

**EQUIPMENT SPECIFICATION MODEL RSM
AS MANUFACTURED BY HEAT-TIMER CORPORATION
20 NEW DUTCH LANE, FAIRFIELD, NJ 07004**

To control under slab heating systems to prevent accumulations of ice and snow. The microprocessor based control shall recognize when slab heating is necessary, and control a motorized mixing valve using a PID type algorithm to regulate the slab temperature.

The control shall include all the following features:

OUTDOOR SENSOR

The outdoor sensor shall be of the solid state thermistor type. The sensor shall measure temperature ranges from -30°F to 250°F, maintain ± 1 °F accuracy, and can be located up to 500 feet from the control. The sensor shall be suitable for outside mounting.

SLAB SUPPLY AND SLAB RETURN SENSORS

Two solid state (thermistor type) sensors which are interchangeable. The sensors measure from -30°F to 250°F, maintain ± 1 °F accuracy, and can be located up to 500 feet from the control. The sensors shall be suitable for insertion into a 3/8"ID well.

TARGET SUPPLY FLUID TEMPERATURE INDICATION

The control shall indicate the calculated slab supply fluid temperature. The calculated temperature shall vary based on outside temperature, slab return fluid temperature, and system parameters described below.

DESIGN SLAB DT

The control shall have an adjustable setting to input the design value of DT for the specific slab to melt snow. This design slab DT shall be adjustable from 5°F to 50°F.

SUPPLY LIMIT

The control shall have an adjustable setting to regulate the maximum supply fluid temperature being delivered to the slab. This maximum supply fluid temperature shall be adjustable from 70°F to 180°F.

OUTDOOR CUTOFF

The control shall have an adjustable setting above which the slab heating system shall be disabled. The outdoor cutoff temperature shall be adjustable from 20°F to 50°F. The control shall have an ON setting to activate the slab heating system at all outdoor temperatures. The control shall have an OFF setting to disable the slab heating system.

EXTERNAL SYSTEM STARTER

The control shall have the option for an external system starter. The control shall be programmable to not activate the slab heating system unless the system starter input is active.

DIGITAL DISPLAY

The control shall provide a digital display of all the following: outdoor air temperature, slab fluid supply temperature, slab fluid return temperature, target supply fluid temperature, design slab DT, supply limit, outdoor cutoff and tune value. Error codes shall indicate when there is a fault with the sensors.

DISPLAY MODE

The control shall be field programmable to display sensor values and system parameters in either degrees Fahrenheit or degrees Celsius.

INDICATOR LIGHT

The indicator light shall show the operating status of the control. Off shall indicate the heating system is not active. On shall indicate the heating system is active. Flashing shall indicate the heating system is active and the valve is being repositioned.

OUTPUTS

The control shall have one set of N.O. relay outputs to activate the heating system. The control shall also have Common, Open, and Close outputs to control a floating type motor.

SYSTEM POWER

The control shall be powered by 120VAC, 60hz.