

INCH-POUND

MIL-C-28859/5A
23 March 1994

SUPERSEDING
MIL-C-28859/5 (SH)
19 February 1990

MILITARY SPECIFICATION SHEET

CONNECTOR, COMPONENT PARTS, ELECTRICAL BACKPLANE,
PRINTED WIRING, LOW INSERTION FORCE (LIF),
COMPLIANT CONTACT

This specification sheet 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 sheet and the issue of the
following specification listed in that issue of the Department
of Defense Index of Specifications and Standards (DODISS)
specified in the solicitation: MIL-C-28859.

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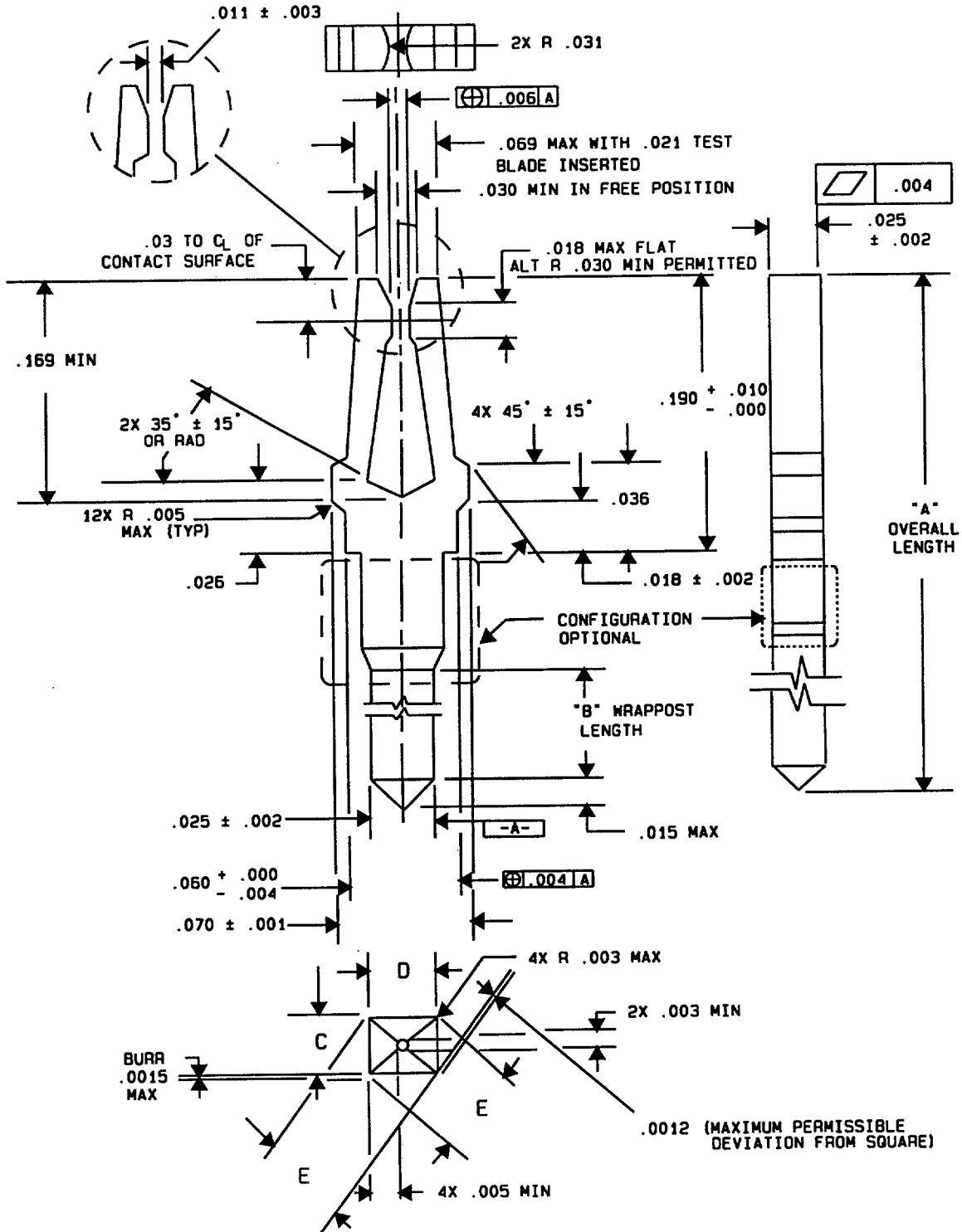


FIGURE 1. Compliant contact.

