

SECTION 16xxx
NON-CONTINUOUS CABLE SUPPORTS FOR HIGH-SPEED TRANSMISSION CABLES
(CATEGORY 5 AND HIGHER, AND OPTICAL FIBER CABLES)

PART 1 – GENERAL

1.1 SCOPE

- A. Non-continuous cable supports (2.3A)
- B. Adjustable non-continuous cable support sling (2.3B)
- C. Multi-tiered non-continuous cable support assemblies (2.3C)
- D. Non-continuous cable support assemblies from tee bar (2.3D)
- E. Non-continuous cable support assemblies from drop wire/ceiling (2.3E)
- F. Non-continuous cable support assemblies from beam, flange (2.3F)
- G. Non-continuous cable support assemblies from C & Z Purlin (2.3G)
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- K. Cantilever-Mounted Option for non-continuous cable supports (2.3K)
- L. Installation accessories for non-continuous cable supports (2.3L)

1.2 SUMMARY

- A. The work covered under this section consists of the furnishing of all necessary labor, supervision, materials, equipment, and services to completely execute the system of non-continuous cable supports as described in this specification.

1.3 DEFINITIONS

- A. UTP: Unshielded twisted pair.
- B. ANSI: American National Standards Institute
- C. ASTM: American Society for Testing and Materials
- D. EIA: Electronic Industries Alliance
- E. TIA: Telecommunications Industry Association
- F. cULus: Listed by Underwriters Laboratories based on both Canadian and US (United States) standards requirements.

1.4 SUBMITTALS

- A. Submit product data on non-continuous cable support devices, including attachment methods. Product data to include, but not limited to materials, finishes, approvals, load ratings, and dimensional information.

1.5 QUALITY ASSURANCE

- A. Non-continuous cable supports and cable support assemblies shall be listed by Underwriters Laboratories for both Canadian and US standards (cULus).
- B. Non-continuous cable supports shall have the manufacturers name and part number stamped on the part for identification.
- C. Manufacturer: Company specializing in manufacturing products specified in this section with a minimum of five years documented experience in the industry, and certified ISO 9000.

PART 2 - PRODUCTS

Revision date 03/30/15

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with these specifications, non-continuous cable supports shall be as manufactured by ERICO, Inc or approved equal.

2.2 REFERENCES

- A. ASTM B633 Standard Specification for Electro-deposited Coatings of Zinc on Iron and Steel
ASTM B 695-90 Standard Specification for coatings of Zinc Mechanically Deposited on Iron and Steel
ASTM A123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A924/A924M Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
- B. ASTM A109 Standard Specification for Steel, Strip, Carbon, Cold-Rolled
ASTM A167 Standard Specification for Stainless and heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
ASTM A480/A480M Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip.
ASTM A568 Standard Specification for Steel, Sheet, Carbon, and High-Strength, Low-Alloy Hot-Rolled and Cold-Rolled
A653 G60-Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-coated (Galvannealed) by the Hot-Dip process
ASTM A666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar
ASTM A682 Standard Specification for Steel, Strip, High-Carbon, Cold-Rolled, Spring Quality
ASTM A879 Standard Specification for Steel Sheet, Zinc Coated by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface
- C. ASTM B117 Standard Method of Salt Spray (Fog) Testing
ASTM D610 Standard test Method for Evaluating Degree of Rusting on Painted Steel Surfaces
UL 2043 - Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces.
- D. ANSI/ TIA/ EIA 568 Commercial Building Telecommunications Cabling Standard, current revision level.
- E. ANSI/ TIA/ EIA 569 Commercial Building Standard for Telecommunications Pathways and Spaces, current revision level.
- F. NFPA 70 National Electrical Code®

2.3 NON-CONTINUOUS CABLE SUPPORT SYSTEMS

- A. **Non-continuous cable supports**
 - 1. Non-continuous cable supports shall provide a bearing surface of sufficient width to comply with required bend radii of high-performance cables; cULus Listed.
 - 2. Non-continuous cable supports shall have flared edges to prevent damage while installing cables.
 - 3. Non-continuous cable supports sized 1 5/16" and larger shall have a cable retainer strap to provide containment of cables within the hanger. The cable retainer strap shall be removable and reusable and be suitable for use in air handling spaces.
 - 4. Non-continuous cable supports shall have an electro-galvanized or G60 finish and shall be rated for indoor use in non-corrosive environments.

