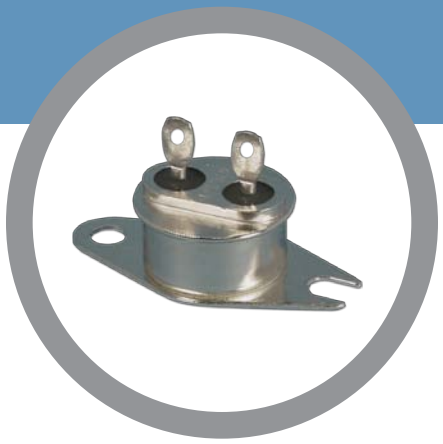


KLIXON® | M1 and 11041 Series

½" Disc Hermetic Thermostats, -65°F to 550°F, 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 volatilizes 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

Contact Ratings (Resistive)	*Cycles* / *30VDC / 30VAC* / *125VAC* / *250VAC* 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
Operating Temperature	-65°F to 550°F (-53.9°C to 287.8°C)
Dielectric Strength	1250 VAC, rms, 60 cycles for 1 minute, terminal to case per MIL-STD-202, Method 301
Contact Resistance	0.050 ohms maximum per MIL-STD-202, Method 307
Insulation Resistance	100 megohms min. at 500 VDC
Vibration	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)
Shock	100G, 6 milliseconds, per MIL-STD-202, Method 213
Hermeticity	1 x 10^{-8} atm cc/sec. maximum, per MIL-STD-202, Method 112, Condition C
Salt Spray	Per MIL-STD-202, Method 101, Condition B, 5% solution
Average Weight	4.8 grams (without bracket) to 5.9 grams (with bracket)
Ambient Temperature Range	-80°F to +550°F (-62.2°C to 287.8°C) *Maximum ambient exposure while in the closed position is 200°F above contact closing temperature.*

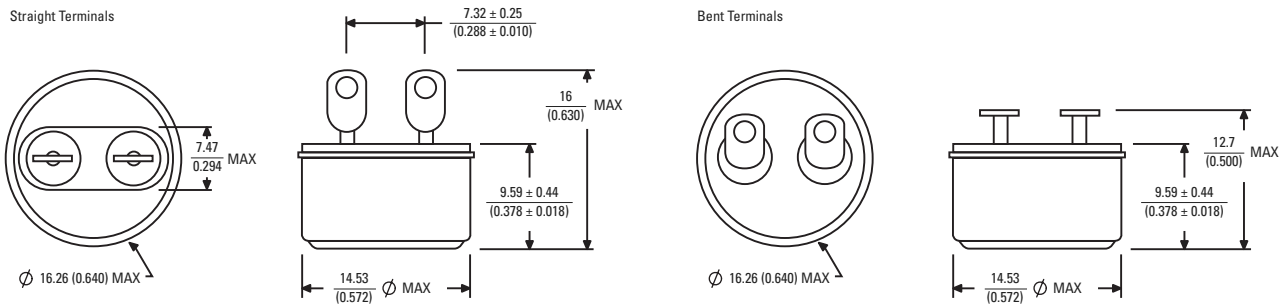
STANDARD TEMPERATURE SETTINGS

OPERATING TEMPERATURE		DIFFERENTIAL		TOLERANCE	
°F	°C	°F	°C	± °F	± °C
- 65	- 53.9	30	16.7	10	5.6
- 40	- 40	30	16.7	10	5.6
- 15	-26.1	30	16.7	10	5.6
0	- 17.8	20	11.1	5	2.8
10	- 12.2	20	11.1	5	2.8
20	- 6.7	20	11.1	5	2.8
30	- 1.1	20	11.1	5	2.8
40	4.4	20	11.1	5	2.8
50	10.0	20	11.1	5	2.8
60	15.6	20	11.1	5	2.8
70	21.1	20	11.1	5	2.8
80	26.7	20	11.1	5	2.8
90	32.2	20	11.1	5	2.8
100	37.8	20	11.1	5	2.8
110	43.3	20	11.1	5	2.8
120	48.9	20	11.1	5	2.8
130	54.4	20	11.1	5	2.8
140	60.0	20	11.1	5	2.8
150	65.6	20	11.1	5	2.8
160	71.1	20	11.1	5	2.8
170	76.7	20	11.1	5	2.8
180	82.2	20	11.1	5	2.8
190	87.8	20	11.1	5	2.8
200	93.3	20	11.1	5	2.8

