

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 26 05 20 - Wire and Box Connectors - 0 - 1000 V.

1.2 REFERENCES

- .1 CSA C22.2 No .0.3, Test Methods for Electrical Wires and Cables.

1.3 PRODUCT DATA

- .1 Submit product data.

PART 2 - PRODUCTS

2.1 BUILDING WIRES

- .1 Conductors: stranded for 8 AWG and larger.
- .2 Copper conductors: size as indicated, with 600 or 1000 V insulation of chemically cross-linked thermosetting polyethylene material rated RW90.
- .3 Copper conductors: size as indicated, with thermoplastic insulation Type TW rated at 300 V.

2.2 CONTROL CABLES

- .1 Type LVT: 2 soft annealed copper conductors, sized as indicated, with thermoplastic insulation, outer covering of thermoplastic jacket.
- .2 Twisted Shielded Cable (Non-Plenum Rated): Single twisted pair 18/2 polyethylene insulated copper conductors, aluminum foil shield, tinned copper drain wire. Outer PVC jacket. Non plenum rated.
- .3 All control wiring for this project to be installed in conduit.
- .4 Twisted Shielded Cable (Plenum Rated): Single twisted pair 18/2 Teflon insulated conductors, aluminum foil shield, tinned copper drain wire. Outer Teflon jacket. Classified for use in air plenums.

2.3 AMOURED CABLES

- .1 Conductors: insulated, copper, size as indicated.
- .2 Type: AC 90.
- .3 Armour: interlocking type fabricated from aluminum strip.
- .4 Type: ACWU90 PVC flame retardant jacket over thermoplastic armour and compliant to applicable Building Code classification for this project wet locations.
- .5 Connectors: anti short connectors.

## 2.4 TECK 90 CABLES

- .1 Cable: in accordance with Section 26 05 00 - Common Work Results for Electrical.
- .2 Conductors:
  - .1 Grounding conductor: copper aluminum as indicated.
  - .2 Circuit conductors: copper aluminum as indicated.
- .3 Insulation:
  - .1 Ethylene propylene rubber EP.
  - .2 Cross-linked polyethylene XLPE.
  - .3 Rating: 600 V.
- .4 Inner jacket: polyvinyl chloride material.
- .5 Armour: flat interlocking galvanized steel aluminum.
- .6 Overall covering: thermoplastic polyvinyl chloride, compliant to applicable Building Code classification for this project.
- .7 Fastenings:
  - .1 One hole malleable iron steel aluminum zinc straps to secure surface cables 50 mm and smaller. Two hole steel straps for cables larger than 50 mm.
  - .2 Channel type supports for two or more cables 1500 mm centers.
  - .3 Threaded rods: 6 mm diameter to support suspended channels.
- .8 Connectors:
  - .1 Watertight, explosion-proof approved for TECK cable.

## PART 3 - EXECUTION

### 3.1 General Cable

- 1 Lay cable in cable trays in accordance with Section 26 05 3 4
- 2 Terminate cables in accordance with Section 26 05 20 - Wire and Box Connectors - 0-1000 V.
- 3 Cable Colour Coding: to Section 26 05 00 - Common Work Results for Electrical.
- 4 Conductor length for parallel feeders to be identical.
- 5 Lace or clip groups of feeder cables at distribution centres, pull boxes, and termination points.
- 6 Wiring in walls: typically drop or loop vertically from above to better facilitate future renovations. Generally wiring from below and horizontal wiring in walls to be avoided unless indicated.
- 7 Branch circuit wiring for surge suppression receptacles and permanently wired computer and electronic equipment to be 2-wire circuits only, i.e. common neutrals not permitted.

- 8 Provide numbered wire collars for control wiring. Numbers to correspond to control shop drawing legend. Obtain wiring diagram for control wiring.
- 3.2 INSTALLATION OF BUILDING WIRES
  - .1 Install wiring as follows:
    - .1 In conduit systems in accordance with Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings.
- 3.3 INSTALLATION OF TECK90 CABLE (0 -1000 V)
  - .1 Group cables wherever possible in channels.
  - .2 Install cable exposed concealed, securely supported by staples straps hangers.
- 3.4 INSTALLATION OF ARMOURED CABLES
  - .1 Group cables wherever possible on channels.
- 3.5 INSTALLATION OF CONTROL CABLES
  - .1 Install control cables in conduit underfloor raceways cable troughs underground ducts by direct burial.
  - .2 Ground Control cable shield.

END OF SECTION