MT1H, T2H Temperature Switch

Remote Bulb and Capillary Temperature Switch

Series MT1H, T2H

- Reliable & Accurate
- Ambient Compensated
- Nema 4 & IP 65
- UL, CSA & CE Approved

T2H

MT1H

Barksdale's MT1H & T2H Series Temperature Switches provide unmatched performance, quality & reliability in a mechanical thermostat. The single set point MT1H and dual set point T2H, can switch, measure & control temperatures from -50° to 600°F (-45° to 316°C), The optional adjustable differential provides precise control while ambient compensation maintains ½% accuracy with external temperatures from -65° to 165°F. The MT1H & T2H Series are electrically rated for 10 amps @ 125/250 VAC & 3 amps @ 480 VAC. Standard 3- & 6-pin terminal strips simplify installation. The MT1H & T2H Series are rated NEMA 4 & 13; the optional NEMA 4X construction protects the rugged die-cast aluminum enclosure from corrosive environments. A remote bulb and capillary sensor is available in copper or stainless steel allowing the switch to be mounted up to 25 feet from the temperature source. Optional thermowells allow the sensor to work in pressurized vessels to 5000 psi. UL listed & CSA approved, MT1H & T2H Series Temperature Switches are perfect for your temperature sensing needs

MT1H, T2H Temperature Switch

When Temperature Matters, Call Barksdale

For many years, Barksdale temperature switches have been switching, measuring and controlling critical processes throughout the world.

Protect Your Equipment with Barksdale

Barksdale temperature switches prevent damage to heavy industrial equipment by monitoring the temperature of engine fluids and protecting against thermal overloads. Hydraulic power units are protected by controlling the temperature of fluids in systems in reservoirs.

In cold climates, Barksdale temperature switches control heating devices that prevent pipes, valves and fittings from freezing preventing expensive loss and downtime. Barksdale thermostats also control the temperature in process piping to maintain the proper flow of media.

Barksdale temperature switches can be used in a variety of applications:

- Hydraulic Power Units
- Combustion Engines
- Tanks and Reservoirs
- Gearboxes
- Pumps
- Compressors
- Machine Tools and Industrial Equipment
- Farm & Construction Machinery
- Process Equipment

Need Something Special?

If you have special product requirements, we can help. Barksdale specializes in custom design solutions to meet your needs. We have design engineers and technical specialists who are experts in solving your unique temperature problems. Our technology and resources are at your disposal.

Need More Information?

We are only a phone call away.
Toll-Free: 1-800-835-1060.

MT1H, T2H Temperature Switch

General Description

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.

Electrical Ratings
AC value at 75% Power Factor —10 amps 125, 250 volts AC, 3 amps 480 volts AC. Automatically reset by snap-action of switch.

Performance Characteristics

Accuracy
+/- 1% of mid - 60% of full range. At constant ambient +/- 0.5% of full scale.

Switch
One (1) SPDT or Two (2) Independent SPDT Circuits

Adjustment
Tamper Resistant External Adjustment

Bulb & Capillary
6 and 12 foot length standard. See Operating Characteristics and Ordering Data Chart

Physical

Weight
Single: Approximate 1.5 lbs.,
Dual: Approximate 3.0 lbs.

Enclosure/Housing
Watertight and Dusttight Indoor and Outdoor (NEMA 4) Oiltight and Dusttight Indoor (NEMA 13).

