

KLIXON® | M2 Series

Narrow Differential Thermostats, 0°F to 300°F, SPST

FEATURES

- Low profile, narrow differential
- Hermetically sealed, vacuum baked and back-filled with nitrogen
- Single Pole / Single Throw (SPST)
- High resistance to shock and vibration
- Preset temperature set points, non-adjustable calibration
- Qualified to MIL-PRF-24236/20, S-311-641
- On NASA S-311-664 QPL

INTRODUCTION

The Klixon® M2 series of thermostats are engineered for exceptional vibration and shock resistance to provide reliable switching in a low-profile, narrow differential package for 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 M2 thermostat is the ideal choice where quality and reliability are paramount. Applications include: airplane wing de-icing systems, satellite heaters, aircraft controls, warning devices, and electronic device overheat protection.

SPECIFICATIONS

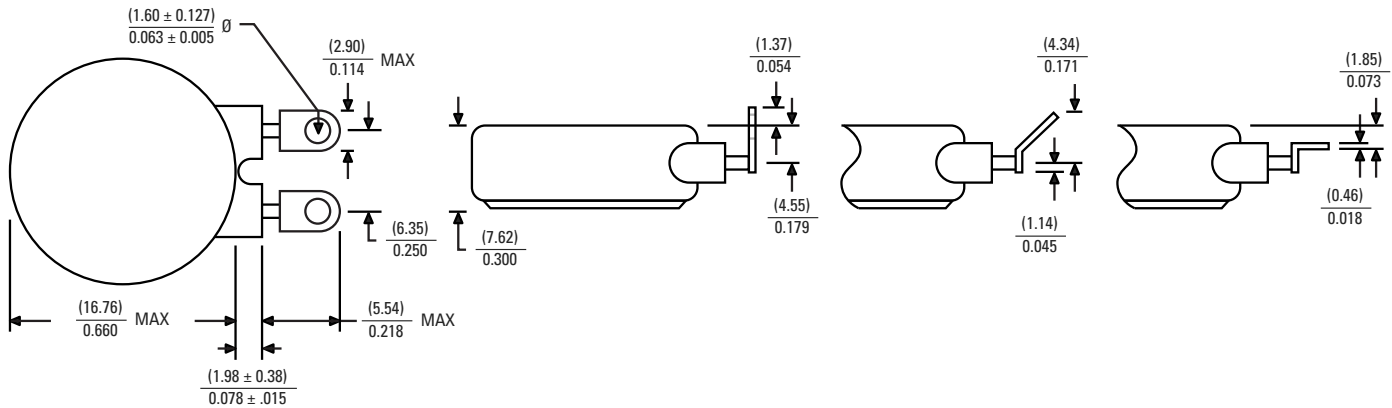
Contact Ratings (Resistive)	<i>Cycles</i> 250,000	<i>30VDC / 30VAC</i> 2.0 amps	<i>120VAC</i> 2.0 amps
Operating Temperature	0°F to 300°F (-17.8°C to 148.9°C)		
Dielectric Strength	1250 VAC, rms, 60 cycles for 1 minute, terminal to case per MIL-STD-202, Method 301		
Contact Resistance	0.050 ohms maximum per MIL-STD-202, Method 307		
Vibration	10-2000 Hz, 10G, per MIL-STD-202, Method 204, Condition D (monitored)		
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	5.4 grams (average)		
Ambient Temperature Range	-65°F to +400°F (-53.9°C to 204.4°C) <i>Maximum ambient exposure for close on rise devices is 100°F above contact operating temperature, for open on rise devices it is 100°F below contact operating temperature.</i>		

STANDARD TEMPERATURE SETTINGS

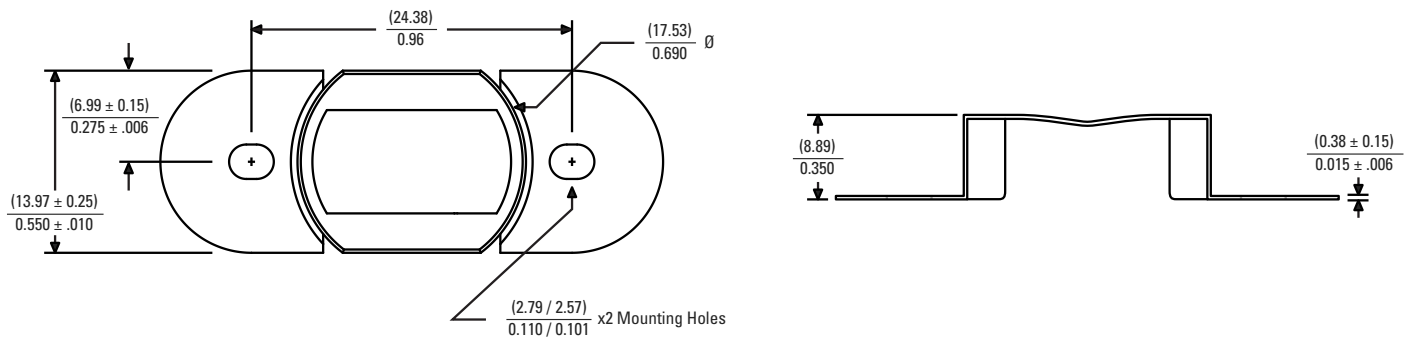
CLOSING TEMPERATURE RANGE	OPENING TEMPERATURE DIFFERENTIAL	TOLERANCE	
		Standard	Special
0°F to 250°F (-17°C to 121°C)	2°F to 5°F (1.1°C to 2.8°C)	± 4°F (± 2.2°C)	± 3°F (± 1.7°C)
251°F to 300°F (122°C to 149°C)	3°F to 7°F (1.7°C to 3.9°C)	± 5°F (± 2.8°C)	± 4°F (± 2.2°C)

The standard operating temperatures, differential and tolerances are shown in this table, but can be customized to meet your specific requirements.

