

REV.
C

SAE AS20659

FEDERAL SUPPLY CLASS
5940

RATIONALE

REVISION REQUIRED TO ADD AMENDMENT AS20659B-A1

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF: SAE AS7928.

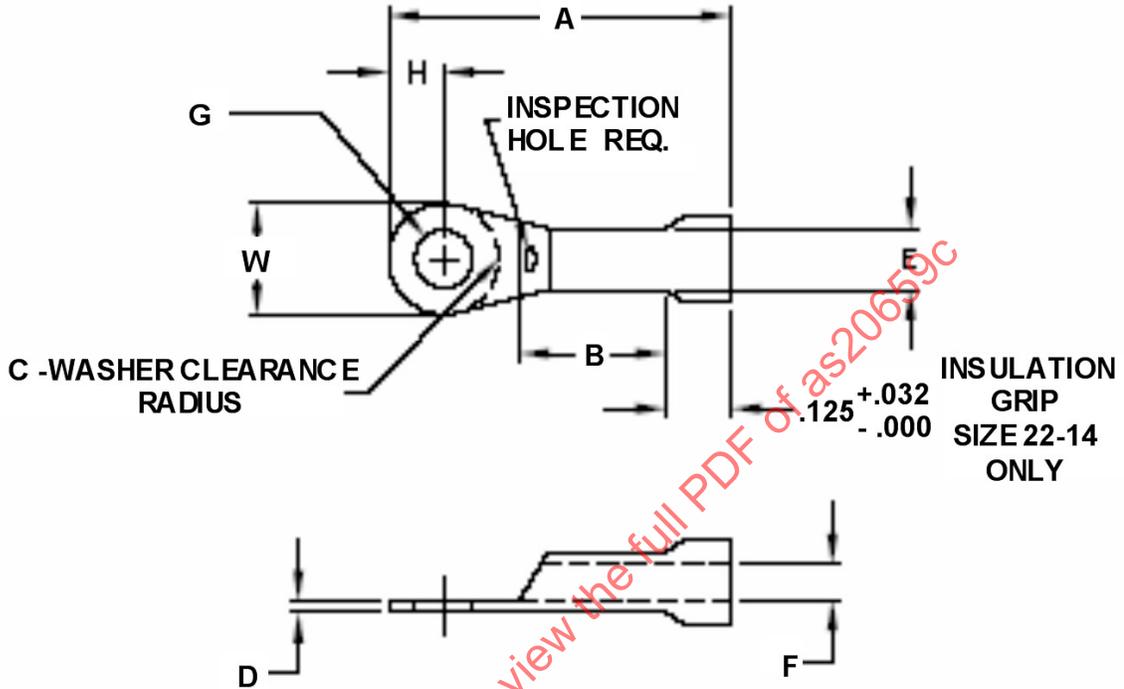


FIGURE 1 - INSULATION GRIP AND TERMINAL

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CUSTODIAN: AE-8/AE-8C2

PROCUREMENT SPECIFICATION: AS7928

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

TERMINAL, LUG, CRIMP STYLE, COPPER, UNINSULATED, RING TONGUE, TYPE I, CLASS 1, FOR 175 °C TOTAL CONDUCTOR TEMPERATURE

SAE AS20659
SHEET 1 OF 6

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ISSUED 1998-07 REVISED 2010-10

TABLE 1 - DIMENSIONS

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN RADIUS	D		E DIA	F DIA	G DIA		J DIA MIN	W	
						MAX	MIN			MAX	MIN		MAX	MIN
167	22-18	2 (.086)	.890	.250	.115	.045	.023	.140 .115	.073 .052	.098	.090	.120	.260	.178
138		4 (.112)	.890		.125					.122	.114		.260	.178
101		6 (.138)	.890		.125					.152	.142		.260	.210
102		10 (.190)	.968		.172					.203	.193		.320	.305
161		5/16 (.312)	1.187		.284					.338	.323		.540	.450
125		3/8 (.375)	1.308		.328					.400	.385		.540	.520
162		1/2 (.500)	1.530		.378					.525	.510		.733	.703
139		16-14	4 (.112)		.947					.250	.125		.053	.029
103	6 (.138)		.955	.172	.152	.142	.327	.297						
126	6 (.138)		.947	.125	.152	.142	.266	.234						
104	10 (.190)		.955	.172	.203	.193	.327	.234						
163	5/16 (.312)		1.249	.284	.338	.323	.540	.450						
127	3/8 (.375)		1.290	.328	.400	.385	.540	.520						
164	1/2 (.500)		1.593	.378	.525	.510	.733	.703						
165	12-10		6 (.138)	.955	.250	.202	.080	.037	.230 .210		.139 .129	.152		
105		10 (.190)	.969	.172		.203				.193		.391	.365	
106		5/16 (.312)	1.156	.296		.338				.323		.547	.485	
128		3/8 (.375)	1.172	.328		.400				.385		.598	.536	
166		1/2 (.500)	1.718	.378		.525				.510		.733	.703	
140	8	8 (.164)	1.150	.315	.234	.084	.038	.272 .260	.186 .176	.178	.168		.429	.386
107		10 (.190)	1.150		.234					.203	.193		.429	.386
141		1/4 (.250)	1.219		.265					.275	.260		.478	.435
108		5/16 (.312)	1.297		.296					.338	.323		.590	.547
129		3/8 (.375)	1.297		.328					.400	.385		.590	.547
142		1/2 (.500)	1.545		.440					.525	.510		.833	.680
130	6	10 (.190)	1.312	.375	.238	.084	.043	.316 .295	.232 .222	.203	.193		.503	.460
109		1/4 (.250)	1.312		.265					.275	.260		.503	.460
131		5/16 (.312)	1.437		.305					.338	.323		.623	.580
110		3/8 (.375)	1.437		.328					.400	.385		.623	.580
143		1/2 (.500)	1.676		.440					.525	.510		.833	.700

