN THE MINIMUM DISENGAGEMENT TORQUE SPECIFIED IN THE MATING AND UNMATING FORCES TABLE OF MIL-C-81582.

COUPLING RING: CONNECTORS SHALL BE MATED AND UNMATED 1,200 TIMES WITH THE COUPLING RING. THE CONNECTOR SHALL BE MOUNTED AS IN SERVICE.

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