

**PART 1**      **GENERAL**

**1.1**            **RELATED SECTIONS**

- .1      Section 26 05 20 - Wire and Box Connectors - 0 - 1000 V.
- .2      Refer to drawings for wiring type required under different applications.

**1.2**            **REFERENCES**

- .1      Canadian Standards Association (CSA)
  - .1      CSA C22.2 No .03, Test Methods for Electrical Wires and Cables.
  - .2      CAN/CSA-C22.2 No. 131, Type TECK 90 Cable.

**PART 2**      **PRODUCTS**

**2.1**            **BUILDING WIRES**

- .1      Conductors: stranded for 10 AWG and larger. Minimum size: 12 AWG.
- .2      Copper alloy conductors: size as indicated, with 600 V insulation of cross-linked thermosetting polyethylene material rated RW90 XLPE and RWU90 XLPE as indicated. Provide RWU90 XLPE rated cable for underground wiring.
- .3      Copper conductors: size as indicated, with thermoplastic insulation type TWH rated at 600 V, typically used for insulated ground wires.
- .4      All wiring shall be installed in conduit.

**2.2**            **CONTROL CABLES**

- .1      Type LVT: 2 soft annealed copper conductors, sized as indicated, with thermoplastic insulation, outer covering of thermoplastic jacket. Low energy 300 V control cable: stranded annealed copper conductors sized as indicated, with PVC insulation type TW - 40• C polyethylene insulation with shielding of tape coated with paramagnetic material wire braid over each conductor and overall covering of PVC jacket.

**PART 3**      **EXECUTION**

**3.1**            **FIELD QUALITY CONTROL**

- .1      Perform tests in accordance with Section 26 05 00 - Common Work Requirements for Electrical.

- .2 Perform tests using method appropriate to site conditions and to approval of Departmental Representative and local authority having jurisdiction over installation.
- .3 Perform tests before energizing electrical system.

### **3.2 GENERAL CABLE INSTALLATION**

- .1 Terminate cables in accordance with Section 26 05 20 - Wire and Box Connectors - (0-1000 V).
- .2 Cable Colour Coding: to Section 26 05 00 Common Work Results for Electrical.
- .3 Conductor length for parallel feeders to be identical.
- .4 Provide numbered wire collars for control wiring. Numbers to correspond to control shop drawing legend. Obtain wiring diagram for control wiring.

### **3.3 INSTALLATION OF BUILDING WIRES**

- .1 Install wiring as follows:
  - .1 In conduit systems in accordance with Section 26 05 34- Conduits, Fastenings and Fittings.
  - .2 In underground ducts in accordance with Section 33 65 76 – Direct Buried Underground Cable Ducts.
  - .3 Overhead service conductors in accordance with Section 33 71 73.01 – Overhead Electrical Service.

### **3.4 INSTALLATION OF CONTROL CABLES**

- .1 Install control cables in conduit as indicated.
- .2 Ground control cable shield.

**END OF SECTION**