

REV.
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AS7928™/1

FEDERAL SUPPLY CLASS
5940

RATIONALE

REVISION INCLUDES NEW CRIMP TOOLS AND EDITORIAL CHANGES AS NEEDED.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS7928.

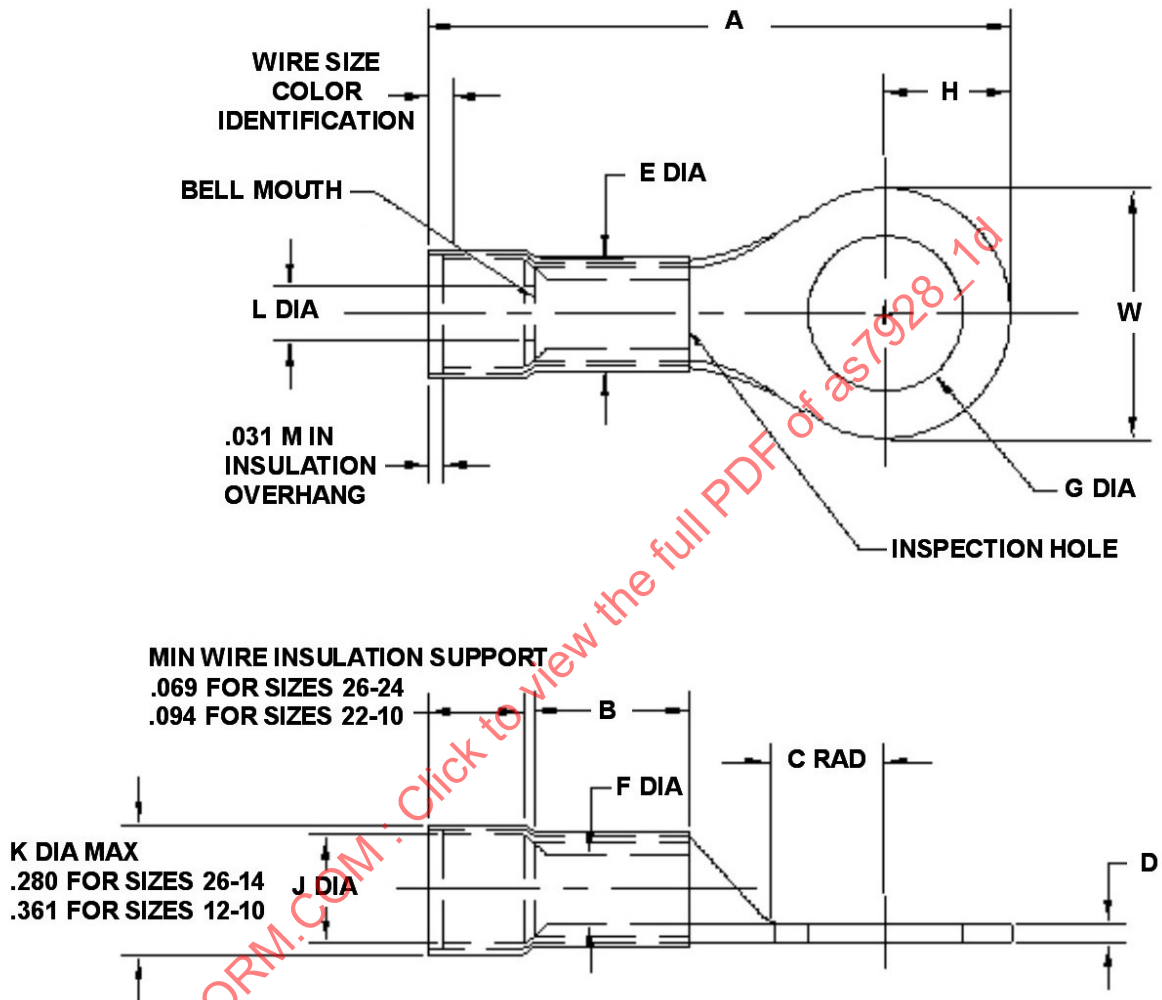
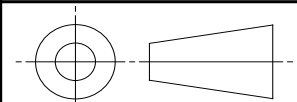


FIGURE 1 - TERMINAL CONSTRUCTION

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS7928/1D>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C2

PROCUREMENT SPECIFICATION: AS7928



AEROSPACE STANDARD

(R) TERMINALS, LUG AND SPLICES, CONDUCTOR, CRIMP STYLE, COPPER TERMINAL, LUG, CRIMP STYLE, COPPER, INSULATED, RING TONGUE, FOR THIN WALL WIRE, TYPE II CLASS 1 FOR 105 °C TOTAL CONDUCTOR TEMPERATURE

