

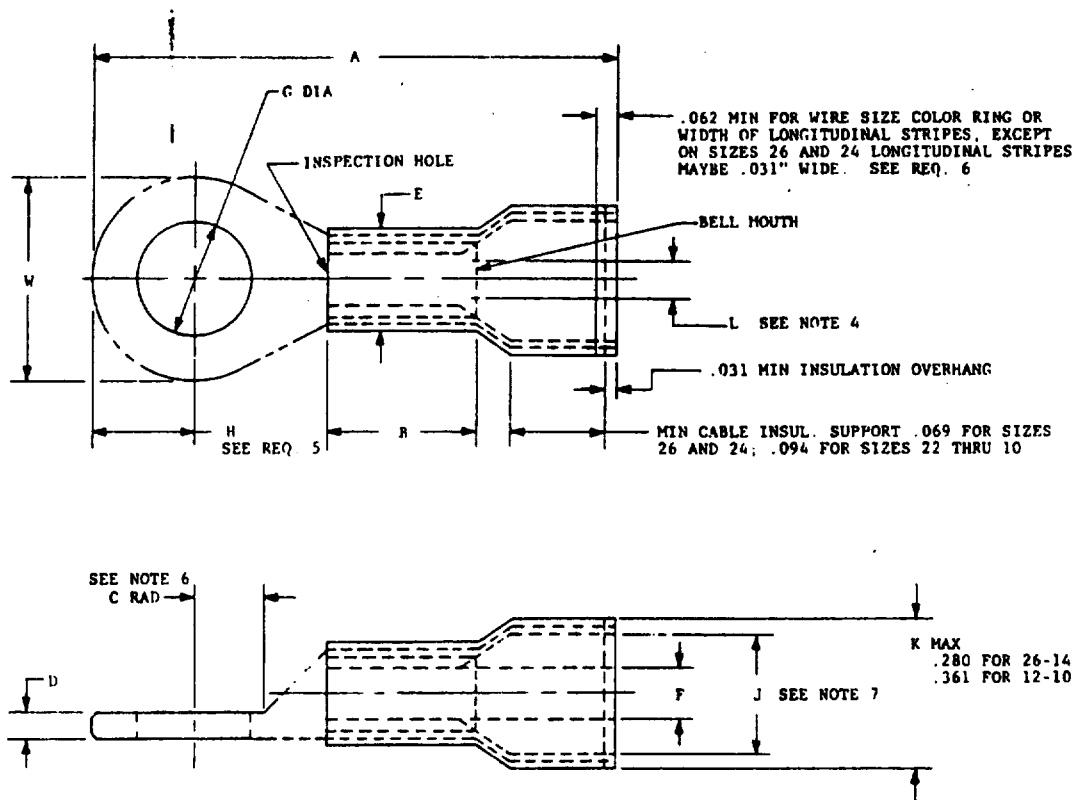
MIL-T-7928/1D  
 8 June 1981  
 SUPERSEDING  
 MIL-T-7928/1C  
 30 November 1972

## MILITARY SPECIFICATION SHEET

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

This specification is approved for use by all Departments  
 and Agencies of the Department of Defense.

The complete requirements for acquiring the terminal described herein shall consist  
 of this document and the issue in effect of specification MIL-T-7928.



## REQUIREMENTS:

1. MATERIAL: SEE ACQUISITION SPECIFICATION.
2. INSULATION MATERIAL: SEE ACQUISITION SPECIFICATION.
3. FINISH: TIN PLATED. SEE ACQUISITION SPECIFICATION.
4. AVERAGE DIAMETER OF "E" AND "F" SHALL BE WITHIN SPECIFICATION DIMENSIONS.
5. "H" MAX AND MIN DIMENSIONS SHALL BE ONE HALF OF "W" MAX AND MIN DIMENSIONS, RESPECTIVELY.
6. THE COLOR RING MUST COVER A MINIMUM OF 315° OF THE CIRCUMFERENCE. IN LIEU OF THE WIRE SIZE COLOR RING, 3 OR MORE LONGITUDINAL STRIPES EQUALLY SPACED ON THE INSULATION PORTION OF THE TERMINAL MAY BE USED. THE STRIPES MUST BE EXTENDED TO WITHIN 1/16" OF THE ENDS OF THE INSULATION AND MUST NOT OBLITERATE THE BASIC SLEEVE COLOR.
7. COLORS: WIRE SIZE COLOR SHALL BE IN ACCORDANCE WITH EIA STANDARDS RS-359. THERE SHALL BE A DISTINCT CONTRAST BETWEEN THE INSULATION SLEEVE COLOR AND THE WIRE SIZE COLOR.
8. QUALIFICATION: FOR QUALIFICATION TESTING ONLY TERMINALS SHALL BE TESTED WITH MIL-W-81381/7 OR MIL-W-81044/18 WIRE AND TOOLING AS FOLLOWS: MIL-C-22520/5-01 TOOLING WITH MIL-C-22520/5-100 DIES INSTALLED FOR SIZES 22 THROUGH 10 TERMINALS; OR MIL-C-22520/10-01 TOOLING WITH MIL-C-22520/10-101 DIES INSTALLED FOR SIZES 26 THROUGH 14 TERMINALS AND MIL-C-22520/10-100 DIES INSTALLED FOR SIZES 12 THROUGH 10 TERMINALS. EXISTING MS90413 AND MS3316 TOOLS IN THE FIELD MAY BE USED UNTIL WORN OUT.
9. 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 FOR SIZE 22 WIRE WITH A NO. 10 STUD HOLE.

