

# Silicone Rubber Heating Tape with Adjustable Thermostat Control (HSTAT Series) Instruction Manual



Read and understand this material before operating or servicing these heating tapes. Failure to understand how to safely operate these heaters could result in an accident causing serious injury or death. These heaters should only be operated by qualified personnel.

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#### INTRODUCTION

HSTAT Silicone Rubber Heating Tapes with Adjustable Thermostat Control are designed for process temperature control, freeze protection, and supplemental heat.

Wrap the flexible heating tape around the desired object you want to heat, set the temperature, and it will maintain heat at the set temperature.



SAFETY ALERT SYMBOL

The symbol above is used to call your attention to instructions concerning your personal safety. It points out important safety precautions. It means

"ATTENTION! Become Alert! Your Personal Safety is involved!" Read the message that follows and be alert to the possibility of personal injury or death.

## A DANGER

Immediate hazards which **WILL** result in severe personal injury or death



Hazards or unsafe practices that **COULD** result in severe personal injury or death



Hazards or unsafe practices that **COULD** result in minor personal injury or property damage

#### SAVE THESE INSTRUCTIONS!

Additional copies of this manual are available upon request.

### IMPORTANT SAFETY INSTRUCTIONS

## DANGER

A person who has not read and understood all operating instructions is not qualified to operate this product.

## 🗛 DANGER

Do not immerse heater in liquid.

Keep volatile or combustible material away from heater when in use.

Use heater only in approved locations.

Keep sharp metal objects away from heater.

Failure to observe these warnings may result in electric shock, risk of fire, and personal injury.

## A WARNING

End User Must Comply to the Following:

Only qualified personnel are allowed to connect electrical wiring.

Disconnect all supply power at the source before making any power connections.

All electrical wiring must follow local electrical codes and highly recommend following NEC Article 427.

Final installation / wiring is to be inspected by the authority who has jurisdiction in the area that the heating tape is installed.

The end-user is responsible for providing a suitable disconnecting device.

The end-user is responsible for providing a suitable electrical protection device. It is highly recommended that a ground fault circuit breaker is used.

Failure to observe these warnings may result in personal injury or damage to the heater.

### Agency Approvals

73/23/EC (Low Voltage Directive)

Approvals valid only when installed in accordance with all applicable instructions, codes, and regulations.

# A CAUTION

Never handle the heating tape while it is in operation; always disconnect the heating tape from the power source and allow to cool prior to handling.

Inspect heating tape before use.

Do not use heating tape with torn or worn surfaces.

Do not wrap the heater over itself

Do not repair damaged or faulty heaters.

Do not crush or apply severe physical stress on heater or cord assembly.

Unplug heater when not in use.

Fasten heater to device using approved methods only.

If spillage of foreign matter onto heater occurs, disconnect from power source and clean after heater has been allowed to cool.

Never operate a heater without an appropriate heat sink (device being heated is considered a heat sink).

Make sure there is a uniform fit prior to energizing. If there are air gaps between the surface to be heated and the heater, hot spots can occur that could result in burnouts due to overheating.

Failure to observe these warnings may result in personal injury or damage to the heater.

### **SPECIFICATIONS**

Operating conditions:

Maximum Exposure Temperature: 450°F (232°C)

Adjustable Thermostat Control 50-425°F (10-218°C)	120 or 240VAC Models
Power Density: 6.0 watts/in <sup>2</sup> (0.009 watts/mm <sup>2</sup> )	Moisture and Chemical Resistant
Suitable for Electrically Conductive Surfaces	120VAC model includes NEMA 1-15 plug

Width in (mm)	Length in (mm)	Total Watts	Part Number 120VAC	Part Number 240VAC (No plug)
0.5 (13)	24.0 (610)	72	HSTAT051002	HSTAT052002
0.5 (13)	48.0 (1220)	144	HSTAT051004	HSTAT052004
0.5 (13)	72.0 (1830)	216	HSTAT051006	HSTAT052006
0.5 (13)	96.0 (2440)	288	HSTAT051008	HSTAT052008
0.5 (13)	120.0 (3050)	360	HSTAT051010	HSTAT052010
1.0 (25)	24.0 (610)	144	HSTAT101002	HSTAT102002
1.0 (25)	48.0 (1220)	288	HSTAT101004	HSTAT102004
1.0 (25)	72.0 (1830)	432	HSTAT101006	HSTAT102006
1.0 (25)	96.0 (2440)	576	HSTAT101008	HSTAT102008
1.0 (25)	120.0 (3050)	720	HSTAT101010	HSTAT102010
2.0 (51)	24.0 (610)	288	HSTAT201002	HSTAT202002
2.0 (51)	48.0 (1220)	576	HSTAT201004	HSTAT202004
2.0 (51)	72.0 (1830)	864	HSTAT201006	HSTAT202006
2.0 (51)	96.0 (2440)	1152	HSTAT201008	HSTAT202008
2.0 (51)	120.0 (3050)	1440	HSTAT201010	HSTAT202010
3.0 (76)	24.0 (610)	432	HSTAT301002	HSTAT302002
3.0 (76)	48.0 (1220)	864	HSTAT301004	HSTAT302004
3.0 (76)	72.0 (1830)	1296	HSTAT301006	HSTAT302006
3.0 (76)	96.0 (2440)	1440	HSTAT301008	HSTAT302008
3.0 (76)	120.0 (3050)	1440/1800	HSTAT301010	HSTAT302010

### **OPERATING INSTRUCTIONS**

## A WARNING

Read and understand this entire manual before operating this electric heating tape.

