

# Remote Mount Temperature Switches

## Series MT1H, T2H

### Features

- ▶ Reliable & accurate
- ▶ Ambient temperature compensated
- ▶ NEMA 4, 13
- ▶ UL, CSA & CE approved
- ▶ Single or dual switching

### Applications

- ▶ Marine & shipbuilding
- ▶ Railroad
- ▶ Oil & gas
- ▶ Medical
- ▶ Compressors
- ▶ Water equipment
- ▶ Process equipment
- ▶ Machine tools and industrial equipment



### General Specifications\*

|                             |                                                                                                                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy: (Repeatability)   | ±1% of mid-60% of full range. At constant ambient ±0.5% of full scale. (Knob indication is reference only)                                                                              |
| Switch:                     | One (1) SPDT or two (2) independent SPDT circuits                                                                                                                                       |
| Electrical Characteristics: | 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. |
| Wetted Parts:               | Copper or 304 stainless steel                                                                                                                                                           |
| Electrical Connection:      | Single: 3-Pin terminal strip<br>Dual: 6-Pin terminal strip                                                                                                                              |
| Electrical Ratings:         | AC value at 50% power factor — 10 amps @ 125, 250 volts AC, 3 amps @ 480 volts AC. Automatically reset by snap-action of switch.                                                        |
| Enclosure/Housing:          | Watertight and dust-tight indoor and outdoor (NEMA 4)/oil-tight and dust-tight indoor (NEMA 13).                                                                                        |

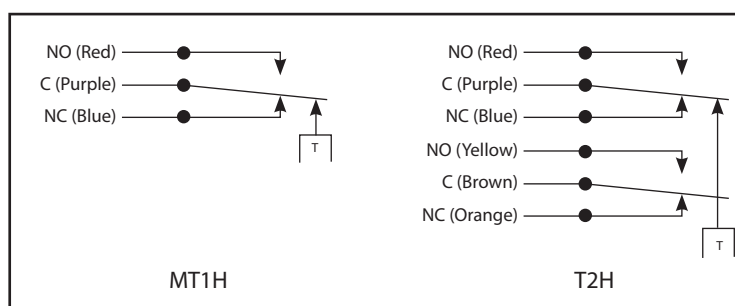
|                    |                                                                                                                                 |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Bulb & Capillary:  | 6 and 12 foot length standard. See operating characteristics and product configurator.                                          |
| Approvals:         | 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                                                                                      |
| Temperature Range: | See product configurator                                                                                                        |
| Adjustment:        | Tamper resistant external adjustment. Turn knob clockwise to increase setpoint. (Knob indication is reference only)             |
| Weight:            | Single: approximate 1.5 lbs.<br>Dual: approximate 3.0 lbs.                                                                      |

\* See Product Configurator for additional options.

