

## SECTION 15530 - HVAC CONTROLS

## PART 1 – GENERAL

## 1.01 SUMMARY

- A. Section Includes:
  - 1. Provide all temperature controls in accordance with recommendations of the equipment manufacturers and with the drawings and specifications.
  - 2. Controls shall be low voltage electric or electronic.
  - 3. Provide all wiring, starters, disconnects, devices, relays, etc. for a complete and operating system. If starters and/or disconnects are provided by the electrical division, it is the responsibility of the mechanical sub-contractor to coordinate control wiring and interlocks (for mechanical equipment) between the electrical and mechanical divisions.
  - 4. All HVAC Control Wiring shall be by HVAC division including 120 VAC power for all control panels, control transformers, relays, etc. Wiring shall be in accordance with NEC.

## 1.02 SUBMITTALS

- A. Submit cut sheets on all devices and complete wiring diagrams.
- B. Provide control drawings framed under glass in equipment room or in a wall mounted cabinet with lock.

## PART 2 – MATERIALS

## 2.01 COMPONENTS

- A. General: Unless otherwise indicated, provide manufacturer's standard components as indicated in published data.

## 2.02 ELECTRONIC THERMOSTATS:

- A. Electronic thermostat and subbase equal to Honeywell T7300 with two programmable energy savings periods every 24 hours. Seven-day offset program. Skip and change program keys. Digital clock indicates time-of-day, offset times, skip and offset symbols. Subbase shall include auto changeover, and continuous or intermittent fan operation. Thermostats shall be system powered, with battery back-up.

## 2.03 THERMOSTAT GUARDS

- A. Thermostat guards shall be equal to Honeywell TG501A1002 clear plastic cover with clear mounting base. Guard shall allow adequate air circulation for proper operation of thermostat and have tumbler lock. Key multiple guards alike. Guards shall be steel type where indicated.

## 2.04 RELAYS

- A. Switching relays shall be enclosed unless intended to be mounted in a larger electrical enclosure. Relay contact rating shall be adequate for load.

## 2.05 TRANSFORMERS

- A. Transformers shall be mounted in an electrical enclosure and of adequate VA capacity for load.

## 2.06 SMOKE DETECTORS/FIRESTATS

- A. Smoke detectors and firestats shall be UL listed and shall be furnished by Div. 16 and installed by Division 15. Smoke detectors and firestats shall shut down its respective unit if excessive temperatures or smoke is detected. Smoke detectors shall also cause a visual and audible alarm as required by NFPA 90A.
  - 1. Furnish control components as required by control sequences specified.

## PART 3 – INSTALLATION

### 3.01 INSTALLATION

- A. Install controls and materials in accordance with manufacturer's instructions, rough-in drawings, plans and specifications.
- B. Wiring shall be done in accordance with NEC and Division 16 of these specifications.
- C. All wire shall be in conduit and devices mounted on appropriate electrical boxes.
- D. All wire shall be color coded in accordance with industry standards. Use number code on wire if required to avoid confusion.
- E. Instruct Owner's personnel in operation of control system.
- F. Where controls are accessible for adjustment by building occupants, mount controls 48" above finished floor.

END OF SECTION 15530B