#### STEP 1

Remove heater from box. Visually inspect heater. Do not use if torn or damaged.

#### STEP 2

#### Installing your heating tape:

The flexible heating tape can be installed on both a flat and/or curved surface. For a flat surface, lay the heating tape onto the surface to be heated. For a curved surface, wrap the heating tape onto the surface to be heated. Attach the heating tape to the surface by using aluminum tape, fiberglass tape, or a mechanical clamping device which will not cause damage to the heating tape.

The length of one entire side of the heating tape must be in full contact with the surface. Ensure the heating tape is not kinked, twisted, or any portion of the tape hanging free from the surface (A).

Thermostat sensor must be in full contact with object to be heated. Sensor is located underneath temperature controller box (B).

Do not overlap heating tape on itself (C).

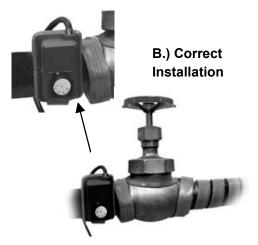




Installation: Heating tape hanging free from the surface

A.) Incorrect

C.) Incorrect Installation: Heating tape overlapped on itself



#### STEP 3

For 120VAC: Plug power cord into appropriate outlet.

**For 240VAC:** Terminate power cord to appropriate electrical power supply. The power cable consists of two color-coded conductors, black and white. The black wire should be connected to Line 1. The white wire should be connected to Line 2. The power connections must be adequately rated to electrically support the voltage and amperage of the heater. The identification label located on the power cord displays voltage and amperage requirements.

#### STEP 4

Adjust dial to desired setting between 50-425°F (10-218°C).

WARNING: Temperature controller dial and enclosure will become very hot after use. Always unplug heater and allow to cool prior to handling.

### TROUBLESHOOTING GUIDE

Please read this guide prior to contacting. This guide is designed to answer the most commonly asked questions. If you are unable to identify the problem or need additional assistance, please contact us.

PROBLEM	SOLUTION(S)
Does not heat	Verify heater is connected to proper voltage.
	Check to see if there is a resistance reading (not an open circuit) in heater using an ohm meter.
Circuit breaker is tripping	Validate that the circuit breaker is capable of handling the amp requirement of heater.
	Examine heater and cord for any damage.

#### WARRANTY INFORMATION

ProTherm warrants to the original purchaser for the **period of eighteen (18) months from date of shipment or twelve (12) months from date of installation**, whichever comes first, that the products manufactured by ProTherm: (A) conform to the description and specifications as set forth in ProTherm's current catalogue or in the quotation and drawings submitted by ProTherm: and (B) are free from defects in materials and workmanship under prescribed use and service.

<u>Remedy</u>. ProTherm's obligation and the exclusive remedy under this warranty shall be limited to the repair or replacement, at ProTherm's option, of any parts of the product which may prove defective under prescribed use and service within eighteen (18) months from date of shipment or twelve (12) months from date of installation, whichever comes first, and which, following BriskHeat's examination, is determined by ProTherms to be defective under conditions described herein: provided, ProTherm has, at its option, a representative of ProTherm present at start-up. ProTherm shall <u>not</u> be liable for any incidental, consequential or special damages arising from any breach of warranty, breach of contract, negligence, or any other legal theory, including but not limited to, loss of use of parts or equipment or any associated equipment, cost of capital, cost of any substitute equipment, facilities or services, overhead, downtime costs, or claims of customer of purchaser for such damages. This remedy does <u>not</u> include labor costs for installation or removal of the equipment or parts covered by this warranty, and ProTherm shall not be responsible for such labor costs.

Limitation. This warranty shall not apply to any product or part thereof which has been subject to accident, negligence, alteration, damage during shipment, improper service, abuse, or misuse, including but not limited to use beyond rated capacity. ProTherm makes no warranty whatsoever with respect to accessories or parts not supplied or manufactured by ProTherm. ProTherm's obligation under this warranty shall be conditioned upon ProTherm's receiving written notice of any defect within fifteen (15) days after its discovery, and, at ProTherm's option, return of such equipment or parts prepaid to its factory at 3522 Central Pike, Building 203, Hermitage, TN 37076.

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This warranty allocates risk between the purchaser and ProTherm as authorized by the Uniform Commercial Code and other applicable law.

HSTAT Silicone Rubber Heating Tape