

REV.
D

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.

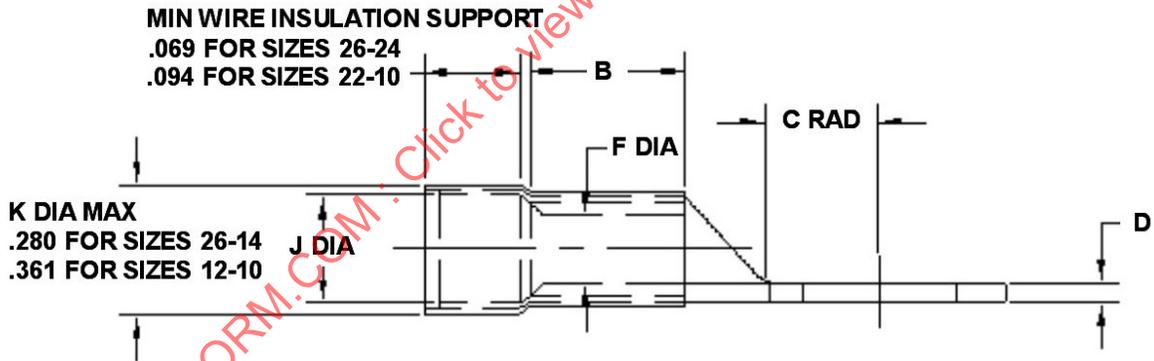
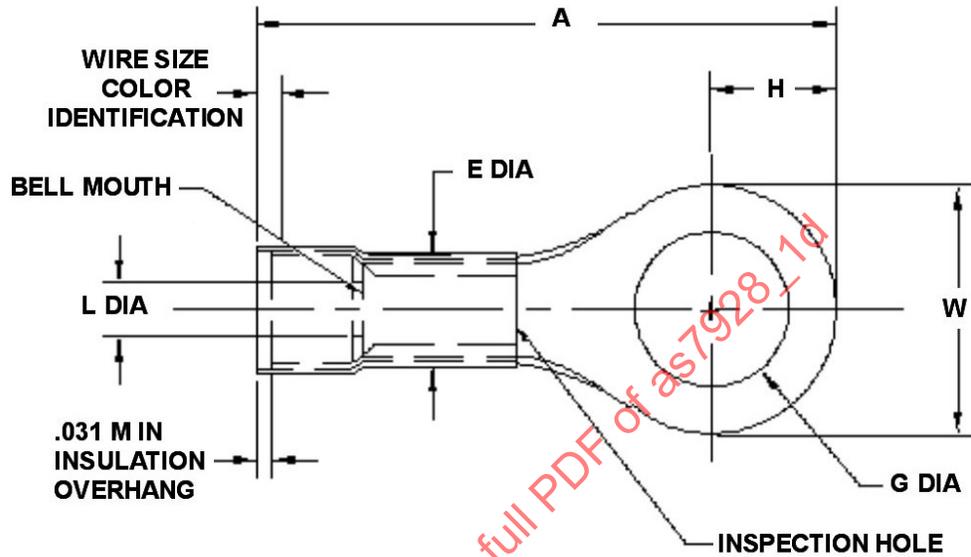
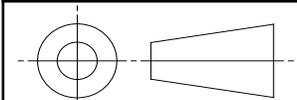


FIGURE 1 - TERMINAL CONSTRUCTION

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

AS7928™/1
SHEET 1 OF 5

REV.
D

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user." SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

