

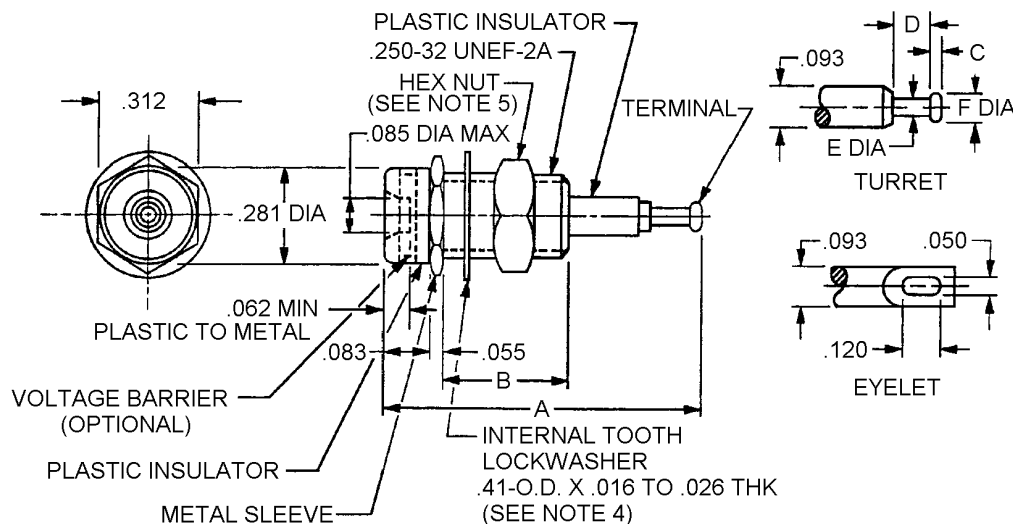
MIL-DTL-39024/1D
w/AMENDMENT 2
3 June 2020
SUPERSEDING
MIL-DTL-39024/1D
w/AMENDMENT 1
12 December 2017

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, TEST POINT TYPE, PANEL TYPE; SINGLE TEST POINT (THREADED), LOW VOLTAGE

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein
shall consist of this specification and MIL-DTL-39024.



NOTES:

1. Dimensions are in inches. (See table I for dimensions not shown on figure.)
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are $\pm .010$ (0.25 mm) for three place decimals and $\pm .03$ (0.8 mm) for two place decimals.
4. Parts supplied unassembled.
5. Hex nut .338 (8.59 mm) $\pm .006$ (0.15 mm) across flats x .09 (2.3 mm) $\pm .03$ (0.8 mm) thick.

Inches	mm	Inches	mm
.016	0.41	.085	2.16
.026	0.66	.093	2.36
.050	1.27	.120	3.05
.055	1.40	.250	6.35
.062	1.57	.281	7.62
.083	2.11	.312	7.92
		.41	10.4

FIGURE 1. Configuration and dimensions.



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TABLE I. Design and identification data.

