

INCH-POUND

A-A 55531A
 7 July 2008
 SUPERSEDING
 A-A-55531
 30 January 1996

COMMERCIAL ITEM DESCRIPTION

CONNECTORS, TELECOMMUNICATION, POLARIZED SHELL, RECEPTACLE, FEMALE RACK AND PANEL, SOLDER CONTACT, SIDE ENTRY COVER, SCREWLOCK

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. **SCOPE.** This commercial item description (CID) covers the general requirements for a telecommunication connector. Telecommunication connectors covered by this CID are intended for commercial/industrial applications.
2. **CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN).** This CID uses a classification system which is included in the PIN as shown in the following example (see 7.1).



3. SALIENT CHARACTERISTICS

3.1 Interface and physical dimensions. Telecommunication connectors supplied to this CID shall be as specified herein (see figure 1).

3.2 Marking. Telecommunication connectors supplied to this CID shall be marked with the manufacturer's (MFR's) standard commercial PIN. (NOTE: The part number marked on the unit pack shall be the CID PIN.)

3.3 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data that may improve this document should be sent to: Defense Supply Center, Columbus, ATTN: DSCC-VAI, P.O. Box 3990, Columbus, OH 43218-3990 or email RectangularConnector@dsc.dla.mil. Since contact information may change, you may want to verify the currency of the address information using the ASSIST Online database at <http://assist.daps.mil>.

A-A-55531A

3.4 Workmanship. Connectors and accessories shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

3.5 Connector shells. Shell material shall be corrosion resistant steel in accordance with ASTM A109/A109M.

3.6 Connector shell finish. Connector shell shall be zinc plated in accordance with ASTM-B633, type RS, followed by a clear chromate conversion in accordance with ASTM-B633, class 3, type II.

3.7 Contacts. The contacts shall be formed of a high conductive, high strength copper alloy with gold over nickel plating in the contact area.

3.8 Connector insulator. Connector housings shall be molded from self-extinguishing thermoplastic material for high impact and dielectric strength.

3.9 Contact rating. Contacts shall be rated at 5 amperes maximum per contact.

3.10 Insulation resistance. Insulation resistance shall be 5,000 megohms minimum.

3.11 Contact retention. Contact retention force shall be 8.90 newtons (2 pounds) minimum.

3.12 Durability. Durability shall consist of 200 cycles of mating and unmating and upon completion the termination resistance shall not exceed 6 milliohms maximum. There shall be no indication of physical damage.

3.13 Operating temperature. The operating temperature range shall be from -55°C to 125°C.

3.14 Termination wire range. Solder cues shall terminate 22, 24, and 26 AWG, solid or stranded wire.

3.15 Termination resistance. The contact resistance shall be 6 milliohms maximum initial.

3.16 Dielectric withstanding voltage. There shall be no breakdown of the insulating material when subjected to a minimum of 500 V root mean square (rms) for 5 seconds minimum between adjacent contacts of the mated connector assemblies.

3.17 Mating and unmating force. Connector mating and unmating force shall be as specified in table I.

TABLE I. Mating and unmating force.

Size	Mating (maximum)	Unmating (minimum)
14	31.14 newtons (7 pounds)	8.90 newtons (2 pounds)
24	53.38 newtons (12 pounds)	17.79 newtons (4 pounds)
36	80.07 newtons (18 pounds)	26.69 newtons (6 pounds)
50	111.21 newtons (25 pounds)	31.14 newtons (7 pounds)