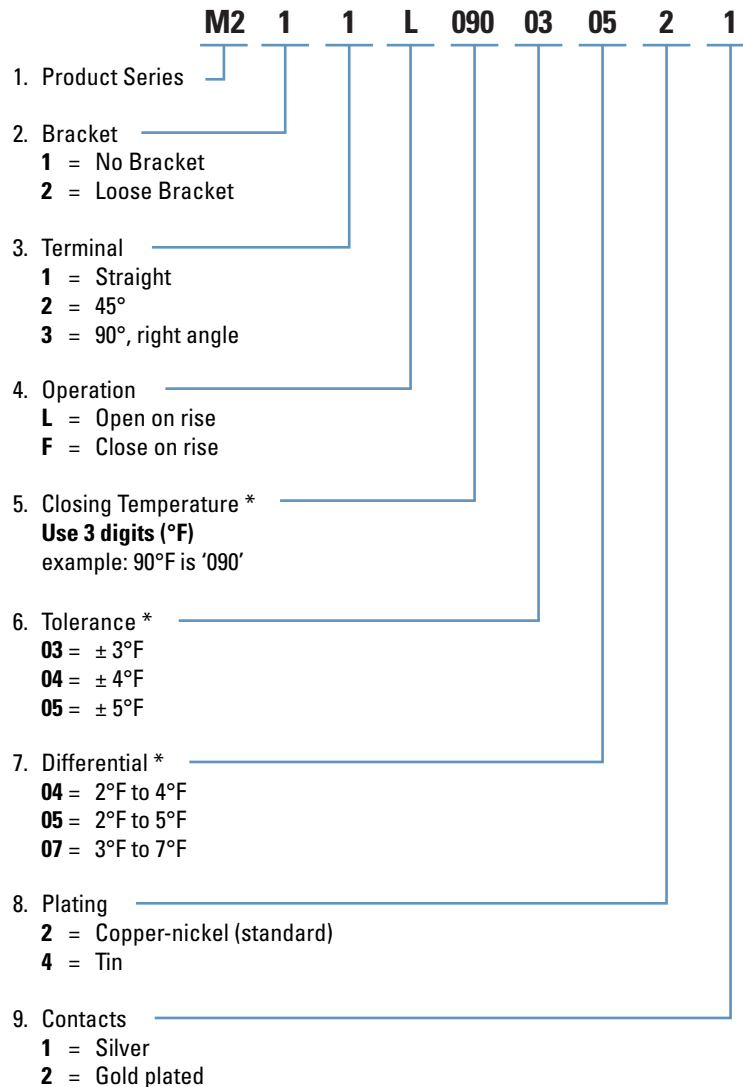
STANDARD CONFIGURATIONS



Mounting Bracket



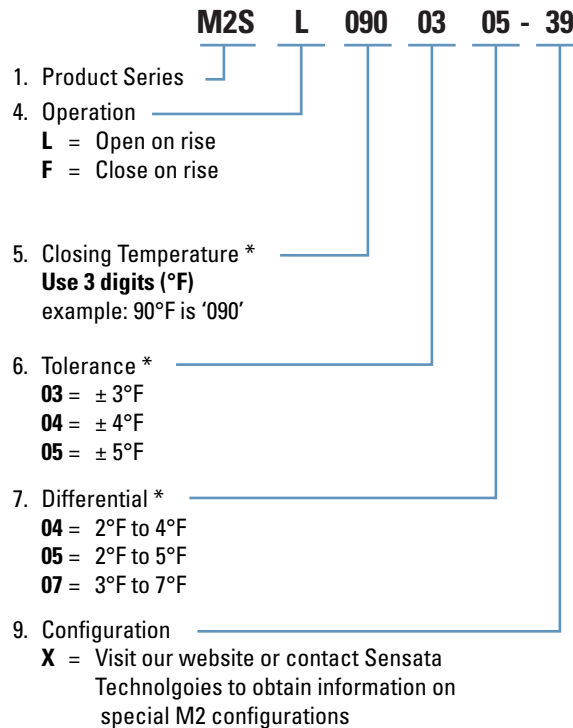
STANDARD M2 PART NUMBER BUILDER



* See temperature table for standard tolerances / differentials

Example is a M2 series, no bracket, straight terminals, open on rise at 90°F ± 3°F with 2°F to 5°F differential, copper-nickel plating, silver contacts

SPECIAL M2 PART NUMBER BUILDER



Contact Us



Distributeur Officiel

59 Rue Emile Deschanel,
92400 Courbevoie, France
Industrie@jbcontrols.com
Tel : + 33 (0)1 46 91 93 30
www.jbc-aero.com
www.jbcontrols.com