



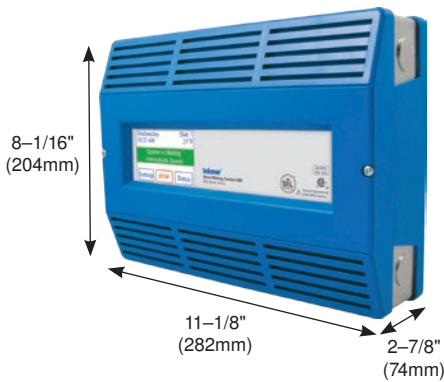
Snow Melting Control 680

BAS, Boiler & Mixing

Integrating Automatic Snow Melting with Building Automation Systems

The Snow Melting Control 680 is designed to operate electric or hydronic equipment to melt snow or ice from any surface including driveways, walkways, business entrances, parking ramps, loading docks, hospital entrances, helipads and car wash bays.

The 680 communicates with Building Automation Systems using BACnet® or Modbus® for alert notification, remote monitoring and adjustment capability. It uses a tekmar Snow/Ice Sensor 090 or a Snow Sensor 095 to automatically detect snow or ice on the snow melting slab. Up to two snow/ice sensors can be installed, thereby increasing detection area and providing backup redundancy in the case of sensor failure. Upon detection of snow or ice, the 680 operates an electric heating cable, a single hydronic condensing or non-condensing boiler, or a steam valve to provide heat to the snow melt load. The 680 provides boiler return protection by operating a mixing valve or variable speed injection mixing. Monitoring of energy consumption is possible when it is connected to an optional flow meter.



Featuring the Best in Snow Melting Control

- Automatic snow/ice detection
- Supports both inslab & retrofit aerial sensors
- BACnet® or Modbus® communication
- Energy monitoring
- Warm weather shut down
- Cold weather cut out
- Slab protection
- Idling
- Storm
- Tandem snow/ice detection
- EconoMelt



HVAC Systems



Multi-Staging



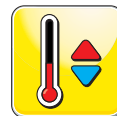
Alternative Energy



Zoning



Snow Melting



Setpoint

tekmar®

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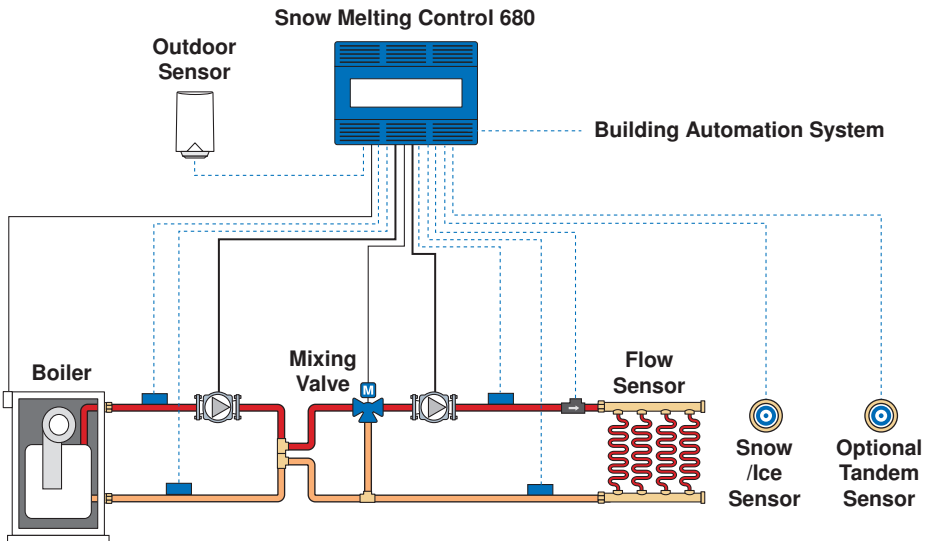
Better Control Better Systems



Sample Application Drawings

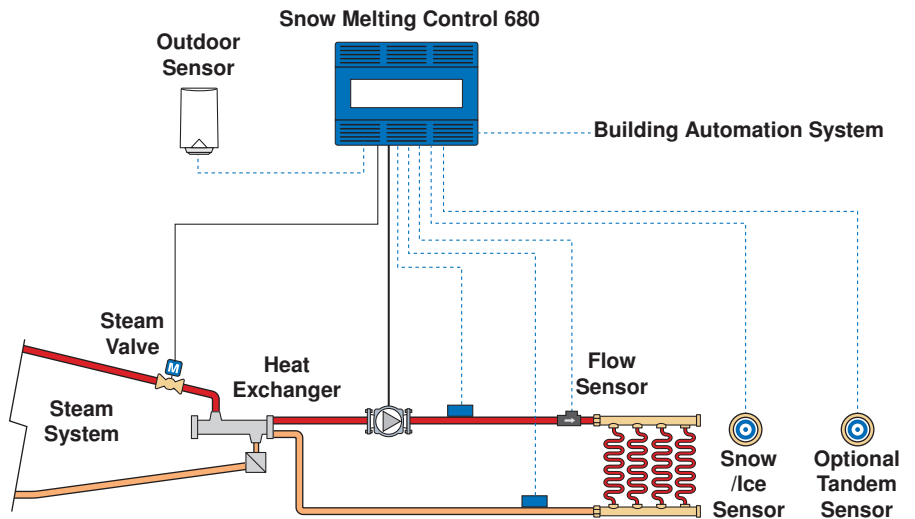
Hydronic Boiler and Mixing

A snow melting system is heated using a hydronic boiler and mixing valve. When snow or ice is detected, the control operates the boiler and mixing valve to heat the slab to the melting temperature. The mixing valve protects the boiler from damage caused by cold return temperatures. The control communicates with a building automation system using BACnet or Modbus for remote monitoring and adjustment.



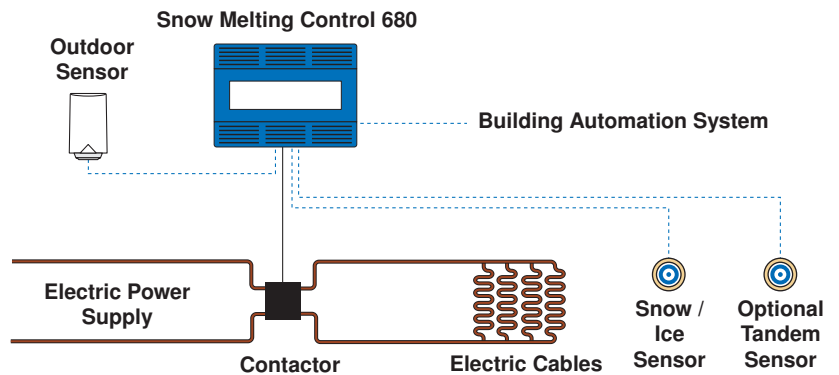
Steam-to-Glycol Heat Exchanger

A snow melting system is heated using a modulating steam valve and steam-to-glycol heat exchanger. When snow or ice is detected, the control modulates the steam valve position to heat the slab to the melting temperature. The control communicates with a building automation system using BACnet or Modbus for remote monitoring and adjustment.



Electric

A snow melting system is heated using electric cables. The control connects to an electrical contactor, which in turn energizes the electric cables. The control communicates with a building automation system using BACnet or Modbus for remote monitoring and adjustment.



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