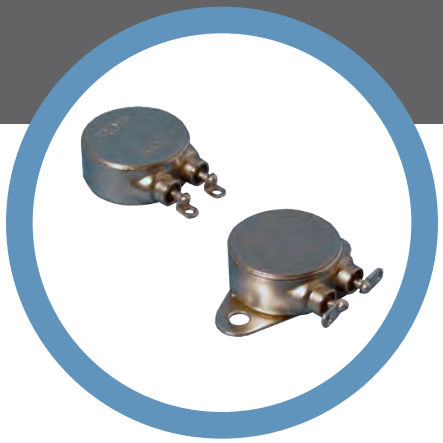


KLIXON® | M2 Series

Narrow Differential Thermostats,-18°C to 149°C, SPST

Please note manufacturer's specification change. The maximum available temperature setting is now **240ºF**. When specifying a part number (M2YYF**XXX**TTDDZZ), the three digits following the F (for Close on temperature rise devices) or L (for Open on temperature rise devices) cannot exceed 240.

For parts specified by the milspec part number (M24236/20-A **X**B C L), the second letter cannot be L*, M or N.

*The only exception to this is a second letter L followed by the third letter A, F or L. This letter pairing defines a device at the very top end of the specification (240ºF closing temperature).

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 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 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

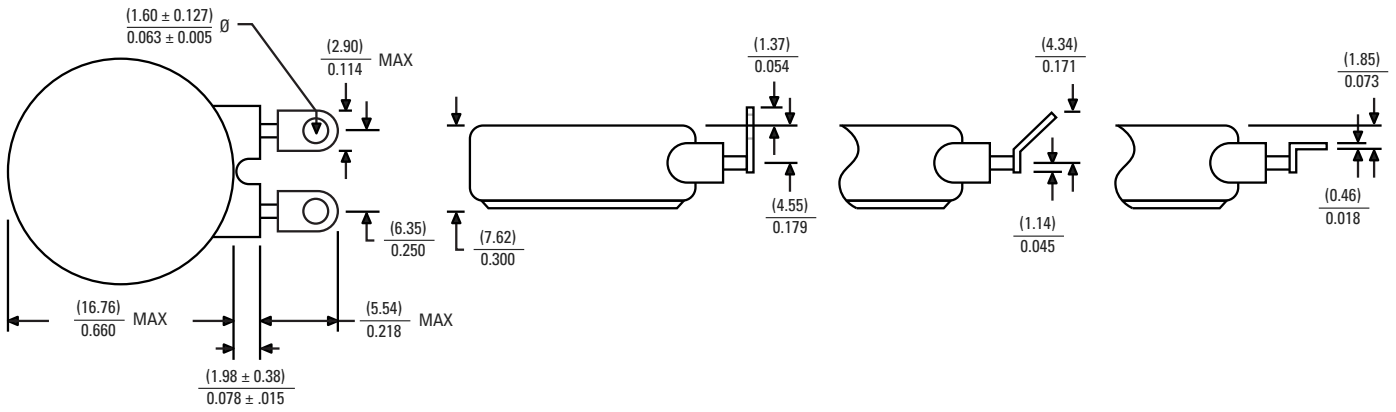
Contact Ratings (Resistive)	*Cycles* 250,000 — *30VDC / 30VAC* 2.0 amps — *120VAC* 2.0 amps
Operating Temperature	-18°C to 149°C (0°F to 300°F)
Dielectric Strength	1250 VAC, rms, 60 cycles for 1 minute, terminal to case per MIL-STD-202, Method 301
Contact Resistance	0.050 ohms maximum per MIL-STD-202, 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	-54°C to 204°C (-65°F to +400°F) *Maximum ambient exposure for close on rise devices is 38°C above contact operating temperature, for open on rise devices it is 38°C below contact operating temperature.*

