

SAE Executive Standards Committee 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.

REV. F	FEDERAL SUPPLY CLASS 5940	
	RATIONALE AS7928/12 IS BEING STABILIZED BECAUSE THE COMMITTEE DOES NOT ANTICIPATE FUTURE TECHNICAL CHANGES. STABILIZATION DOES NOT IMPLY THE PROCESS OR PRODUCT IS UNACCEPTABLE FOR APPLICATIONS FOR WHICH IT IS DESIGNED. THE TERMINAL DEFINED BY THIS SPECIFICATION IS THE TIN WHISKER RESISTANT VERSION OF THE AS25036 TERMINAL. THERE ARE NO QUALIFIED SUPPLIERS. FOR PROCUREMENT, USERS ARE RECOMMENDED TO USE THE QUALITY ASSURANCE REQUIREMENTS OF AS7928 AND A QUALIFIED AS25036 SUPPLIER. ANY TECHNICAL CHANGES NOTED BY A SUPPLIER OR USER WHICH RESULTS IN A PRODUCT OR REQUIREMENT CHANGE WILL BE ADDRESSED BY A NEW REVISION. STABILIZED NOTICE THIS DOCUMENT HAS BEEN DECLARED "STABILIZED" BY SAE AE-8C2 TERMINATING DEVICES AND TOOLING COMMITTEE AND WILL NO LONGER BE SUBJECTED TO PERIODIC REVIEWS FOR CURRENCY. USERS ARE RESPONSIBLE FOR VERIFYING REFERENCES AND CONTINUED SUITABILITY OF TECHNICAL REQUIREMENTS. NEWER TECHNOLOGY MAY EXIST.	
AS7928™/12	SAENORM.COM : Click to view the full PDF of as7928_12f	
For more information on this standard, visit https://www.sae.org/standards/content/AS7928/12f/		THIRD ANGLE PROJECTION
CUSTODIAN: AE-8C2		PROCUREMENT SPECIFICATION: AS7928
	AEROSPACE STANDARD TERMINAL, LUG, CRIMP STYLE, COPPER, INSULATED, RING TONGUE, BELL-MOUTHED, TIN WHISKER RESISTANT, TYPE II, CLASS 1 (FOR 105 °C TOTAL CONDUCTOR TEMPERATURE)	AS7928™/12 REV. F

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS7928.

