

64T/64F Series Snap-Action Temperature Controls



Snap-Action Temperature Controls

The 64T line of temperature controls from Therm-O-Disc combines a double pole, single throw (DPST) switch mechanism with a 3/4" (19mm) bimetal disc to provide simultaneous operation of two separate electrical circuits. Available in calibrations from 80°F to 350°F (28°C to 177°C) and nominal differentials from 30°F to 80°F (16.5°C to 44.5°C), the 64T provides excellent life characteristics at electrical loads up to 25 amps at 240VAC. A wide variety of terminal and mounting configurations are available for design flexibility.



Features and Benefits

The 64T series features include:

- Double pole, single throw switch configuration.
- Auto-reset switch action with nominal differentials from 30°F to 80°F (16.5°C to 44.5°C).
- Snap-action bimetal disc for high-speed contact separation.
- Available with an exposed or enclosed bimetal disc in either surface or airstream mounting configurations.
- Welded construction for integrity of current-carrying-components.

Switch Actions and Typical Applications

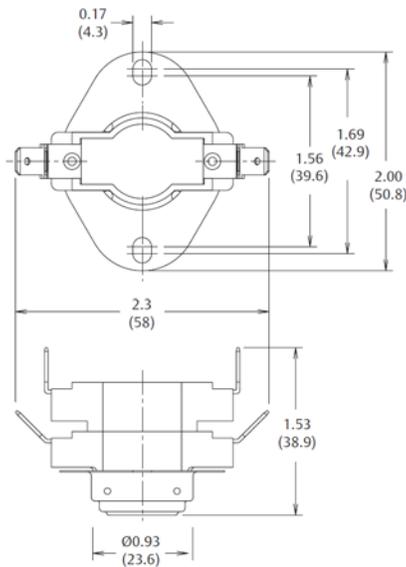
The 64T is an automatic reset double pole, single throw (DPST) switch that can be built to either open or close two independent sets of contacts on temperature rise. Once the temperature falls to the specified reset calibration, the contacts automatically return to their original state. A “two stage” switch configuration allows simultaneous switching of two independent circuits with a single bimetal disc. The 64T is typically utilized to limit temperatures of heating elements in electric furnaces and clothes dryers.

Electrical Spacings

The 64T has electrical spacings of 1/8" (3.18mm) through air and 1/4" (6.3mm) over surface. Increased electrical spacings of 1/4" x 3/8" (6.3mm x 9.53mm) (64TX) and 3/8" x 1/2" (9.53mm x 12.70mm) (64TXX) are available.

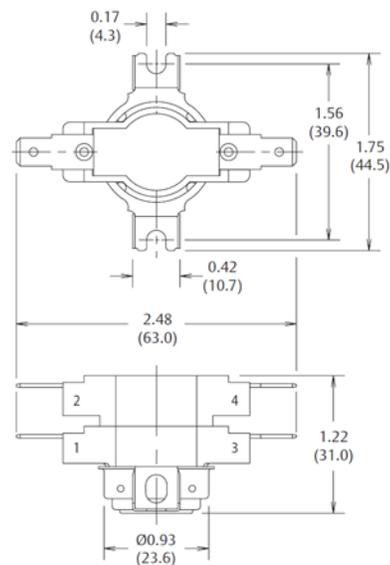
Mounting Configurations

The 64T is available in either airstream (see figure 1) or surface (see figure 2) mount configurations. Exposed or enclosed bimetal disc versions may be specified with any of the mounting configurations.



Airstream Mounting
Figure 1

Dimensions are shown in inches and (millimeters).



SPST Surface Mounting
Figure 2

Dimensions are shown in inches and (millimeters).

Terminal Configurations

Standard terminations for the 64T are .250" x .032" (6.3mm x .8mm) tin-plated brass blades.

Terminal form angles of 0, 45 and 90 degrees are available. (90° available only on top stage)



General Electrical Ratings

The 64T series of controls has been rated by major agencies throughout the world. The agency ratings can be used as a guide when evaluating specific applications. However, the mechanical, electrical, thermal and environmental conditions to which a control may be exposed in an application may differ significantly from agency test conditions. Therefore, the user must not rely solely on agency ratings, but must perform adequate testing of the product to confirm that the control selected will operate as intended in the user's application.