A-A-55531A

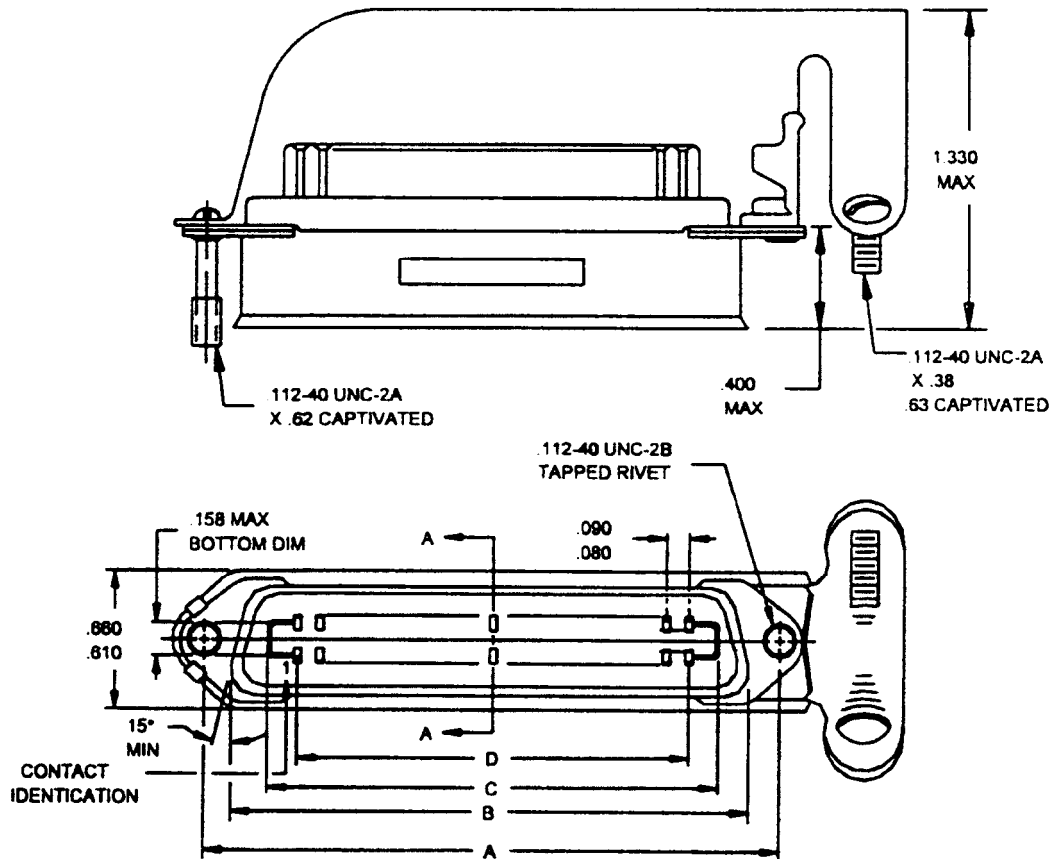
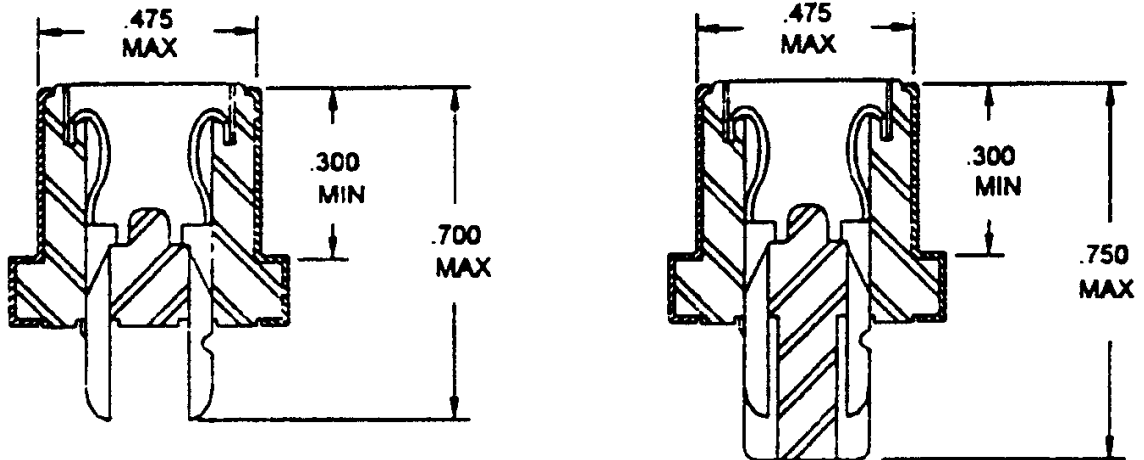


FIGURE 1. Dimensions and configurations.

A-A-55531A



Inches	mm	Inches	mm
.080	2.03	.415	10.54
.090	2.29	.475	12.06
.103	2.62	.610	15.49
.130	3.30	.700	17.78
.158	4.01	.750	19.05
.300	7.63		

Size	A		8	C	D	
	Mm	Max	Max	Max	Max	Max
14	1.412 (35.86)	1.422 (36.12)	1.000 (25.40)	.695 (17.65)	.505 (12.83)	.515 (13.08)
24	1.837 (46.66)	1.867 (46.91)	1.429 (36.30)	1.119 (28.42)	.930 (23.62)	.940 (23.88)
36	2.347 (59.61)	2.357 (59.87)	1.930 (49.02)	1.630 (41.40)	1.440 (36.58)	1.450 (36.83)
50	2.942 (74.73)	2.952 (74.98)	2.530 (64.26)	2.224 (56.49)	2.035 (51.69)	2.045 (51.9451.94)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only..
3. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.

