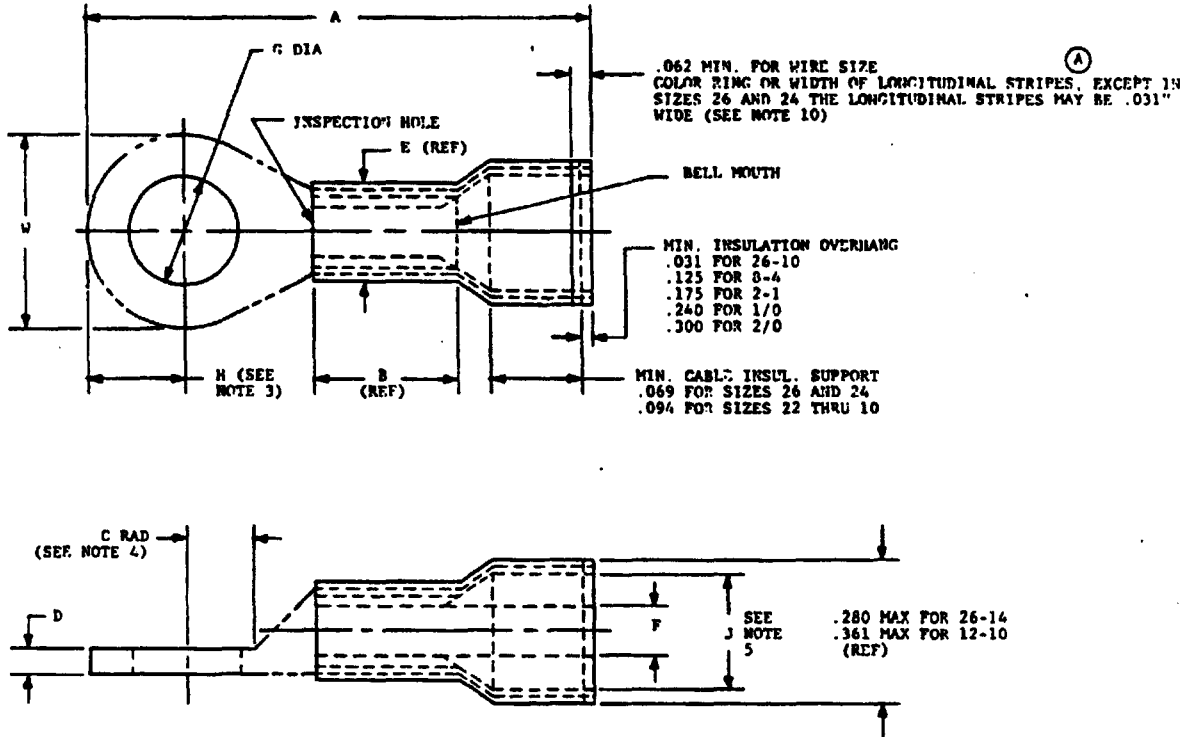


MILITARY SPECIFICATION SHEET

- (A) TERMINALS, LUG AND SPLICES, CONDUCTOR, CRIMP STYLE, COPPER
 TERMINAL, LUG, INSULATED, RING TONGUE, BELL-MOUTHED, TYPE 11, CLASS 1
 (FOR 150°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 latest issue of Specification MIL-T-7928.



REQUIREMENTS:

1. INSULATION MATERIAL: SEE MIL-T-7928.
2. FINISH:
 TIN-PLATED IN ACCORDANCE WITH MIL-T-10727 OR NICKEL-PLATED IN ACCORDANCE WITH QQ-N-290, CLASS 1 WITH A THICKNESS OR GRADE SUFFICIENT TO MEET THE PERFORMANCE REQUIREMENTS OF THE ACQUISITION SPECIFICATION.
 VALIDATION OF CORROSION PROTECTION REQUIREMENTS SHALL BE MADE FOR EACH LOT AS SPECIFIED IN THE ABOVE COATING SPECIFICATIONS.
3. QUALIFICATION: FOR QUALIFICATION, TERMINALS SHALL BE TESTED WITH ANY ONE OF THE FOLLOWING: MIL-W-81044/6, /7, /8, /9, /10, /12, /13, OR MIL-W-22759/16, /17, /18, /19 WIRE AND TOOLING AS FOLLOWS:
 (A) 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 THRU 14 TERMINALS AND MIL-C-22520/10-100 DIES INSTALLED FOR SIZES 12 THRU 10 TERMINALS. MS23002 CRIMPING DIES TO BE USED WITH MS25441 TOOL FOR SIZES 8 THRU 2/0. EXISTING MS90413 AND MS3316 TOOLS IN THE FIELD MAY BE USED UNTIL WORN OUT.
4. COLORS: INSULATING SLEEVE COLOR SHALL BE CLEAR, UNCOLORED. COLOR OF CIRCULAR RING OR LONGITUDINAL STRIPES SHALL BE AS SPECIFIED IN TABLE I AND SHALL BE IN ACCORDANCE WITH EIA STANDARD RS359.
5. PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE LETTER "M", SPECIFICATION SHEET NUMBER, AND DASH NUMBER. EXAMPLE OF PART NUMBER: M7928/4-103 TERMINAL FOR SIZE 22-18 WIRE WITH A .190 STUD HOLE.