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TABLE 1 - DIMENSIONS

DASH NO.	TERM SIZE	STUD SIZE			B MIN.	C MIN. RAD.	D	E DIA.	F DIA.	G DIA		J MIN. DIA.	L	W & H 1/		INSUL. SLEEVE COLOR	WIRE SIZE COLOR	
		STUD	DIA (IN)	A MAX.						MAX.	MIN.			MAX.	MIN.			
1	26	2	(.086)	.740	.126	.133	.028 .022	.215 .190	.033 .022	.098	.090	.060	.028 .022	.210	.133	YELLOW	BLACK	
2		4	(.112)	.786		.171				.122	.114			.260	.193			
3		6	(.138)	.886		.202				.152	.142			.330	.245			
4		8	(.164)			.178				.168								
5		10	(.190)			.227				.203	.193							
6	24	2	(.086)	.740	.126	.133	.028 .022	.215 .190	.033 .027	.098	.090	.070	.033 .027	.210	.133	YELLOW	BLUE	
7		4	(.112)	.786		.171				.122	.114			.260	.193			
8		6	(.138)	.886		.202				.152	.142			.330	.245			
9		8	(.164)			.178				.168								
10		10	(.190)			.227				.203	.193							
70	22	2	(.086)	.790	.156	.115	.037 .029	.215 .190	.070 .034	.098	.090	.080	.039 .034	.230	.198	RED	GREEN	
11		4	(.112)	.801		.125				.122	.114				.210			
12		6	(.138)	.911		.202				.152	.142			.260	.245			
13		6	(.138)							.178	.168							
14		8	(.164)	.956		.234				.203	.193			.320	.305			
15		10	(.190)	1.136		.265				.275	.260							
16		1/4	(.250)			.296				.338	.323			.473	.450			
17		5/16	(.312)			.328				.400	.385							
18		3/8	(.375)	1.366		.453				.525	.510			.720	.705			
19		1/2	(.500)															
71	20	2	(.086)	.790	.156	.115	.037 .029	.215 .190	.070 .042	.098	.090	.090	.048 .042	.230	.198	RED	RED	
20		4	(.112)	.801		.125				.122	.114				.210			
21		6	(.138)	.911		.202				.152	.142			.260	.245			
22		6	(.138)							.178	.168							
23		8	(.164)	.956		.234				.203	.193			.320	.305			
24		10	(.190)	1.136		.265				.275	.260							
25		1/4	(.250)			.296				.338	.323			.473	.450			
26		5/16	(.312)			.328				.400	.385							
27		3/8	(.375)	1.366		.453				.525	.510			.720	.705			
28		1/2	(.500)															
72	18	2	(.086)	.790	.156	.115	.037 .029	.215 .190	.070 .052	.098	.090	.100	.056 .052	.230	.198	RED	WHITE	
29		4	(.112)	.801		.125				.122	.114				.210			
30		6	(.138)	.911		.202				.152	.142			.260	.245			
31		6	(.138)							.178	.168							
32		8	(.164)	.956		.234				.203	.193			.320	.305			
33		10	(.190)	1.136		.265				.275	.260							
34		1/4	(.250)			.296				.338	.323			.473	.450			
35		5/16	(.312)			.328				.400	.385							
36		3/8	(.375)	1.366		.453				.525	.510			.720	.705			
37		1/2	(.500)															



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TABLE 1 - DIMENSIONS (CONTINUED)

DASH NO.	TERM SIZE	STUD SIZE		A MAX.	B MIN.	C MIN. RAD.	D	E DIA.	F DIA.	G DIA.		J MIN. DIA.	L	W & H 1/		INSUL. SLEEVE COLOR	WIRE SIZE COLOR
		STUD	DIA (IN)							MAX.	MIN.			MAX.	MIN.		
38	16	4	(.112)	.820	.156	.125	.037 .029	.240 .210	.090 .059	.122	.114	.110	.063 .054	.260	.240	BLUE	BLUE
39		6	(.138)			.152				.142							
40		6	(.138)	.956		.202				.178	.168						
41		8	(.164)			.203				.193	.317			.302			
42		10	(.190)	.961		.234				.260	.473			.450			
43		1/4	(.250)	1.131		.265				.338	.323			.540	.520		
44		5/16	(.312)			.296				.400	.385			.720	.705		
45		3/8	(.375)	1.271		.328				.525	.510						
46		1/2	(.500)	1.366		.453											
47	14	4	(.112)	.820	.156	.125	.037 .029	.240 .210	.090 .074	.122	.114	.130	.078 .074	.260	.240	BLUE	GREEN
48		6	(.138)			.152				.142							
49		6	(.138)	.956		.202				.178	.168			.317	.302		
50		8	(.164)			.203				.193	.473			.450			
51		10	(.190)	.961		.234				.260	.540			.520			
52		1/4	(.250)	1.131		.265				.338	.323			.720	.705		
53		5/16	(.312)			.296				.400	.385						
54		3/8	(.375)	1.271		.328				.525	.510						
55		1/2	(.500)	1.366		.453											
56	12	6	(.138)	1.198	.234	.202	.043 .037	.300 .275	.139 .091	.152	.142	.150	.095 .091	.380	.365	YELLOW	YELLOW
57		8	(.164)							.178	.168						
58		10	(.190)			.234				.203	.193			.536	.516		
59		1/4	(.250)	1.400		.265				.275	.260			.598	.573		
60		5/16	(.312)			.296				.338	.323			.720	.705		
61		3/8	(.375)	1.492		.328				.400	.385						
62		1/2	(.500)			.453				.525	.510						
63	10	6	(.138)	1.198	.234	.202	.043 .037	.300 .275	.139 .115	.152	.142	.180	.118 .115	.380	.365	YELLOW	BROWN
64		8	(.164)							.178	.168						
65		10	(.190)			.234				.203	.193			.536	.516		
66		1/4	(.250)	1.400		.265				.275	.260			.598	.573		
67		5/16	(.312)			.296				.338	.323			.720	.705		
68		3/8	(.375)	1.492		.328				.400	.385						
69		1/2	(.500)			.453				.525	.510						

1/ H MAX AND MIN DIMENSIONS SHALL BE ONE-HALF OF THE W MAX AND MIN DIMENSIONS, RESPECTIVELY.