### Wiring Code

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

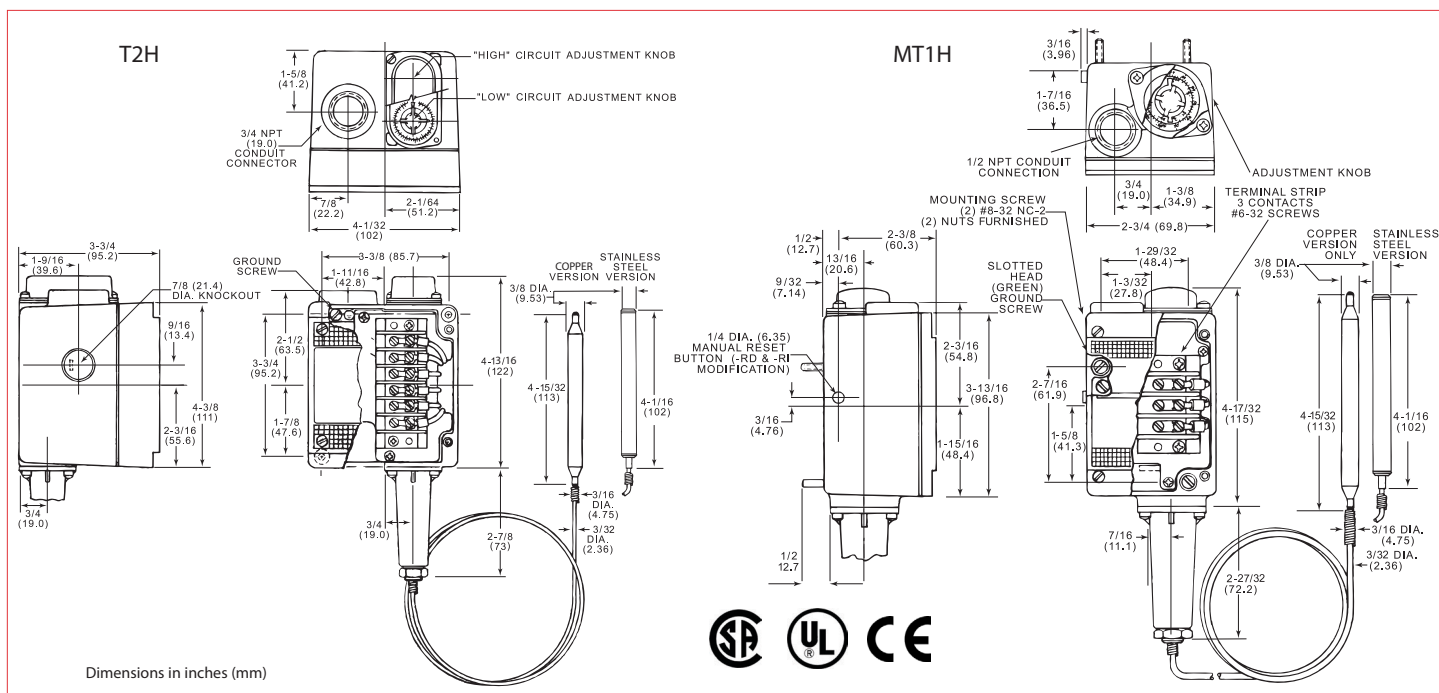
### Wiring Diagram



## Remote Mount Temperature Switches

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## Technical Drawing



## Product Configurator

\* Highlighted options represent those most frequently used.  
Select these common options for improved availability. (5/21)