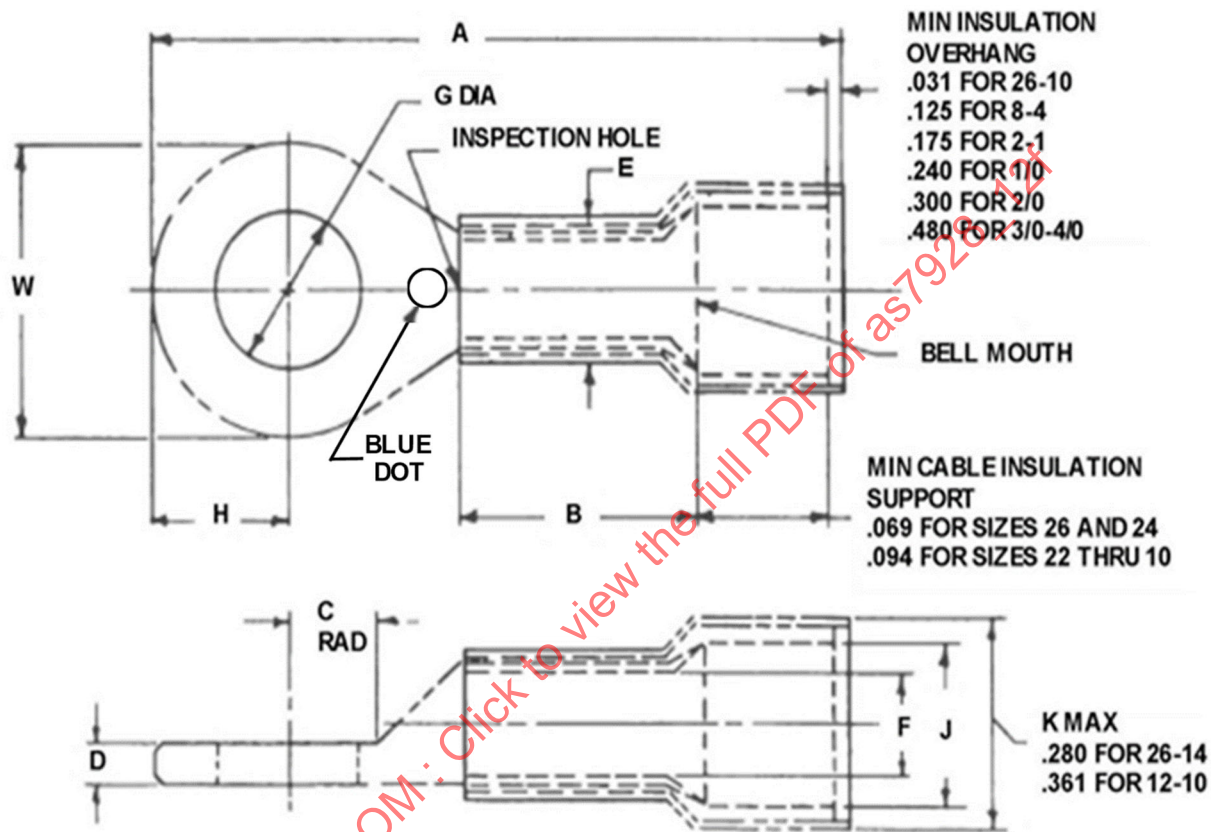


FIGURE 1 - TERMINAL CONSTRUCTION



AEROSPACE STANDARD
TERMINAL, LUG, CRIMP STYLE, COPPER,
INSULATED, RING TONGUE, BELL-MOUTHED,
TIN WHISKER RESISTANT, TYPE II, CLASS 1
(FOR 105 °C TOTAL CONDUCTOR TEMPERATURE)

AS7928™/12
SHEET 1 OF 7

REV.
F

TABLE 1 - DIMENSIONS

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN RAD	D		E DIA	F DIA	G DIA		J MIN DIA	W & H 1/		INSULATING SLEEVE COLOR
						MAX	MIN			MAX	MIN		MAX	MIN	
143	26-24	2	.086 .740	.126	.133	.028	.022	.215/.190	.033/.027	.098	.090	.084	.210	.133	Yellow
144	26-24	4	.112 .755	.126	.171	.028	.022	.215/.190	.033/.027	.122	.114	.084	.260	.193	Yellow
145	26-24	6	.138 .855	.126	.202	.028	.022	.215/.190	.033/.027	.152	.142	.084	.260	.245	Yellow
146	26-24	8	.164 .855	.126	.202	.028	.022	.215/.190	.033/.027	.178	.168	.084	.330	.245	Yellow
147	26-24	10	.190 .865	.126	.227	.028	.022	.215/.190	.033/.027	.203	.193	.084	.330	.245	Yellow
159	22-18	2	.086 .755	.156	.115	.035	.027	.215/.190	.073/.052	.098	.090	.120	.230	.198	Red
148	22-18	4	.112 .755	.156	.125	.035	.027	.215/.190	.073/.052	.122	.114	.120	.230	.210	Red
101	22-18	6	.138 .790	.156	.125	.035	.027	.215/.190	.073/.052	.152	.142	.120	.230	.210	Red
102	22-18	6	.138 .865	.156	.202	.035	.027	.215/.190	.073/.052	.152	.142	.120	.260	.245	Red
149	22-18	8	.164 .930	.156	.202	.035	.027	.215/.190	.073/.052	.178	.168	.120	.320	.305	Red
103	22-18	10	.190 1.090	.156	.234	.035	.027	.215/.190	.073/.052	.203	.193	.120	.320	.305	Red
150	22-18	1/4	.250 1.090	.156	.265	.035	.027	.215/.190	.073/.052	.275	.260	.120	.473	.450	Red
104	22-18	5/16	.313 1.090	.156	.296	.035	.027	.215/.190	.073/.052	.338	.323	.120	.473	.450	Red
105	22-18	3/8	.375 1.320	.156	.328	.035	.027	.215/.190	.073/.052	.400	.385	.120	.540	.520	Red
151	22-18	1/2	.500 1.320	.156	.453	.035	.027	.215/.190	.073/.052	.525	.510	.120	.720	.705	Red
152	16-14	4	.112 .774	.156	.125	.035	.029	.240/.210	.095/.081	.122	.114	.153	.260	.240	Blue
106	16-14	6	.138 .815	.156	.125	.035	.029	.240/.210	.095/.081	.152	.142	.153	.260	.240	Blue
107	16-14	6	.138 .910	.156	.202	.035	.029	.240/.210	.095/.081	.152	.142	.153	.317	.302	Blue
153	16-14	8	.164 .955	.156	.202	.035	.029	.240/.210	.095/.081	.178	.168	.153	.317	.302	Blue
108	16-14	10	.190 .955	.156	.234	.035	.029	.240/.210	.095/.081	.203	.193	.153	.317	.302	Blue