Elect. Connection
Single: 3-Pin Terminal Strip
Dual: 6-Pin Terminal Strip

Wetted Materials
Copper or 304 Stainless Steel

Approvals/Listings
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

Environmental

Temperature Range
See Operating Characteristics and Ordering Data Chart

Wire Coding

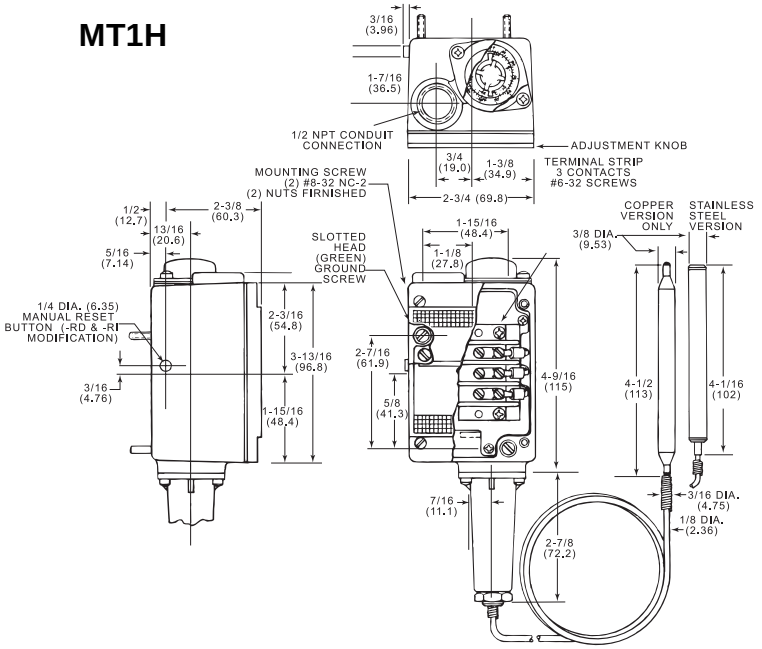
Circuit #1
Common: - Purple

Low Circuit
Normally Closed - Blue
Norrmally Open - Red

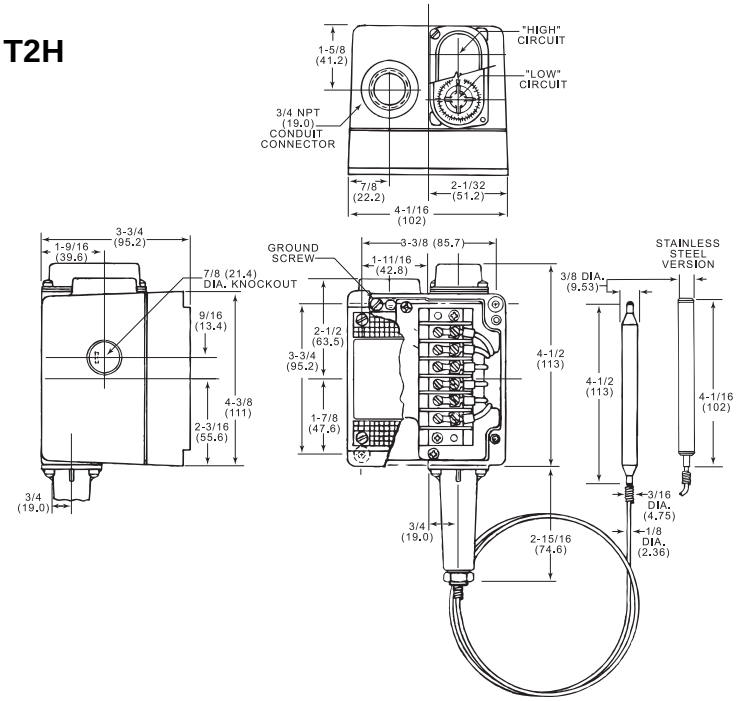
Circuit #2
Common - Brown

High Circuit
Normally Closed - Orange
Normally Open - Yellow

MT1H



T2H



MT1H, T2H Temperature Switch

Remote Bulb and Capillary Temperature Switch - Configurator

Series MT1H, T2H

Enclosure [H] Hermetically Sealed Limit Switch; Class I Div 2, Hazardous Location

[M] Single only
[ ] Blank if Dual

Sensor [T] Remote Bulb

Switch [1] Single SPDT
[2] Dual Switch 2 Independent SPDT

Enclosure [H] Nema 4 and IP 65

Limit Switch
- [-H] 10 Amps @ 125, 250 VAC, 3 Amps @ 480 VAC; Standard
- [-B] 10 Amps @ 125, 250, 480 VAC, 2 Amps @ 600 VAC
- [-GH] 1.0 Amps @ 125 VAC; Gold Contact
- [-G] 10 Amps @ 125, 250, 480 VAC, 2.0 Amps @ 600; VAC Manual Reset
- [-L] 22 Amps @ 125, 250, 480 VAC
- [-M] 10 Amps @ 125, 250, VAC; 3 Amps @ 480 VAC; 0.5 Amps @ 125 VDC; .025 Amps @ 250 VDC
- [-S] 10 Amps @ 125, 250, 480 VAC; Adjustable Differential
- [-AA] 4 Amps @ 125, 250 VAC; Hermetically Sealed
- [-HH] 5 Amps @ 125, 250 VAC; Hermetically Sealed
- [-CC] 10 Amps @ 125, 250 VAC; Hermetically Sealed
- [-GH] 1 Amps @ 125 VAC; Gold Hermetically Sealed

Range [XXX] See Chart - Select Range Number

Wetted Material
- [ ] Blank = 6 foot Copper Sensor
- [S] 6 foot 304 Stainless Steel Sensor

[-12] 12 foot Copper
[-12] 12 foot Stainless Steel
[-25] 25 foot Stainless Steel with Armor

Options
- [ ] Blank if not required
- [-A] 302 Stainless Steel Armor (Standard)

Thermowell [-RD] Manual Reset (Must use when selecting “G” Limit Switch options)

[FX] Nema 4X

M T 1 H -G 251 S -12 -A -RD -FX

Example: MT1H-G251S-12-A-RD-FX

NOTE: 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.

NOTE: Changing limit switch will effect dead band; See sales drawing

Operating Characteristics

Range	Adjustable Range				Media Temperature Limit (Proof)				Differential (Approx.) Liquid		
	°F		°C		°F		°C				
	Low	High	Low	High	Low	High	Low	High	°F	°C	Calibrated Dial Adjustment
154	-50	+150	-45	+66	-100	+200	-73	+93	1 to 2	.5 to 1.1	Calibrated
251	+50	+250	+10	+121	-100	+300	-73	+149	1 to 2	.5 to 1.1	5° Subdivision
351	+150	+350	+66	+350	-100	+400	-73	+209	1 to 2	.5 to 1.1	200° Span
601	+300	+440	+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

Barksdale
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