



SERIES 08-03

Precision Snap Disc Thermostats
High Temperature Surface Mounting Type



FEATURES

- Ratings to 10A at 240VAC
- 100,000 Cycle Rating
- UL Component Recognized 
- CSA Certified 
- Automatic Reset
- Vibration Resistant
- Tamper-Proof Preset Temperature Calibrated Settings from 10 to 550°F/-12 to 288°C

APPLICATIONS

- Food Processing
- Ovens
- Packaging
- Copiers
- Plastic Processing

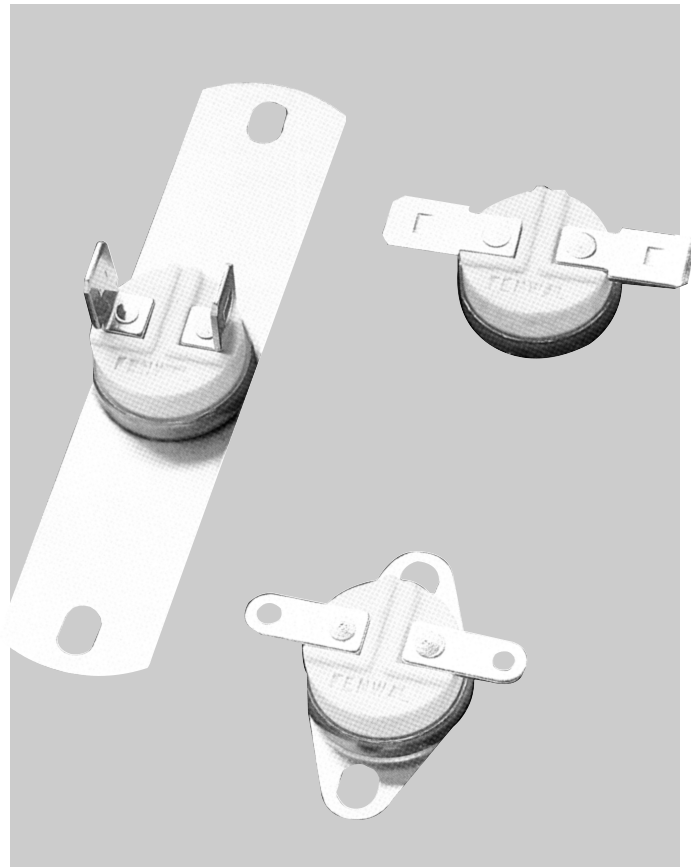
DESCRIPTION

A positive-acting bimetal snap disc serves as the actuating element in these rugged, precision thermostats. As temperature reaches the tamper-proof predetermined set point, the disc snaps to provide rapid, positive contact action minimizing radio frequency interference.

These UL recognized thermostats are individually calibrated and tested to meet both thermal and electrical characteristics. The single contact switch arm assembly minimizes failures due to contact contamination, while the fine silver contacts assure long life and excellent current carrying capacity. Resistance to vibration and harsh environments are additional features.

Many terminations and mounting assemblies are available to permit great flexibility in installation.

SERIES 08-03 units are designed for high temperature applications up to 550°F/288°C. The ceramic base material and stainless steel cap provide excellent resistance to high temperature environments and keep the switch assembly free from dust and foreign particles.



TEST SAMPLES

Operating samples can be supplied for application tests. A completed Fenwal Snap Disc Application Data Form is required to select and produce an operating sample. Application Data Forms are available from Fenwal or your local Fenwal sales representative.

Samples with built-in thermocouples often prove more helpful and accurate in determining actual set point temperatures for operating thermostats. Be sure to specify iron-constantan or copper-constantan thermocouple, whichever is compatible with your equipment.

SPECIFICATIONS

Switch Action

SPST (normally open or normally closed).

Dielectric Strength

1500VAC terminals to case.

Insulation Resistance

100 Megohms minimum at 500VDC.

Vibration

MIL-STD-202D, Method 204B; 10 G's.

Shock

MIL-STD-202D, Method 213A,
Test Condition K, 30 G's, 11 millisec.

RANGES AND TOLERANCES



TABLE 1

Temperature Range	Tolerances		Differential (Nominal)	Ambient Range
	Open	Close		
10 to 240°F	± 7°F	± 7°F	20°F	-50 to 600°F/ -46 to 316°C
-12 to 115°C	± 4°C	± 4°C	11°C	
241 to 300°F	± 7°F	± 8°F	25°F	
116 to 148°C	± 4°C	± 4.5°C	14°C	
301 to 400°F	± 10°F	± 15°F	40°F	
149 to 204°C	± 6°C	± 8°C	22°C	
401 to 500°F	± 20°F	± 25°F	60°F	
205 to 260°C	± 11°C	± 14°C	33°C	
501 to 550°F	± 25°F	± 30°F	80°F	
261 to 288°C	± 14°C	± 17°C	44°C	

NOTE: Differences in temperature testing procedures and equipment, between those of the manufacturer and the customer, can result in temperature variances of up to 2°F.