(D) DENOTES CHANGES

MIL-T-7928/1D

D

INCHES	mm	INCHES	mm
.022	0.56	.193	4.90
.027	0.69	.202	5.13
.028	0.71	.203	5.16
.029	0.74	.210	5.33
.031	0.79	.215	5.46
.033	0.84	.227	5.77
.034	0.86	.230	5.84
.037	0.94	.234	5.94
.039	0.99	.240	6.10
.042	1.07	.245	6.22
.043	1.09	.250	6.35
.048	1.22	.260	6.60
.052	1.32	.265	6.73
.056	1.42	.275	6.99
.059	1.50	.296	7.52
.060	1.52	.300	7.62
.062	1.57	.338	8.59
.063	1.60	.365	9.27
.069	1.75	.375	9.53
.070	1.78	.380	9.65
.074	1.88	.385	9.78
.078	1.98	.400	10.16
.080	2.03	.450	11.43
.090	2.29	.453	11.51
.091	2.31	.473	12.01
.094	2.39	.500	12.70
.095	2.41	.510	12.95
.098	2.49	.516	13.11
.100	2.54	.520	13.21
.110	2.79	.525	13.34
.112	2.84	.536	13.61
.114	2.90	.540	13.72
.115	2.92	.573	14.55
.118	3.00	.598	15.19
.122	3.10	.705	17.91
.125	3.18	.720	18.29
.126	3.20	.740	18.80
.130	3.30	.786	19.96
.133	3.38	.801	20.35
.135	3.43	.820	20.83
.138	3.51	.886	22.50
.142	3.61	.911	23.14
.150	3.81	.956	24.28
.152	3.86	.961	24.41
.156	3.96	1.131	28.73
.164	4.17	1.136	28.85
.168	4.27	1.198	30.43
.171	4.34	1.271	32.28
.178	4.52	1.366	34.70
.180	4.57	1.400	35.56
.190	4.83	1.492	37.90

## MIL-T-7928/1D

TABLE

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		INSUL. SLEEVE COLOR	WIRE SIZE COLOR	
									MAX	MIN			MAX	MIN			
1	26	2 (.086)	.740	.126	.133	.028	.215	.033	.098	.090	.060	.028	.210	.133	YELLOW	BLACK	
2		4 (.112)	.786		.171				.122	.114			.193				
3		6 (.138)	.886		.202				.152	.142			.245				
4		8 (.164)			.202				.178	.168			.245				
5		10 (.190)			.227				.203	.193			.330				
6	24	2 (.086)	.740	.126	.133	.028	.215	.033	.098	.090	.070	.033	.210	.133	YELLOW	BLUE	
7		4 (.112)	.786		.171				.122	.114			.193				
8		6 (.138)	.886		.202				.152	.142			.245				
9		8 (.164)			.202				.178	.168			.245				
10		10 (.190)			.227				.203	.193			.330				
11	22	2 (.086)	.790	.156	.115	.037	.215	.070	.098	.090	.080	.039	.230	.198	RED	GREEN	
12		4 (.112)	.801		.125				.122	.114			.210				
13		6 (.138)	.911		.202				.152	.142			.245				
14		8 (.164)	.956		.234				.178	.168			.245				
15		10 (.190)			.265				.203	.193			.320	.305			
16		1/4 (.250)			1.136				.296	.275			.260	.473			.450
17		5/16 (.312)	1.366		.328				.338	.323			.540	.520			
18		3/8 (.375)			.453				.400	.385			.720	.705			
19		1/2 (.500)			.453				.525	.510			.720	.705			
20	20	2 (.086)	.790	.156	.115	.037	.215	.070	.098	.090	.090	.048	.230	.198	RED	RED	
21		4 (.112)	.801		.125				.122	.114			.210				
22		6 (.138)	.911		.202				.152	.142			.245				
23		8 (.164)	.956		.234				.178	.168			.245				
24		10 (.190)			.265				.203	.193			.320	.305			
25		1/4 (.250)			1.136				.296	.275			.260	.473			.450
26		5/16 (.312)	1.366		.328				.338	.323			.540	.520			
27		3/8 (.375)			.453				.400	.385			.720	.705			
28		1/2 (.500)			.453				.525	.510			.720	.705			
29	18	2 (.086)	.790	.156	.115	.037	.215	.070	.098	.090	.100	.056	.230	.198	RED	WHITE	
30		4 (.112)	.801		.125				.122	.114			.210				
31		6 (.138)	.911		.202				.152	.142			.245				
32		8 (.164)	.956		.234				.178	.168			.245				
33		10 (.190)			.265				.203	.193			.320	.305			
34		1/4 (.250)			1.136				.296	.275			.260	.473			.450
35		5/16 (.312)	1.366		.328				.338	.323			.540	.520			
36		3/8 (.375)			.453				.400	.385			.720	.705			
37		1/2 (.500)			.453				.525	.510			.720	.705			
38	16	4 (.112)	.820	.156	.125	.037	.240	.090	.122	.114	.110	.063	.260	.240	BLUE	BLUE	
39		6 (.138)	.956		.202				.152	.142			.240				
40		8 (.164)	.956		.234				.178	.168			.240				
41		10 (.190)			.265				.203	.193			.317	.302			
42		1/4 (.250)			1.131				.296	.275			.260	.473			.450
43	5/16 (.312)	1.271	.328	.338	.323	.540	.520										
44	3/8 (.375)		.453	.400	.385	.720	.705										
45	1/2 (.500)		.453	.525	.510	.720	.705										
46	14	4 (.112)	.820	.156	.125	.037	.240	.090	.122	.114	.130	.078	.260	.240	BLUE	GREEN	
47		6 (.138)	.956		.202				.152	.142			.240				
48		8 (.164)	.956		.234				.178	.168			.240				
49		10 (.190)			.265				.203	.193			.317	.302			
50		1/4 (.250)			1.131				.296	.275			.260	.473			.450
51		5/16 (.312)	1.271		.328				.338	.323			.540	.520			
52		3/8 (.375)			.453				.400	.385			.720	.705			
53		1/2 (.500)			.453				.525	.510			.720	.705			
54		12	6 (.138)		1.198				.234	.202			.043	.300			.135
55	8 (.164)		.234	.203		.193	.380	.365									
56	10 (.190)		.265	.275		.260	.536	.516									
57	1/4 (.250)		1.400	.296		.338	.323	.598		.573							
58	5/16 (.312)		1.492	.328		.400	.385	.720		.705							
59	3/8 (.375)	.453		.525	.510	.720	.705										
60	1/2 (.500)	.453	.525	.510	.720	.705											

