

COMMERCIAL ITEM DESCRIPTION

CONNECTORS, ELECTRICAL, IEEE 488 COMPATIBLE, RECTANGULAR, MINIATURE,  
POLARIZED SHELL, RECEPTACLE, SHIELDED, 24 POSITION, RIGHT ANGLE,  
PRINTED CIRCUIT BOARD TERMINATING, BAIL LOCKING

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, 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 to a printed circuit board of up to 3.17 millimeters (.125 inch) thick. The connector is a right angle mount type.

Application. 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-55146  
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|  
-----  
CID number

01  
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|  
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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.

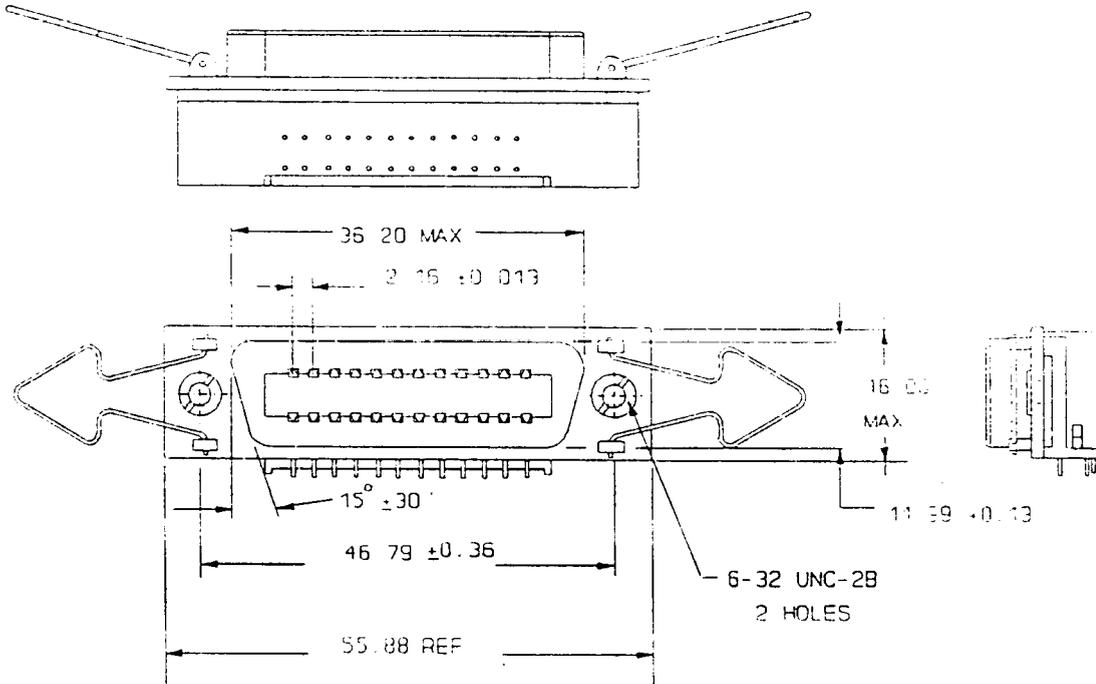
Connector hardware. Connector hardware shall be made of zinc plated carbon steel.

Termination type. Terminations shall be printed circuit board termination type which accommodate printed circuit boards of up to 3.17 millimeters (.125 inches) thick. Termination tails shall be tin plated for ease of solderability.

Contact rating. Contacts shall be rated at 3.5 amperes minimum at 25°C.

Termination resistance. The contact resistance shall be 30 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.



mm	Inches
0.013	.0005
0.36	.014
2.16	.085
11.99	.472
16.00	.630
36.20	1.425
46.79	1.842
55.88	2.200

Figure 1. Connector, 24 position, preassembled bail lock.

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 .36 newton (0.08 pound) minimum per contact.

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 to +105°C.

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 2 mm (.06 inch) total excursion for 2 hours in each of 3 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 3 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.

Packaging. 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 procuring 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. The contract or purchase order shall specify the following:

A-A-55146

- a. CID number, 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.

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

TABLE I. Suggested source of supply.

CID dash number	Vendor commercial PIN	Vendor CAGE number
A-A-55146-01	553814-1	00779

Vendor CAGE  
number

Vendor name  
and address

00779

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

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - 7FXE

PREPARING ACTIVITY:

DLA-ES

(Project 5935-0432)