

A-A-55138
December 7, 1993

COMMERCIAL ITEM DESCRIPTION

CONNECTORS, ELECTRICAL, IEEE 488 COMPATIBLE, RECTANGULAR, MINIATURE, POLARIZED SHELL, RECEPTACLE, 24 POSITION, CABLE TERMINATING, INSULATION DISPLACEMENT, SCREW OR BAIL LOCKING, THICK FLANGE

The General Services Administration has authorized
the use of this commercial item description (CID)

Abstract This CID covers the general requirements for a polarized shell, plug, electrical digital interface bus connector. This connector can be used in applications that require conformance to the IEEE 488 interface standard, and require termination of a discrete wire type cable. These connectors are typically used in cable-to-cable interconnections. Connectors covered by this CID are intended for commercial/industrial applications and may be used in military systems where individual environmental and performance requirements can be met.

Part or Identifying Number (PIN). The PIN for the CID shall be as shown in the following example

A-A-55138	-	01
CID number		Dash number

Salient characteristics

Design, construction, and dimensions Design, construction, and dimensions shall be as specified on figure 1 and in accordance with IEEE 488

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

Connector housings Connector housings are molded from self-extinguishing black thermoplastic material for high impact and dielectric strength. Connectors are typically used for cable-to-cable interconnections

Termination wire range Terminations are insulation displacement type which accommodate wire ranges of 24-26 AWG solid or 24 AWG stranded (7 strand) wire.

Contact rating Contacts shall be rated at 3.5 amperes maximum at +25°C for 22 AWG

Termination resistance. The contact resistance shall be 20 milliohms maximum initial

Dielectric withstanding voltage There shall be no breakdown of the insulating material when subjected to 1000 V ac for 1 minute between adjacent contacts of the mated connector assemblies.

Mating force Connector mating force shall not exceed 2.67 newtons (0.6 pound) maximum per contact

Unmating force Connector unmating force shall not exceed .67 newton (0.15 pound) minimum per contact

Contact retention. Contact retention force shall be 13.34 newtons (3 pounds) minimum

Durability Durability shall consist of 200 cycles of mating and unmating and upon completion the termination resistance shall not exceed 26.5 milliohms maximum. There shall be no indication of physical damage

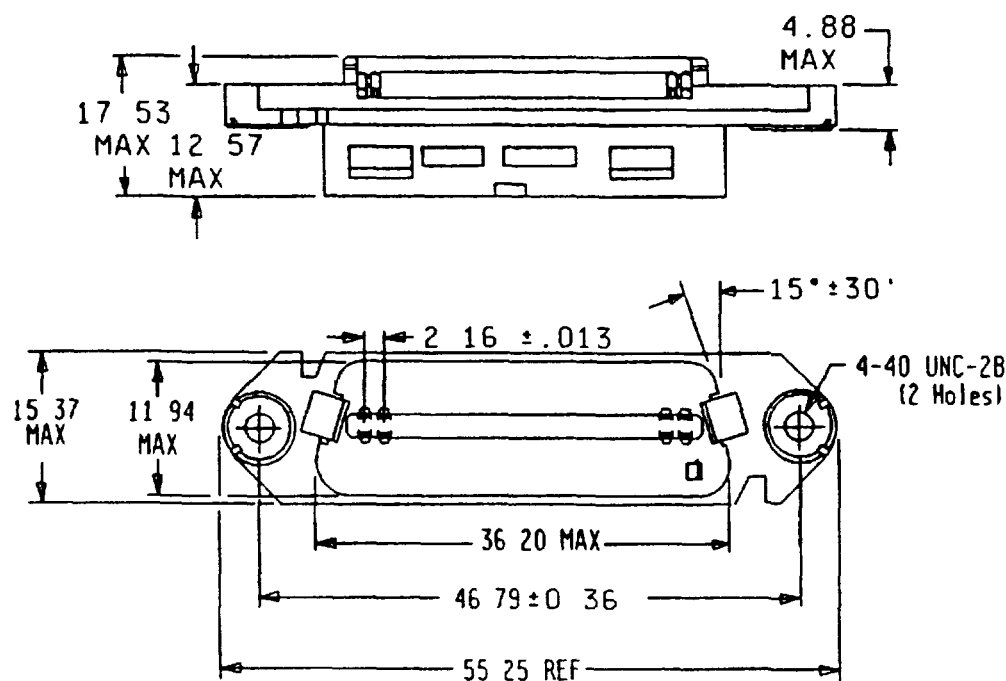
Operating temperature. The operating temperature range shall be from -40°C to +75°C

