

# Temperature

## Local Mount Temperature Switches

**ML1H, L2H**

### Features

- ▶ Reliable & accurate
- ▶ Local sensing
- ▶ NEMA 4 & IP 65
- ▶ UL, CSA & CE approved
- ▶ Single or dual switching

### Applications

- ▶ Oil & gas
- ▶ Mining
- ▶ Tanks and reservoirs
- ▶ Compressors
- ▶ Plastic machinery
- ▶ Factory automation
- ▶ Process equipment
- ▶ Machine tools and industrial equipment



### General Specifications\*

<b>Accuracy:</b>	±1% of mid-60% of full range. At constant ambient ±0.5% of full scale.
<b>Switch:</b>	Single: 1 SPDT Dual switching: 2 independent SPDT circuits
<b>Electrical Characteristics:</b>	All models incorporate Underwriters' Laboratories, Inc. and CSA listed single pole double throw snap-action switching elements. Switches may be wired normally open or normally closed.
<b>Wetted Parts:</b>	Brass or 304 stainless steel
<b>Electrical Connection:</b>	Single: 3-pin terminal strip Dual: 6-pin terminal strip
<b>Electrical Ratings:</b>	AC value at 75% power factor —10 amps 125, 250 volts AC, 3 amps 480 volts AC. Automatically reset by snap-action of switch.
<b>Enclosure/Housing:</b>	Water-tight and dust-tight indoor and outdoor (NEMA 4) / oil-tight and dust-tight indoor (NEMA 13).
<b>Local Mount:</b>	Immersion length 2-1/16 inches

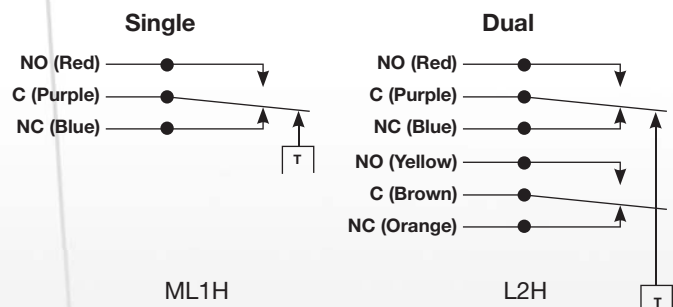
\* See Product Configurator for additional options.

<b>Approvals/Listings:</b>	Underwriters' Laboratories, Inc. and Canadian Standard Assoc. are listed under temperature indicating and regulating equipment.
UL:	File No. E56247, Guide No. XAPX
CSA:	File No. LR34555, Guide 400-E-O Class 4813
<b>Temperature Range:</b>	See product configurator.
<b>Adjustment:</b>	Tamper resistant external adjustment. Turn knob clockwise to increase setpoint.
<b>Weight:</b>	Single: approximate 1.5 lbs. Dual: approximate 3.0 lbs.

### Wiring Code

Lead	Circuit #1	Circuit #2
Normally Closed	Blue	Orange
Common	Purple	Brown
Normally Open	Red	Yellow