(A)

TABLE : Wash numbers and characteristics.

Dash no.	Terminal size	Stud size	A Max	E Ref	r Min Pad	D		E dia	F dia	G dia		J min dia	W	
						Max	Min			Max	Min		Max	Min
143	26-24	2 (.086)	.740	.126	.111	.078	.022	.215	.033	.098	.090	.084	.210	.133
144		4 (.112)	.755		.171					.122	.114		.193	
145		6 (.138)	.855		.202					.152	.142		.245	
146		8 (.164)	.865		.202					.178	.168		.330	
147		10 (.190)	.865		.227					.203	.193			
148	22-18	2 (.086)	.740	.156	.115	.035	.027	.215	.073	.098	.090	.120	.230	.198
149		4 (.112)	.755		.175					.122	.114		.210	
150		6 (.138)	.855		.202					.152	.142		.245	
151		8 (.164)	.865		.202					.178	.168		.305	
152		10 (.190)	.910		.234					.203	.193			
153		1/4 (.250)	1.090		.265					.275	.260			
154		5/16 (.312)	1.090		.296					.338	.323		.473	.450
155		3/8 (.375)	1.320		.328					.400	.385		.540	.520
156		1/2 (.500)	1.320		.453					.525	.510		.720	.705
157	16-14	4 (.112)	.774	.156	.125	.035	.029	.260	.095	.122	.114	.153	.260	.240
158		6 (.138)	.774		.202					.152	.142		.302	
159		8 (.164)	.910		.202					.178	.168		.317	.302
160		10 (.190)	.915		.234					.203	.193			
161		1/4 (.250)	1.085		.265					.275	.260			
162		5/16 (.312)	1.085		.296					.338	.323		.473	.450
163		3/8 (.375)	1.225		.328					.400	.385		.540	.520
164		1/2 (.500)	1.320		.453					.525	.510		.720	.705
165		12-10	6 (.138)		1.120					.234	.202		.043	.037
166	8 (.164)		1.120	.178	.168									
167	10 (.190)		1.322	.234	.203	.193								
168	1/4 (.250)		1.322	.265	.275	.260	.536	.516						
169	5/16 (.312)		1.322	.296	.338	.323	.598	.573						
170	3/8 (.375)		1.414	.328	.400	.385	.720	.705						
171	8	1/2 (.500)	1.414	.315	.453	.084	.038	.350	.186	.525	.510	.257	.720	.705
172		10 (.190)	1.402		.234					.203	.193		.429	.386
173		1/4 (.250)	1.466		.265					.275	.260		.475	.435
174		5/16 (.312)	1.544		.296					.338	.323		.590	.567
175		3/8 (.375)	1.544		.328					.400	.385			
176	6	10 (.190)	1.599	.375	.238	.084	.043	.419	.232	.203	.193	.300	.503	.460
177		1/4 (.250)	1.599		.265					.275	.260			
178		5/16 (.312)	1.762		.296					.338	.323		.623	.580
179	4	3/8 (.375)	1.762	.437	.328	.096	.047	.507	.290	.400	.385	.370	.570	.480
180		1/4 (.250)	1.812		.274					.275	.260			
181		5/16 (.312)	1.879		.308					.338	.323		.648	.605
182	2	3/8 (.375)	1.879	.505	.378	.109	.054	.560	.365	.400	.385	.453	.711	.668
183		1/4 (.250)	2.069		.275					.260				
184		1/2 (.500)	2.269		.453					.525	.510		.804	.740
185	1	1/4 (.250)	2.150	.565	.383	.125	.070	.620	.392	.275	.260	.500	.792	.740
186		3/8 (.375)	2.150		.296					.338	.323			
187		1/2 (.500)	2.370		.453					.525	.510		.887	.740
188	0	1/4 (.250)	2.401	.630	.418	.125	.070	.685	.458	.275	.260	.550	.853	.810
189		3/8 (.375)	2.401		.296					.338	.323			
190		1/2 (.500)	2.525		.453					.525	.510		.903	.860
191	00	5/16 (.312)	2.750	.700	.473	.129	.075	.755	.520	.338	.323	.610	.956	.913
192		3/8 (.375)	2.750		.296					.338	.323			
193		1/2 (.500)	2.750		.453					.525	.510			