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Wrappost Geometry				
C	D	E	Parallelism	Straightness
.025 (Nom)	.025 (Nom)	.0355 (Nom)	.002	.005 in/in
.022 Min	.022 Min	.0325 Min		

NOTES:

1. Part to be free of burrs and sharp edges except as noted.
2. Dimensions apply after plating.
3. Dimensions to top of tines shall be measured to highest tine.
4. Unless otherwise specified, tolerances are plus or minus .01 inch (.3 mm) on two place decimals; plus or minus .005 inch (.13 mm) on three place decimals; and plus or minus .0001 inch (.003 mm) on four place decimals.

FIGURE 1. Compliant contact - Continued.

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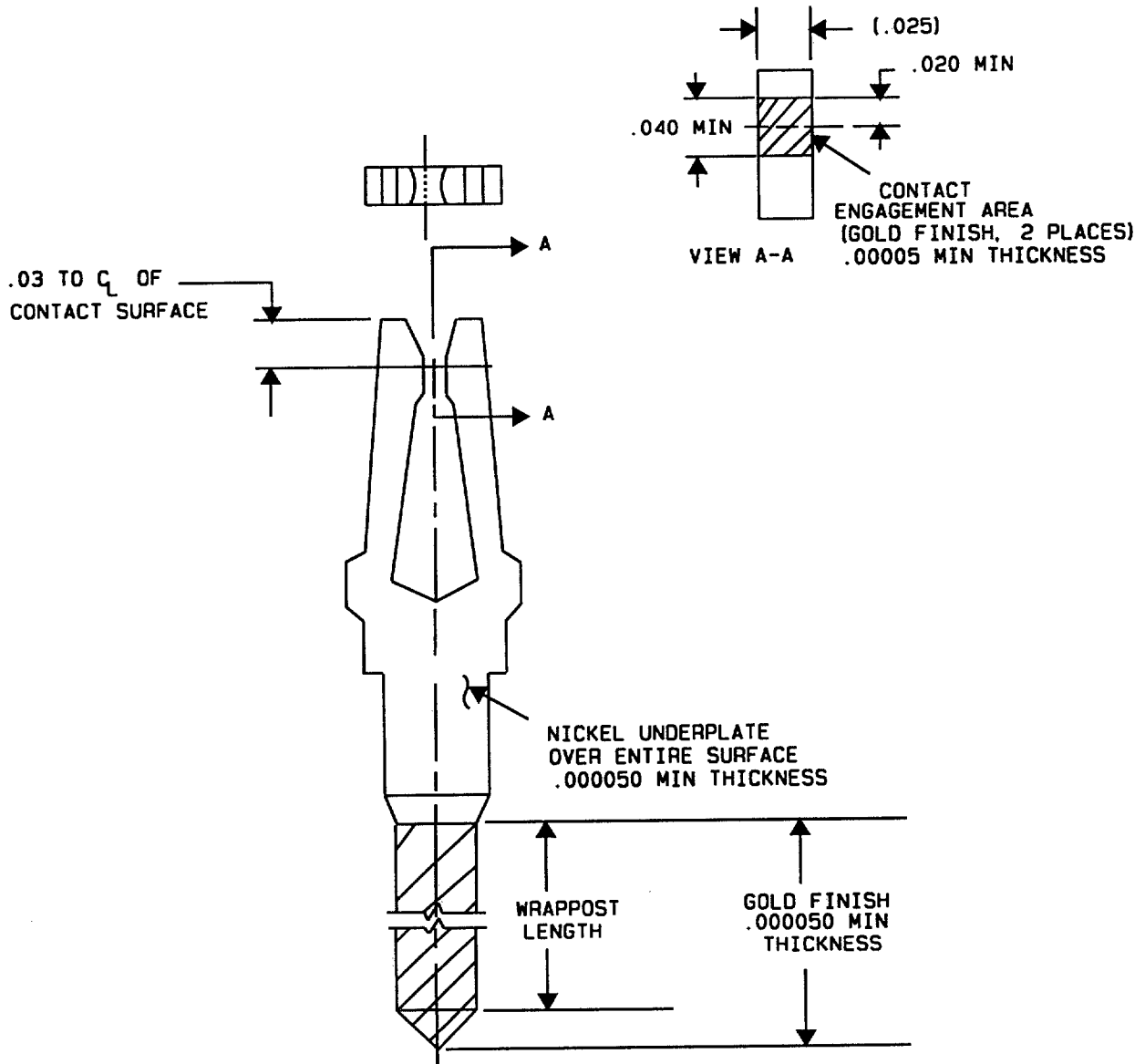


FIGURE 2. Localized finish.