| Example                                                                                              | H | M | T1 | H | -HH | 154 | S | -12 | -A | -FX |
|------------------------------------------------------------------------------------------------------|---|---|----|---|-----|-----|---|-----|----|-----|
| <b>Limit Switch <sup>1</sup></b>                                                                     |   |   |    |   |     |     |   |     |    |     |
| <b>-H</b> 10 amps @ 125/250 VAC; 3 amp @ 480 VAC (standard)                                          |   |   |    |   |     |     |   |     |    |     |
| <b>-G <sup>2</sup></b> 10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.4 amps @ 125 VDC; MANUAL RESET |   |   |    |   |     |     |   |     |    |     |
| <b>-L</b> 15 amps @ 125/250/480 VAC; 0.03 amps @ 125 VDC; 0.02 amps @ 250 VDC                        |   |   |    |   |     |     |   |     |    |     |
| <b>-M</b> 10 amps @ 125/250 VAC; 3 amp @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC            |   |   |    |   |     |     |   |     |    |     |
| <b>-S</b> 15 amps @ 125/250/480 VAC; 0.05 amps @ 125 VDC; Adjustable differential                    |   |   |    |   |     |     |   |     |    |     |
| <b>-GH</b> 1 amp @ 125VAC; gold contacts                                                             |   |   |    |   |     |     |   |     |    |     |
| <b>-CC</b> Hermetically sealed; 10 amps @ 125/250 VAC                                                |   |   |    |   |     |     |   |     |    |     |
| <b>-HH</b> Hermetically sealed; 5 amps @ 125/250 VAC                                                 |   |   |    |   |     |     |   |     |    |     |
| <b>Options</b>                                                                                       |   |   |    |   |     |     |   |     |    |     |
| <b>-RD <sup>2</sup></b> Manual reset                                                                 |   |   |    |   |     |     |   |     |    |     |
| <b>-FX <sup>3</sup></b> NEMA 4X enclosure (consult factory)                                          |   |   |    |   |     |     |   |     |    |     |
| <b>-SXXX<sup>5</sup></b> Factory pre-set (consult factory)                                           |   |   |    |   |     |     |   |     |    |     |
| <b>Armor Options</b>                                                                                 |   |   |    |   |     |     |   |     |    |     |
| <b>Blank</b> Blank if not required                                                                   |   |   |    |   |     |     |   |     |    |     |
| <b>-A</b> 302 stainless steel armor                                                                  |   |   |    |   |     |     |   |     |    |     |
| <b>Capillary Length</b>                                                                              |   |   |    |   |     |     |   |     |    |     |
| <b>Blank</b> 6 foot capillary                                                                        |   |   |    |   |     |     |   |     |    |     |
| <b>-12</b> 12 foot capillary                                                                         |   |   |    |   |     |     |   |     |    |     |
| <b>-25<sup>4</sup></b> 25 foot stainless steel capillary                                             |   |   |    |   |     |     |   |     |    |     |
| <b>Wetted Material</b>                                                                               |   |   |    |   |     |     |   |     |    |     |
| <b>Blank</b> Copper sensor                                                                           |   |   |    |   |     |     |   |     |    |     |
| <b>S</b> 304 stainless steel                                                                         |   |   |    |   |     |     |   |     |    |     |

## Enclosure

**H** NEMA 4 enclosure

## NOTES:

<sup>1</sup> Changing limit switch will effect dead band; See sales drawing.

<sup>2</sup> Use G limit switch for single setpoint models that need this option. When selecting the manual reset option on dual setting switches (T2H), the manual reset limit switch will be on the high circuit. The low circuit limit switch must be specified by the customer.

<sup>3</sup> Add 'S' wetted material. FX models require stainless steel capillaries. Consult factory; minimum quantities required.

<sup>4</sup> Add 'S' wetted material adder and 'A' armor adder to this. Capillary length '25' requires stainless steel capillary and armor.

<sup>5</sup> Factory preset is available for all ranges, limited to 400°F setpoint(s).

## Temperature Range

| Range | Adjustable Range |      |      |      | Media Temperature Limit (Proof) |      |     |      | Differential <sup>1</sup> (Approx.) Liquid |            | Calibrated Dial Adjustment          |
|-------|------------------|------|------|------|---------------------------------|------|-----|------|--------------------------------------------|------------|-------------------------------------|
|       | °F               |      | °C   |      | °F                              |      | °C  |      | °F                                         | °C         |                                     |
|       | Low              | High | Low  | High | Low                             | High | Low | High |                                            |            |                                     |
| 154   | -50              | +150 | -45  | +66  | -100                            | +200 | -73 | +93  | 1 to 2                                     | .5 to 1.1  | Calibrated 5° Subdivision 200° Span |
| 251   | +50              | +250 | +10  | +121 | -100                            | +300 | -73 | +149 | 1 to 2                                     | .5 to 1.1  |                                     |
| 351   | +150             | +350 | +66  | +177 | -100                            | +400 | -73 | +205 | 1 to 2                                     | .5 to 1.1  |                                     |
| 601   | +300             | +400 | +149 | +227 | 0                               | +650 | -18 | +343 | 2 to 4                                     | 1.1 to 2.2 | 5° Subdivision 140° Span            |
| 603   | +320             | +600 | +160 | +316 | 0                               | +650 | -18 | +343 | 2 to 4                                     | 1.1 to 2.2 | 10° Subdivision 280° Span           |