MILITARY SPECIFICATION

CONNECTORS, ELECTRICAL, MINIATURE, RACK AND PANEL, ENVIRONMENT RESISTING, 200°C AMBIENT TEMPERATURE

This amendment forms a part of MIL-C-26518B(USAF), dated 27 January 1961, and is approved for use within the Department of the Air Force and is available for use by all Departments and Agencies of the Department of Defense.

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Add: MIL-C-26518B(USAF) dated 27 January 1961 is inactive for new design. For new design use MIL-C-83733(USAF).

TABLE I, delete and substitute:

"TABLE I. Contact sizes, wire range accommodations, and current ratings.

Contact	Wire size	Wire range accommodations OD (inches) Min	Max	Current rating amperes	Test current amperes
20	24	0.040	0.090	3.0	3.0
20	22	0.040	0.090	5.0	5.0
20	20	0.040	0.090	7.5	7.5
16	18	0.068	0.130	16.0	10.0
16	16	0.068	0.130	22.0	13.0
12	14	0.106	0.170	32.0	17.0
12	12	0.106	0.170	41.0	23.0
1 shielded 1/	22	0.096	0.120	3.0	3.0
2 shielded 2/	20	0.095	0.145	7.5	7.5

* 1/ Size 1 shielded contacts conform to M39029/54.
* 2/ Size 2 shielded contacts conform to M39029/55."

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2.1, under SPECIFICATIONS, MILITARY:

Add: "MIL-C-27500 Cable, Electrical, Shielded and Unshielded, Aerospace."

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* Delete "MIL-W-27300 Wire, Electrical, Polytetrafluoroethylene Insulated, Copper, 600-Volt"

substitute: "MIL-W-22759 Wire, Electric, Fluoropolymer Insulated, Copper Or Copper Alloy."

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3.4.2.3, add the following to the end of the first sentence: "and shielded contacts".

* 3.4.3, delete and substitute:

"3.4.3 SEALING PLUGS. Insulated sealing plugs shall be inserted following unwired contacts, except in the case of shielded contacts the unwired contacts shall not be inserted. The plugs shall be in accordance with MS27488. The same sealing plug shall be used in both the connector plug and receptacle".

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3.6.9, delete and substitute:

"3.6.9 ALTITUDE IMMERSION. When tested in accordance with 4.6.11, connectors shall maintain an insulation resistance of 5,000 megohms and shall withstand a dielectric withstanding voltage of 1,500 volts rms at sea level, except the withstanding voltage for shielded contacts shall be 1,000 volts rms between the inner conductor and shield, and closest adjacent shields to shell and shell."

3.6.10, at the end of the paragraph, add the following sentence:

"Shielded contacts shall be measured between inner conductor and shield and between shield and closest adjacent contact, and closest adjacent shields to shell and shell."

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3 6.10.1, at the end of the paragraph, add the following sentence

"Shielded contacts shall be measured between inner conductor and shield and between shield and closest adjacent contact, and closest adjacent shields to shell and shell."

TABLE III, delete and substitute:

"TABLE III. Axial loads for contact retention test, class R.

Contact size	Axial loads (pounds)
20	20
16	25
12	30
#1 shielded	30
#2 shielded	45

"

3.6.14, delete and substitute

"3.6.14 CONTACT INSERTION When tested as specified in 4.6.14, the individual contact insertion forces shall not exceed 15 pounds. The applicable insertion tool shall be used for this test."

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* 4.2.2b, delete and substitute:

"b. Four complete connectors, mounted in accordance with MS24287, test samples 2, 4, 6, and 8 of table V, shall be wired with MIL-W-22759 wire with insulation of extruded construction. The wire gauge shall be the largest for which the contacts are designed, i.e., size 16 contacts with 16-gauge wire, and size 12 contacts with 12-gauge wire. Five percent of the contacts in each connector shall be omitted and the holes filled with sealing plugs. Shielded contacts shall be wired with MIL-C-27500 shielded wire as specified on the applicable military standard using tools and assembly procedures recommended by the manufacturer. These connectors, when tested in a mating condition, shall be positioned at the maximum panel spacing specified in the applicable detail document."

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* 4.2.2d, third sentence, delete "MIL-W-27300" and substitute "MIL-W-22759".

* 4.2.2d, seventh sentence, delete "MIL-W-27300" and substitute "MIL-W-22759".

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* 4.3.3.1, delete and substitute:

"4.3.3.1 PERIODIC INSPECTION LOT. A periodic inspection lot is defined as an integrated production quantity or period of time. Inspections shall be performed on newly selected samples of each class before 20,000 connectors of that class have been produced since the preceding periodic inspections. These inspections shall be performed at least once each 18 months for each class, but need not be performed more often than once every 12 months."

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4.6.8, add the following sentence at the end of the paragraph:

"Voltage potentials listed for shielded contacts in table VIII are between inner conductor and shield, and closest adjacent shields to shell and shell."

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TABLE VIII, delete and substitute:

"TABLE VIII. Test voltages (ac rms).

Altitude (feet)	Unmated				Mated	
	Style S standard	Shielded 1/ contact	Style P standard	Shielded 1/ contact	Standard contact	Shielded 1/ contact
Sea level	1500	1000	1500	1000	1500	1000
10,000	1250	825	1250	825	1250	1000
30,000	750	500	700	500	1000	1000
50,000	500	325	450	325	1000	1000
70,000	350	200	275	200	1000	1000
90,000	250	200	200	200	1000	1000
110,000	250	200	200	200	1000	1000

1/ Voltage potential between inner conductor and shield."

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4.6.8.1, add the following sentence at the end of the paragraph:

"Shielded contacts shall be tested between inner conductor and shield and between shield and closest adjacent contact, and closest adjacent shields to shell and shell."

4.6.9, add the following at the end of the paragraph:

"Rate of pressure change shall be 10,000 feet per minute. The test voltages for shielded contacts shall be 1,000 volts rms between inner conductor and shield, and closest adjacent shields to shell and shell."

4.6.10, add the following at the end of the paragraph

"Shielded contacts shall be measured between inner conductor and shield and between shield and closest adjacent contact, and closest adjacent shields to shell and shell."

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* 6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time set for opening of bids, qualified for inclusion in Qualified Products List (QPL)-26518 whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or purchase orders for the products covered by this specification. The activity responsible for this Qualified Products list is 2750 Air Base Wing, Electronic Support Division (2750 ABW/ES), Gentile Air Force Station, Ohio 45444; however, information pertaining to qualification of products may be obtained from the Defense Electronics Supply Center (DESC-E), 1507 Wilmington Pike, Dayton, Ohio 45444. Application for qualification tests shall be made in accordance with "Provisions Governing Qualification". Copies of SD-6 "Provisions Governing Qualification" may be obtained upon application to Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment."

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