

REV.
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AS7974/1

RATIONALE

CHANGE NEEDED TO ADDRESS FORMAT, DRAWING, APPLICATION, AND QUALIFICATION REQUIREMENTS.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS7974.

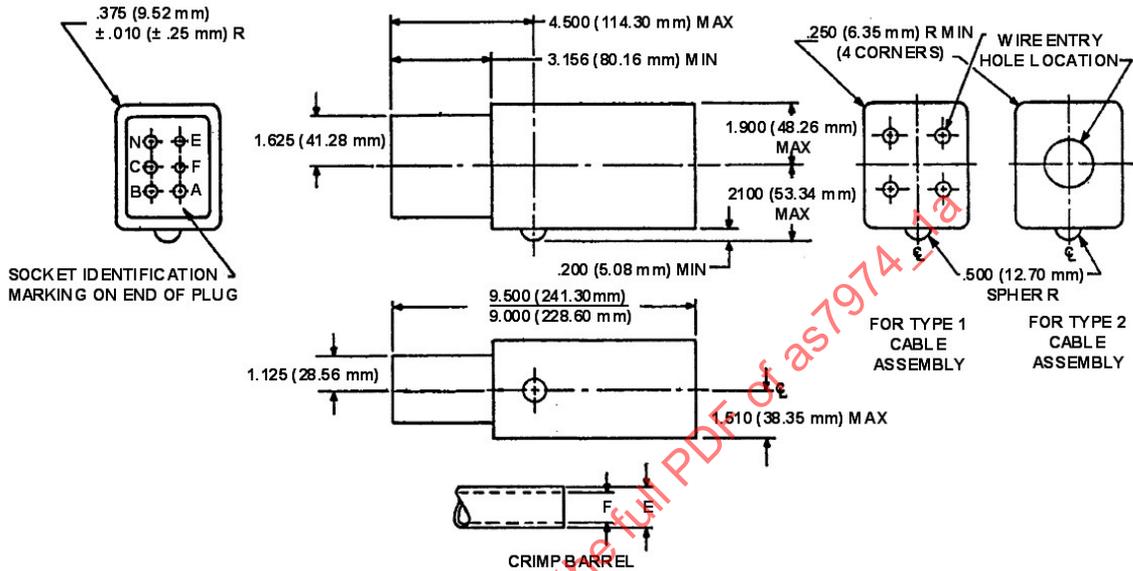


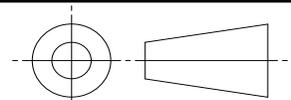
FIGURE 1 - AS7974/1 CONFIGURATION

TABLE 1 - CABLE ASSEMBLIES CRIMP BARREL DIMENSIONS

CABLE ASSEMBLY	PART NUMBER	WIRE SIZE A, B, C, N	E DIA.		F DIA.	
			MAX	MIN	MAX	MIN
TYPE 1	M7974/1-1	2	.473 (12.01 MM)	.450 (11.43 MM)	.365 (9.27 MM)	.355 (9.02 MM)
	M7974/1-2	4	.380 (9.65 MM)	.365 (9.27 MM)	.290 (7.35 MM)	.280 (7.11 MM)
	M7974/1-3	1	.527 (13.38 MM)	.505 (12.82 MM)	.398 (10.10 MM)	.388 (9.85 MM)
TYPE 2	M7974/1-4	2	.473 (12.01 MM)	.450 (11.43 MM)	.365 (9.27 MM)	.355 (9.02 MM)
	M7974/1-5	4	.380 (9.65 MM)	.365 (9.27 MM)	.290 (7.35 MM)	.280 (7.11 MM)
	M7974/1-6	1	.527 (13.38 MM)	.505 (12.82 MM)	.398 (10.10 MM)	.388 (9.85 MM)

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS7974/1A>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS7974



AEROSPACE STANDARD

(R) CONNECTOR, PLUG, AIRCRAFT
EXTERNAL POWER, 115/200 VOLT, 400 HERTZ
(FOR A/E 24A-166A)

AS7974/1
SHEET 1 OF 3

REV.
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REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS7974.

1. CONFIGURATION:

DIMENSIONS SHALL BE IN INCHES IN ACCORDANCE WITH FIGURE 1 AND TABLE 1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINES. METRIC UNITS SHOWN IN PARENTHESES ARE IN MILLIMETERS BASED ON 25.4 MM/INCH. UNLESS OTHERWISE SPECIFIED, THE TOLERANCES SHALL BE ± 0.025 (± 0.64 MM).

PLUGS SHALL HAVE SOCKETS E AND F CONNECTED TOGETHER WITHIN THE PLUG BY A COPPER OR BRASS JUMPER HAVING A CROSS SECTIONAL AREA OF AT LEAST 6530 CIRCULAR MILS.

2. MATERIALS:

MATERIAL SHALL BE IN ACCORDANCE WITH AS7974. ONLY CORROSION RESISTANT STEEL HARDWARE SHALL BE USED IN THE MANUFACTURE OF THE PLUG.

3. MARKING:

PLUG SHALL BE MARKED IN ACCORDANCE AS7974.

WIRE SIZE SHALL BE MOLDED OR STAMPED ON CRIMP BARREL.

4. CRIMP TOOLS:

CRIMP TOOLS SHALL BE AS SPECIFIED IN TABLE 2.

TABLE 2 - AS5259 CRIMP TOOLS

WIRE SIZE	AS5259 TOOL SPECIFICATION	CRIMP TOOL PART NO.	AS5259/7 DIE PART NO.
2	AS5259/1	MS25441-1	MS90485-2
4	OR	OR	MS90485-4
1	AS5259/3	M5259-01	MS90485-1
2	AS5259/4	M5259/4-01	M5259/7-004 OR M5259/7-013
4	OR	OR	M5259/7-003 OR M5259/7-012
1	AS5259/5	M5259/5-01	M5259/7-005

5. PERFORMANCE:

PLUG IS RATED FOR 115/200 VOLTS AT 400 HERTZ.

EACH PLUG WHEN MATED WITH MS90362-3 RECEPTACLE SHALL MEET ALL THE REQUIREMENTS OF AS7974.

6. QUALIFICATION AND QUALITY ASSURANCE INSPECTION:

QUALIFICATION INSPECTION NOT REQUIRED. QUALITY CONFORMANCE INSPECTION IN ACCORDANCE WITH AS7974 SHALL BE REQUIRED FOR EACH PURCHASE ORDER. QUALITY ASSURANCE INSPECTION TESTS SHALL INCLUDE CABLE ATTACHMENT TO LUG TERMINAL AND CRIMP BARREL STRENGTH TEST AS SHOWN IN TABLE 3:

TABLE 3 - QUALITY CONFORMANCE REQUIREMENT

EXAMINATION OR TEST	REQUIREMENT PARAGRAPH	INSPECTION PARAGRAPH	INSPECTION SAMPLING	
			CABLE ASSEMBLY	PLUG ONLY (PIGTAIL OR LOOSE CONTACT TYPES)
CABLE ATTACHMENT TO LUG TERMINAL AND CRIMP BARREL STRENGTH ^{1/}	3.5.6	5.2.6		AQL

^{1/} CONTACT SAMPLES SHALL BE PREPARED WITH THE LOWEST POWER CRIMP TOOL IN TABLE 2 (AS5259/4 OR /5 AND THE APPROPRIATE CRIMP DIE).