

# SERIES 30000

Surface Mounting THERMOSWITCH®  
Temperature Controllers



## FEATURES

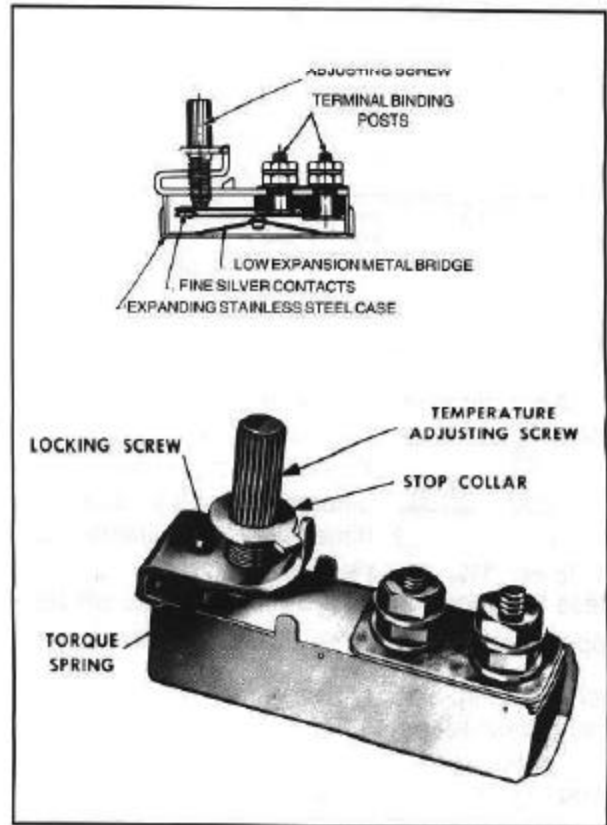
- Fully Adjustable
- Overlapping Ranges from 50 to 600°F
- 1200 Watt Resistive Load Rating at 120 VAC/240 VDC
- Narrow Temperature Differential
- UL Component Recognized
- CSA Certified
- Economical
- Compact Size

## APPLICATIONS

- Appliances
- Vending Machines
- Platens
- Plastic Laminating Presses
- Dental Equipment
- Popcorn Machines
- Hot Stamping
- Food Warming Trays

## DESCRIPTION

Fenwal Series 30000 Surface Mounting THERMOSWITCH® Controllers operate on the principal of the differential expansion of metals. A temperature increase causes the stainless steel outer case to expand at a greater rate than the internal bridge assembly. Because the case is in direct contact with the heated surface, a temperature change is sensed almost instantaneously. With an increase in temperature, the case expands.



THIS results in a linear change of the internal bridge assembly causing the electrical contacts to open. A decrease in temperature closes the contacts.

## SPECIFICATIONS

DESCRIPTION	APPROXIMATE TEMPERATURE RANGE	CATALOG NUMBER	APPROX. DEG. F PER FULL TURN OF ADJ. SCREW	CONTACT OPERATION ON TEMPERATURE RISE	MATERIAL*	** CURRENT RATING	DIELECTRIC STRENGTH (Leads to Case)
Adjustable, low temperature type	50 to 300°F	30000-0 * †	250	Opens	Stainless Steel case and cover. Aluminum bronze adjusting screw. Aluminum mounting clamps. S.S. mounting clamps optional. NOTE: Units shipped with "C" mounting clamp unless otherwise specified.	120 VAC 10 Amps 240 VAC 5 Amps Resistive	1500 VAC 60 Hz
	85 to 250°F	30000-48 * †	175				
Adjustable, high temperature type	50 to 600°F	30002-0 * †	575				

All specifications are subject to change without notice.