5. Stainless Steel non-continuous cable supports are intended for indoor and outdoor use in non-corrosive environments or where only mildly corrosive conditions apply.
6. Non-continuous cable supports shall be ERICO CableCat™ J-hook series CAT12, CAT21, CAT32, CAT64, CAT21SS, CAT32SS, CAT64SS; CAT-CM™ Double J-Hook CAT100CM; CAT-CM™ U-hook series CAT200CMLN, CAT300CMLN; and CAT-CM™ retainer CATRT200CM, CATRT300CM or approved equal.

B. Adjustable non-continuous cable support sling

1. Constructed from steel and woven laminate; sling length can be adjusted to hold up to 425 4-pair UTP; rated for indoor use in non-corrosive environments. Rated to support Category 5 and higher cable, or optical fiber cable; cULus Listed.
2. Adjustable non-continuous cable support sling shall have a static load limit of 100 lbs.
3. Adjustable non-continuous cable support sling shall be suitable for use in air handling spaces.
4. If required, assemble to manufacturer recommended specialty fasteners including beam clips, flange clips, C and Z purlin clips.
5. Acceptable products: ERICO CADDY CableCat™ CAT425; or approved equal.

C. Multi-tiered non-continuous cable support assemblies

1. Multi-tiered non-continuous cable support assemblies shall be used where separate cabling compartments are required. Assemblies may be factory assembled or assembled from pre-packaged kits. Assemblies shall consist of a steel angled hanger bracket holding up to six non-continuous cable supports, rated for indoor use in non-corrosive environments; cULus Listed.
2. If required, the multi-tier support bracket may be assembled to manufacturer recommended specialty fasteners including beam clamps, flange clips, C and Z purlin clips.
3. The multi-tiered support bracket shall consist of ERICO CADDY CATHBA and CableCat™ J-Hooks with screws; or approved equal.

D. Non-continuous cable support assemblies from tee bar

1. Tee bar support bracket with one non-continuous cable support, factory or jobsite assembled; rated for indoor use in non-corrosive environments; cULus Listed.
2. Acceptable products: ERICO CADDY CAT12TS, CAT21528, CAT32528; or approved equal.

E. Non-continuous cable support assemblies from drop wire/ceiling

1. Fastener to wire/rod with one non-continuous cable support, factory or jobsite assembled; rated for indoor use in non-corrosive environments; cULus Listed.
2. Acceptable products: ERICO CADDY CAT124Z34, CAT126Z34, CAT214Z34, CAT216Z34, CAT324Z34 or CAT326Z34; or approved equal.

F. Non-continuous cable support assemblies from beam, flange

1. Fastener to beam or flange with one non-continuous cable support, factory or jobsite assembled; rated for indoor use in non-corrosive environments; cULus Listed.
2. Acceptable products: ERICO CableCat™ J-hook series CAT12, CAT21, CAT32, CAT64 with CADDY beam clamps and CADDY flange clips; or approved equal.

G. Non-continuous cable support assemblies from C & Z Purlin

1. Fastener to C or Z purlin with one non-continuous cable support, factory or jobsite assembled; rated for indoor use in non-corrosive environments, cULus Listed.
2. Acceptable products: ERICO CableCat™ J-hook series CAT12, CAT21, CAT32, CAT64 with CADDY Purlin hangers; or approved equal.

H. Non-continuous cable support assemblies from wall, concrete, or joist

1. Fastener to wall, concrete, or joist with one non-continuous cable support, factory or jobsite assembled; rated for indoor use in non-corrosive environments, cULus Listed.