AEROSPACE STANDARD
 TERMINAL, LUG, CRIMP STYLE, COPPER,
 INSULATED, RING TONGUE, BELL-MOUTHED,
 TIN WHISKER RESISTANT, TYPE II, CLASS 1
 (FOR 105 °C TOTAL CONDUCTOR TEMPERATURE)

AS7928™/12
 SHEET 2 OF 7

**REV.
F**

TABLE 1 - DIMENSIONS (CONTINUED)

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C MIN	D		E DIA	F DIA	G DIA		J MIN DIA		W & H 1/		INSULATING SLEEVE COLOR
						MAX	MIN			MAX	MIN			MAX	MIN	
154	16-14	1/4	.250	1.085	.156	.035	.029	.240/.210	.095/.081	.275	.260	.153		.473	.450	Blue
109	16-14	5/16	.313	1.085	.156	.035	.029	.240/.210	.095/.081	.338	.323	.153		.473	.450	Blue
110	16-14	3/8	.375	1.225	.156	.035	.029	.240/.210	.095/.081	.400	.385	.153		.540	.520	Blue
155	16-14	1/2	.500	1.320	.156	.035	.029	.240/.210	.095/.081	.525	.510	.153		.720	.705	Blue
111	12-10	6	.138	1.120	.234	.043	.037	.300/.275	.139/.129	.152	.142	.210		.380	.365	Yellow
156	12-10	8	.164	1.120	.234	.043	.037	.300/.275	.139/.129	.178	.168	.210		.380	.365	Yellow
112	12-10	10	.190	1.120	.234	.043	.037	.300/.275	.139/.129	.203	.193	.210		.380	.365	Yellow
157	12-10	1/4	.250	1.322	.234	.043	.037	.300/.275	.139/.129	.275	.260	.210		.536	.516	Yellow
113	12-10	5/16	.313	1.322	.234	.043	.037	.300/.275	.139/.129	.338	.323	.210		.536	.516	Yellow
114	12-10	3/8	.375	1.414	.234	.043	.037	.300/.275	.139/.129	.400	.385	.210		.598	.573	Yellow
158	12-10	1/2	.500	1.414	.234	.043	.037	.300/.275	.139/.129	.525	.510	.210		.720	.705	Yellow
115	8	10	.190	1.402	.315	.084	.038	.350/.300	.186/.176	.203	.193	.257		.429	.386	Red
116	8	1/4	.250	1.466	.315	.084	.038	.350/.300	.186/.176	.275	.260	.257		.478	.435	Red
117	8	5/16	.313	1.544	.315	.084	.038	.350/.300	.186/.176	.338	.323	.257		.590	.547	Red
118	8	3/8	.375	1.544	.315	.084	.038	.350/.300	.186/.176	.400	.385	.257		.590	.547	Red
119	6	10	.190	1.599	.375	.084	.043	.410/.360	.232/.222	.203	.193	.310		.503	.460	Blue
120	6	1/4	.250	1.599	.375	.084	.043	.410/.360	.232/.222	.275	.260	.310		.503	.460	Blue
121	6	5/16	.313	1.762	.375	.084	.043	.410/.360	.232/.222	.338	.323	.310		.623	.580	Blue
122	6	3/8	.375	1.762	.375	.084	.043	.410/.360	.232/.222	.400	.385	.310		.623	.580	Blue
123	4	1/4	.250	1.812	.437	.096	.047	.500/.425	.290/.280	.275	.260	.370		.570	.480	Yellow