ELECTRICAL RATINGS (Resistive)

TABLE 2

120VAC	240VAC	30VDC	Cycles	Approvals
10A	10A	2A	100,000	
5A 120VA	5A 120VA			



 and  units rated for AC operation only.
U.L. File E18974, Guide XAPX2.
C.S.A. File LR 7378, Class 4823 02.

TABLE 3

Mounting Bracket

- B1—No Bracket (Cap Only)
- B2—Bottom Oval Flange
- B4—Bottom Rectangular Flange
- B6—Stug Mounting Screw

Cap and Mounting Flange Material

- C3—Stainless Steel

Mounting Hardware Size

- H1—No hardware (use with B1)
- H2—#4 screw for flange mounting
- H3—#5 screw for flange mounting
- H4—#6 screw for flange mounting
- H5—#8 screw for flange mounting (B4 only)
- H6—#6 screw for stud mounting
- H7—#8 screw for stud mounting
- H8—#10 screw for stud mounting

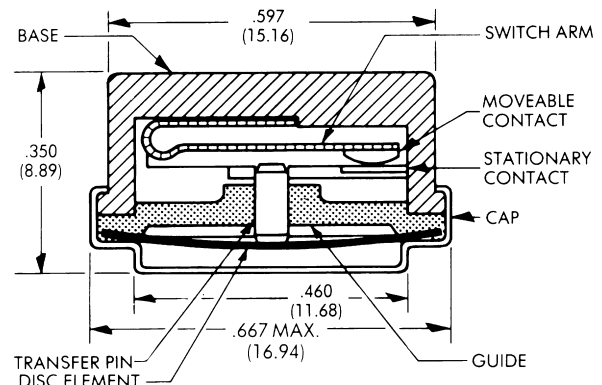
Terminal Positions

- T1—Eyelet, opposed horizontal
- T2—Eyelet, opposed vertical
- T3—Eyelet, parallel horizontal
- T5—Eyelet, parallel vertical
- T6—1/4" Quick Connect, opposed horizontal
- T7—1/4" Quick Connect, opposed vertical
- T8—3/16" Quick Connect, opposed horizontal
- T9—3/16" Quick Connect, opposed vertical
- T10—Leads, opposed horizontal
- T11—Leads, opposed vertical
- T12—Leads, parallel horizontal
- T13—Leads, parallel vertical

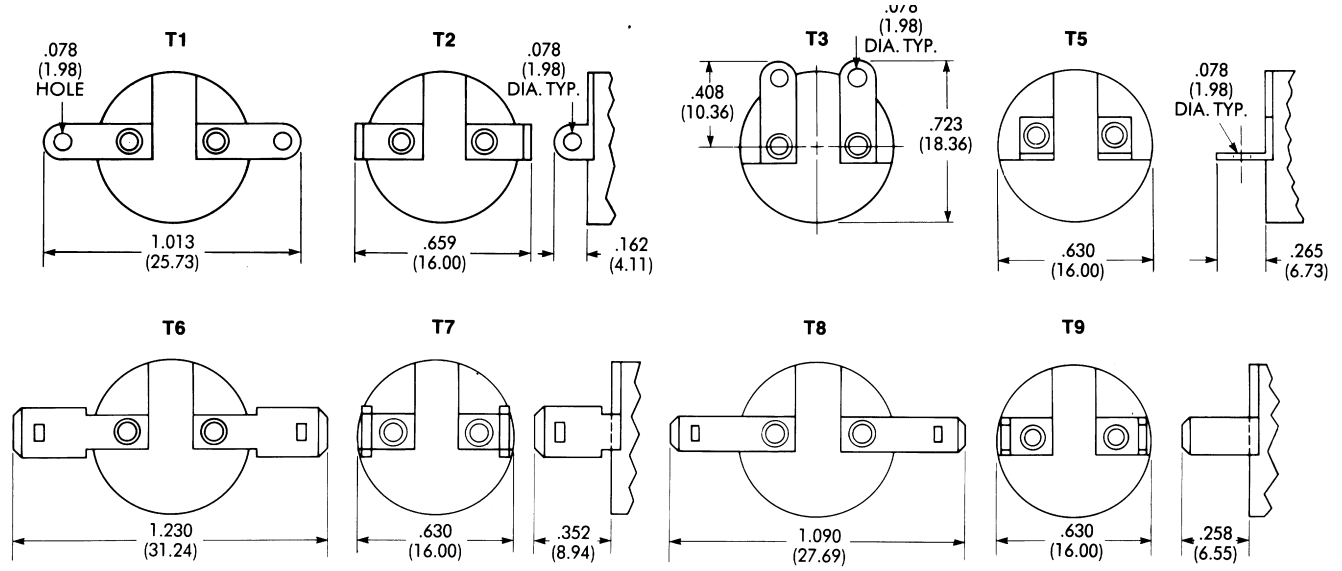
Lead Wires (specify length)

