

KLIXON® | 2288 Series

Hermetic Stainless Steel Bimetal Thermostats, SPST

FEATURES

- Hermetic stainless steel construction
- Single Pole / Single Throw (SPST) design
- Preset temperature set points, non-adjustable calibration
- High resistance to shock and vibration, 100% quality tested
- Snap-acting switching, tight temperature tolerances
- Various mounting and terminal configurations available
- Custom built to customer specifications
- UL, Canadian-UL, CE

INTRODUCTION

The Klixon® 2288 precision thermostat is constructed with a snap-acting bimetal disc, which serves as the actuating element. As the temperature reaches a pre-determined set point, the disc snaps to its reverse curvature producing a crisp, positive switching action inherent to Klixon® thermostats. This feature assures reliable, consistent operating temperature over a long cycle life.

Applications include process control, medical/dental equipment, heater control, pumps, motors, liquid temperature control, environmental and critical control systems.

SPECIFICATIONS				
Silver Contact Ratings, Resistive (Standard Temperature Settings)	<i>Cycles</i>	<i>30VDC / 30VAC</i>	<i>125VAC</i>	<i>250VAC</i>
	100,000	5.0 amps	2.0 amps	1.0 amps
	50,000	5.5 amps	3.0 amps	1.5 amps
	25,000	6.0 amps	4.0 amps	2.0 amps
	10,000	6.5 amps	5.0 amps	2.5 amps
	5,000	7.0 amps	6.0 amps	3.0 amps
Gold Contact Ratings, Resistive	<i>30VDC / 30VAC</i>	<i>115VAC</i>	<i>220VAC</i>	
	500 mA and below	200 mA and below	100 mA and below	
Ambient Temperature Range	-53.9°C to 287.8°C (-65°F to 550°F)			
Dielectric Strength	1250 VAC, rms, 60 Hz for 1 minute, terminal to case			
Contact Resistance	0.025 ohms maximum			
Vibration	5-2000 Hz, 20G			
Shock	100G, 6 milliseconds			
Hermeticity	1 x 10 ⁻⁵ atm cc/sec. maximum			
Average Weight	7.0 grams (without bracket) to 8.0 grams (with bracket)			
Electrical Ratings	720 VA, 110-600 VAC, break but not make, ungrounded cup* 360 VA, 600 VAC, make and break, ungrounded cup 125 VA Pilot Duty, 24 to 240 VAC, make and break, grounded or ungrounded cup *At this rating, suitable as a control circuit, temperature limiting device for hazardous location motors and generators.			

DEFINITIONS

Limit Type Device: A thermostat which opens its contacts on temperature rise

Fan Type Device: A thermostat which closes its contacts on temperature rise

Operating Temperature: The temperature at which normally closed contacts open, or normally open contacts close

Differential: The difference between the nominal top set point temperature and the nominal bottom set point temperature

Tolerance: The allowable range above and below the set point temperatures

Example: A model 2288 thermostat that opens on temperature rise at 60°C (140°F) with a standard tolerance and closes at the standard differential would be described as: 'Model 2288, Limit Type, with an Operating Temperature of 60°C (140°F), Differential of 11.1°C (20°F), Tolerance of ±2.8°C (5°F)'