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REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS7928.

1. CONFIGURATION: CONFIGURATION SHALL BE IN ACCORDANCE WITH FIGURE 1 AND TABLE 1.

CONTOUR INDICATED BY PHANTOM LINES MAY VARY FROM THAT SHOWN TO SUIT INDIVIDUAL MANUFACTURER'S DESIGN. INSULATION SUPPORT AND TERMINAL BARREL MAY BE MULTIPLE PIECE CONSTRUCTION. WIRE INSERTION IS FACILITATED BY BELL MOUTH.

DIMENSIONS ARE INCHES (SEE TABLE 1 AND FIGURE 1).

THE AVERAGE DIAMETER OF "E" AND AVERAGE DIAMETER OF "F" WITHIN THE LENGTH SPECIFIED BY B SHALL BE WITHIN SPECIFICATION DIMENSIONS (SEE FIGURE 1 TABLE 1).

DIMENSION "C RAD" REPRESENTS THE MINIMUM WASHER CLEARANCE RADIUS.

DIMENSION "L" REPRESENTS THE WIRE INSULATION STOP. THIS LUG DESIGN (DESIGN OPTIONAL) WILL NOT STOP INSULATION WITH A WALL THICKNESS OF LESS THAN .005 INCH.

DIMENSION "J" REPRESENTS THE MIN OPENING THAT WILL ACCEPT THE FINISHED WIRE.

REMOVE ALL BURRS AND SHARP EDGES.

2. MATERIAL: MATERIAL SHALL BE IN ACCORDANCE WITH AS7928.

TIN PLATED FINISHED (SEE APPLICATION NOTES).

3. WIRE SIZE COLOR IDENTIFICATION: WIRE SIZE COLOR IDENTIFICATION SHALL BE IN ACCORDANCE WITH FIGURE 1 AND TABLE 1.

A COLOR RING SHALL COVER A MINIMUM OF 315° OF THE CIRCUMFERENCE DESIGNATED BY DIMENSION B.

IN LIEU OF THE WIRE SIZE COLOR RING, TWO OR MORE LONGITUDINAL STRIPES EQUALLY SPACED ON THE INSULATION PORTION OF THE TERMINAL MAY BE USED. THE STRIPES SHALL BE EXTENDED TO WITHIN 1/16 INCH OF THE INSULATION AND MUST NOT OBLITERATE THE BASIC SLEEVE COLOR.

TERMINAL WIRE SIZE COLOR SHALL BE IN ACCORDANCE WITH TABLE 1 AND MIL-STD-104 CLASS 1. THERE SHALL BE A DISTINCT CONTRAST BETWEEN THE INSULATION SLEEVE COLOR AND THE WIRE SIZE COLOR.

4. CRIMPING TOOLS: CRIMPING TOOLS SHALL BE AS SPECIFIED IN TABLE 2.

TABLE 2 - TERMINAL CRIMPING TOOLS

TERMINAL SIZE (SEE TABLE 1)	CRIMP TOOL	CRIMP DIE
12-10	M22520/5-01	M22520/5-100 DIE - YELLOW
	M22520/10-01	M22520/10-100 DIE - YELLOW
	M22520/41-01 DIE- NO COLOR <u>1/</u>	N/A
	M22520/5-01	M22520/5-108 DIE - YELLOW <u>1/</u>
16-14	M22520/40-01 DIE - BLUE <u>1/</u>	N/A
	M22520/5-01	M22520/5-107 DIE - BLUE <u>1/</u>
22-18	M22520/40-01 DIE - RED <u>1/</u>	N/A
	M22520/5-01	M22520/5-106 DIE - RED <u>1/</u>
26-14	M22520/5-01	M22520/5-100 DIE - WHITE
	M22520/10-01	M22520/10-101 DIE - WHITE

1/ TOOL OR DIE WITH WIRE INSULATION SUPPORT CUP CRIMPS.

5. QUALIFICATION: FOR QUALIFICATION TESTING THE TERMINALS SHALL BE TESTED WITH AS5086, AS22759/1, AS22759/9, AS22759/11, AS81044/7, AS81044/9, OR MIL-W-81381/7 FOR WIRE SIZES 26 THROUGH 10.
6. PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE LETTER "M," SPECIFICATION SHEET NUMBER, AND DASH NUMBER.

EXAMPLE OF PART NUMBER: M7928/1-15 (TERMINAL IS FOR SIZE 22 WITH A # 10-STUD HOLE).

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