FIGURE 1. Dimensions and configurations - Continued.

A-A-55531A

3.18 Mating connector. Mating connectors are specified in table II.

TABLE II. Mating connector.

Plug dash number	Mating connector	Mating connector	Mating connector
01	AA55528-01 or AA55528-06	AA55530-01 or AA55530-06	AA55532-01 or AA55532-06
02	AA55528-02 or AA55528-07	AA55530-02 or AA55530-07	AA55532-02 or AA55532-07
03	AA55528-03 or AA55528-08	AA55530-03 or AA55530-08	AA55532-03 or AA55532-08
04	AA55528-04 or AA55528-09	AA55530-04 or AA55530-09	AA55532-04 or AA55532-09
06	AA55528-01 or AA55528-06	AA55530-01 or AA55530-06	AA55532-01 or AA55532-06
07	AA55528-02 or AA55528-06	AA55530-02 or AA55530-07	AA55532-01 or AA55532-07
08	AA55528-03 or AA55528-06	AA55530-03 or AA55530-08	AA55532-02 or AA55532-08
09	AA55528-04 or AA55528-09	AA55530-04 or AA55530-09	AA55532-03 or AA55532-09

3.19 Dash numbers. Dash numbers are specified in table III.

TABLE III. Dash numbers.

Dash number	Number of contacts	Barrier type
01	14	Low
02	24	Low
03	36	Low
04	50	Low
06	14	High
07	24	High
08	36	High
09	50	High

4. REGULATORY REQUIREMENTS. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with 23.403 of the Federal Acquisition Regulation (FAR).

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 PIN. The PIN should be used for government purposes to buy commercial products to this CID. See section 2 for PIN format.

A-A-55531A

7.2 Environmentally preferable material. Environmentally preferable materials should be used to the maximum extent possible to meet the requirements of this specification. As of the dating of this document, the U.S. Environmental Protection Agency (EPA) is focusing efforts on reducing 31 priority chemicals. The list of chemicals is available on their website at <http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm>. Further information is available at the following EPA site: <http://www.epa.gov/epaoswer/hazwaste/minimize/>. Included in the EPA list of 31 priority chemicals are cadmium, lead, and mercury. Use of the materials on the list should be minimized or eliminated unless needed to meet the requirements specified herein (see [Section 3](#)).

7.3 Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these connectors to DSCC under the Military Parts Control Advisory Group (MPCAG) evaluation program, CAGE code 58536 should be used.

7.4 Source of documents.

FEDERAL REGULATIONS

FAR - Federal Acquisition Regulations (FAR)

(Copies of these documents are available online at www.acquisition.gov.comp/far/index.html or from the Government Printing Office, 732 North Capital Street, NW, Washington D.C. 20401.)

Other Publications

ASTM INTERNATIONAL

ASTM A109/A109M - Standard Specification for Steel, Strip, Carbon (0.25 Maximum Percent), Cold-Rolled
 ASTM-B633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel

(Copies of these documents are available at <http://www.astm.org> or from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, Pennsylvania 19428-2959.)

(Industry association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

7.5 Ordering data. The contract or order should specify the following

- a CID document number, revision, and CID PIN.
- b. Product conformance provisions.
- c. Packaging requirements.

7.6 Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

A-A-55531A

MFR's CAGE

71785

MFR's name and address

Cinch Connectors
 1500 Morse Avenue
 Elk Grove Village, IL 60007
<http://www.cinch.com>

7.7 Part number (P/N) supersession data. These CID PINs supersede the following MFR's P/N's as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE IV. Supersession data.

Dash number (see table II)	MFR's CAGE	Superseded MFR's Part number
AA55531-09	71785	57-20500-7

7.8 Government users. To acquire information on obtaining these telecommunication connectors from the Government inventory system, contact Defense Supply Center, Columbus, ATTN: DSCC-VAI, P.O. Box 3990, Columbus, OH 43218-3990, or telephone (614) 692-0576.

7.9 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue, due to the extent of the changes.

MILITARY INTERESTS:

Custodians:
 DLA - CC

:

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - 7FXE

Preparing Activity:
 DLA-CC

(Project 5935-2007-213)

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 <http://assist.daps.dla.mil> .