

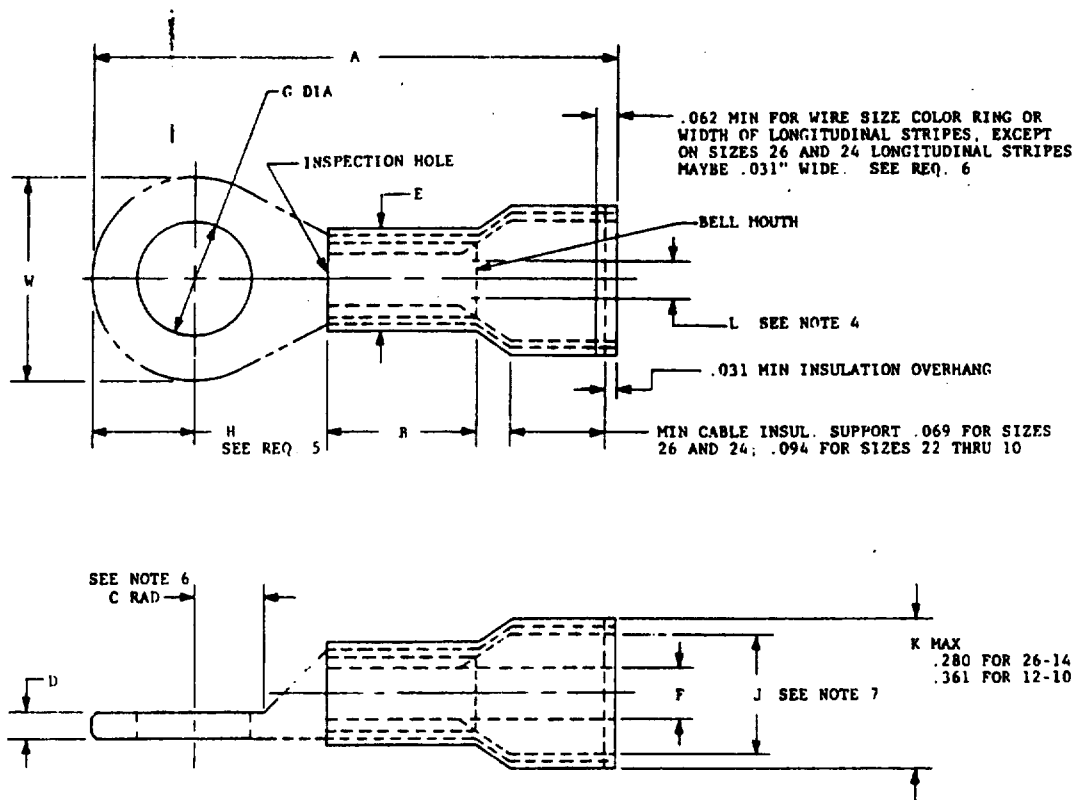
MIL-T-7928/1D  
8 June 1981  
SUPERSEDING  
MIL-T-7928/1C  
30 November 1972

