Part 1 General

1.1 ACTION AND INFORMATIONAL SUBMITTALS

.1 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for electric and electronic control system for HVAC and include product characteristics, performance criteria, physical size, finish and limitations.

.2 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

1.2 DELIVERY, STORAGE AND HANDLING

.1 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.2 Storage and Handling Requirements:

.1 Store materials indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store and protect electric and electronic control systems from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

Part 2 Products

2.1 THERMOSTAT (LOW VOLTAGE)

.1 Low voltage wall thermostat:

.1 For use on 24 V circuit at 1.5 A capacity.

.2 With heat anticipator adjustable 0.1 to 1.2 A.

.3 Temperature setting range: 10 degrees C to 25 degrees C.

.4 Without sub-base.

2.2 LOW LIMIT TEMPERATURE ALARM

.1 Low limit temperature alarm with:

.1 Rating: 10.2 A at 120 V.

.2 Sensing bulb and 1.5 m long capillary tube.

.3 Switching action: manual.

.4 Temperature setting range: 0 degrees C to 15 degrees C.

2.3 HIGH LIMIT TEMPERATURE ALARM

.1 High limit temperature alarm with:

.1 Rating 10 A at 120 V.

.2 Positive lock-out.

.3 Manual reset only after 14 degrees C drop-in temperature.

.4 Cut-out setting: 50 degrees C.

2.4 FLOW SWITCH

.1 Flow switch for to match boiler flow capacity, pipe size as indicated, CSA Enclosure, rated at 16 A at 120 V. Maximum liquid temperature: 121 degrees C. Maximum liquid gauge pressure of 1034 kPa ambient temperature range 0 degrees C to 82 degrees C.

2.5 PRESSURE SWITCH

.1 Pressure switch for water at range 0 to gauge pressure of 1034 kPa with auto manual reset, contacts open on rise. Maximum allowable gauge pressure of 1.2 MPa. Full load 16 A at 120 V, ULC rated.

Part 3 Execution

3.1 EXAMINATION

.1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for electric and electronic control systems installation in accordance with manufacturer's written instructions.

.1 Visually inspect substrate.

.2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied.

3.2 INSTALLATION

.1 Install control devices.

.2 On outside wall, mount thermostats on bracket or insulated pad 25 mm from exterior wall.

.3 Install remote sensing device and capillary tube in metallic conduit. Conduit enclosing capillary tube must not touch heater or heating cable.

3.3 CLEANING

.1 Progress Cleaning: Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

END OF SECTION