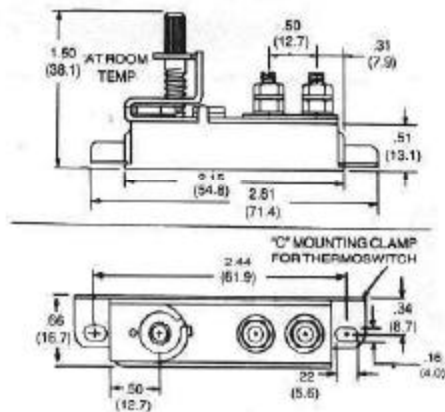
\*In applications where contamination, corrosion or electrolysis is suspect, protect the controller so as to realize optimum performance and maximum life. Consult the factory for suggestions.

\*\* Unless otherwise specified, all ratings apply to noninductive loads such as heaters or resistors. Tungsten filament lamps have an inrush 10 to 15 times the steady state current. Do not exceed ratings.

• Normally available from stock.

Recognized under the Component Program of Underwriters Laboratories, Inc. File No. E18874.  
Certified by Canadian Standards Association file No. LR7378

## OUTLINE DIMENSIONS



## MODIFICATIONS

### 51 Adjusting Screw Lengths



The Temperature Adjusting Screw may be ordered in different lengths so that dimension "A" (in inches) is

as follows:  $1\frac{3}{4}$   $1\frac{1}{4}$   $1\frac{3}{8}$   $1\frac{7}{8}$   $2\frac{3}{8}$   $2\frac{1}{16}$   
 Unless this modification is specified, units will be shipped with dimension "A"  $1\frac{1}{2}$  in. (38 mm) long.

When ordering: Specify Cat. No. and Modification 51, with desired length. Typical order would read "Cat. No. 30000-0 with Mod. 51, dimension "A"  $1\frac{7}{8}$  in long." *Minimum ordering quantities apply.*

### 52 Temperature Setting

Any unit may be factory preset at any temperature within its listed range with a setting tolerance of  $\pm 9F^\circ$  or  $\pm 3^\circ C$  ( $\pm 10F^\circ$  or  $\pm 3^\circ C$  for Cat. No. 30002-0) of setting value, whichever is greater.

A locking screw is furnished with this modification. (See Mod. 55.)

When ordering: Specify Modification 52 with temperature set at \_\_\_\_\_°F

### 53 Special Calibration

Any unit may have special high stop or low stop factory setting within its listed temperature range. (Setting is *either* at high stop or low stop **but not both**.) When ordering: Specify high or low temperature setting.

MODEL NO.	APPROXIMATE SETTING TOLERANCE
30000-0	$\pm 11F^\circ$
30000-48	$\pm 9F^\circ$
30002-0	$\pm 18F^\circ$

### 55 Locking Screw

If units are to be temperature set by customer, a locking screw is provided with unit. Torque spring is not shipped with this unit.

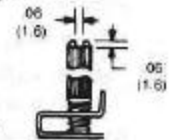
### 55A Locking Screw and Torque Spring

If units are to be temperature set by customer, but still remain adjustable, a locking screw and torque spring are provided with unit.

### 57 Slotted Temperature Adjusting Screw

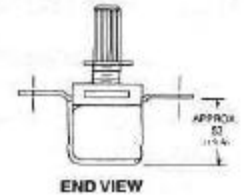
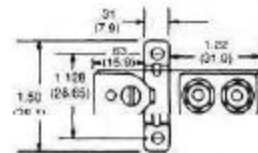
For ease of adjustment, a screwdriver slot is furnished in the adjusting screw.

*Minimum ordering quantities apply.*

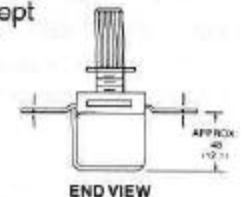


### 62 Optional Cross Mounting Bracket

A cross mounting bracket may be added to any unit as shown on diagram.



62A Same as No. 62 above except bracket is inverted.



## HOW TO ORDER

To order:

1. Select temperature range from Specifications table. List appropriate catalog number.
2. Select required Modifications from above and list modification numbers after controller catalog number.

**EXAMPLE:** Cat. No. 30000-48 with Mods. 51 (Dimension "A" =  $1\frac{7}{8}$  in. long) and 55