

(A) TERMINALS, LUG AND SPLICES, CONDUCTOR, CRIMP STYLE, COPPER  
TERMINAL, LUG, INSULATED, RING TONGUE, BELL-MOUTHED, TYPE II, CLASS 1  
(FOR 150°C TOTAL CONDUCTOR TEMPERATURE)

The complete requirements for acquiring the terminal described herein shall consist of this document and the latest issue of Specification MIL-T-7928



- 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

**FSC 5940**

MIL-T-7928/4A

(A) TABLE I Dash numbers and characteristics

Dash no	Terminal size	Stud size	A Max	B Ref	C Min Rad	D		E dia	F dia	G dia		J min dia	W		Color of circular ring or longitudinal stripes
						Max	Min			Max	Min		Max	Min	
143	26-24	2 ( .086 )	.740	126	.133	.028	.022	$\frac{.215}{.190}$	$\frac{.033}{.027}$	.098	.090	.084	.210	.133	Yellow
144		4 ( .112 )	.755		.171					.122	.114		.260	.193	
145		6 ( .138 )								.152	.142				
146		8 ( .164 )	.855		.202					.178	.168		.330	.245	
147		10 ( .190 )	.865		.227					.203	.193				
159	22-18	2 ( .086 )		156	.115	.035	.027	$\frac{.215}{.190}$	$\frac{.073}{.052}$	.098	.090	.120		.198	Red
168		4 ( .112 )	.755		.125					.122	.114		.230	.210	
101		6 ( .138 )								.152	.142		.260	.245	
102		8 ( .164 )	.865		.202					.178	.168		.320	.305	
149		10 ( .190 )	.910		.234					.203	.193				
103		1/4 ( .250 )			.265					.275	.260		.473	.450	
190		5/16 ( .312 )	1 .090		.296					.338	.323		.540	.520	
104		3/8 ( .375 )	1 .120		.328					.400	.385		.720	.705	
105		1/2 ( .500 )	1 .320		.453					.525	.510				
151										.122	.114		.260	.240	
152	16-14	4 ( .112 )	.774	156	.125	.035	.029	$\frac{.260}{.210}$	$\frac{.095}{.081}$	.152	.142	.153			Blue
106		6 ( .138 )			.202					.178	.168		.317	.302	
107		8 ( .164 )	.910		.234					.203	.193				
153		10 ( .190 )	.915		.265					.275	.260		.473	.450	
108		1/4 ( .250 )			.296					.338	.323		.540	.520	
154		5/16 ( .312 )	1 .085		.328					.400	.385		.720	.705	
109		3/8 ( .375 )	1 .225		.453					.525	.510				
110		1/2 ( .500 )	1 .320												
155	12-10	6 ( .138 )	1 .120	234	.202	.043	.037	$\frac{.300}{.275}$	$\frac{.130}{.129}$	.152	.142	.210			Yellow
156		8 ( .164 )			.234					.178	.168				
112		10 ( .190 )			.265					.203	.193		.536	.516	
157		1/4 ( .250 )	1 .322		.296					.338	.323		.598	.573	
113		5/16 ( .312 )			.328					.400	.385		.720	.705	
114		3/8 ( .375 )	1 .414		.453					.525	.510		.429	.386	
158	8	1/2 ( .500 )	1 .402	315	.234	.084	.038	$\frac{.350}{.300}$	$\frac{.186}{.176}$	.203	.193	.257	.478	.435	Red
115		10 ( .190 )	1 .446		.265					.275	.260		.590	.547	
116		1/4 ( .250 )			.296					.338	.323				
117		5/16 ( .312 )	1 .544		.328					.400	.385				
118	6	3/8 ( .375 )		375	.234	.084	.043	$\frac{.410}{.360}$	$\frac{.232}{.222}$	.203	.193	.300	.503	.460	Blue
119		10 ( .190 )	1 .599		.265					.275	.260		.623	.580	
120		1/4 ( .250 )			.296					.338	.323				
121		5/16 ( .312 )	1 .762		.328					.400	.385		.570	.480	
122	4	3/8 ( .375 )	1 .817	437	.276	.096	.047	$\frac{.500}{.425}$	$\frac{.200}{.200}$	.275	.260	.370	.648	.605	Yellow
123		1/4 ( .250 )			.308					.338	.323				
124		5/16 ( .312 )	1 .879		.328					.400	.385				
125	2	3/8 ( .375 )		505		.109	.054	$\frac{.540}{.510}$	$\frac{.365}{.355}$	.275	.260	.453	.711	.648	Red
126		1/4 ( .250 )	2 .069		.343					.400	.385		.804	.740	
127		5/16 ( .312 )			.453					.525	.510				
128	1	1/2 ( .500 )	2 .269	565		.125	.070	$\frac{.620}{.560}$	$\frac{.392}{.388}$	.275	.260	.590	.793	.740	White
129		1/4 ( .250 )	2 .150		.383					.400	.385		.987	.940	
130		3/8 ( .375 )			.453					.525	.510				
131		1/2 ( .500 )	2 .370							.275	.260				
132	0	1/4 ( .250 )	2 .401	.630	.410	.125	.070	$\frac{.685}{.625}$	$\frac{.458}{.438}$	.400	.395	.550	.853	.810	Blue
133		3/8 ( .375 )			.453					.525	.510		.903	.860	
134		1/2 ( .500 )	2 .325							.275	.260				
135	00	5/16 ( .312 )		700		.129	.075	$\frac{.755}{.685}$	$\frac{.520}{.500}$	.400	.385	.610	.956	.913	Yellow
136		3/8 ( .375 )	2 .750		.473					.525	.510				
137		1/2 ( .500 )													

## MIL-T-7928/4A

## METRIC TABLE

INCH	MM	INCH	MM	INCH	MM	INCH	MM
.022	0.56	.176	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	.500	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	.294	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
.125	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. "M" 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 OVALIZATION, 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

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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 - SM  
AIR FORCE - 99  
DSA - CS

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

PREPARING ACTIVITY  
NAVY - AS  
(PROJECT 5940-0890)

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**DOCUMENT IDENTIFIER (Number) AND TITLE** MIL-T-7928/4A **TERMINAL LIT. INSULATED, RING TONGUE, BELL-MOUTHED, TYPE II, CLASS 1 (FOR 150°C TOTAL CONDUCTOR TEMPERATURE)**

**NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER**

☐ **VENDOR**      ☐ **USER**      ☐ **MANUFACTURER**

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1 OCT 76

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