STANDARD TEMPERATURE SETTINGS

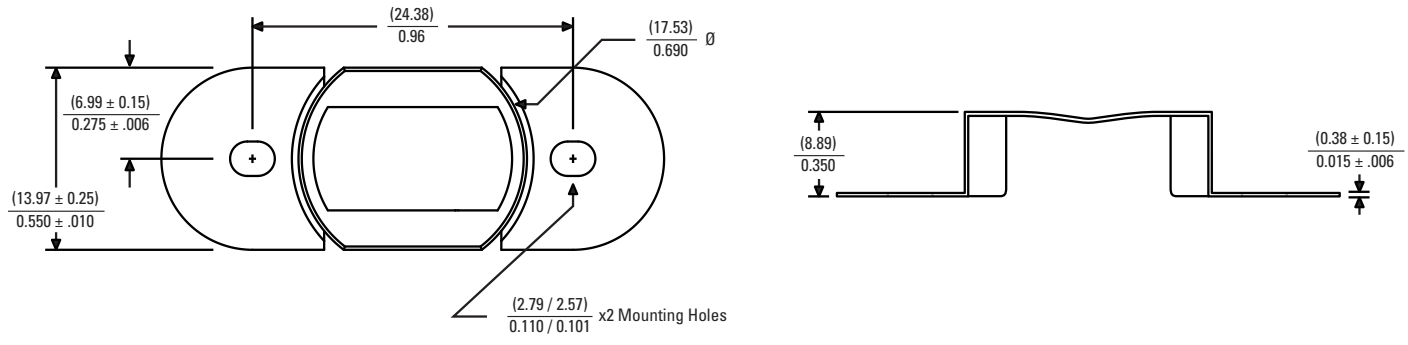
CLOSING TEMPERATURE RANGE	OPENING TEMPERATURE DIFFERENTIAL	TOLERANCE	
		Standard	Special
17°C to 121°C (0°F to 250°F)	1°C to 3°C (2°F to 5°F)	± 2°C (± 4°F)	± 1.7°C (± 3°F)
122°C to 149°C (251°F to 300°F)	2°C to 4°C (3°F to 7°F)	± 3°C (± 5°F)	± 2°C (± 4°F)

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

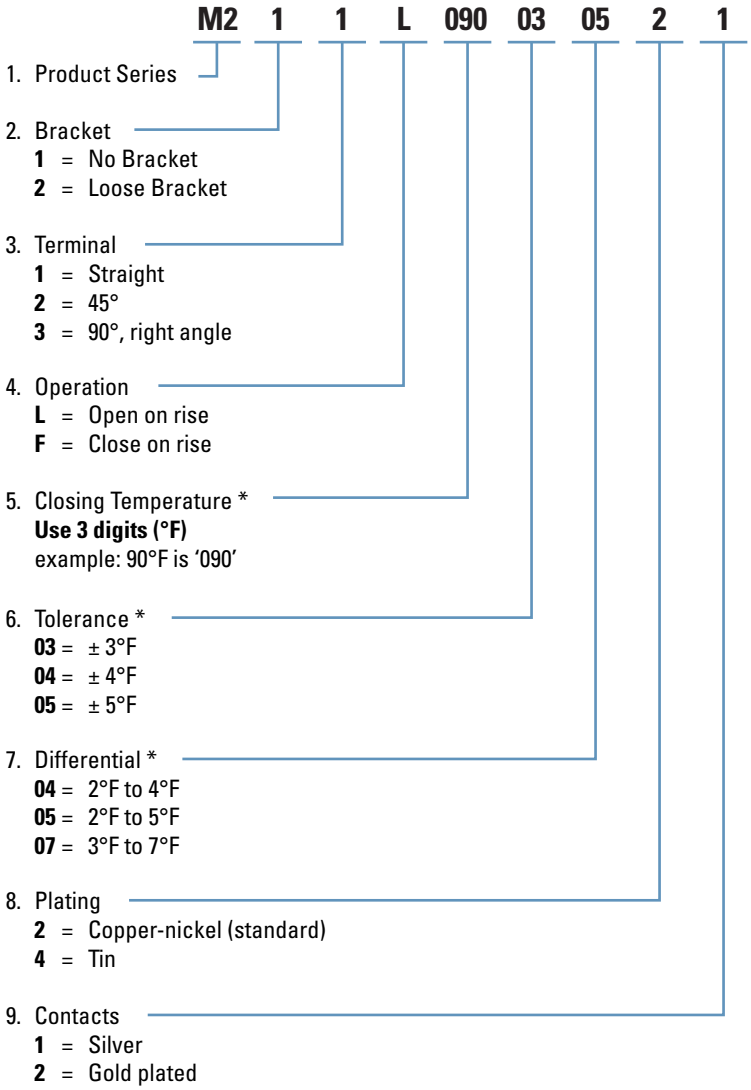
STANDARD CONFIGURATIONS



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