

A-A-55140  
December 7, 1993

# COMMERCIAL ITEM DESCRIPTION

CONNECTORS, ELECTRICAL, IEEE 488 COMPATIBLE, RECTANGULAR, MINIATURE, POLARIZED SHELL, RECEPTACLE, SHIELDED, 24 POSITION, FLAT CABLE TERMINATING, INSULATION DISPLACEMENT, SCREW LOCKING, PREASSEMBLED CONSTRUCTION

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

**Abstract** This commercial item description (CID) covers the general requirements for a polarized shell, receptacle, 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 1.27 millimeters (.050 inch) flat cable. Connectors covered by this CID are intended for commercial/industrial applications and shall not be used in military systems needing stringent environmental and electrical requirements.

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

A-A-55140	-	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 shall be formed of a high conductive, high strength copper alloy with gold over nickel plating in the contact area.

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

**Connector shields** Connector shields shall be made of die cast zinc with nickel plating.

**Connector hardware** Connector hardware shall be made of zinc plated carbon steel.

**Termination wire range** Terminations shall be insulation displacement type which accommodate 1.27 millimeters (.050 inch) centerline flat cable conductor with wire ranges of 26-30 AWG solid or 28 AWG stranded wire.

**Contact rating** Contacts shall be rated at 1 ampere maximum at +25°C.

**Termination resistance** The contact resistance shall be 22 milliohms maximum initial for mated connectors and 12 milliohms initial for unmated connectors.

**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 3.12 newtons (0.7 pound) maximum per contact.

**Unmating force** Connector unmating force shall not exceed 0.89 newton (0.20 pound) minimum per contact.

**Durability** Durability shall consist of 200 cycles of mating and unmating and upon completion the termination resistance shall not exceed a change greater than 10 milliohms maximum from the initial resistance. There shall be no indication of physical damage.

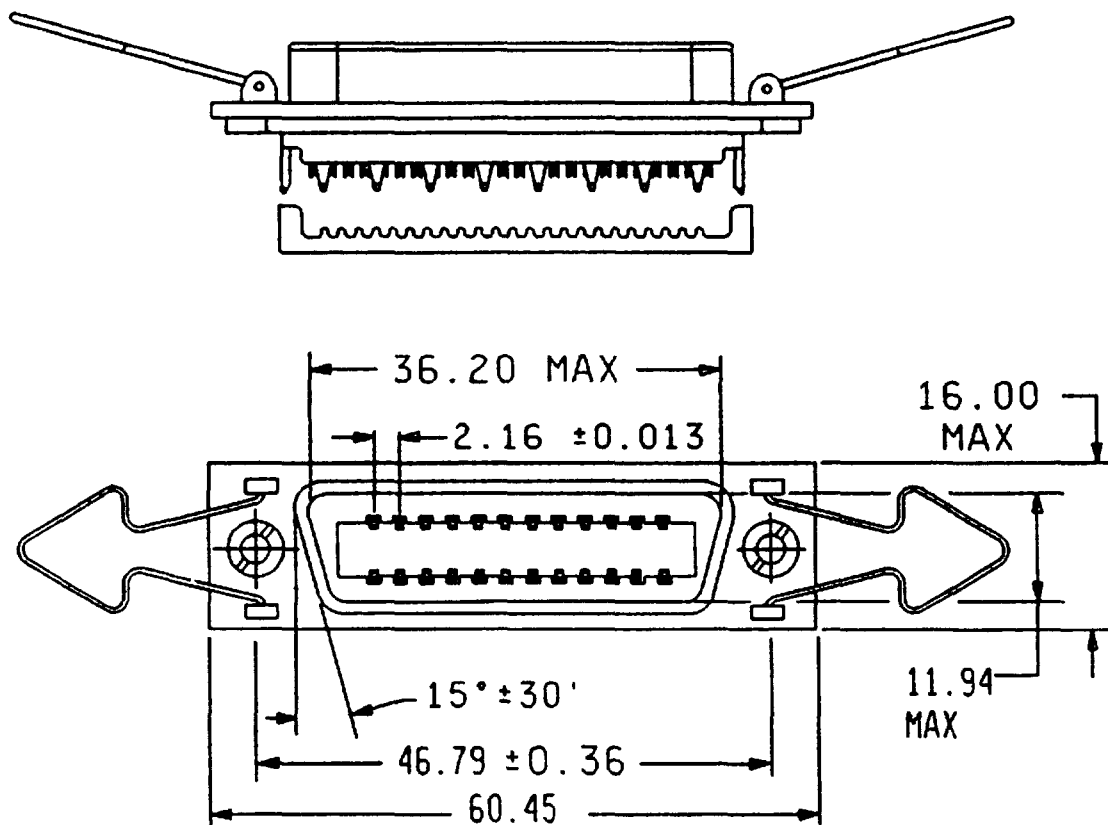
**Operating temperature** The operating temperature range shall be from -40°C to +75°C.

AMSC N/A

DISTRIBUTION STATEMENT A Approved for public release, distribution is unlimited

FSC 5935

A-A-55140



mm	INCH
0.013	.0005
0.36	.014
2.16	.085
11.94	.470
16.00	.630
36.20	1.425
46.79	1.842
60.45	2.380

## 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 position, flat cable, locking

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 (.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

A-A-55140

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-55140-	Vendor commercial PIN	Vendor CAGE number
01	554434-1	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-D426)