

INCH-POUND

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 SUPERSEDING
 A-A-50553
 7 June 1995

COMMERCIAL ITEM DESCRIPTION

FITTING FOR CONDUIT, METAL (THICK-WALL (RIGID) AND THIN-WALL (EMT) TYPE)

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 rain tight, concrete tight, and miscellaneous fittings for rigid metal conduit and electrical metal tubing. This document does not cover fittings designed to meet the requirements of the National Electrical Code for use in hazardous locations or cast metal outlet bodies and floor boxes.

2. **CLASSIFICATION.** The fittings shall be of the following types, classes, kinds, styles, sizes, and materials:

2.1 **Type.** The type of fitting to be furnished shall be as specified (see 7.3(b)).

- Type I - Rain tight fittings
- Type II - Concrete tight fittings
- Type III - Miscellaneous fittings

2.2 **Class.** The class of fitting furnished shall be as specified (see 7.3(c)).

- Class 1 - Fittings for thick-wall conduit (RIGID)
- Class 2 - Fittings for thin wall conduit (EMT)

2.3 **Kind.** The kind of fitting to be furnished shall be as specified (see 7.3(d)).

- Kind A - Coupling, electrical conduit, threadless
- Kind B - Box connector electrical, straight, threadless
- Kind C - Box connector, electrical, 90 degree, threaded

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to: STDZNMGT@dla.mil or Defense Supply Center Richmond (DSCR), ATTN: DSCR-VEB, 8000 Jefferson Davis Highway, Richmond, VA 23297-5616.

AMSC N/A

FSC 5975

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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- Kind D - Box, connector, electrical, 45 degree, threaded
- Kind E - Box connector, electrical, 90 degree, threadless
- Kind F - Box, connector, electrical, 45 degree, threadless
- Kind G - Union, electrical conduit
- Kind H - Adapter, electrical conduit
- Kind J - Offset connector, electrical conduit, threaded
- Kind K - Coupling, electrical conduit, threaded
- Kind L - Box connector, electrical, straight with single locknut
- Kind M - Deleted
- Kind N - Deleted
- Kind P - Locknut, electrical conduit
- Kind Q - Bushing, electrical conduit, metal
- Kind R - Bushing, electrical conduit, non-metallic
- Kind S - Bushing, electrical conductor, non-metallic
- Kind T - Chase nipple, conduit, metal
- Kind U - Bushing, electrical conduit, metal
- Kind X - Box connector, (hub), electrical, straight, threaded
- Kind Y - Offset connector, electrical conduit

2.4 Style. The style of fitting to be furnished shall be as specified (see 7.3(e)).

- Style 1 - Un-insulated
- Style 2 - With insulated throat
- Style 3 - Enlarger
- Style 4 - Reducer
- Style 5 - External to internal
- Style 6 - External to external

2.5 Size. The size of fitting to be furnished shall be as listed in table I (see 7.4(f)).

TABLE I. Fitting sizes.

| Size code | Size (inches) | |
|--------------|---------------|------------|
| | Decimal | Fractional |
| 01 | 0.50 | 1/2 |
| 02 | 0.75 | 3/4 |
| 03 | 1.00 | 1 |
| 04 | 1.25 | 1-1/4 |
| 05 | 1.50 | 1-1/2 |
| 06 | 2.00 | 2 |
| 07 | 2.50 | 2-1/2 |
| 08 | 3.00 | 3 |
| 09 | 3.50 | 3-1/2 |
| 10 | 4.00 | 4 |

2.6 Material. The fitting material shall be as listed in table II (see 7.4(g)).

TABLE II. Fitting materials.

| Material code | Material |
|---------------|----------------|
| A | Aluminum alloy |
| C | Cast iron |
| M | Malleable iron |
| N | Non-metallic |
| S | Steel |
| Z | Zinc alloy |

3. SALIENT CHARACTERISTICS

3.1 Materials. Materials used shall be free from defects that would adversely affect the performance or maintainability of individual components or of the overall assembly. Fittings and component parts of the fittings shall be made of steel, malleable iron, cast iron, or non-ferrous metals as specified. Fittings made from die-cast zinc material shall conform to ASTM B 86, "Standard Specification for Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings".

