FEDERAL SUPPLY CLASS
5940

RATIONALE

AS21004 IS BEING STABILIZED BECAUSE THE PROCESSES/PRODUCT IS CONSIDERED MATURE AND 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. ANY TECHNICAL CHANGES NOTED BY A SUPPLIER OR USER WHICH RESULTS IN A PRODUCT OR REQUIREMENT CHANGE WILL BE ADDRESSED BY A NEW REVISION. A QUALIFIED SUPPLIER IS MAINTAINED.

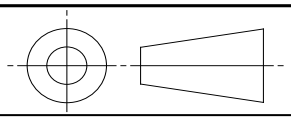
STABILIZED NOTICE

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.

ISSUED 2002-02 REVISED 2023-08 STABILIZED 2023-12

For more information on this standard, visit
https://www.sae.org/standards/content/AS21004F/

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C2

PROCUREMENT SPECIFICATION: AS7928

SAE INTERNATIONAL

AEROSPACE STANDARD

TERMINAL, LUG, UNINSULATED, RECTANGULAR TONGUE, CRIMP STYLE, COPPER, TYPE I, CLASS 1, FOR 150 °C TOTAL CONDUCTOR TEMPERATURE

AS21004™

REV. F

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NOTICE

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

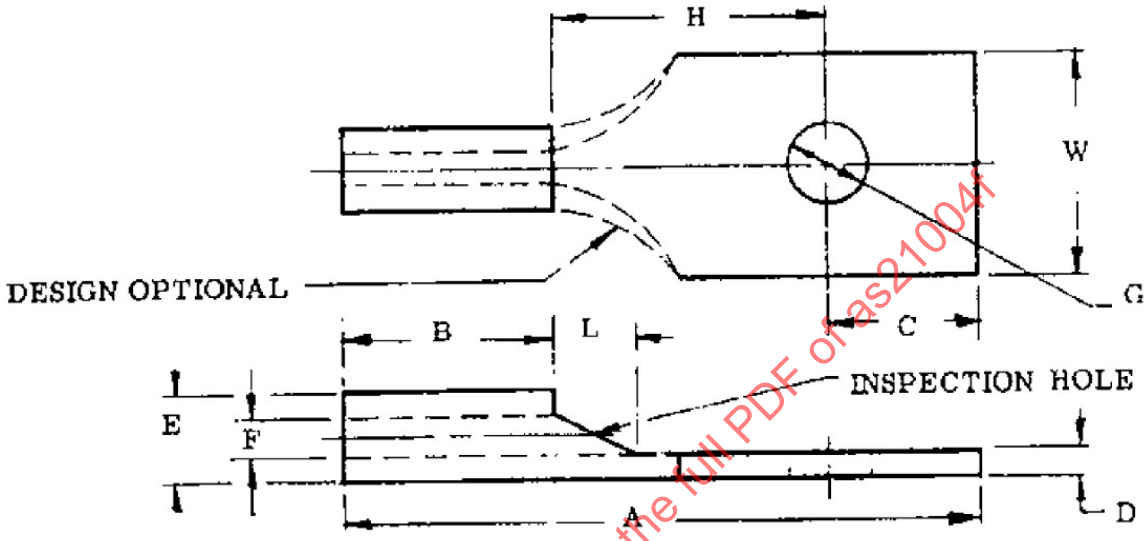

FIGURE 1 - TERMINAL CONFIGURATION

TABLE 1 - TERMINAL CONFIGURATION DIMENSIONS

DASH NO.	WIRE SIZE	STUD SIZE	A MAX	B MIN	C ±.010	D	E	F	G MAX	G MIN	H MIN	L MAX	W ±.005	MIL-T-16366 (SHIPS) REFERENCE
22 1/	22-18	2 (.086)	.759	.240	.110	.037 .023	.165 .110	.070 .052	.098	.090	.203	.125	.182	
1		4 (.112)	.826	.250	.143				.122	.114	.237	.125	.237	L-86, 1-2
2		5 (.125)	.858		.143				.137	.129	.277	.125	.277	L-83, 1-2
3		8 (.164)	1.040		.227				.178	.168	.465	.250	.302	L-82, 1-2
4		6 (.138)	1.040		.227				.152	.142	.465	.250	.302	L-81, 1-2
5		4 (.112)	.980		.195				.122	.114	.404	.156	.237	L-85, 1-2
6		6 (.138)	.980		.195				.152	.142	.404	.166	.237	L-84, 1-2
7		8 (.164)	1.290		.310				.178	.168	.621	.281	.390	L-80, 1-2
8	16-14	4 (.112)	.889	.250	.143	.037 .023	.192 .139	.090 .081	.122	.114	.237	.125	.237	L-86, 2-1/2-4
9		5 (.125)	.921		.143				.137	.129	.277	.125	.277	L-83, 2-1/2-4
10		8 (.164)	1.075		.227				.178	.168	.465	.250	.302	L-82, 2-1/2-4
11		6 (.138)	1.075		.227				.152	.142	.465	.250	.302	L-81, 2-1/2-4
12		4 (.112)	1.043		.195				.122	.114	.404	.166	.237	L-85, 2-1/2-4
13		6 (.138)	1.043		.195				.152	.142	.404	.156	.237	L-84, 2-1/2-4
14		8 (.164)	1.294		.310				.178	.168	.621	.281	.390	L-80, 2-1/2-4
15	12-10	4 (.112)	1.014	.250	.143	.043 .033	.255 .199	.135 .128	.122	.114	.237	.125	.237	L-86, 6-9
16		5 (.125)	1.146		.143				.137	.129	.277	.125	.277	L-83, 6-9
17		8 (.164)	1.200		.227				.178	.168	.465	.250	.302	L-82, 6-9
18		6 (.138)	1.200		.227				.152	.142	.465	.250	.302	L-81, 6-9
19		4 (.112)	1.168		.195				.122	.114	.404	.156	.237	L-85, 6-9
20		6 (.136)	1.168		.195				.152	.142	.404	.156	.237	L-84, 6-9
21		8 (.164)	1.419		.310				.178	.168	.621	.281	.390	L-80, 6-9

