SECTION 25 0529

Hangers and Supports for BUILDING AUTOMATION SYSTEMS

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LANL MASTER SPECIFICATION

This template must be edited for each project. In doing so, Specifier must add job-specific requirements. Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.  Once the choice is made or text supplied, remove the brackets.  The specifications must also be edited to delete specification requirements for processes, items, or designs that are not included in the project -- and specifier’s notes such as these.

To seek a variance from requirements in the specifications that are applicable, contact the Engineering Standards Manual Chapter 8[POC](http://engstandards.lanl.gov/POCs.shtml#ic). Please contact POC with suggestions for improvement as well.  
  
When assembling a specification package, include applicable specifications from all Divisions, especially Division 1, General requirements.  
  
Specification developed for ML-4 projects.  For ML-1, 2, and 3 applications, additional requirements and independent reviews should be added if increased confidence in procurement or execution is desired; see ESM Chapter 1 Section Z10 Specifications and Quality sections.

NOTE 1: This specification overrides Division 26 electrical installation requirements for BAS systems only. If the designer wishes to use Division 26 installation requirements for specific portions of the BAS design, then these must be clearly noted on the drawings as a deviation from this specification requirement.

NOTE 2: Cable hook systems may not be appropriate for all installations. Consider if this type of system provides adequate protection for BAS wiring before including this specification. In general cable hook systems should be limited to office and light lab areas where drop ceilings provide protection and concealment of the cables.

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PART 1 GENERAL

1. SECTION INCLUDES
2. The work covered under this section consists of the furnishing of all necessary labor, supervision, materials, equipment, and services to completely execute the cable hook system as described in this specification.
3. APPLICATIONS AND LIMITATIONS
4. This specification is to be used for cable hook systems used to exclusively support cables and plastic pneumatic air pressure tubes that are part of a Building Automation Systems (BAS).
5. This specification is for cable hook systems used to support cabling in environmental air (plenum spaces) and non-environmental air locations.
6. Cable hook systems shall not be used in mechanical spaces, exposed locations, or exterior locations unless specifically allowed within the design documents.
7. REFERENCES
8. ANSI/TIA/EIA 568A - Commercial Building Telecommunications Cabling Standard
9. ANSI/TIA/EIA 569 - Commercial Building Standard for Telecommunications Pathways and Spaces
10. NFPA 70, National Electrical Code
11. QUALITY ASSURANCE
12. Cable hooks shall be listed and labeled by Underwriters Laboratories (UL).
13. Cable hooks shall have the manufacturers name and part number stamped in the part itself for identification.
14. SUBMITTALS
15. Submit product data on cable hook devices, including attachment methods. Product data to include, but not limited to materials, finishes, approvals, load ratings, and dimensional information.

PART 2 PRODUCTS

1. ACCEPTABLE PRODUCTS
2. Manufacturer/Model:
3. Cooper B-Line, Inc., B-Line series BCH
4. Erico International, Inc., Caddy Series CAT,
5. or engineer-approved equal.
6. CABLE HOOK SYSTEMS
7. Cable hooks shall:
   * + 1. Have a flat or rounded bottom.
       2. Have radiused edges to prevent damage while installing cables.
       3. Be designed so the mounting hardware is recessed to prevent cable damage.
       4. Have a stainless steel cable latch retainer to provide containment of cables within the hook. The retainer shall be removable and reusable.
       5. Provide for direct attachment to walls, hanger rods, beam flanges, purlins, strut, floor posts, etc. to meet job conditions.
8. Multi-tiered cable hooks shall be used where required to provide separate cabling compartments, or where additional capacity is needed.
9. Cable hooks used for BAS systems shall be identified with a blue coloration. This may be provided by factory provided coloration of the hook, a field-installed clip on color identifier, or by applying blue identification marks on the hook using blue spray paint.
10. FINISHES
11. Cable hooks for non-corrosive areas shall be pre-galvanized steel or equal protection
12. Cable hooks shall not be used for corrosive areas.

PART 3 EXECUTION

1. CABLE HOOK CAPACITY AND LOAD RATING
2. Cable hooks shall be capable of supporting the required cable load per the manufactures provided documentation.
3. Follow manufacturer’s recommendations for allowable fill capacity for each size of cable hook.
4. INSTALLATION
5. Installation and configuration shall conform to the requirements of the ANSI/ EIA/TIA Standards 568A & 569, NFPA 70 (National Electrical Code), and applicable LANL codes.
6. Supports shall be installed at no more than 5-foot intervals per TIA-569.
7. [In existing hard lid ceiling areas, where no access is possible to install J-hooks, cables may be fished though the area with no additional supports. Fished wires shall not cross sharp edges, nor light fixtures or other heat- or electrical-noise producing equipment.]

END OF SECTION

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Do not delete the following reference information:

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THE FOLLOWING REFERENCE IS FOR LANL USE ONLY

This project specification is based on LANL Master Specification 25 0529, Rev. 0, dated December 6, 2016.