OPERATING TEMPERATURE		DIFFERENTIAL		TOLERANCE	
°F	°C	°F	°C	± °F	± °C
210	98.9	30	16.7	8	4.4
220	104.4	30	16.7	8	4.4
230	110.0	30	16.7	8	4.4
240	115.6	30	16.7	8	4.4
250	121.1	30	16.7	8	4.4
260	126.7	30	16.7	8	4.4
270	132.2	30	16.7	8	4.4
280	137.8	30	16.7	8	4.4
290	143.3	30	16.7	8	4.4
300	148.9	30	16.7	8	4.4
310	154.4	40	22.2	12	6.7
320	160.0	40	22.2	12	6.7
330	165.6	40	22.2	12	6.7
340	171.1	40	22.2	12	6.7
350	176.7	40	22.2	12	6.7
375	190.6	40	22.2	12	6.7
400	204.4	40	22.2	12	6.7
425	218.3	40	22.2	12	6.7
450	232.2	40	22.2	12	6.7
475	246.1	70	38.9	25	13.9
500	260	70	38.9	25	13.9
525	273.9	70	38.9	25	13.9
550	287.8	70	38.9	25	13.9
Consult factory for additional temperatures					

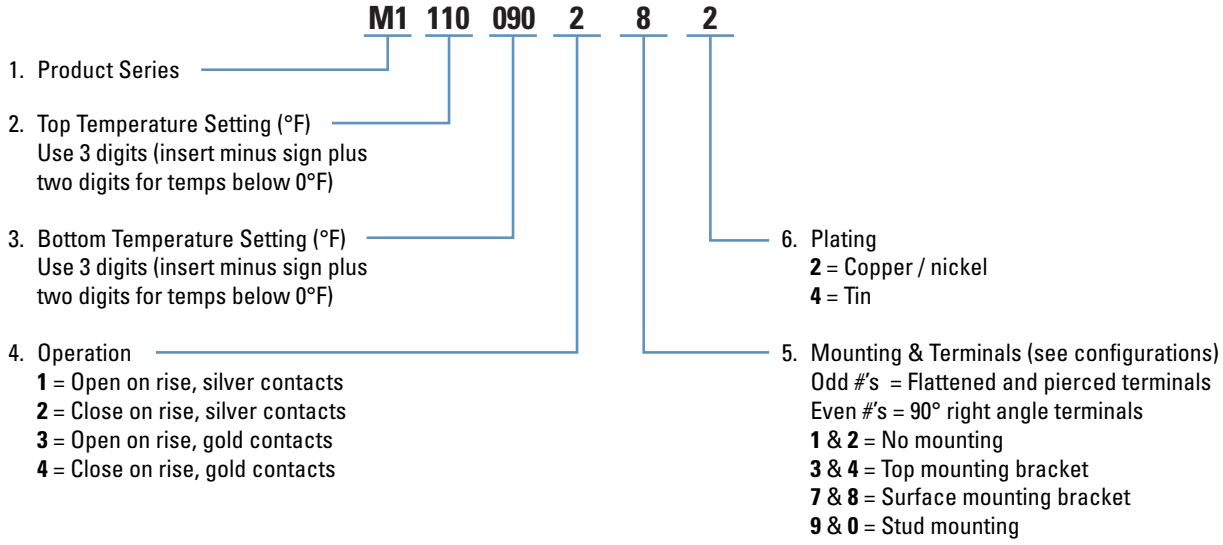
STANDARD CONFIGURATIONS MM / (INCHES)

No Bracket | SPST (Single Pole, Single Throw)



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

STANDARD PART NUMBER BUILDER



The example above describes a M1 series thermostat which closes on temperature rise at 110°F,opens at 90°F, has silver contacts, a surface mounting bracket, 90˚ bent terminals, and is plated with copper/nickel

Standard configurations are available as the M1 series and are described above. Many other configurations are available as the 11041 series. The M1/11041 can also be custom packaged to meet your specific design requirements.

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