

SNOW SWITCH MODEL APS-4C AUTOMATIC SNOW/ICE MELTING SYSTEM CONTROL PANEL

FEATURES & BENEFITS

- Automatic snow/ice melting control
- Satellite contactor interface for larger systems
- Energy management computer (EMC) interface
- Accommodates MI, constant wattage and self-limiting heaters
- Multiple sensor capability
- Advanced patented and patent pending ground fault protection
- Heater hold-on and test capabilities
- C-UL-US
- Simple to install and operate
- Low system costs
- Minimum energy costs

DESCRIPTION

The APS-4C Snow Switch when used with one, or more, compatible sensors automatically controls snow/ice melting heaters for minimum energy costs. Applications include pavement, sidewalk, loading dock, roof, gutter and down spout snow /ice melting in commercial and industrial environments. The APS -4C is interchangeable with the earlier APS-4.

The adjustable hold -on timer continues heater operation for up to 10 hours after snow stops to ensure complete melting. The optional RCU-4 Remote Control Unit can be located where system operation can be conveniently observed. It duplicates many of the APS-4 C front panel functions.

The APS-4 C provides advanced

patented and patent pending ground fault equipment protection (GFEP) as required by the USA and Canadian National Electric Codes. The GFEP automatically tests itself every time the heater contactors operate and once every 24 hours. The trip current can be set at 60 or 120mA via an internal switch or retained at the 30ma default value. As an aid to troubleshooting heater ground faults, the APS -4C provides an output that can indicate the ground current on a service person 's portable DVM.

The calibrated 40°F to 90°F (4°C to 32 °C) high limit thermostat prevents excessive temperatures when using constant wattage and MI heaters. It also permits safe testing at outdoor temperatures too high for continuous heater operation. The temperature sensor is included. The APS -4 C provides a complete interface for use in

environments supervised by an energy management computer (EMC). This feature can also be used for general purpose remote control and annunciation .

All sensor and communications wiring are NEC Class 2. This simplifies installation while enhancing fire and shock safety. The APS -4C can interface up to six sensors from the CIT-1 product family. Using more sensors provides superior performance by better matching the controller to site performance requirements.

The APS-4 C is an exceptionally capable deicing controller. For complete information describing its application, installation and features, please contact Customer Service or check on the web at www.networketi.com.

SPECIFICATIONS

GENERAL

Area of use

Non-hazardous locations

Approvals



Type 873

Temperature Regulating Equipment
Also evaluated by Underwriters Laboratories Inc® in accordance with
UL 1053 Ground-Fault Sensing and Relaying Equipment

ENCLOSURE

Protection

NEMA 3R

Cover attachment

Hinged polycarbonate cover, lockable

Entries

One 1-1/16" entry (top) for NEC Class 2 connections

Two 1-11/16" entries (bottom) for supply and load power, except 277V single phase

Two 1-1/16" entries (bottom) for supply and load power, 277 V single phase only

Material

Polycarbonate

Mounting

Wall mount

Dimensions

9.125" (L) x 11.500" (W) x 6.562" (H)

232mm (L) x 292mm (W) x 167mm (H)

CONTROL

Supply voltage

208-240 VAC, 35 VA, three phase 50/60 Hz
277 VAC, 45 VA, single phase 50/60 Hz
277/480 VAC, 45 VA, three phase 50/60 Hz
600 VAC, 50 VA, three phase 50/60 Hz

Load

208-240 VAC, 50 amp max. resistive
277 VAC, 40 amp max. resistive
277/480 VAC, 50 amp max. resistive
600 VAC, 50 amp max. resistive

Contact type

3 Form A

Weight

3 Pounds

Maximum Ratings

Voltage: 600 V Current: 50 A except 277 V single phase, 40 A for 277 V single phase

Heater hold-on timer

0 to 10 hours; actuated by snow stopping or toggle switch

System test

Switch toggles heater contact on and off. If temperature exceeds optional high limit thermistor (45°F), heater shuts off to reduce costs and prevent damage.