METRIC TABLE

INCH	mm	INCH	mm	INCH	mm	INCH	mm
.022	0.56	.174	4.47	.375	9.53	.648	16.46
.027	0.69	.178	4.52	.380	9.65	.668	16.97
.028	0.71	.186	4.72	.383	9.73	.685	17.40
.029	0.74	.190	4.83	.385	9.78	.690	17.53
.031	0.79	.193	4.90	.386	9.80	.700	17.78
.033	0.84	.202	5.13	.388	9.86	.705	17.91
.035	0.89	.203	5.16	.398	10.11	.711	18.06
.037	0.94	.210	5.33	.400	10.16	.720	18.29
.038	0.97	.215	5.46	.410	10.41	.740	18.80
.043	1.09	.222	5.64	.418	10.62	.755	19.18
.047	1.19	.227	5.77	.425	10.80	.774	19.66
.052	1.32	.230	5.84	.429	10.90	.783	19.89
.054	1.37	.232	5.89	.435	11.05	.804	20.42
.062	1.57	.234	5.94	.437	11.10	.810	20.57
.069	1.75	.238	6.05	.438	11.13	.853	21.67
.070	1.78	.240	6.10	.453	11.51	.855	21.72
.073	1.85	.245	6.22	.458	11.63	.860	21.84
.075	1.91	.250	6.35	.460	11.68	.865	21.97
.081	2.06	.257	6.53	.473	12.01	.837	22.53
.084	2.13	.260	6.60	.478	12.14	.903	22.94
.086	2.18	.265	6.73	.480	12.19	.910	23.11
.090	2.29	.275	6.99	.590	12.70	.913	23.19
.094	2.39	.276	7.01	.503	12.78	.915	23.24
.095	2.41	.280	7.11	.505	12.83	.956	24.28
.096	2.44	.290	7.37	.510	12.95	1.085	27.56
.098	2.49	.296	7.52	.516	13.11	1.090	27.69
.109	2.77	.300	7.62	.520	13.21	1.120	28.45
.112	2.84	.302	7.67	.525	13.34	1.225	31.12
.114	2.90	.305	7.75	.536	13.61	1.320	33.53
.120	3.05	.308	7.82	.540	13.72	1.322	33.58
.122	3.10	.312	7.92	.547	13.89	1.402	35.61
.123	3.18	.315	8.00	.550	13.97	1.414	35.92
.126	3.20	.317	8.05	.560	14.22	1.466	37.24
.129	3.28	.320	8.13	.565	14.35	1.544	39.22
.133	3.38	.323	8.20	.570	14.48	1.599	40.61
.138	3.51	.328	8.33	.573	14.55	1.762	44.75
.139	3.53	.330	8.38	.580	14.73	1.812	46.02
.142	3.61	.338	8.59	.590	14.99	1.879	47.73
.152	3.86	.343	8.71	.598	15.19	2.069	52.55
.153	3.89	.350	8.89	.605	15.37	2.150	54.61
.156	3.96	.355	9.02	.610	15.49	2.269	57.63
.164	4.17	.360	9.14	.620	15.75	2.370	60.20
.168	4.27	.361	9.17	.623	15.82	2.401	60.99
.171	4.34	.365	9.27	.625	15.88	2.525	64.14
.175	4.45	.370	9.40	.630	16.00	2.750	69.85

NOTES:

1. DIMENSIONS ARE 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. "H" MAX AND MIN DIMENSIONS SHALL BE ONE HALF OF "W" MAX AND MIN DIMENSIONS, RESPECTIVELY.
4. "C" MIN DIMENSIONS IS MIN WASHER CLEARANCE RADIUS.
5. DIMENSIONS "J" REPRESENTS THE MIN ID OPENING THAT WILL ACCEPT THE FINISHED WIRE.
6. MAX AND MIN DIMENSIONS DUE TO QUALIZATION, MUST BE WITHIN 3% OF SPECIFICATION REQUIREMENTS.
7. CONTOUR INDICATED BY PHANTOM LINES MAY VARY FROM THAT SHOWN TO SUIT INDIVIDUAL MANUFACTURER'S DESIGN.
8. INSULATION SUPPORT AND TERMINAL BARREL MAY BE MULTIPLE PIECE CONSTRUCTION.
9. WIRE INSERTION SHALL BE FACILITATED BY BELL MOUTH.
10. 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 EXTEND TO WITHIN 1/16" OF THE ENDS OF THE INSULATION AND MUST NOT OBLITERATE THE BASIC SLEEVE COLOR.

TERMINAL LUGS MANUFACTURED PRIOR TO 8 JUNE 1981, AND MARKED WITH 2 LONGITUDINAL STRIPES MAY BE USED UNTIL THE SUPPLY IS EXHAUSTED.

CUSTODIANS:
ARMY - ER
NAVY - AS
AIR FORCE - 85

REVIEW ACTIVITIES:
ARMY - AV, MI, MU, EC
NAVY - SH
AIR FORCE - 99
DSA - CS

USER ACTIVITIES:
ARMY - AT
NAVY - OS
AIR FORCE - 17

PREPARING ACTIVITY:
NAVY - AS

(PROJECT 5940-0890)