AEROSPACE STANDARD
 TERMINAL, LUG, CRIMP STYLE, COPPER,
 INSULATED, RING TONGUE, BELL-MOUTHED,
 TIN WHISKER RESISTANT, TYPE II, CLASS 1
 (FOR 105 °C TOTAL CONDUCTOR TEMPERATURE)

AS7928™/12
 SHEET 3 OF 7

REV.
F

TABLE 1 - DIMENSIONS (CONTINUED)

DASH NO.	WIRE SIZE	STUD SIZE		A MAX	B MIN	C MIN RAD	D		E DIA	F DIA	G DIA		J MIN DIA	W & H 1/2		INSULATING SLEEVE COLOR
							MAX	MIN			MAX	MIN		MAX	MIN	
124	4	5/16	.313	1.879	.437	.308	.096	.047	.500/.425	.290/.280	.338	.323	.370	.648	.605	Yellow
125	4	3/8	.375	1.879	.437	.328	.096	.047	.500/.425	.290/.280	.400	.385	.370	.648	.605	Yellow
126	2	1/4	.250	2.069	.505	.343	.109	.054	.560/.510	.365/.355	.275	.260	.453	.711	.668	Red
127	2	3/8	.375	2.069	.505	.343	.109	.054	.560/.510	.365/.355	.400	.385	.453	.711	.668	Red
128	2	1/2	.500	2.269	.505	.453	.109	.054	.560/.510	.365/.355	.525	.510	.453	.804	.740	Red
129	1	1/4	.250	2.150	.565	.383	.125	.070	.620/.560	.398/.388	.275	.260	.500	.783	.740	Clear
130	1	3/8	.375	2.150	.565	.383	.125	.070	.620/.560	.398/.388	.400	.385	.500	.783	.740	Clear
131	1	1/2	.500	2.370	.565	.453	.125	.070	.620/.560	.398/.388	.525	.510	.500	.887	.740	Clear
132	0	1/4	.250	2.401	.630	.418	.125	.070	.685/.625	.458/.438	.275	.260	.550	.853	.810	Blue
133	0	3/8	.375	2.401	.630	.418	.125	.070	.685/.625	.458/.438	.400	.385	.550	.853	.810	Blue
134	0	1/2	.500	2.525	.630	.453	.125	.070	.685/.625	.458/.438	.525	.510	.550	.903	.860	Blue
135	00	5/16	.313	2.750	.700	.473	.129	.075	.755/.685	.520/.500	.338	.323	.610	.956	.913	Yellow
136	00	3/8	.375	2.750	.700	.473	.129	.075	.755/.685	.520/.500	.400	.385	.610	.956	.913	Yellow
137	00	1/2	.500	2.750	.700	.473	.129	.075	.755/.685	.520/.500	.525	.510	.610	.956	.913	Yellow
138	000	3/8	.375	3.000	.718	.513	.140	.085	.840/.729	.577/.557	.400	.385	.680	1.053	1.010	Red
139	000	1/2	.500	3.000	.718	.513	.140	.085	.840/.729	.577/.557	.525	.510	.680	1.053	1.010	Red
140	0000	3/8	.375	3.300	.734	.560	.150	.095	1.000/.802	.645/.622	.400	.385	.750	1.148	1.095	Blue
141	0000	1/2	.500	3.300	.734	.560	.150	.095	1.000/.802	.645/.622	.525	.510	.750	1.148	1.095	Blue