STANDARD TEMPERATURE SETTINGS

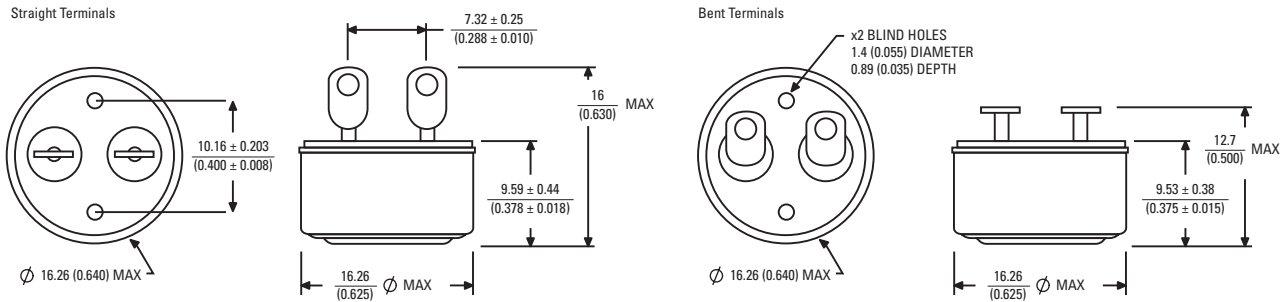
OPERATING TEMPERATURE		DIFFERENTIAL		TOLERANCE	
°C	°F	°C	°F	± °C	± °F
-17.8	0	11.1	20	2.8	5
-12.2	10	11.1	20	2.8	5
-6.7	20	11.1	20	2.8	5
-1.1	30	11.1	20	2.8	5
4.4	40	11.1	20	2.8	5
10.0	50	11.1	20	2.8	5
15.6	60	11.1	20	2.8	5
21.1	70	11.1	20	2.8	5
26.7	80	11.1	20	2.8	5
32.2	90	11.1	20	2.8	5
37.8	100	11.1	20	2.8	5
43.3	110	11.1	20	2.8	5
48.9	120	11.1	20	2.8	5
54.4	130	11.1	20	2.8	5
60.0	140	11.1	20	2.8	5
65.6	150	11.1	20	2.8	5
71.1	160	11.1	20	2.8	5
76.7	170	11.1	20	2.8	5
82.2	180	11.1	20	2.8	5

OPERATING TEMPERATURE		DIFFERENTIAL		TOLERANCE	
°C	°F	°C	°F	± °C	± °F
87.8	190	11.1	20	2.8	5
93.3	200	11.1	20	2.8	5
98.9	210	16.7	30	4.4	8
104.4	220	16.7	30	4.4	8
110.0	230	16.7	30	4.4	8
115.6	240	16.7	30	4.4	8
121.1	250	16.7	30	4.4	8
126.7	260	16.7	30	4.4	8
132.2	270	16.7	30	4.4	8
137.8	280	16.7	30	4.4	8
143.3	290	16.7	30	4.4	8
148.9	300	16.7	30	4.4	8
154.4	310	22.2	40	6.7	12
160.0	320	22.2	40	6.7	12
165.6	330	22.2	40	6.7	12
171.1	340	22.2	40	6.7	12
176.7	350	22.2	40	6.7	12
<i>Consult factory for additional temperatures</i>					

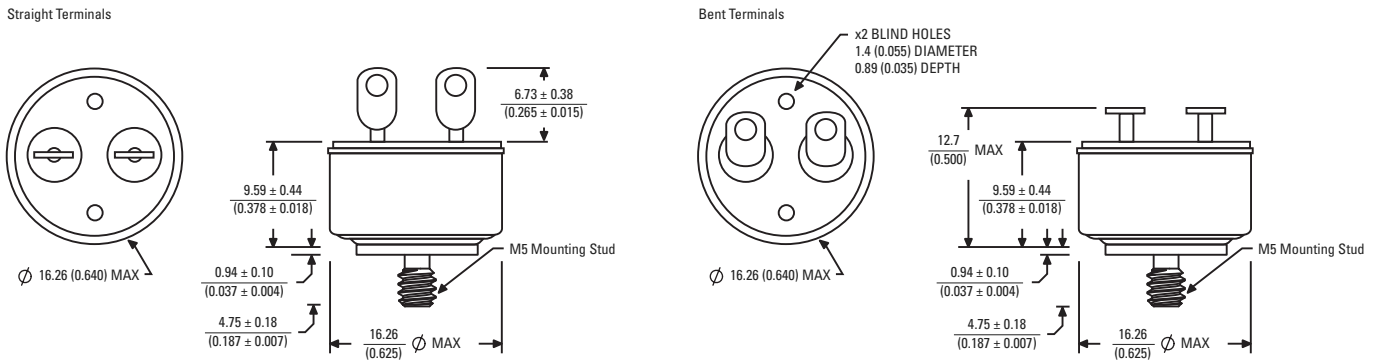
STANDARD CONFIGURATIONS

MM / (INCHES)

