

## **Roof and Gutter Heat Trace Control Options:**

For buildings with gutters and downspouts, a controller that utilizes a temperature/moisture sensor that is gutter mounted or aerial mounted will provide the most efficient system operation.

There are controls that can interface with up to a maximum of 6 sensors in any combination of the gutter or aerial type. If any of the sensors have moisture present and the temperature is below 38degF the entire system will be energized. The sensors should be strategically placed in locations where it is coldest and moisture persists the longest. Near a downspout in a north facing gutter may be a suitable location.

On flat roof buildings with multiple scupper and downspout locations it may be difficult to identify a good location for a moisture/temperature sensor or sensors. Unless a location is known where water collects and persists, it may be preferable to use an ambient temperature sensing thermostat or control for these types of buildings. When the temperature is below the thermostat set point, the system is on regardless of whether there is moisture present or not. This is not the most efficient control method, but it eliminates trying to find the best location for a moisture sensor.

Ground fault circuit protection is required for heat tracing. This can be accomplished with GFEPD panel breakers or the use of a heat tracing control that includes GF circuit protection.

## **Moisture/Temperature Sensing Controls:**

Please note that controls that provide GF circuit protection cannot be used with contactors.

Electronic controls that do not provide GF circuit protection: PD PRO: can interface with up to 2 sensors, is rated for a 30amp load. APS-3C: can interface with up to 6 sensors, is rated for a 50amp load

Electronic controls that provide GF circuit protection: GF PRO: can interface with up to 2 sensors, is rated for a 30amp load. APS-4C: can interface with up to 6 sensors, is rated for a 50amp load.

Sensors for these controls (sold separately): GIT-1: gutter mounted sensor. SNOWOWL: aerial mounted snow sensor.

## **Temperature Sensing Controls:**

Mechanical T-stats: TF4X40: 40degF non-adjustable set point, rated for a 22amp load. TA4X140: 15-140degF adjustable set point, rated for a 22amp load.

Electronic Control that provides GF circuit protection: FPT-130: ambient sensor included, 40degF non-adjustable set point, rated for a 30 amp load.