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INCHES	MM
.00005	.00127
.0001	.0025
.0003	.0076
.010	.254
.020	.508
.025	.635
.03	.76
.040	1.016

NOTES:

1. Dimensions are in inches. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
2. Dimensions on this figure are for locating areas of localized finish only.
3. Unless otherwise specified, tolerances are plus or minus .01 inch (.3 mm) on two place decimals; plus or minus .005 inch (.13 mm) on three place decimals; and plus or minus .0001 inch (.003 mm) on four place decimals.
4. Dimensions apply after plating.

FIGURE 2. Localized finish - Continued.

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REQUIREMENTS:

Dimensions and configurations: See figure 1 and figure 2.

Material: Beryllium copper in accordance with ASTM B194, alloy UNS No. C17200, minimum hardness of 310HK.

Housing: In accordance with MIL-C-28859/2.

Finish: Gold plate, MIL-G-45204, type II, grade C, class 1, 50 microinches minimum over nickel plating, QQ-N-290, class 1, 50 microinches minimum.

Localized finish: Contacts supplied with a localized finish shall meet the requirements of MIL-C-28859 and this document. Localized finish contacts shall conform to figures 1 and 2. Nickel plating shall meet QQ-N-290, class 1, 50 microinches minimum over the entire contact. Gold in accordance with MIL-G-45204, type II, grade C, class 1, 50 microinches on the area specified on figure 2.

Current rating: 3 amps.

Military part number: M28859/5- (dash number from table I).

Insertion force: Average insertion force shall be 2.25 ounces maximum with random readings at 4.00 ounces maximum.

Separation force: 4.0 ounces maximum.

Normal force: The average normal force on each tine shall be greater than 3.53 ounces with random readings of not less than 3.00 ounces.

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QUALIFICATIONS:

Localized contact finish: The qualification of the contact supplied with the standard finish does not extend qualification to the contact supplied with the localized finish. To be qualified to supply the localized finish in lieu of the standard contact finish, manufacturers shall subject the contact supplied with localized finish to the same qualification procedures as the standard contact finish. Manufacturers that have qualified the localized finish contact will be designated on the Qualified Products List (QPL).

TABLE I. Dash numbers and dimensions.

Dash No	Overall length A \pm .010	Wrappost length B (min) <u>1/</u>
01	.375	0
02	.550	.175
03	.625	.250
04	.725	.350
05	.875	.500
06	1.000	.625
07	1.125	.750

1/ Backplane thickness greater than .125 inch will reduce the length of B available for wrapping.

Revision letters are not used to denote changes due to the extensiveness of the changes.

Custodians:
Army - CR
Navy - NW
Air Force - 85

Preparing activity:
Navy - NW
(Project 5935-3916)

Review activity:
DLA - ES

User activities:
Navy - AS, MC

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

MIL-C-28859/5A

2. DOCUMENT DATE (YYMMDD)

1994 March 23

3. DOCUMENT TITLE Connector, Component Parts, Electrical Backplane, Printed Wiring, Low Insertion Force (LIF), Compliant Contact

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION
6. SUBMITTER
a. NAME (Last, First, Middle Initial)
b. ORGANIZATION
c. ADDRESS (Include Zip Code)
d. TELEPHONE (Include Area Code)
7. DATE SUBMITTED (YYMMDD)

(1) Commercial

(2) AUTOVON
(if applicable)
8. PREPARING ACTIVITY
a. NAME Technical Point of Contact (TPOC):

Mr. Joseph P. Toy (Code 603A)

b. TELEPHONE (Include Area Code)

(1) Commercial

(2) AUTOVON

PLEASE ADDRESS ALL CORRESPONDENCE AS FOLLOWS:

TPOC: 812-854-5993

88-482-5993

c. ADDRESS (Include Zip Code) Commander

ATTN: Joseph P. Toy, Code 603A, Bldg. 2917

NAVSURFWARCENDIV, 300 Highway 361

Crane, IN 47522-5001

IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:

Defense Quality and Standardization Office

5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466

Telephone (703) 756-2340 AUTOVON 289-2340