WarmlyYours

Automatic Controlling Device for Snow Melting & Frost Protection

Features & Benefits

> Large back-lit LCD display with indication of the active zones

> Sequencing option between the zones, allowing for a larger snow-melting area with less available power on site

> Multiple snow sensor inputs (optional)

> Integrated adjustable Ground Fault Sensor

> Adjustable set points

> Adjustable upper and lower limit temperature

> Adjustable Hold On-OFF delay and manual On

> Adjustable splitting time between the zones

> Technician testing/commissioning mode for easy and fast system testing all year long (even during summer or at high temperatures)

> UL certification

Controller for Power Modulator 3 and 5

Energy Efficient Algorithm

User-friendly Interface

Activate up to 5 Zones

About the Power Modulator Controller

The Controller for Power Modulator 3 and 5 is a stylish, user-friendly and efficient controller for ice and snow-melting applications.

When receiving a signal from the snow sensor(s), it activates up to 5 electrical heating elements. Based on the DIP switches configuration, the 5 zones are activated either continuously or with customized sequencing between the zones.

The adjustable Hold-On timer keeps the outputs to the zones active to ensure complete snow melting.

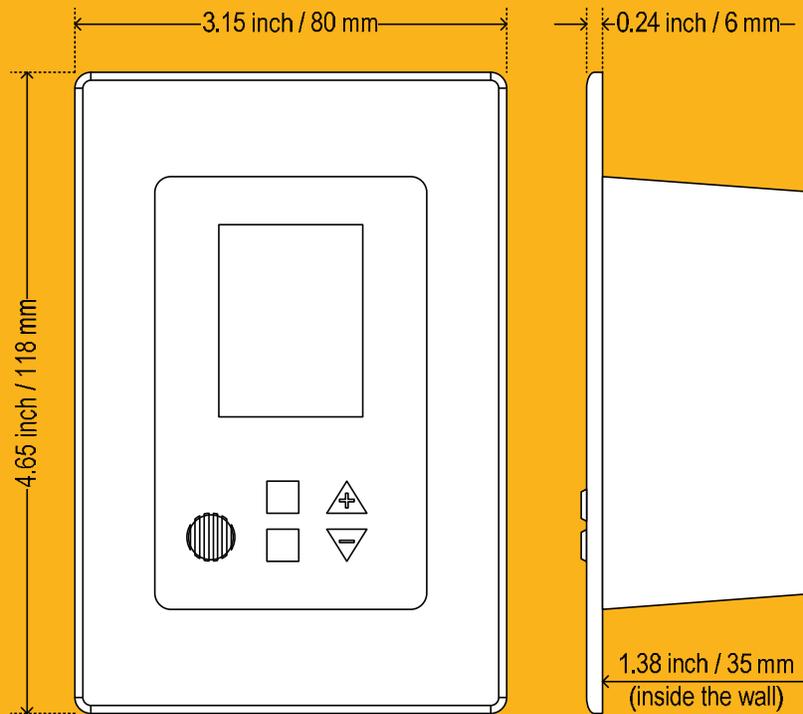The Hold-On (time delay) is adjustable in the range of 0 up to 99 hours.

The outdoor temperature set point, as well as slab upper limit temperature and ambient lower limit temperature, can be easily set by the push of a button. The Technician Settings mode allows the installer or technician to adjust all the parameters for each installation.

Commissioning mode sets the system in operation condition and simulates low temperatures, allowing testing of the system even during summer time.

The parameters that can be modified are as follows:

- Temperature set point
- Lower ambient temperature limit
- Slab's upper temperature limit to stop heaters
- Time delay (Hold-on) before deactivating the heaters
- ON time for Manual mode

- Heaters cycle time/splitting time between zones
- Number of zones and sequence of operation (sensors and heaters control logic)
- Snow sensor RH sensitivity
- Number of snow sensors connected

- DIP switches located on the controller provide easy access to Technician mode and to the system configuration settings.

- The 5th output can be used as a stand-alone ice melting zone or be activated simultaneously with zone #4. Zone #5 offers a simple option for roof and gutter deicing or other critical areas. The Controller for Power Modulator 3 and 5 allows snow sensor input both from the Power Modulator Snow/Ice Aerial Sensors and also from an AIR-SS aerial mounted snow sensor or GTR-SS gutter mounted ice sensor.

- The Controller for Power Modulator 3 and 5 fits into a 2x4 flush-mounted wall box. Installing the thermostat is quick and easy. Quick connector terminals are located on the back for easy hook-up.