1/ TERMINAL SIZE 22 IS NOT RECOMMENDED FOR USAGE. THERE IS NO KNOWN SOURCE OF SUPPLY. CONTACT THE AS21004 QUALIFIED SOURCE FOR FURTHER SUPPORT.

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS7928.

1. TERMINAL CONFIGURATION:

   TERMINAL CONFIGURATION IS AS SHOWN IN FIGURE 1 AND TABLE 1. DESIGN IS OPTIONAL WITHIN THE DIMENSIONS SHOWN. DIMENSIONS ARE IN INCHES. STUD SIZE DIMENSIONS ARE SHOWN IN PARENTHESES.

2. MATERIAL:

   TERMINAL SHALL BE TIN PLATED OVER COPPER BASE METAL.

3. PART IDENTIFICATION NUMBER (PIN):

   MS21004 -21
   - -21: DASH NUMBER (SEE TABLE 1)
   - MS21004: AS7928 DETAIL SPECIFICATION NUMBER

4. CRIMP TOOLS:

TERMINAL SHALL BE CRIMP WITH THE TOOLS SPECIFIED IN TABLES 2 AND 2A.

TABLE 2 - CRIMP TOOLS PART NUMBERS

TERMINAL SIZE (SEE TABLE 1)	CRIMP TOOL	WIRE CONDUCTOR CRIMP DIE	WIRE INSULATION CRIMP DIE	CRIMP TOOL TYPE
22-18	M22520/38-01	CAVITY A (RED)	CAVITY E (WHITE) 1/	SELF CONTAINED, HAND TOOL WITH FIXED JAWS INDENT AND CIRCULAR CAVITIES NON-REMOVABLE
16-14		CAVITY B (BLUE)	CAVITY D (GREEN) 1/	
12-10		CAVITY C (YELLOW)	N/A	

1/ ONLY FOR FORMING WIRE INSULATION GRIP TABS, WHEN PRESENT.

TABLE 2A - TERMINAL TOOL PART NUMBERS

TERMINAL SIZE (SEE TABLE 1)	CRIMP TOOL	WIRE CONDUCTOR CRIMP DIE	WIRE INSULATION CRIMP DIE	CRIMP TOOL TYPE
22-18	M22520/38-02	CAVITY A (RED)	N/A	SELF CONTAINED, HAND TOOL WITH FIXED JAWS INDENT AND CIRCULAR CAVITIES NON-REMOVABLE
16-14		CAVITY B (BLUE)	N/A	
12-10		CAVITY C (YELLOW)	N/A	
22-18	M22520/38-03	N/A	CAVITY E (WHITE) 1/	
16-14			CAVITY D (GREEN) 1/	

1/ ONLY FOR FORMING WIRE INSULATION GRIP TABS, WHEN PRESENT.

5. QUALIFICATION CABLES:

AS7928 QUALIFICATION SHALL BE PERFORMED WITH MIL-DTL-915 SINGLE CONDUCTOR CABLE.

6. APPLICATIONS:

A-A-59125 IS NOT AUTHORIZED FOR AEROSPACE USAGE IN ACCORDANCE WITH AS50881.

FOR SIMILAR MIL-T-16366 TERMINALS, FOR SHIP BOARD APPLICATION, SEE TABLE 1.

FOR TERMINAL BOARD APPLICATIONS, THE COMBINATION OF DIMENSIONS H, C, AND L PERMITS WIRED TERMINALS TO BE STACKED ON ONE STUD AS LISTED IN TABLE 3.

TABLE 3 - A-A-55125

STYLE	TERMINAL BOARD A-A-59125	QUANTITY OF WIRED TERMINALS
L80	-/10	4
L81	-/12	4
L82	-/19	4
L83	-/14	2
L84	-/16	4
L85	-/25	3
L86	-/24	2

PURE TIN COATED TERMINALS CLOSELY SPACED ON ELECTRONIC EQUIPMENT NEED TO BE CONSIDERED BECAUSE OF THE POTENTIAL FOR TIN WHISKER GROWTH. REFER TO AS7928 FOR TIN WHISKER RESISTANT APPLICATIONS.

M22520/24 HAS BEEN SUPERSEDED BY AS22520/38 AND SHOULD NO LONGER BE USED OR RECOMMENDED.