MIL-T-7928/1D

TABLE (Continued)

DASH NO.	TERM SIZE	STUD SIZE	A MAX	B MIN.	F MIN. RAD.	D	E DIA	F DIA	G DIA		J MIN DIA	L	W		INSUL. SLEEVE COLOR	WIRE SIZE COLOR
									MAX	MIN			MAX	MIN		
63	10	6 (.138)	1.198	.234	.202	.043 .037	.300 .275	.135 .115	.152	.142	.180	.118 .115	.380	.365	YELLOW	BROWN
64		8 (.164)			.234				.178	.168						
65		10 (.190)			.265				.203	.193						
66		1/4 (.250)	1.400		.296				.275	.260			.536	.516		
67		5/16 (.312)	1.492		.328				.400	.385			.598	.573		
68		3/8 (.375)			.453				.525	.510			.720	.705		
69		1/2 (.500)														

## D NOTES:

1. DIMENSIONS IN INCHES.
2. METRIC EQUIVALENTS (TO THE NEAREST .01 mm) ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1 INCH = 25.4 mm.
3. REMOVE ALL BURRS AND SHARP EDGES.
4. WIRE INSULATION STOP. DESIGN OPTIONAL.
5. WIRE INSULATION: THIS LUG DESIGN WILL NOT STOP INSULATION WITH A WALL THICKNESS OF LESS THAN .005 INCH.
6. "C" MIN DIMENSIONS IS MIN WASHER CLEARANCE RAD.
7. DIMENSIONS "J" REPRESENTS THE MIN OPENING THAT WILL ACCEPT THE FINISHED WIRE.
8. CONTOUR INDICATED BY PHANTOM LINES MAY VARY FROM THAT SHOWN TO SUIT INDIVIDUAL MANUFACTURER'S DESIGN.
9. INSULATION SUPPORT AND TERMINAL BARREL MAY BE MULTIPLE PIECE CONSTRUCTION.
10. WIRE INSERTION SHALL BE FACILITATED BY BELL MOUTH.

Controlling:  
Navy - AS  
Army - ER  
Air Force - 95

Review activities:  
Navy - SH, EC  
Army - HJ  
Air Force - 11, 99  
DOD - RS

User activities:  
Army - AV  
Navy - MC, OS

Preparing activity:  
Navy - AS  
(Project No. 5940-0889)

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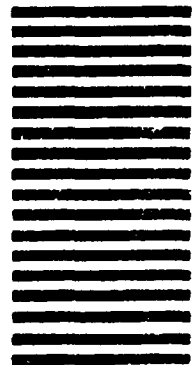


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DOCUMENT IDENTIFIER (Number) AND TITLE MIL-T-7928/1D Terminal, Lug, Crimp Style,  
Copper, Insulated, Ring Tongue, for thin wall wire, Type II Class 1 for 105°  
NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER Total conductor Temperature.

VENDOR  USER  MANUFACTURER

1.  HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?  IS ANY PART OF IT TOO RIGID, RESTRICTIVE, LOOSE OR AMBIGUOUS? PLEASE EXPLAIN BELOW.

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1 OCT 76

Replaces edition of 1 Jan 72 which may be used.

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