## 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 .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)			.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)			.203				.193								
11	22	2 (.086)	.790	.156	.115	.037 .029	.215 .190	.070 .034	.098	.090	.080	.039 .034	.230	.198	RED	GREEN	
12		4 (.112)	.801		.125				.122	.114			.260	.245			
13		6 (.138)	.911		.202				.152	.142			.320	.305			
14		8 (.164)	.956		.234				.178	.168			.473	.450			
15		10 (.190)	1.136		.265				.203	.193			.540	.520			
16		1/4 (.250)			.296				.275	.260			.720	.705			
17		5/16 (.312)			.328				.338	.323							
18		3/8 (.375)	1.366		.328				.400	.385							
19		1/2 (.500)			.453				.525	.510							
20	20	2 (.086)	.790	.156	.115	.037 .029	.215 .190	.070 .042	.098	.090	.090	.048 .042	.230	.198	RED	RED	
21		4 (.112)	.801		.125				.122	.114			.260	.245			
22		6 (.138)	.911		.202				.152	.142			.320	.305			
23		8 (.164)	.956		.234				.178	.168			.473	.450			
24		10 (.190)	1.136		.265				.203	.193			.540	.520			
25		1/4 (.250)			.296				.275	.260			.720	.705			
26		5/16 (.312)			.328				.338	.323							
27		3/8 (.375)	1.366		.328				.400	.385							
28		1/2 (.500)			.453				.525	.510							
29	18	2 (.086)	.790	.156	.115	.037 .029	.215 .190	.070 .052	.098	.090	.100	.056 .052	.230	.198	RED	WHITE	
30		4 (.112)	.801		.125				.122	.114			.260	.245			
31		6 (.138)	.911		.202				.152	.142			.320	.305			
32		8 (.164)	.956		.234				.178	.168			.473	.450			
33		10 (.190)	1.136		.265				.203	.193			.540	.520			
34		1/4 (.250)			.296				.275	.260			.720	.705			
35		5/16 (.312)			.328				.338	.323							
36		3/8 (.375)	1.366		.328				.400	.385							
37		1/2 (.500)			.453				.525	.510							
38	16	4 (.112)	.820	.156	.125	.037 .029	.240 .210	.090 .059	.122	.114	.110	.063 .059	.260	.240	BLUE	BLUE	
39		6 (.138)	.956		.202				.152	.142			.317	.302			
40		8 (.164)			.234				.178	.168			.473	.450			
41		10 (.190)			.265				.203	.193			.540	.520			
42		1/4 (.250)	1.131		.296				.275	.260			.720	.705			
43		5/16 (.312)	1.271		.328				.338	.323							
44		3/8 (.375)			.453				.400	.385							
45		1/2 (.500)							.525	.510							
46		4 (.112)	.820		.125				.122	.114			.260	.240			
47	6 (.138)	.956		.202	.152	.142	.317	.302									
48	8 (.164)			.234	.178	.168	.473	.450									
49	14	10 (.190)	.961	.156	.265	.037 .029	.240 .210	.090 .074	.203	.193	.130	.078 .074	.380	.365	BLUE	GREEN	
50		1/4 (.250)	1.131		.296				.275	.260			.536	.516			
51		5/16 (.312)	1.400		.328				.338	.323			.598	.573			
52		3/8 (.375)			.453				.400	.385			.720	.705			
53		1/2 (.500)							.525	.510							
54	12	6 (.138)	1.198	.234	.202	.043 .037	.300 .275	.135 .091	.152	.142	.150	.095 .091			YELLOW	YELLOW	
55		8 (.164)			.234				.178	.168							
56		10 (.190)			.265				.203	.193							
57		1/4 (.250)			.296				.275	.260							
58		5/16 (.312)			.328				.338	.323							
59	3/8 (.375)	1.492	.328	.400	.385												
60	1/2 (.500)		.453	.525	.510												

MIL-T-7928/1D

TABLE (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		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)							.203	.193									
66		1/4 (.250)	1.400		.265				.275	.260			.536	.516					
67		5/16 (.312)			.296				.318	.323									
68		3/8 (.375)			.328				.400	.385			.598	.573					
69		1/2 (.500)			.453				.525	.510									

## 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.

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

Review activities:  
Navy - SH, EC  
Army - H7  
Air Force - 11, 99  
DOD - NS

User activities:  
Army - AV  
Navy - MC, OS

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

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**NOTE:** This form shall not be used to submit requests for waivers, deviations or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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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B. RECOMMENDED WORDING CHANGE

C. REASON FOR RECOMMENDED CHANGE(S)

2. REMARKS

SUBMITTED BY (Printed or typed name and address - Optional)

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DATE

DD FORM 1426  
1 OCT 76

Replaces edition of 1 Jan 72 which may be used.

S/N 0102-LF-001-4260