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



AEROSPACE STANDARD
 TERMINAL, LUG, CRIMP STYLE, COPPER,
 INSULATED, RING TONGUE, BELL-MOUTHED,
 TIN WHISKER RESISTANT, TYPE II, CLASS 1
 (FOR 105 °C TOTAL CONDUCTOR TEMPERATURE)

AS7928™/12
 SHEET 4 OF 7

REV.
F

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 IN FIGURE 1 MAY VARY FROM THAT SHOWN TO SUIT INDIVIDUAL MANUFACTURER'S DESIGN.

DIMENSIONS ARE IN INCHES (SEE TABLE 1 AND FIGURE 1).

DIMENSION "C RAD" REPRESENTS THE MINIMUM WASHER CLEARANCE RADIUS.

THE AVERAGE DIAMETER OF E THROUGHOUT THE LENGTH DEFINED BY DIMENSION B SHALL NOT VIOLATE THE SPECIFIED LIMITS OF DIMENSION E. THE E DIMENSION WILL VARY WITH PROCESSING; MEASUREMENTS AT THE POINT WHERE THE PROCESS VARIATION OCCURS SHALL NOT BE USED AS A BASIS FOR REJECTION.

DIMENSION "J" REPRESENTS THE MINIMUM OPENING THAT WILL ACCEPT THE FINISHED WIRE.

THIN WALL INSULATED WIRES WITH AN OUTSIDE DIAMETER SMALLER THAN DIMENSION "F" WILL PERMIT THE INSULATION PORTION OF THE WIRE TO ENTER THE CONDUCTOR CRIMP AREA. THE CONDUCTOR MUST BE POSITION BY EYE SIGHT IN TO THE CRIMP BARREL AREA TO INSURE A RELIABLE CRIMP.

INSULATION SUPPORT AND TERMINAL BARREL MAY BE MULTIPLE PIECE CONSTRUCTION.

REMOVE ALL BURRS AND SHARP EDGES.

2. MATERIALS:

MATERIAL SHALL BE IN ACCORDANCE WITH AS7928.

TIN PLATED (WHISKER RESISTANT) SHALL BE PER ASTM B545, ALLOYED WITH 3% BY WEIGHT, MINIMUM LEAD. PLATING THICKNESS SHALL BE .0002 INCH MINIMUM (REFER TO AS7928 AND GEIA-STD-0005-2 FOR MORE DETAILS).

3. IDENTIFICATION OF PRODUCT MARKING:

TERMINAL WIRE SIZE SHALL BE IN BE AS SPECIFIED BY THE SLEEVE COLOR IN TABLE 1 AND COLORED IN ACCORDANCE WITH EIA-359-A (CLASS 1).

TIN WHISKER RESISTANT PLATING: PLATING SHALL BE IDENTIFIED BY A COLOR DOT OR DASH LOCATED NEAR THE INSPECTION HOLE AS SHOWN IN FIGURE 1.

4. PART NUMBER:

M7928 /12 -103
DASH NUMBER FOR TERMINAL FOR SIZE 22-18 WIRE WITH A (.190) STUD HOLE
DETAIL SPECIFICATION NUMBER FOR TERMINALS (105 °C TEMPERATURE)
BASIC SPECIFICATION NUMBER

	AEROSPACE STANDARD	AS7928™/12 SHEET 5 OF 7	REV. F
	TERMINAL, LUG, CRIMP STYLE, COPPER, INSULATED, RING TONGUE, BELL-MOUTHED, TIN WHISKER RESISTANT, TYPE II, CLASS 1 (FOR 105 °C TOTAL CONDUCTOR TEMPERATURE)		