



# ALCAN CABLE



## MODEX® Section 16XXX

### Premanufactured Wiring Systems

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. This section includes provisions for installation and specification of premanufactured wiring systems for branch circuit applications.
- B. Related sections include "16XXX - Basic Electrical Materials and Methods".

##### 1.02 REFERENCES, COMPLIANCE AND LISTINGS

All premanufactured systems and assemblies shall comply with all of the following:

- A. National Electric Code
- B. UL Listed
- C. Buy American Act
- D. ASTM

##### 1.03 DOCUMENTATION AND SUBMITTALS

- A. A numbered assembly and cable layout drawing shall be provided for each typical unit type.
- B. A corresponding bill of material shall be provided for each cable layout drawing. The bill of material shall clearly depict the catalog number, description, and associated cable for each assembly in the layout drawing.
- C. Manufacturer shall submit all typical unit drawings and bills of material to contractor prior to shipping for approval. Contractor shall be responsible for coordination and review of manufacturers design documents for each typical unit.
- D. Contractor shall provide engineer with a general submittal package to demonstrate compliance with specifications. Documentation of all materials utilized in the premanufactured assemblies and cables shall be included.

#### PART 2 – PRODUCTS

##### 2.01 MANUFACTURERS

- A. System shall be manufactured by MODEX® or approved equal.
- B. All premanufactured assemblies and cables shall have a unique and descriptive catalog number.
- C. All assemblies shall be UL Listed as an assembly.
- D. All assembled materials shall be individually UL Listed.
- E. All materials utilized in the manufacturing process shall comply with 16XXX – Basic Electrical Materials and Methods.

##### 2.04 FITTINGS AND CONNECTORS

- A. "Plug and Play" Connectors -A factory terminated and tested, "plug and play", 5-Pin connector shall be provided wherever MC Cable is utilized and shall meet the following requirements.
  - 1. UL Listed
  - 2. Connector shall be keyed such that the male can only be connected to the female in the proper orientation.
  - 3. Color coded to match the color of the phase conductor being utilized at the particular assembly.
  - 4. Unique colors shall be used for lighting switch legs and downstream GFI protected assemblies.
- B. Push-in connectors shall be provided whenever 5-Pin, plug and play connectors cannot be used.
- C. EMT Fittings shall be provided wherever EMT is required in lieu of MC Cable and shall be as manufactured by Arlington, OZ Gedney, Thomas and Betts, or equivalent.
- D. Factory crimped connectors shall be used for all internal terminations inside the junction box. No wire nuts.

##### 2.05 DEVICES

As specified, refer to device specification.

##### 2.06 CONDUCTORS

Conductors shall be stranded copper with a minimum wire size of #12 AWG as manufactured by Southwire, Encore, Tyco or equivalent. Insulation shall be colored in accordance with standard 120V color convention

- A Phase = Black
- B Phase = Red
- C Phase = Blue
- Neutral = White
- Ground = Green

##### 2.07 PROTECTION

A galvanized steel coverplate shall be provided at every device opening such that all internal conductors and devices are protected from exposure to damage and debris until the trim out stage is reached.

##### 2.08 MC CABLE

- A. MC Cable shall be as manufactured by Southwire, Encore, Tyco or equivalent.
- B. Insulation shall be colored as indicated in 2.06.
- C. A snap-in box connector as manufactured by Arlington, OZ Gedney, Thomas and Betts or equivalent.
- D. Each cable shall be labeled at both ends to indicate the



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following:

1. Cable and connector type
2. Phase identification
3. Cable length

### 2.09 DELIVERY AND STORAGE

All premanufactured assemblies and cables shall be installed within (1) year of shipping date.

### 2.10 FACTORY TESTING/QUALITY ASSURANCE

All assemblies and cables shall be factory hot tested at the connector, after the connector has been terminated.

### 2.11 WARRANTY AND SUPPORT

Manufacturer shall provide, in writing, a (1) year warranty against manufactured defects. A field specialist shall be available onsite for initial installation and orientation as well as for any warranty claims.

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