ISSUED 1999-04 REVISED 2015-12

TABLE 1 - DIMENSIONS

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.			MAX.	MIN.	
1	26	2	(.086)	.740	.126	.133				.098	.090	.060		.210	.133	YELLOW	BLACK			
2		4	(.112)	.786		.171				.122	.114			.193						
3		6	(.138)	.886		.202				.028 .022	.215 .190			.033 .022	.152			.142	.260	.245
4		8	(.164)			.178				.168	.330			.245						
5		10	(.190)			.203				.193	.330			.245						
6	24	2	(.086)	.740	.126	.133				.098	.090	.070		.210	.133	YELLOW	BLUE			
7		4	(.112)	.786		.171				.122	.114			.193						
8		6	(.138)	.886		.202				.028 .022	.215 .190			.033 .027	.152			.142	.260	.245
9		8	(.164)			.178				.168	.330			.245						
10		10	(.190)			.203				.193	.330			.245						
70	22	2	(.086)	.790	.156	.115				.098	.090	.080			.198	RED	GREEN			
11		4	(.112)	.801		.125				.122	.114			.230	.210					
12		6	(.138)	.911		.202				.152	.142			.260	.245					
13		6	(.138)			.202				.152	.142			.260	.245					
14		8	(.164)			.956				.037 .029	.215 .190			.070 .034	.178			.168	.320	.305
15		10	(.190)	1.136		.234				.203	.193			.203	.193			.473	.450	
16		1/4	(.250)			.265				.275	.260			.473	.450					
17		5/16	(.312)			.296				.338	.323			.540	.520					
18		3/8	(.375)	1.366		.328				.400	.385			.540	.520					
19	1/2	(.500)	.453		.525	.510	.720	.705												
71	20	2	(.086)	.790	.156	.115				.098	.090	.090			.198	RED	RED			
20		4	(.112)	.801		.125				.122	.114			.230	.210					
21		6	(.138)	.911		.202				.152	.142			.260	.245					
22		6	(.138)			.202				.152	.142			.260	.245					
23		8	(.164)			.956				.037 .029	.215 .190			.070 .042	.178			.168	.320	.305
24		10	(.190)	1.136		.234				.203	.193			.203	.193			.473	.450	
25		1/4	(.250)			.265				.275	.260			.473	.450					
26		5/16	(.312)			.296				.338	.323			.540	.520					
27		3/8	(.375)	1.366		.328				.400	.385			.540	.520					
28	1/2	(.500)	.453		.525	.510	.720	.705												
72	18	2	(.086)	.790	.156	.115				.098	.090	.100			.198	RED	WHITE			
29		4	(.112)	.801		.125				.122	.114			.230	.210					
30		6	(.138)	.911		.202				.152	.142			.260	.245					
31		6	(.138)			.202				.152	.142			.260	.245					
32		8	(.164)			.956				.037 .029	.215 .190			.070 .052	.178			.168	.320	.305
33		10	(.190)	1.136		.234				.203	.193			.203	.193			.473	.450	
34		1/4	(.250)			.265				.275	.260			.473	.450					
35		5/16	(.312)			.296				.338	.323			.540	.520					
36		3/8	(.375)	1.366		.328				.400	.385			.540	.520					
37	1/2	(.500)	.453		.525	.510	.720	.705												



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

AS7928™/1
SHEET 2 OF 5

REV. D

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.			MAX.	MIN.																	
38	16	4	(.112)	.820	.156	.125												BLUE	BLUE																	
39		6	(.138)																																	
40		6	(.138)																																	
41		8	(.164)	.956																																
42		10	(.190)																																	
43		1/4	(.250)	1.131																																
44		5/16	(.312)																																	
45		3/8	(.375)			1.271																														
46		1/2	(.500)	1.366																																
47	14	4	(.112)	.820	.156	.125																														
48		6	(.138)																																	
49		6	(.138)																																	
50		8	(.164)	.956																																
51		10	(.190)																																	
52		1/4	(.250)	1.131																																
53		5/16	(.312)																																	
54		3/8	(.375)			1.271																														
55		1/2	(.500)	1.366																																
56	12	6	(.138)	1.198	.234	.202																														
57		8	(.164)																																	
58		10	(.190)																																	
59		1/4	(.250)	1.400																																
60		5/16	(.312)																																	
61		3/8	(.375)	1.492																																
62		1/2	(.500)																																	
63	10	6	(.138)	1.198	.234	.202																														
64		8	(.164)																																	
65		10	(.190)																																	
66		1/4	(.250)	1.400																																
67		5/16	(.312)																																	
68		3/8	(.375)	1.492																																
69		1/2	(.500)																																	

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

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).

	AEROSPACE STANDARD	AS7928™/1 SHEET 4 OF 5	REV. D
	(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		