3.2 Electrical characteristics. The fittings shall conform to the requirements of Underwriters Laboratories (UL) standards for safety UL 467, "Grounding and Bonding Equipment", and UL 514B, "Fittings for Cable and Conduit", as applicable.

3.3 Electrical continuity. Fittings shall join with other parts of the raceway system in such a manner as to provide continuous electrical conductivity when tested for electrical continuity.

3.4 Grounding and bonding. Fittings and accessories shall conform to the requirements of UL 467, as applicable.

3.5 Interchangeability. All fittings of the same classification shall be identical to the extent necessary to insure interchangeability of component parts, assemblies, accessories, and spare parts.

4. REGULATORY REQUIREMENTS

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

4.2 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units provided they fall within the specified tolerances using conversion tables contained in FED-STD-376, "Preferred Metric Units for General Use by the Federal Government", and all other requirements of this CID including form, fit, and function are met.

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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 marketplace. The government reserves the right to require proof of such conformance.

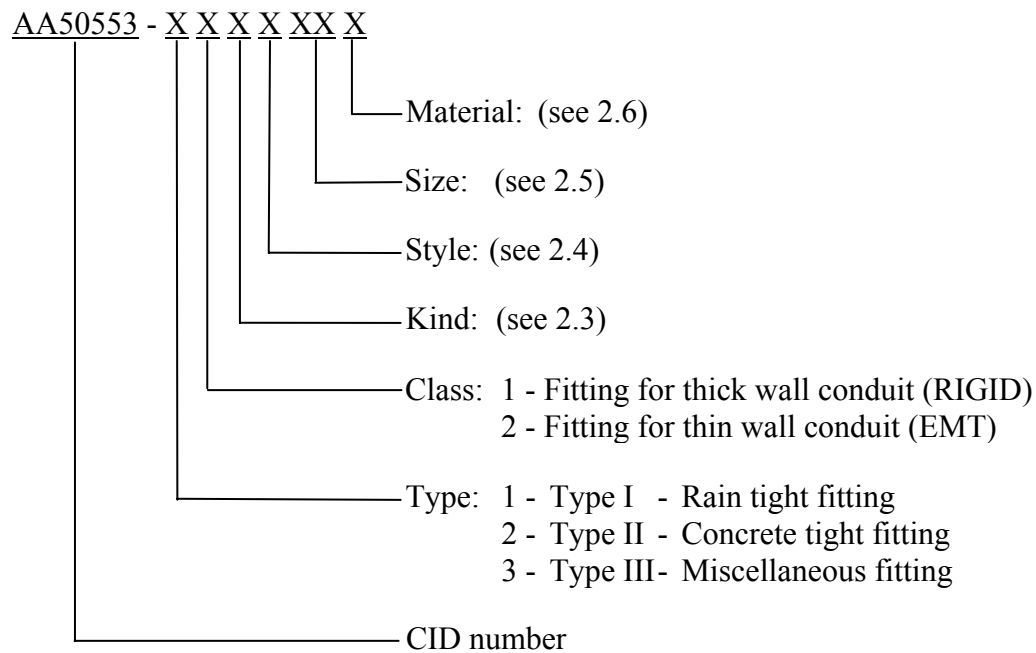
5.2 Market acceptability. The product offered must have been previously sold either to the government or on the commercial market.

6. PACKAGING

6.1 Preservation, packing, and marking. Preservation, packing, and marking shall be as specified in the acquisition order (see 7.3(h)).

7. NOTES

7.1 Part or identification number (PIN). The following PIN procedure is for government purposes and does not constitute a requirement for the contractor.



Example of reference part number: AA50553 - 11D203Z identifies a type I rain tight fitting, thick wall conduit, threaded 45 degree electrical connector box, insulated throat, 1-inch, made of zinc alloy.