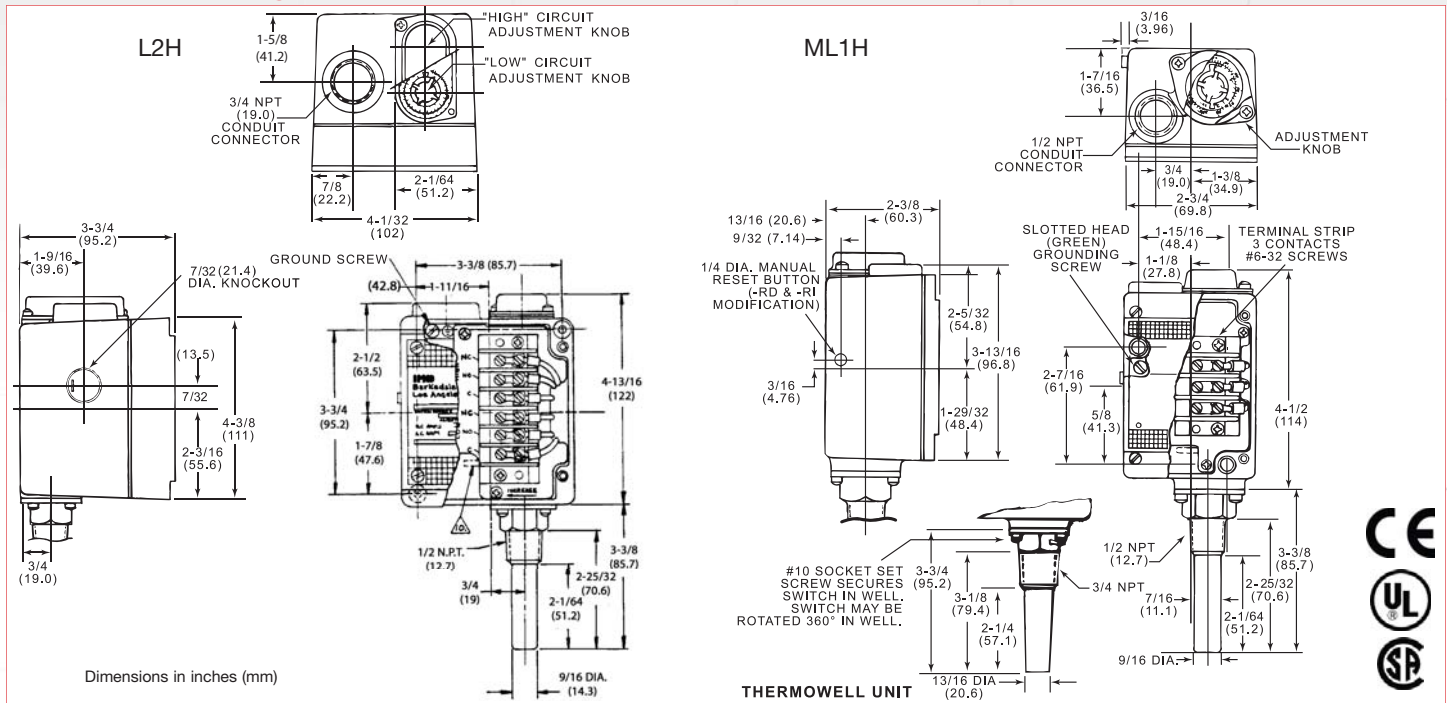
### Wiring Diagram



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## Technical Drawing



## Product Configurator

Example H M L1 H -HH 202 S -WS -FX

**H** Hermetically sealed limit switch option - Class I, Division II (requires AA, CC, GH or HH limit switch)

**Blank** Standard

**M** Single switch models

**Blank** Dual switch models

**L1** Single set point (SPDT)

**L2** Dual set point (2 SPDT)

**H** NEMA 4 & IP65 enclosure

**Limit Switch <sup>2</sup>**

-H	10 amps @ 125/250 VAC; 3 amp @ 480 VAC (standard)
-B	10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC
-G <sup>1</sup>	10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.4 amps @ 125 VDC; MANUAL RESET
-J	10 amps @ 125/250 VAC; 3 amps @ 480 VAC (with elastomer boot)
-L	15 amps @ 125/250/480 VAC; 0.03 amps @ 125 VDC; 0.02 amps @ 250 VDC
-M	10 amps @ 125/250 VAC; 3 amp @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC
-S	15 amps @ 125/250/480 VAC; 0.05 amps @ 125 VDC; Adjustable differential <sup>3</sup>
-GH	1 amp @ 125VAC; Gold Contacts
-AA	Hermetically sealed; 4 amps @ 125/250 VAC
-CC	Hermetically sealed; 10 amps @ 125/250 VAC
-HH	Hermetically sealed; 5 amps @ 125/250 VAC
-GH	Hermetically sealed; 1 amp @ 125 VAC; gold contacts

**Options**

- RD Manual reset (use with "G" limit switch) <sup>1,4</sup>
- FX NEMA 4X enclosure
- SXXX Factory preset

**Thermowell**

- W Brass local mount thermowell
- WS 316 stainless steel local mount thermowell

**Wetted Material**

- Blank** Blank if brass
- S** 304 stainless steel sensor

Range	Adjustable Range		Media Temperature Limit (Proof)				Differential (Approx.) <sup>2</sup>		
	Low	High	Low	High	Low	High	°F	°C	
201	-50°F	+75°F	-45°C	+24°C	-100°F	+250°F	-73°C	+121°C	1° to 3° .5° to 1.6°
202	+15°F	+140°F	-9°C	+60°C	-100°F	+250°F	-73°C	+121°C	1° to 3° .5° to 1.6°
203	+75°F	+200°F	+24°C	+93°C	-100°F	+250°F	-73°C	+121°C	1° to 3° .5° to 1.6°
351	+100°F	+225°F	+38°C	+107°C	-100°F	+400°F	-73°C	+205°C	1° to 3° .5° to 1.6°
204	-50°F	+200°F	-45°C	+93°C	-100°F	+250°F	-73°C	+121°C	1° to 3° .5° to 1.6°
354	+100°F	+350°F	+38°C	+177°C	-100°F	+400°F	-73°C	+205°C	1° to 3° .5° to 1.6°
454	+150°F	+450°F	+66°C	+232°C	0°F	+500°F	-18°C	+260°C	3° to 6° 1.6° to 3.3°

NOTES:

<sup>1</sup> Use G limit switch for single set point models that need this option. When selecting the manual reset option on dual setting switches (L2H), the manual reset limit switch will be on the high circuit. The low circuit limit switch must be specified by the customer.

<sup>2</sup> Changing limit switch will effect dead band; See sales drawing.

<sup>3</sup> When selecting the 'S' adjustable differential limit switch option on a dual setting switch (L2H), a standard 'H' switch will be paired with an 'S' switch. Dual 'S' pricing will apply.

<sup>4</sup> Not available with hermetically sealed limit switches