

# Therm-O-Disc®

DISC POWERED CONTROLS  
WITH IMPACT ACTION  
FOR ELECTRIC HEAT  
AND HEAT PUMPS

36T: 1/2" bimetal disc control. SPST and Manual Reset. Wide selection of mounting and terminal arrangements.

57T: 1/2" bimetal disc prewired limit control. Shown with snap-tab mounting.

60TX: 3/4" bimetal disc limit and regulating control. SPST, SPDT and trip-free Manual Reset.



64TX: 3/4" bimetal disc limit control. DPST. Can interrupt two 25 ampere, 240 volt circuits simultaneously.



10H: SPST capillary linear limit control for baseboard heaters and central systems. Automatic and Manual Reset available.



HL/HLX: 1-1/2" bimetal disc high electrical capacity DPST Manual Reset limit control. HLX has 3-5 x 1/2" spacings for 480 VAC applications.



70F/71F: 3/4" bimetal disc single operation (one shot) limit control. SPST.



75TF: Combination automatic reset and single operation (one shot) limit control.



12S/14S/15S Sequencers: 12S — 1 timing, SPST, SPDT, DPST. 14S — 2 timings, 2-SPST. 15S — combination of 1, 2, or 3 12S and/or 14S controls.



58T: 1" adjustable bimetal disc precision temperature regulating control. Narrow differential. SPST with "off" or double-break in "off" position available.



37T: 3/4" bimetal disc moisture sealed limit and regulating control. SPST and SPDT. Wide range of applications.

## Therm-O-Disc makes the Controls you need for dependable Electric Heat and Heat Pumps

Therm-O-Disc offers the industry's broadest line of controls for electric heating equipment and heat pumps. You can select the controls you need and get Therm-O-Disc proven reliability to help you make your products better than ever.

**Primary Limits:** Therm-O-Disc offers six controls in this category. Everything from the 1/2" bimetal disc 36T to the capillary 10H and the heavy-duty HLX. You can choose SPST, SPDT, DPST and Manual Reset with a wide range of electrical ratings and spacings.

**Secondary Limits:** The 70F and 71F are single operation (one shot) controls used for backup limit protection or as high capacity limits. The 75TF combines two switch functions — one automatic, the other single operation.

**Sequencers:** There are three time-delay relays to

satisfy a broad range of applications — the 12S, 14S, and the 15S which combines up to three 12S and/or 14S controls on a single plate.

**Adjustable Regulating Control:** The narrow differential, precision 58T with its patented adjustable bimetal disc will control room temperature in electric baseboard heater applications, or serve as an outdoor balance point thermostat for heat pumps.

**Moisture-Sealed Control:** The epoxy-sealed 37T is a defrost terminator, a two-speed fan control, evaporator fan delay, crankcase heater thermostat, low temperature cut-out, and more. A very versatile control.

Ask us for complete information on these or other Therm-O-Disc controls you need. We will be happy to work with you.

SERIES	REPRESENTATIVE UL & CSA ELECTRICAL RATINGS	
	Resistive Amperes or Wattage	Volts AC
36T	13.75 A 10.0 A	120 240
57T	14.5 A 12.5 A	277# 240*
60TX	6000 watts	240-480
64TX	6000 watts/pole 6000 watts/pole	240-480 600*
10H	15.0 A 10.0 A	277 600*
HL HLX	50.0 A/pole 25.0 A/pole	480 600*
70F 71F	25.0 A 48.0 A	600 600
75TF	25.0 A 12.5 A	240# 480#
12S 14S 15S	25.0 A 12.5 A 30.0 A combined rating including 7 FLA, 42 LRA max.	240 480 240
58T	25.0 A 10.0 A	277 600*
37T	10.0 A 5.0 A	120 240

NOTE: Ratings marked # are UL only, and \* CSA only. All controls shown carry a minimum pilot duty rating of 125VA at their rated voltage. For inductive and other special settings, please consult factory.

**THERM-O-DISC, INCORPORATED**  
*Leadership through research*

A SUBSIDIARY OF EMERSON ELECTRIC CO.  
1320 South Main Street • Mansfield, Ohio 44907  
Phone 419/756-5911 • Telex 987455 • Cable TODMFL

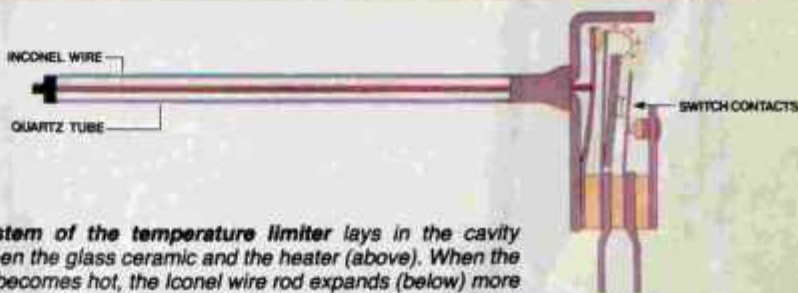


For information circle 9

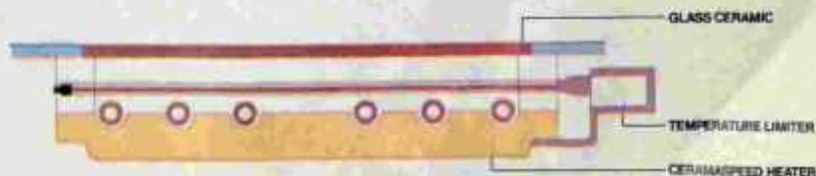


Under-powered, under-sized elements have led to complaints that smooth tops are slow to heat up and generally slow to cook. These problems have been avoided in Europe by using temperature-controlled high wattage, high efficiency elements, such as this one made