AMSC N/A

DISTRIBUTION STATEMENT A Approved for public release, distribution is unlimited

FSC 5935

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mm	INCH
0.013	.0005
0.36	.014
2.16	.085
4.88	.192
11.94	.47
12.57	.495
15.37	.605
17.53	.690
36.20	1.425
46.79	1.842
55.25	2.175

NOTES

- 1 Dimensions are in millimeters
- 2 The US government preferred system of measurement is the metric SI system. However, since this item was originally designed using inch-pound units of measurement, in the event of conflict between the metric and inch-pound units, the inch-pound units shall take precedence

Figure 1 Connector, receptacle, 24 contacts, screw or bail locking, thick flange

Vibration The connector, or hardware when assembled to the connector, shall exhibit no evidence of breaking, cracking, or loosening of parts when subjected to vibration of 10-55-10 Hz traversed in 1 minute at 1.52 millimeters (0.060 inch) total excursion for 2 hours in each of three mutually perpendicular planes

Physical shock The connector, or hardware when assembled to the connector, shall exhibit no evidence of breaking, cracking, or loosening of parts when subjected to 50 G's half-sine wave shock of 11 milliseconds duration, 3 shocks in each direction applied along the three mutually perpendicular planes for a total of 18 shocks

Regulatory requirements This section is not applicable to this CID

Quality assurance provisions.

Responsibility for inspection Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection, examination, and test requirements specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections, examinations, or tests set forth in this description where such inspections, examinations, and tests are deemed necessary to assure supplies and services conform to prescribed requirements

Contractor certification statement The contractor shall certify and maintain objective quality evidence that the product offered meets the requirements of this CID, and that the product conforms to the producer's own drawings, specifications, standards, quality assurances practices, and is the same as the product provided as a bid sample. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract

Certificate of compliance. A certificate of compliance shall accompany all connectors supplied to this CID

Packaging

Preservation, packaging, packing, labeling, and marking Preservation, packaging, labeling, and marking shall be as specified in the contract or purchase order

Notes This section contains relevant information which is useful to buyers, users, and suppliers in the process of acquiring the item, but is not mandatory

Referenced document

Other Publication

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 488 - IEEE Standard Digital Interface for Programmable Instrumentation

(Applications for copies should be addressed to the Institute of Electrical and Electronics Engineers (IEEE), IEEE Service Center, 445 Hoes Lane, P. O. Box 1331, Piscataway, NJ 08855-1331.)

Ordering data Acquisition documents should specify the following

- a CID document number and revision and CID PIN
- b Quality assurance provisions
- c Packaging requirements

Comments Comments on this CID should be directed to Defense Electronics Supply Center, 1507 Wilmington Pike, ATTN: DESC-EMT, Dayton, OH 45444-5000, or telephone (513) 296-5391

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Source of supply A suggested source of supply is listed in table I. Additional sources will be added as they become available

TABLE I. Suggested source of supply

CID PIN A-A-55138-	Vendor commercial PIN	Vendor CAGE number
01	552313-1	00779

Vendor CAGE
number

00779

Vendor name
and address

AMP, Incorporated
470 Friendship Road
Harrisburg, PA 17111-1203

CIVIL AGENCY COORDINATING ACTIVITY

GSA - 7FXE

PREPARING ACTIVITY

DLA-ES

(Project 5935-D424)