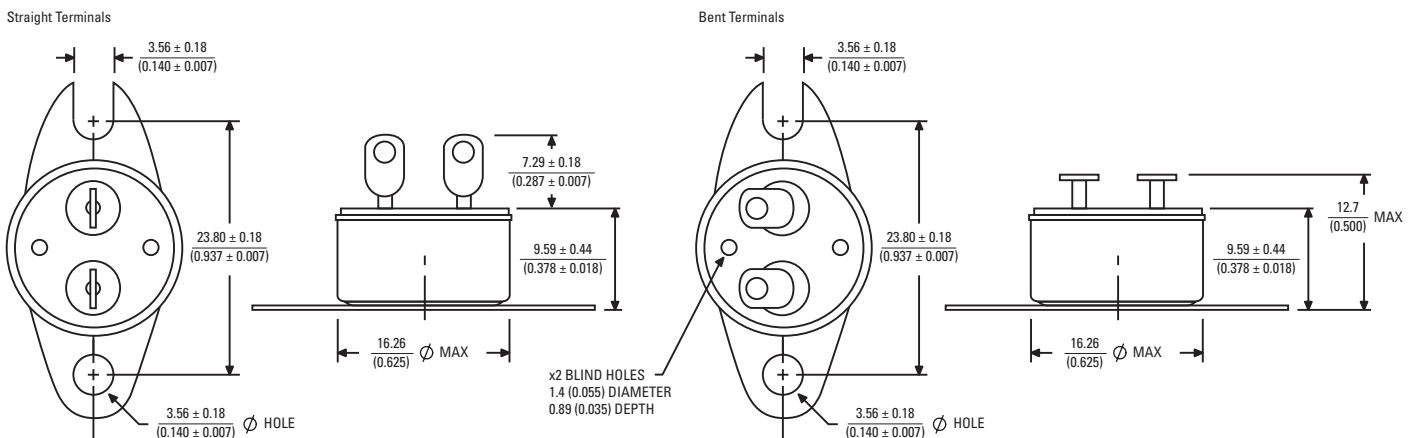
No Bracket | SPST (Single Pole, Single Throw) | 304 Stainless Steel



Stud Mount | SPST (Single Pole, Single Throw) | 304 Stainless Steel



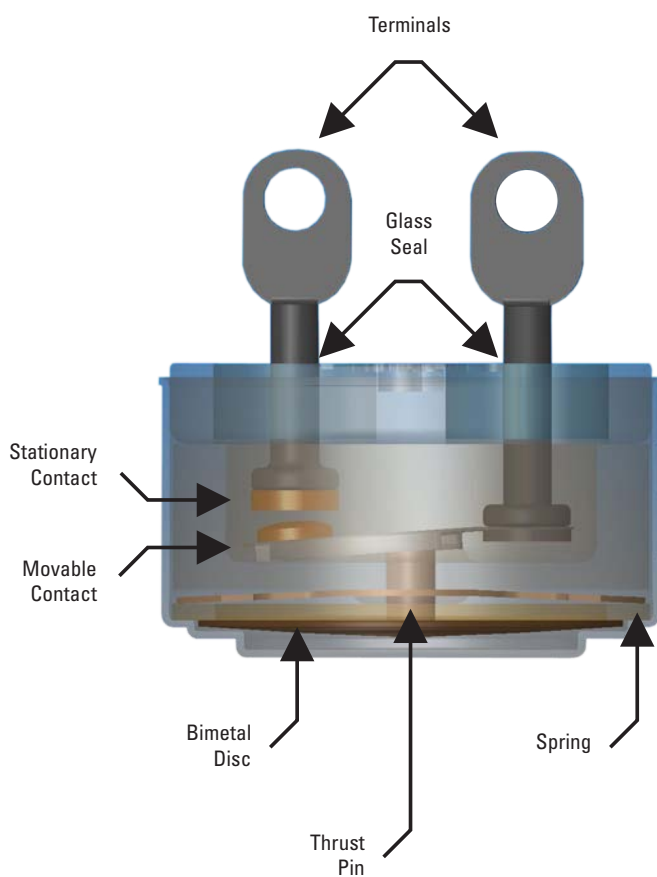
Bottom Mount Bracket | SPST (Single Pole, Single Throw) | 304 Stainless Steel



NOTE: Dimensions listed are for reference only. Please contact Sensata for more detailed envelope drawings.

OPERATION

When heated, the internal stresses of the bimetal cause the disc to reverse its curvature with a snap-action at a fixed, preset temperature, operating the electrical contacts. A decrease in the ambient temperature below the reset temperature of the disc relieves the internal stresses on the disc. The disc returns to its normal curvature and the contacts assume their normal operating position.



Model 2288 Cross Sectional View