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MPS

Snow Melting Or Roof And Gutter Deicing Control

DESCRIPTION
The MPS is designed to detect snow or ice and automatically activate roof deicing or snow melting cable(s).

SYSTEM OPERATION
The MPS control panel continually monitors conditions at the RG sensor. Once the following two conditions are met the roof deicing or snow melting system is activated:

1. Ambient temperature at the RG thermistor is below approximately 35°F (2°C).
2. Snow or moisture is present on the RG sensor U-shaped clips.

When one of the above two conditions ceases the roof deicing or snow melting systems will continue to operate for 75-minutes (roof deicing mode) or 5-hours (snow melting mode) and then shut off.

The roof deicing or snow melting system will remain inactive until the two conditions are met again.

APPLICATIONS
Roof Deicing Or Snow Melting

APPROVALS
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MPS STANDARD COMPONENTS
The MPS control consists of a NEMA 4 control panel (MPS) with a 24 AMP N.O. (Normally Open) relay output contact a temperature/moisture sensor (RG), and a double-sided adhesive pad. For larger amp loads the relay output can also be used to activate contactors.

A 10' (3.04m) low voltage 6-conductor cable connects the MPS control panel to the RG sensor. All cable leads are color coded for ease of field wiring.

NOMINAL COMPONENT DIMENSIONS

MPS Control Panel: W/H/D (cm)	8.5"/6.5"/5" (22/17/13)
RG Moisture Sensor: Dia./H (cm)	2"/1" (5/2.5)
RG Temperature Sensor: (cm)	16" (40.6) External Thermistor
RG Sensor Adhesive Pad: (cm)	2" x 3" (6 x 8)

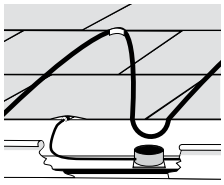
INPUT POWER REQUIREMENTS
120, 208, or 240 VAC

Note: Input Power Must Have A Neutral Wire

DELTA-THERM Corporation, P.O. Box 345, Wauconda IL, 60084 (847) 526-2407 Fax (847) 526-4456 **(800) 526-7887**

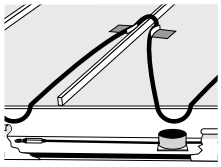
MPS COMPONENT LOCATION

The MPS control panel can be installed outdoors or indoors. Once the panel is mounted you can connect the RG sensor. You can connect the RG sensor using the supplied 10' (3.04m) wire or extend the sensor over 10' (3.04m) by splicing on extension wires.



Detail 1. RG Thermistor Under Shingle

The RG sensor is installed in the gutter. Use one half of the double-sided adhesive pad to attach the RG moisture sensor to the bottom of the gutter. Do not locate the RG moisture sensor in any location which may be blocked from snow or moisture.



Detail 2. RG Thermistor In Gutter

Wrap the other half of the double-sided tape pad around the thermistor and tuck it under a shingle or place it in another area ensuring that it won't slide and touch the deicing cable. Refer to Details 1 and 2. Do not place the thermistor in direct sunlight or allow it to touch the deicing cable.

MAINTENANCE

The only field maintenance required is cleaning of the RG, RGS, MMP, or MP sensor prior to the winter season. Washing each sensor with a mild soap solution and bristle brush will remove oil, dirt, or any other foreign substance that may have accumulated.

AUTOMATIC SHUTOFF

The roof deicing or snow melting system will automatically shut off when one of the conditions at the sensors ceases and the selected time duration ends.

ECONOMICAL

The roof deicing or snow melting system activates only when specific atmospheric and surface conditions exist. The system automatically deactivates when it is no longer needed, helping keep utility costs to a minimum.

NO OPERATOR ADJUSTMENTS

The MPS control operates automatically.

OPTIONAL REMOTE INDICATOR AND ACTIVATION TIMER (RID)

The optional remote indicator and activation timer option will allow an operator to remotely activate and monitor the system. An optional remote indicator and activation timer (RID) can be mounted up to 100 Ft. (30m) from the MPS control panel.

Detail 3. RID

The RID switch can manually activate the roof deicing or snow melting cable(s) on the RID's internal 75-minute or 5-hour timer. When the RID activates the cable(s); it can also deactivate the cable(s) if the MPS sensor(s) have not called for the roof deicing or snow melting cable to be activated.

The bottom indicator light (system on) is lit whenever the roof deicing or snow melting cable(s) is operating. The top indicator light (timer on) flashes when the roof deicing or snow melting cable(s) is operating on the RID timer.

100% FACTORY TESTED

All control components are functionally tested and inspected.

OPTIONAL SENSORS

MP

An optional MP slab sensor is installed flush with the heated slab surface to sense surface conditions including slab moisture presence and slab temperature when the MPS is being used to control snow melting cables.

Detail 4. MS Sensor

MMP

The MMP is an optional aerial mounted ambient temperature and moisture sensor.

Detail 5. MMP Sensor

RGS

The RGS is an optional secondary moisture sensor that can be used in combination with the RG Sensor or MMP.

The MP, MMP, and RGS sensors, and the RID are all optional components on an MPS control.

SENSOR WIRE EXTENSION CHART

Wire Gauge	Maximum Sensor Cable Length Ft. (m)
16 AWG	1000' (305)
18 AWG	600' (183)
20 AWG	400' (122)
22 AWG	250' (76)

MPS SYSTEM OPTIONS

Part No.	Description
RID	Remote Indication And Activation Timer
MMP	Optional Aerial Mounted Ambient and Moisture Sensor
RGS	Optional Secondary Gutter Mounted Moisture Sensor
MP	Optional Slab Mounted Temperature/Moisture Sensor
MMPR	Sensor Replacement Kit. Contains Materials To Replace One MMP
RSW-50	Three Conductor #18 AWG RID Extension Wire
MPSW-50	Non-Plenum Non-UV-Inhibited Rated Seven Conductor #18 AWG Sensor Extension Wire For RG, RGS, MP, or MMP Sensor
MPSWP-50	Plenum Rated And UV Inhibited Six Conductor #22 AWG Sensor Extension Wire For RG, RGS, MP, or MMP Sensor

DISCLAIMER

Delta-Therm reserves the right to make changes and improvements to the products described and to revise this publication without notice.

LIMITED WARRANTY

Delta-Therm provides a two year limited warranty covering defects in materials and workmanship.

TECHNICAL SUPPORT

A full set of installation instructions is included with order. Please call 1-800-526-7887 with any questions.

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