2. Acceptable products: ERICO CableCat™ J-hook series CAT12, CAT21, CAT32, CAT64, with CADDY angle bracket; or approved equal.

I. Non-continuous cable support assemblies from threaded rod

1. Fastener to threaded rod with one non-continuous cable support, factory or jobsite assembled, rated for indoor use in non-corrosive environments, cULus Listed.
2. The multi-tiered support bracket shall have a static load limit of 300 lbs.
3. U-hooks and Double J-hook shall attach directly to threaded rod using standard nuts.
4. Acceptable products: ERICO CableCat™ J-hook, CAT12, CAT21, CAT32, CAT64 with CADDY CATHBA series; CAT-CM™ Double J-hook CAT100CM, CAT-CM™ Direct mount U-hook CAT200CMLN, CAT300CMLN; or AFAB series; or approved equal.

J. Raised floor non-continuous cable support assemblies

1. Fastener to raised (access) floor pedestal with one non-continuous cable support, factory or jobsite assembled, rated for indoor use in non-corrosive environments; cULus Listed.
2. Acceptable products: ERICO CADDY CAT12CD1B, CAT21CD1B or CAT32CD1B; CAT64CD1B; or approved equal.

K. Cantilever-Mounted cable supports

1. U-hook shall be able to be assembled to a wide variety of wall mount brackets.
2. Spacing of individual U-hooks as needed, max of 4' to 5' apart.
3. U-hooks may have the optional attachment of a cable roller for ease in pulling cables.
4. Acceptable products: ERICO CAT-CM™ U-hooks CAT200CMLN, CAT300CMLN; CAT-CM roller assemblies CATRL200CM, CATRL300CM; CATWMCM bracket; or approved equal.

L. Installation accessories for non-continuous cable supports

1. Cable Pulley

- A. Non-continuous cable supports may be used as an installation tool when a removable pulley assembly is included. The pulley shall be made of plastic and be without sharp edges. The pin and bail assembly must be able to be secured to the J-Hook during cable installation. The pulley must remain secured while cables are being pulled.
- B. The pin and roller assembly must be removed after cables are installed.
- C. Acceptable products: ERICO CADDY CAT32PLR, CAT64PLR, or approved equal.

2. Cable Protector

- A. The protective steel tube shall fit over threaded rod and be at least 4" in length.
- B. The tube shall prevent damage to cables placed in or pulled through CAT-CM™ U-hooks. The tube shall not inhibit the pulling of cables.
- C. Acceptable products: ERICO CAT-CM™ CATTBCM, or approved equal.

2.4 FINISHES

- A. ASTM B633 Standard Specification for Electro-deposited Coatings of Zinc on Iron and Steel
ASTM B 695 Standard Specification for coatings of Zinc Mechanically Deposited on Iron and Steel
ASTM A123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A924/A924M Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
- B. Non-continuous cable supports used where only mildly corrosive conditions apply shall be stainless steel, AISI type 304.

PART 3 - EXECUTION

Revision date 03/30/15

3.1 INSTALLATION

- A. Installation and configuration shall conform to the requirements of the current revision levels of ANSI/ EIA/TIA Standards 568 & 569, NFPA 70 (National Electrical Code), applicable local codes, and to the manufacturer's installation instructions.
- B. Install cables using techniques, practices, and methods that are consistent with Category 5 or higher requirements and that supports Category 5 or higher performance of completed and linked signal paths, end to end.
- C. Install cables without damaging conductors, shield, or jacket.
- D. Do not bend cables, in handling or in installing, to smaller radii than minimums recommended by manufacturer.
- E. Pull cables without exceeding cable manufacturer's recommended pulling tensions. Use pulling means that will not damage media.
- F. Do not exceed load ratings specified by manufacturer.
- G. Adjustable non-continuous support sling shall have a static load limit of 100 lbs.
- H. Follow manufacturer's recommendations for allowable fill capacity for each size non-continuous cable support.