FRONT PANEL INTERFACE

Status indicator

SUPPLY (green): Power on
HEAT (yellow): Heating cycle in progress
SNOW (yellow): Sensor(s) detect snow
GFEP (red): Ground Fault condition
GFEP (red, flashing): Failed
GFEP (red, rapid flashing): GFEP test in progress

Communication Bus

Number of cascaded units

Unlimited

Contactor delay

5 second

Bus-wire type

3-wire jacketed cable

Circuit type

NEC Class 2

Lead length

Up to 500' (152m) using 18 AWG 3-wire jacketed cable

Up to 2,000' (609m) using 12 AWG 3-wire jacketed cable

GROUND FAULT EQUIPMENT PROTECTION (GFEP)

Set point

30 mA (default); 60 mA and 120 mA selectable by DIP switch

Automatic self-test

Mode A: Verifies GFEP function before contactors operate

Mode B: Verifies GFEP and heaters every 24 hours

Manual Test/Reset

Toggle switch provided for this function

ENVIRONMENTAL

Operating temperature

-40°F to 160°F (-40°C to 71°C)

Storage temperature

-50°F to 180°F (-45°C to 82°C)

ORDERING INFORMATION

ORDER NUMBER

DESCRIPTION

22472

APS-4C, 208-240 VAC 50/60 Hz Three Phase

22473

APS-4C, 277 VAC 50/60 Hz Single Phase

22475

APS-4C, 277/480 VAC 50/60 Hz Three Phase

22476

APS-4C, 600 VAC 50/60 Hz Three Phase

ACCESSORIES

21358

RCU-4 Remote Control (Optional)

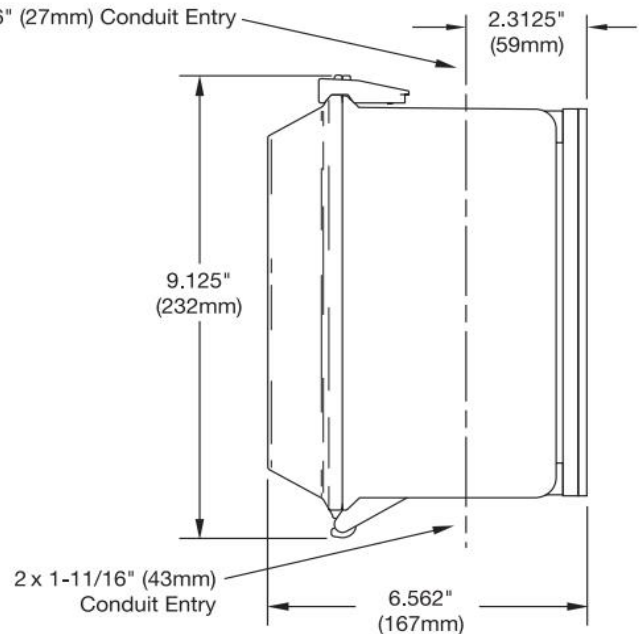
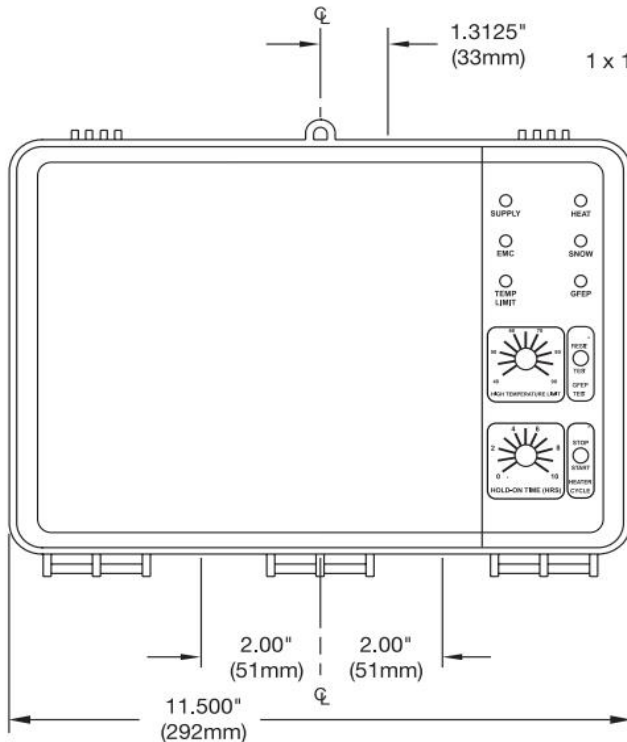
19272

High Temperature Sensor w/ 20' (6m) lead

22690

PTS-100 Embedded Temperature Sensor (Optional)

DIMENSIONAL DRAWINGS



CONTACTING CUSTOMER SERVICE

For assistance, contact Customer Service. Office hours are from 8:00 AM until 5:00 PM ET.

Email: info@networketi.com

Web: networketi.com

Mail: ETI
1850 North Sheridan Street
South Bend, IN 46628

LIMITED WARRANTY

ETI's two year limited warranty covering defects in workmanship and materials applies. Contact Customer Service for complete warranty information.

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