TABLE 1- DIMENSIONS (CONTINUED)

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN RADIUS	D		E DIA	F DIA	G DIA		J DIA MIN	W			
						MAX	MIN			MAX	MIN		MAX	MIN		
144	4	10 (.190)	1.400	.437	.276	.096	.047	.380 .365	.290 .280	.203	.193		.628	.480		
111		1/4 (.250)	1.400		.276					.275	.260					
132		5/16 (.312)	1.489		.308					.338	.323		.648	.605		
112		3/8 (.375)	1.489		.328					.400	.385					
145		1/2 (.500)	1.721		.440					.525	.510				.833	.710
146	2	10 (.190)	1.732	.505	.343	.109	.054	.473 .450	.365 .355	.203	.193		.711	.668		
113		1/4 (.250)								.275	.260		.711	.668		
147		5/16 (.312)								.338	.323		.711	.668		
114		3/8 (.375)								.400	.385		.711	.668		
148		7/16 (.437)								1.895	.463		.448	.804	.740	
133		1/2 (.500)								1.895	.453		.525	.510	.804	.740
115		1/4 (.250)								1.845	.565		.383	.125	.070	.527 .505
149	5/16 (.312)	.338	.323	.783	.740											
116	3/8 (.375)	.383	.385	.783	.740											
150	7/16 (.437)	1.980	.463	.448	.887	.740										
134	1/2 (.500)	1.980	.453	.525	.510	.887	.740									
117	0	1/4 (.250)	2.045	.68	.418	.125	.070	.578 .558	.458 .438	.275	.260		.853	.810		
151		5/16 (.312)								.338	.323		.853	.810		
118		3/8 (.375)								.418	.385		.853	.810		
152		7/16 (.437)								2.092	.463		.448	.903	.860	
135		1/2 (.500)								2.092	.453		.525	.510	.903	.860
153	00	1/4 (.250)	2.320	.70	.473	.129	.075	.640 .620	.520 .500	.275	.260		.956	.913		
119		5/16 (.312)								.338	.323					
120		3/8 (.375)								.400	.385					
154		7/16 (.437)								.463	.448					
136		1/2 (.500)								.525	.510					

TABLE 1- DIMENSIONS (CONTINUED)

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN RADIUS	D		E DIA	F DIA	G DIA		J DIA MIN	W	
						MAX	MIN			MAX	MIN		MAX	MIN
155	000	5/16 (.312)	2.455	.718	.513	.140	.085	.714 .690	.577 .557	.338	.323		1.053	1.010
121		3/8 (.375)								.400	.385			
156		7/16 (.437)								.463	.448			
122		1/2 (.500)								.525	.510			
157	0000	5/16 (.312)	2.755	.734	.560	.150	.095	.784 .760	.645 .622	.338	.323		1.148	1.095
123		3/8 (.375)								.400	.385			
158		7/16 (.437)								.463	.448			
124		1/2 (.500)								.525	.510			
159		5/8 (.625)								.666	.651			
160		3/4 (.750)								.785	.770			
137		7/8 (.875)								.910	.895			

NOTES:

1. DIMENSIONS ARE IN INCHES (SEE TABLE 1).
2. CONTOUR INDICATED BY PHANTOM LINES MAY VARY FROM THAT SHOWN TO SUIT INDIVIDUAL MANUFACTURER'S DESIGNS.
3. A CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.

REQUIREMENTS:

1. DIMENSIONS (SEE TABLE 1): H MAX AND MIN DIMENSIONS SHALL BE ONE-HALF OF THE W MAX AND MIN DIMENSIONS, RESPECTIVELY. AVERAGE DIAMETER OF E AND F SHALL BE WITHIN REQUIRED DIMENSIONS AND THE MAX AND MIN DIMENSION VALUES DUE TO OVALIZATION SHALL BE WITHIN 3% OF THE DIMENSION REQUIREMENT.
2. DESIGN: A SPLIT BARREL CONSTRUCTION SHALL BE PERMANENTLY SEALED AND SHALL NOT OPEN AFTER CRIMPING.
3. BASE MATERIAL: COPPER (SEE AS7928 FOR MATERIAL DETAILS) OR COPPER ALLOY. MATERIAL SHALL HAVE ADEQUATE ELECTRICAL CONDUCTIVITY AND SHALL BE SUFFICIENTLY STRONG TO RESIST CRACKING AFTER FORMING AND CRIMPING. COPPER MAY BE GILDING METAL, 95% COPPER AND 5% ZINC.
4. FINISH: TIN PLATED (SEE AS7928 FOR MATERIAL DETAILS).
5. CRIMPING TOOLS: CRIMPING TOOLS SHALL BE AS SPECIFIED TABLE 2.

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	TERMINAL, LUG, CRIMP STYLE, COPPER, UNINSULATED, RING TONGUE, TYPE I, CLASS 1, FOR 175 °C TOTAL CONDUCTOR TEMPERATURE		