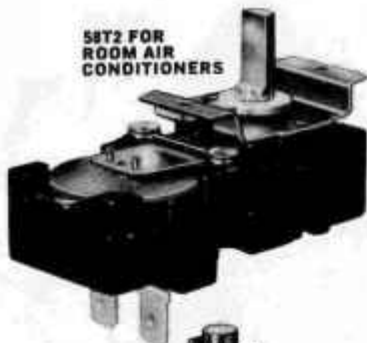
by Ceramaspeed. This oval-shaped heater can be used as a normal circular element, or can be extended for larger pans. Diameters on these elements range from 5.7 inches to 9.0 inches with watts loading from 1000W to 2200W. Overall height of the heater is 1.18 inches.



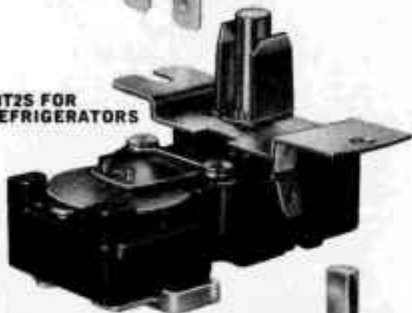
The stem of the temperature limiter lays in the cavity between the glass ceramic and the heater (above). When the stem becomes hot, the Inconel wire rod expands (below) more than the quartz tube, causing the snap action switch to operate at a pre-set temperature. At left is a close-up of the temperature limiter's switch. The temperature limiter used on Ceramaspeed heaters is made by Therm-O-Disc, Mansfield, Ohio.



58T2 FOR ROOM AIR CONDITIONERS



58T2S FOR REFRIGERATORS



58T1D FOR ELECTRIC HEAT



Impact Action bimetal disc with power to spare for big jobs

Rotating cam sets temperature, allows choice of switch actions

Range spring provides patented adjustable disc feature

Heavy-duty main switch with high contact pressure

Slide mechanism for positive "off" position of cycling contacts

Auxiliary switch for double-pole break

actual length of 58T is 2-11/32"

## New Disc-Powered precision control by Therm-O-Disc cuts costs, has high electrical ratings, long life!

When Therm-O-Disc engineers discovered how to make a bimetal disc adjustable, they opened a new dimension in low-cost, dependable temperature regulation. This patented principle—thoroughly tested in our 40T Series furnace fan controls and our 59T Series controls for electric water heaters—has now resulted in an unusual new precision control.

It's the 58T Series—a high electrical capacity, narrow differential (4° F.) precision control powered by an adjustable bimetal disc with Impact Action. With the 58T you can replace costlier high capacity controls in all your room air conditioners, refrigerators, and electric heating equipment.

The 58T costs less than most high capacity controls because it uses bimetal—the most economical temperature sensor available. It works far better than bimetal blade versions because the bimetal disc of the 58T has more than three times as much power available to

impart to the electrical switch. When the calibrated temperature is reached, the disc snaps through with such speed and force that full contact pressure is maintained until 1/10,000 of a second before "break." This instantaneous Impact Action of the disc plus the balanced design of the switch give the 58T the advantages of long contact life at high electrical loads, calibration consistency, and excellent durability.

Get all the facts on Therm-O-Disc Impact Action, and ask us for samples and quotations on this new 58T Series precision control that can cut your costs and make your products better and last longer. Call 419/756-5911 or write today.

### Therm-O-Disc, Incorporated

*We've got Impact Action!*



A SUBSIDIARY OF  
 EMERSON ELECTRIC CO.  
 1320 SOUTH MAIN STREET  
 MANSFIELD, OHIO 44907

For information circle 9

### MORE FACTS ON THE 58T

The 58T incorporates four patented new principles developed by Therm-O-Disc. Designed to replace costlier controls on all sizes of room air conditioners, as well as on refrigerators and electric heating equipment.

Bimetal disc is adjustable over a range of up to 60° F. Differential of 4 ± 2° F. available, 5 ± 2° F. standard. Calibration tolerances of ± 2° F. are standard.

Physically interchangeable with the 50T Series controls. The 58T, like the 50T, has a wide choice of terminals, mounting brackets, adjusting stems. Switch operation selections include positive "on", single-pole or double-pole positive "off", and others.

#### ELECTRICAL RATINGS UL & CSA RECOGNIZED

Inductive FLA	LRA	Resistive Amperes	Volts AC
20	90	25.0	120-277
720 VA, Pilot Duty		—	120-277
CSA (only)		10.0	600