7.2 Sources of documents.

7.2.1 ASTM standards. Copies of ASTM standards may be obtained from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Electronic copies of ASTM standards may be obtained from <http://www.astm.org/>.

7.2.2 UL standards. Copies of UL standards may be obtained from Underwriter Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096. Electronic copies of UL standards may be obtained from <http://www.ul.com/>.

7.2.3 FAR. The FAR may be obtained from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Electronic copies of FAR documents may be obtained from <http://www.arnet.gov/far/>.

7.3 Ordering data. The acquisition order should specify the following:

- a. CID document number, revision, and CID PIN.
- b. Type of fitting (see 2.1).
- c. Class of fitting (see 2.2).
- d. Kind of fitting (see 2.3).
- e. Style of fitting (see 2.4).
- f. Size of fitting (see 2.5).
- g. Fitting material (see 2.6).
- h. Preservation, packing, and marking (see 6.1).

7.4 Configurations. The fittings are typically available in the configurations listed in table III.

TABLE III. Fitting configurations.

| Kind | Configuration ¹ | Threaded (Td) or threadless (Ts) | Type I | Type II | Class 1 | Class 2 | Styles ² |
|------|----------------------------|----------------------------------|--------|---------|---------|---------|---------------------|
| A | Coupling (C) | Ts | Yes | Yes | Yes | | |
| B | Straight (B) | Td | Yes | Yes | Yes | | 1, 2 |
| C | 90° (B) | Td | Yes | Yes | Yes | | 1, 2 |
| D | 45° (B) | Td | Yes | Yes | Yes | | 1, 2 |
| E | 90° (B) | Ts | Yes | Yes | Yes | | 1, 2 |
| F | 45° (B) | Ts | Yes | Yes | Yes | | 1, 2 |
| G | Union (C) | Ts | | Yes | Yes | | |
| H | Adapter (C) | Ts | Yes | Yes | Yes | | 3, 4 |
| J | Offset (C) | Td | Yes | Yes | Yes | | 5, 6 |
| K | Coupling (C) | Td | Yes | Yes | | Yes | |
| L | Straight (C) ³ | Ts | Yes | Yes | | Yes | 1, 2 |

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TABLE III. Fitting configurations - Continued.

| Kind | Configuration ¹ | Threaded (Td) or threadless (Ts) | Type I | Type II | Class 1 | Class 2 | Styles ² |
|------|----------------------------|--|--------|---------|---------|---------|---------------------|
| P | 90° (B) | Ts | Yes | Yes | | Yes | 1, 2 |
| Q | Bushing, metal (C) | | | | Yes | | 1, 2, 7, 8, 9 |
| R | Bushing, non-metal (C) | | | | Yes | | |
| S | Bushing, non-metal (C) | | | | Yes | | |
| T | Chase nipple (C) | | | | Yes | | 1, 2 |
| U | Bushing, metal (C) | | | | | Yes | 1, 2 |
| Y | Offset (C) | Ts | Yes | Yes | | Yes | |
| X | Hub (B) | Td | Yes | Yes | Yes | | 1, 2 |

¹(B) indicates box connector; (C) indicates conduit connector.²Numbers shown are styles as follows:

- | | | |
|------------------|--------------------------|--------------------------|
| (1) Un-insulated | (4) Reducer | (7) Capped |
| (2) Insulated | (5) External to internal | (8) Grounding |
| (3) Enlarger | (6) External to external | (9) Grounding, insulated |

³Kind L has a single locknut.7.5 Subject term (key word) listing.

adapter
box connector
bushing
coupling
electrical

MILITARY INTERESTS:

Custodians:

Army - CR4

Navy - MC

Air Force - 11

Review Activities:

Army - CE

Air Force - 99

CIVIL AGENCY
COORDINATING ACTIVITY:

GSA - FSS

Preparing Activity:

DLA - GS2

(Project 5975-1365)

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