- L1—No Lead Wires
- L2—200°C TFE, 18 AWG, 300V insulation
- L4—250°C TGGT, 18 AWG, 300V insulation

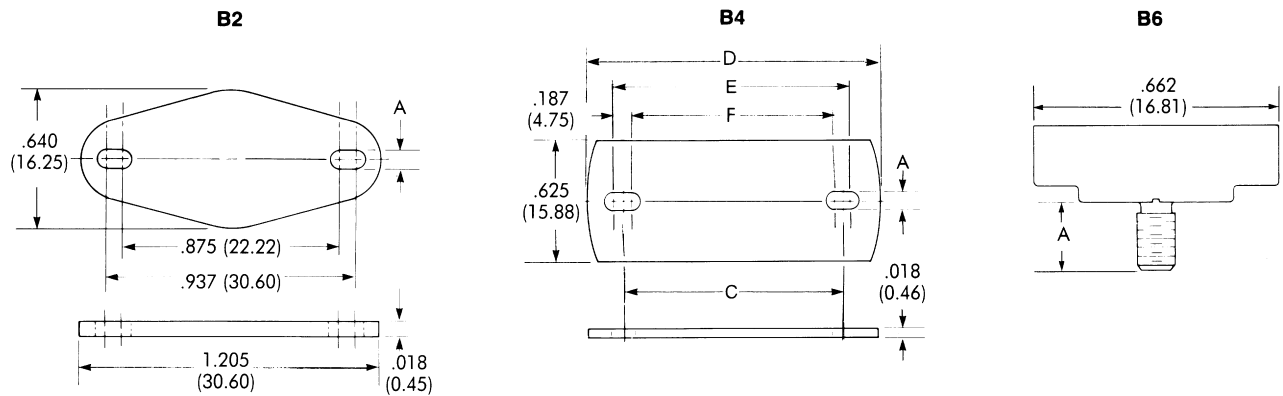
OUTLINE DIMENSIONS



TERMINALS AND POSITIONS



MOUNTING BRACKETS



Hardware Size	Dim. A
H2	.117 (2.97)
H3	.130 (3.30)
H4	.143 (3.63)

Hardware Sizes	Dim. A +.005 -.000	E	F	C	D
H4	.143 (3.63)	1.125 (28.58)	1.000 (25.40)	1.062 (26.97)	1.436 (36.47)
H4	.143 (3.63)	1.375 (34.93)	1.250 (31.75)	1.312 (33.32)	1.686 (42.82)
H4	.143 (3.63)	2.500 (63.50)	2.375 (60.33)	2.438 (61.93)	2.812 (71.42)
H5	.156 (3.96)	1.250 (31.75)	1.125 (28.58)	1.187 (30.15)	1.561 (39.95)
H5	.172 (4.37)	1.687 (42.85)	1.562 (39.68)	1.625 (41.28)	1.999 (50.72)

Hardware Size	Dim. A
H6	6-32 x 3/8"
H7	8-32 x 1/2"
H8	10-32 x 1/2"

Dimensions in brackets are millimeters.

Specifications subject to change without notice

HOW TO ORDER

To more clearly define specific requirements, please complete a Fenwal Snap Disc Application Data Form, available from Fenwal or your local Fenwal sales representative.

To order:

1. Specify opening and closing temperatures in degrees Fahrenheit or Celsius with tolerances; and whether the switch should open or close on temperature rise.
2. Specify terminals and mounting configurations by selecting one code number from each category in Table 3. If lead wires are required, specify length.

EXAMPLE: 08-83; open at 300°F, close at 275°F, B2, C3, H3, T1, L1 = Series 08-03 thermostat set to open at 300°F $\pm 7^\circ\text{F}$ on temperature rise, close at 275°F $\pm 8^\circ\text{F}$ on temperature drop. Bottom oval flange mounting bracket; stainless steel cap and mounting flange material; holes to accept #5 mounting hardware (not supplied); eyelets, opposed horizontal; no lead wires.



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