

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



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

Barksdale Exceeding Your Expectations Through Our People, Products and Performance
CONTROL PRODUCTS

CRANE Barksdale, Inc./Barksdale GmbH
A Subsidiary of Crane Co.

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

Low Circuit

Common: - Purple

Normally Closed - Blue

Normally Open - Red

Circuit #2

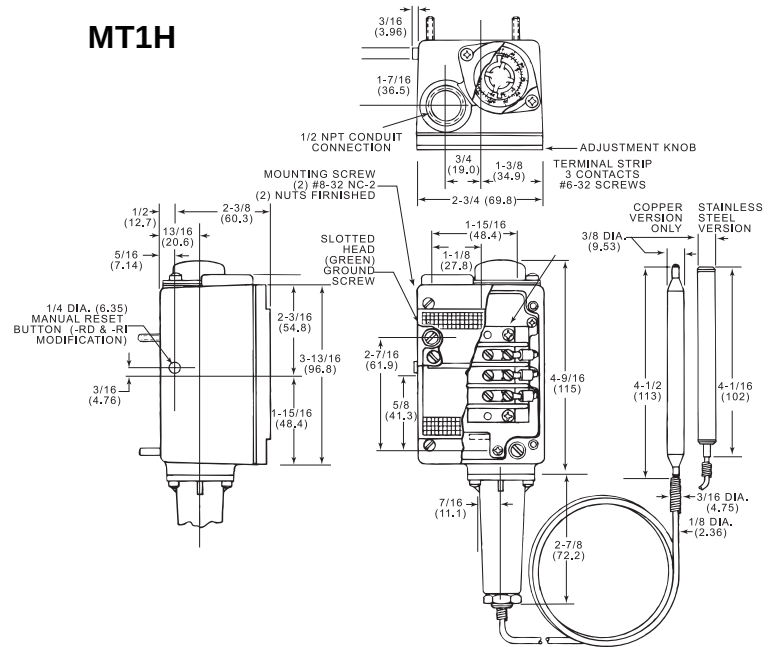
High Circuit

Common - Brown

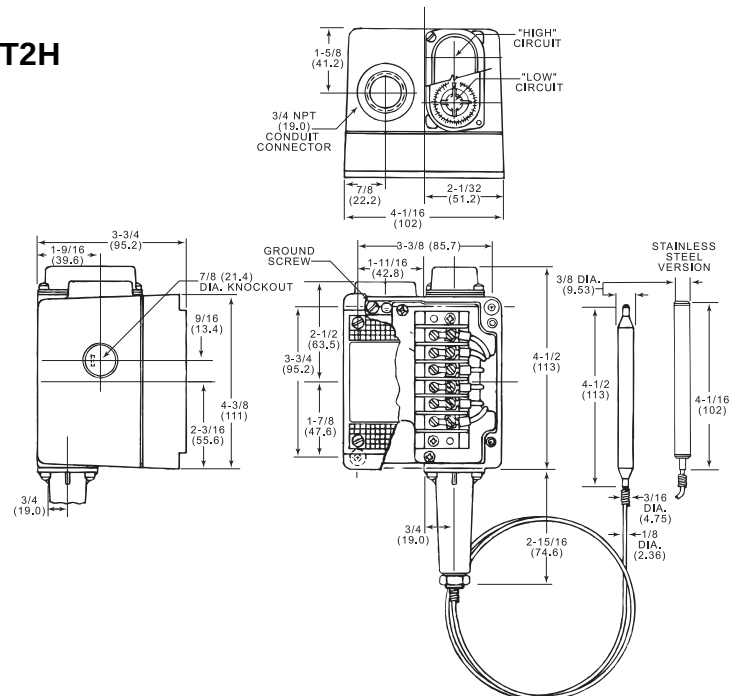
Normally Closed - Orange

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	S	6 foot 304 Stainless Steel Sensor
	-12	12 foot Copper
	-12	12 foot Stainless Steel
	-25	25 foot Stainless Steel with Armor
Options	-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		Calibrated Dial Adjustment
	°F		°C		°F		°C		°F	°C	
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
603	+320	+600	+160	+316	0	+650	-18	+343	2 to 4	1.1 to 2.2	140° Span
											280° Span

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CONTROL PRODUCTS

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