

## KLIXON® | M1 and 11041 Series

½" Disc Hermetic Thermostats, -54°C to 288°C, SPST

### FEATURES

- Single Pole / Single Throw (SPST)
- Preset temperature set points, non-adjustable calibration
- High resistance to shock and vibration
- Hermetically sealed, vacuum baked and back-filled with nitrogen
- Various mounting configurations available
- Qualified to MIL-PRF-24236/1

### INTRODUCTION

The Klixon® M1/11041 series of thermostats are engineered for exceptional vibration and shock resistance to provide reliable switching in the most demanding applications. Prior to the final weld, finished assemblies are vacuum baked and back-filled with dry nitrogen. The inert, dry atmosphere eliminates moisture and other volatiles to prevent condensation at low temperatures or possible contact contamination at high temperatures. This back-fill also improves the dielectric characteristics of the device and prevents oxidation of the contacts. The M1 thermostat is the ideal choice where quality and reliability are paramount.

SPECIFICATIONS				
<b>Contact Ratings (Resistive)</b>	<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
<b>Operating Temperature</b>	-54°C to 288°C (-65°F to 550°F)			
<b>Dielectric Strength</b>	1250 VAC, rms (root mean square), 60 cycles for 1 minute, terminal to case per MIL-STD-202, Method 301			
<b>Contact Resistance</b>	0.050 ohms maximum per MIL-STD-202, Method 307			
<b>Insulation Resistance</b>	100 megohms min. at 500 VDC			
<b>Vibration</b>	5-2000 Hz, 20G, per MIL-STD-202, Method 204, Condition D (monitored) 5-1000 Hz, 100G, per MIL-STD-202, Method 204, Condition D (unmonitored) 1000-2000 Hz, 50G, per MIL-STD-202, Method 204, Condition D (unmonitored)			
<b>Shock</b>	100G, 6 milliseconds, per MIL-STD-202, Method 213			
<b>Hermeticity</b>	1 x 10 <sup>-8</sup> atm cc/sec. maximum, per MIL-STD-202, Method 112, Condition C			
<b>Salt Spray</b>	Per MIL-STD-202, Method 101, Condition B, 5% solution			
<b>Average Weight</b>	4.8 grams (without bracket) to 5.9 grams (with bracket)			
<b>Ambient Temperature Range</b>	-62°C to 288°C (-80°F to +550°F) <i>Maximum ambient exposure while in the closed position is 93°C above contact closing temperature.</i>			

STANDARD TEMPERATURE SETTINGS					
OPERATING TEMPERATURE		DIFFERENTIAL		TOLERANCE	
°C	°F	°C	°F	± °C	± °F
-54	-65	17	30	6	10
-40	-40	17	30	6	10
-26	-15	17	30	6	10
-18	0	11	20	3	5
-12	10	11	20	3	5
-7	20	11	20	3	5
-1	30	11	20	3	5
4	40	11	20	3	5
10	50	11	20	3	5
16	60	11	20	3	5
21	70	11	20	3	5
27	80	11	20	3	5
32	90	11	20	3	5
38	100	11	20	3	5
43	110	11	20	3	5
49	120	11	20	3	5
54	130	11	20	3	5
60	140	11	20	3	5
66	150	11	20	3	5
71	160	11	20	3	5
77	170	11	20	3	5
82	180	11	20	3	5
88	190	11	20	3	5
93	200	11	20	3	5

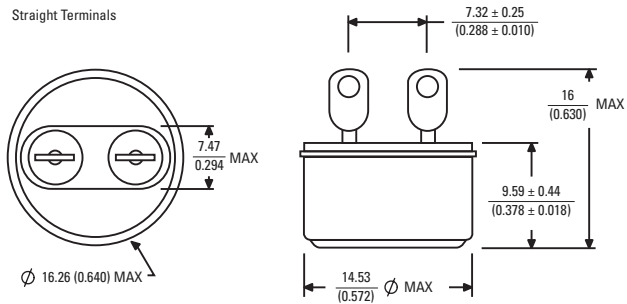
STANDARD TEMPERATURE SETTINGS					
OPERATING TEMPERATURE		DIFFERENTIAL		TOLERANCE	
°C	°F	°C	°F	± °C	± °F
99	210	17	30	4.4	8
104	220	17	30	4.4	8
110	230	17	30	4.4	8
116	240	17	30	4.4	8
121	250	17	30	4.4	8
127	260	17	30	4.4	8
132	270	17	30	4.4	8
138	280	17	30	4.4	8
143	290	17	30	4.4	8
149	300	17	30	4.4	8
154	310	22	40	7	12
160	320	22	40	7	12
166	330	22	40	7	12
171	340	22	40	7	12
177	350	22	40	7	12
191	375	22	40	7	12
204	400	22	40	7	12
218	425	22	40	7	12
232	450	22	40	7	12
246	475	39	70	14	25
260	500	39	70	14	25
274	525	39	70	14	25
288	550	39	70	14	25
<i>Consult factory for additional temperatures</i>					

## STANDARD CONFIGURATIONS

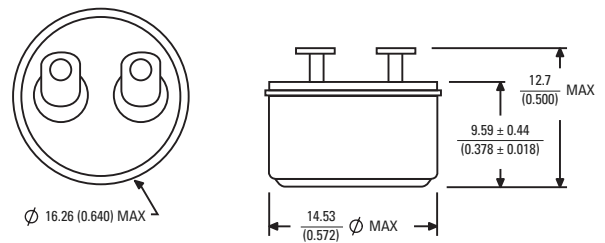
MM / (INCHES)

No Bracket | SPST (Single Pole, Single Throw)

Straight Terminals



Bent Terminals



NOTE: Stud mount, surface and top mounting brackets are available. Dimensions listed are for reference only. Please contact Sensata for more detailed envelope drawings.