Inductive Amps		Pilot Duty VA	Resistive Amperes	Volts AC	Cycles Rating	Agency Recognition
FLA	LRA					
10	60	480	25	120	100,000	UL
5	30	480	25	240	100,000	File MH-5304
2.5	15	480	20	300	100,000	CSA
-	-	480	10	600*	100,000	File LR62036

Note: At thermostat end-of-life, the contacts may remain permanently open or closed *600VAC rating at CSA only.

Calibration Temperatures, Differentials and Standard Tolerances of the 64T Series

Highest Calibration Set point (Open or Close)	Standard Tolerances	
	Open	Close
0°-79°F (-18°-26°C)	±6°F (±3.3°C)	±8°F (±4.4°C)
80°-200°F (28°-93°C)	±5°F (±2.8°C)	±9°F (±5.0°C)
201°-250°F (94°-121°C)	±6°F (±3.3°C)	±11°F (±6.1°C)
251°-300°F (122°-149°C)	±7°F (±3.9°C)	±12°F (±6.7°C)
301°-350°F (150°-177°C)	±10°F (±5.6°C)	±16°F (±8.9°C)

Note: 30°-80°F (16.7°- 44.4°C) nominal differential available.

Type 64F- One Shot Fuse Disc

The 64F is identical in construction to the 64T auto reset, except the bimetal disc is calibrated to close no higher than -31F (-35C). It is useful for agency required backup limits where space is at premium.

It is available in both airstream and surface mount, and also with enclosed or exposed disc, same as the 64T.

Due to the 600VAC/ 40 amp rating, the 64F must be supplied with double blade tin-plated brass terminals. The upper terminals are 1/4" 90°, and the lower terminals are 1/4" 30° (see picture).



64F with double terminals

64F Agency Electrical Ratings

Resistive Amps	Volts AC	Cycles of Operation	Agency Recognition
40	600	1	UL/CUL E19279

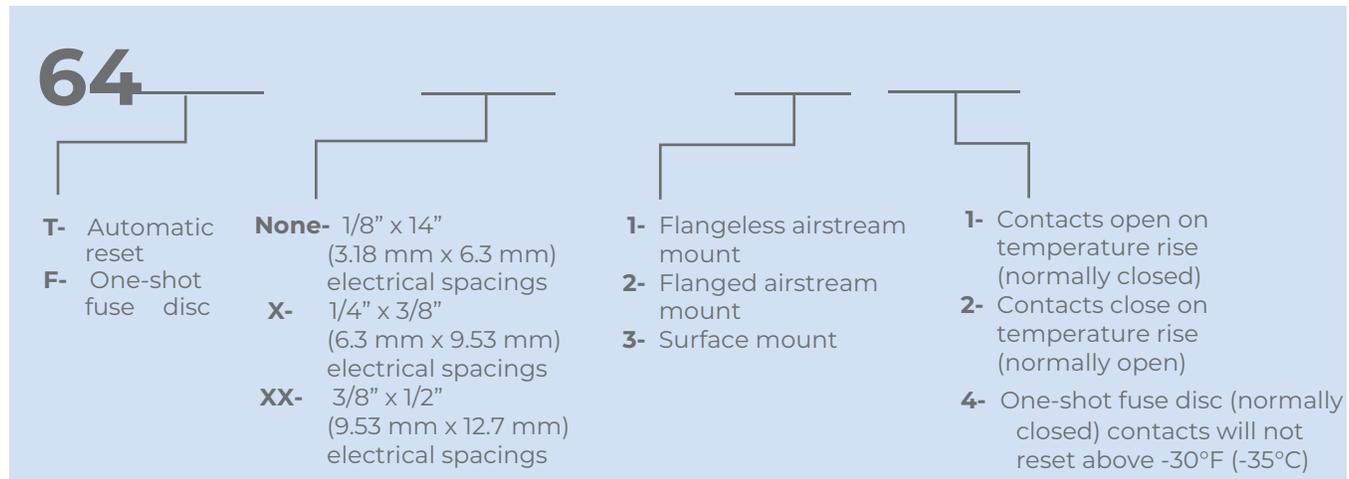
64F Calibration

Open Temperature	Open Temperature Tolerance
140°-300°F (94°-150°C)	±10°F (±5.5°C)

64F Tmax

The above open temperatures and electrical rating require that the ambient temperature the switchcase is exposed to under normal operation conditions does not exceed 176°F (80°C).

Part Numbering System



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