

## **DANFOSS PX-F SELF-REGULATING HEATING CABLE SPECIFICATION FOR FREEZE PROTECTION**

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### **1.0 GENERAL**

Supply and install a complete system comprised of heating cables, accessories and controls to (select one: prevent pipes from freezing, provide freeze protection of sprinkler system piping).

### **2.0 MATERIAL**

- 2.1 Shall be Danfoss PX-F self-regulating heating cable.
- 2.2 The self-regulating heating cables shall consist of two (2) 16 AWG nickel-plated copper bus wires embedded in parallel in a radiation-cross linked polymer core that varies its power output in response to temperature all along its length, allows the heating cable to be cut in the field.
- 2.3 The heating cable shall be covered with a radiation cross-linked polyolefin dielectric jacket and protected by a tinned-copper braid and a polyolefin outer jacket.
- 2.4 The heating cable shall operate on line voltage of (select: 120V, 208V, 240V, or 277V).
- 2.5 The heating cable shall have a nominal power output of (select: 3 W/ft, 5 W/ft, 8 W/ft, 10 W/ft at 50° F).
- 2.6 Power connection, end seal, splice, and tee connection kit, shall be able to be applied on site.
- 2.7 Shall be approved to applicable UL and CSA standards.
- 2.8 Heating cable circuit shall be protected by a ground fault device in accordance with section 426 of the NEC.

### **3.0 SYSTEM CONTROLS**

Option 1: Thermostat

The system shall be controlled by an ambient sensing thermostat Danfoss 088L3422 either directly or through an appropriate contactor.

Option 2: Manual Control

The system shall be controlled by a switch, either directly or through an appropriate contactor.

## 4.0 EXECUTION

### 4.1 Installation

- a. System must be installed per manufacturer's recommendation.
- b. Apply the heating cable linearly on the pipe after piping has been successfully pressure tested.
- c. Secure the heating cable to piping with cable ties or fibreglass tape.
- d. Apply "Electric Traced" labels to the outside of the thermal insulation.

### 4.2 Tests

After installation and before and after installing the thermal insulation, subject heating cable to testing using a 2500V DC Megger, minimum insulation resistance shall be 20M or greater.