- Connect the Controller for Power Modulator 3 and 5 to one of the Power Modulator boxes with integrated Ground Fault Sensor, add a Power Modulator Snow/Ice Aerial Sensor, and the system will be ready.
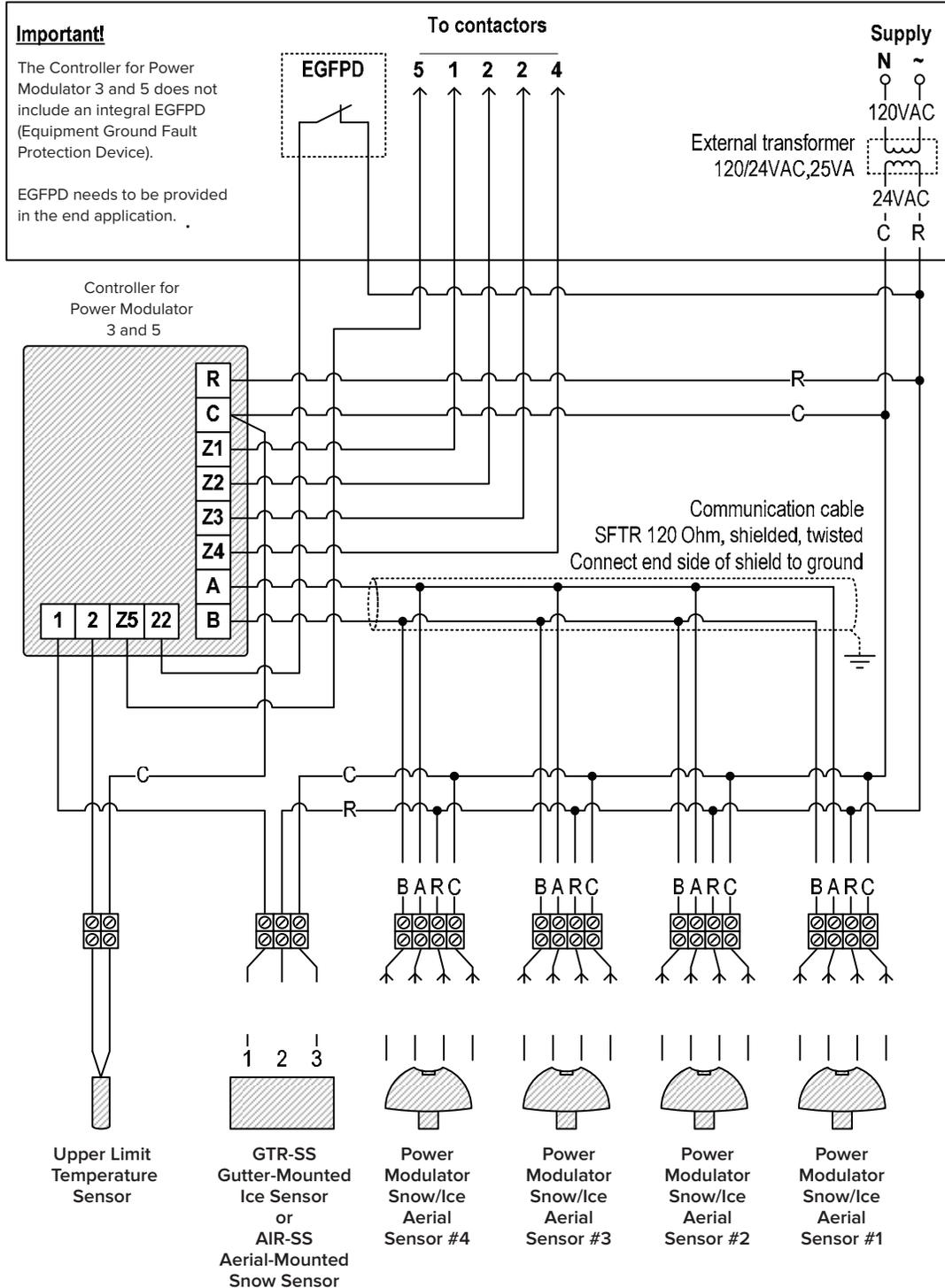
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Dimensions

3.15 inch / 80 mm

0.24 inch / 6 mm

4.65 inch / 118 mm

1.38 inch / 35 mm
(inside the wall)

Technical Specifications

Approvals	UL 873 XAPX2.E362312
Enclosure Protection	IP20, Indoor Mounting
Material	ABS/PC
Mounting	Flush mount Fits into standard electrical box (Carlon – B114R or similar)
Terminal Blocks	1.5 mm2 ,14 AWG (max)
Communications	RS485 MODBUS to sensor

Supply	24VAC±20%,50-60Hz,3W
Outputs	5 outputs 24VAC, 1A (max) each
Inputs	#1 Snow/Ice sensor AIR-SS/G-TR-SS #2 up to four Power Modulator Snow/Ice Aerial Sensors #3 Upper Limit Temperature Sensor NTC 10K
Operating temp.	–10°F to 122°F (-10° C to 50°C)
Storage temp.	–40°F to 176°F (–40°C to 80°C)

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Wiring Diagram

Important!

The Controller for Power Modulator 3 and 5 does not include an integral EGFPD (Equipment Ground Fault Protection Device).

EGFPD needs to be provided in the end application.

To contactors

EGFPD

5 1 2 2 4

Supply
N ~
120VAC

External transformer
120/24VAC, 25VA

24VAC
C R

Controller for
Power Modulator
3 and 5

R
C
Z1
Z2
Z3
Z4
A
B

1 2 Z5 22

R
C

Communication cable
SFTR 120 Ohm, shielded, twisted
Connect end side of shield to ground

C
C
R

B A R C   B A R C   B A R C   B A R C

1 2 3

Upper Limit Temperature Sensor

GTR-SS Gutter-Mounted Ice Sensor or AIR-SS Aerial-Mounted Snow Sensor

Power Modulator Snow/Ice Aerial Sensor #4

Power Modulator Snow/Ice Aerial Sensor #3

Power Modulator Snow/Ice Aerial Sensor #2

Power Modulator Snow/Ice Aerial Sensor #1

Need assistance?

For more information, operating and technical manuals, please refer to **www.warmlyyours.com**.
*Product specifications are subject to change.

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