Dash number	Terminal style	Dimensions ^{1/}						Insulation	
		A	B	C	D	E	F	Color	Number in accordance with SAE-AMS -STD-595
-01	Turret	1.000 max (25.40)	.428 (10.87)	.030 (0.76)	.130 (3.30)	.070 (1.78)	.100 (2.54)	White	17875
-02	"	"	"	"	"	"	"	Red	11105
-03	"	"	"	"	"	"	"	Black	17038
-04	"	"	"	"	"	"	"	Brown	10075
-05	"	"	"	"	"	"	"	Green	14110
-06	"	"	"	"	"	"	"	Orange	12246
-07	"	"	"	"	"	"	"	Blue	15123
-08	"	"	"	"	"	"	"	Yellow	13655
-09	"	"	"	"	"	"	"	Gray	16187
-10	"	"	"	"	"	"	"	Purple	27144
-11	Turret	.703 .672 (17.86) (17.07)	.250 (6.35)	.020 (0.51)	.105 (2.67)	.060 (1.52)	.093 (2.36)	White	17875
-12	"	"	"	"	"	"	"	Red	11105
-13	"	"	"	"	"	"	"	Black	17038
-14	"	"	"	"	"	"	"	Brown	10075
-15	"	"	"	"	"	"	"	Green	14110
-16	"	"	"	"	"	"	"	Orange	12246
-17	"	"	"	"	"	"	"	Blue	15123
-18	"	"	"	"	"	"	"	Yellow	13655
-19	"	"	"	"	"	"	"	Gray	16187
-20	"	"	"	"	"	"	"	Purple	27144
-21	Eyelet	1.000 max (25.40)	.428 (10.87)					White	17875
-22	"	"	"					Red	11105
-23	"	"	"					Black	17038
-24	"	"	"					Brown	10075
-25	"	"	"					Green	14110
-26	"	"	"					Orange	12246
-27	"	"	"					Blue	15123
-28	"	"	"					Yellow	13655
-29	"	"	"					Gray	16187
-30	"	"	"					Purple	27144
-31	Eyelet	.750 .719 (19.05) (18.26)	.250 (6.35)					White	17875
-32	"	"	"					Red	11105
-33	"	"	"					Black	17038
-34	"	"	"					Brown	10075
-35	"	"	"					Green	14110
-36	"	"	"					Orange	12246
-37	"	"	"					Blue	15123
-38	"	"	"					Yellow	13655
-39	"	"	"					Gray	16187
-40	"	"	"					Purple	27144

^{1/} Metric equivalents are in parentheses.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1 and table I.

Terminals: Shall be capable of being wired with two type E, AWG 20 wires in accordance with NEMA-HP3. Configuration shall be specified on figure 1 and table I.

Test probe: $.080 \pm .001$ inch in diameter and .438 inch (min) length.

Contact current rating: 5 amperes (max).

Contact resistance: A test probe in accordance MIL-DTL-39024 shall be fully inserted in the connector. With a current of 5 amperes, potential drop shall be measured between the connector terminal and the extreme end of the solder cup on the test probe. Measured values shall be 20 millivolts (max).

Dielectric withstanding voltage (at sea level):

Test voltage shall be as follows:

<u>Dash numbers</u>	<u>Volts, rms (60 Hz)</u>
-01 thru -10	3,000
-11 thru -20	2,500
-21 thru -30	3,000
-31 thru -40	2,500

Insertion and withdrawal forces:

Insertion force: 4.5 pounds (max).

Withdrawal force: 0.4 pound (min).

Identification marking:

Part or Identifying Number (PIN): M39024/1-(dash number from table I).

Operating conditions:

Operating voltage is as follows:

<u>Dash numbers</u>	<u>At sea level</u>	<u>At 50,000 feet</u>
-01 thru -10 and -21 thru -30	2,000 volts rms, 60 Hz	525 volts rms, 60 Hz
-11 thru -20 and -31 thru -40	1,800 volts rms, 60 Hz	500 volts rms, 60 Hz

Maximum thickness of panel on which these connectors may be used is as follows:

<u>Dash numbers</u>	<u>Max panel thickness</u>
-01 thru -10	.234 inch
-11 thru -20	.094 inch
-21 thru -30	.234 inch
-31 thru -40	.094 inch

Qualification: Not applicable.

First article inspection. First article inspection shall consist of Group A and B inspections. MIL-DTL-39024 paragraph 4.5 through 4.5.3.1.3 and Tables III through VII as applicable.

Conformance inspection. Inspection of successive lots for delivery shall consist of Group A inspections. MIL-DTL-39024 paragraph 4.5 through 4.5.3.1.3 and Tables III through VII as applicable.

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

Referenced documents. In addition to MIL-DTL-39024, this document references the following:

SAE-AMS-STD-595

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-2020-073)

Review activities:

Army - AR, CR4, MI
Navy - AS, MC, OS
Air Force - 19

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil/>.