

# T1X, T2X, L1X Temperature Switches

**Explosion Proof Local Mount & Remote Bulb & Capillary Temperature Switches Series T1X, T2X, L1X**



- ✦ Explosion-Proof
- ✦ High Accuracy
- ✦ Remote, Local or Ambient Sensing
- ✦ UL, CSA & ATEX Approved

**B**arksdale's L1X, T1X & T2X Series Temperature Switches provide unmatched performance, quality & reliability in a mechanical thermostat - a safe solution for hazardous locations. The single set point L1X & T1X and dual set point T2X, can switch, measure & control temperatures from

50° to 600°F (-45° to 316°C), and meets Class 1, Div. 1 & 2 hazardous location requirements. The optional adjustable differential provides precise control. These switches can be mounted locally for control directly at the source or remotely up to 25 feet. The L1X, T1X & T2X Series are electrically rated for 10 amps @ 125/250 VAC & 3 amps @ 480 VAC. Standard 3 & 6 pin terminal strips simplify installation.

The L1X, T1X & T2X Series are rated NEMA 4, 7 & 9 and incorporate stainless steel temperature sensors to handle a wide range of media. Optional thermowells allow the sensor to work in pressurized vessels to 5000 psi. The L1X, T1X & T2X Series are UL listed & CSA approved & ATEX Certified for hazardous zones within the European Community.



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# T1X, T2X, L1X Temperature Switches

## When Temperature Matters, Call Barksdale

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

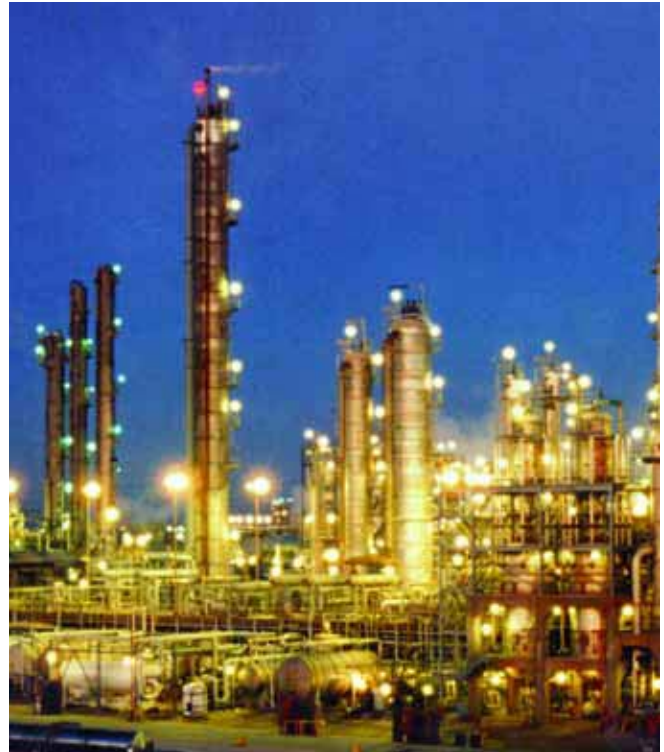
### Protect Your Equipment with Barksdale

Barksdale temperature switches prevent damage to heavy industrial equipment by monitoring the temperature of engine fluids and protecting against them a over bads. 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.

# T1X, T2X, L1X Temperature Switches

**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**

Single Setting: One (1) SPDT Circuit.  
Dual Setting: 2 Independent SPDT Circuits.

**Adjustment**

Tamper Resistant External Adjustment

**Local Mount**

Immersion Length 2-1/16 inches

**Bulb & Capillary**

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

**Physical**

**Weight**

Single - Approximate 3.0 lbs.  
Dual - Approximate 7.0 lbs.

**Enclosure/Housing**

Designed for Hazardous Locations: Class I, Division 1 & 2  
NEMA 4, 7, 9 Tamperproof External Adjustment, Enclosed Terminal Strip.

**Elect. Connection**

Single: 3-Pin Terminal Strip  
Dual: 6-Pin Terminal Strip

**Wetted Materials**

304 Stainless Steel

**Approvals/Listings**

Underwriters' Laboratories, Inc. and Canadian Standard Assoc. are listed under Temperature indicating and regulating equipment, for use in hazardous locations, Class I, groups B, C and D; Class II, groups E, F and G

**UL**

File No. E58658, Guide No. XBDV

**CSA**

File No. LR34556,  
Guide 400-E-0.8. Class 4868.

**Ex**

ATEX EEx d IIC, T6

**Environmental**

**Temperature Range**

See Operating Characteristics and Ordering Data Chart

**Wire Coding**

**Circuit #1**

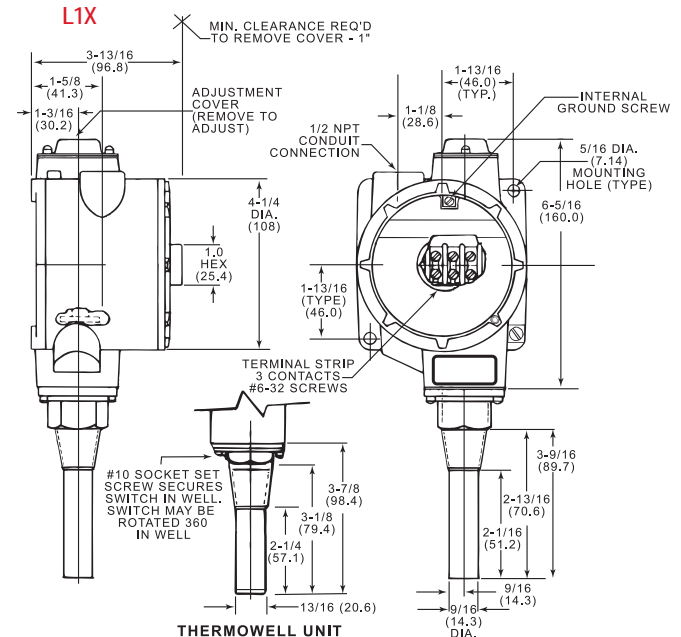
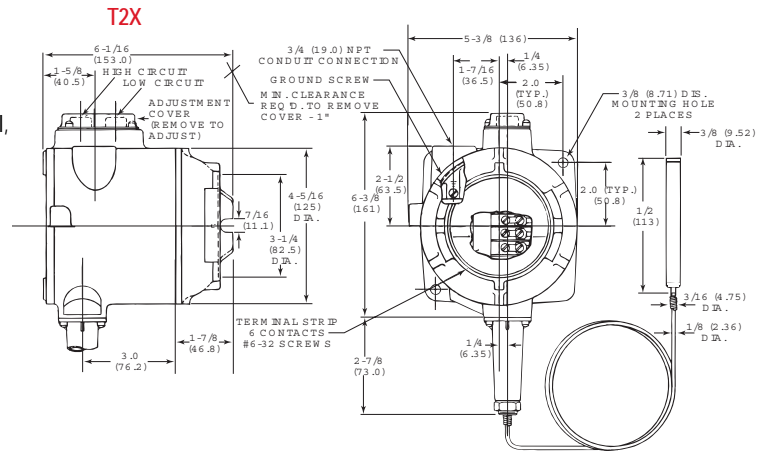
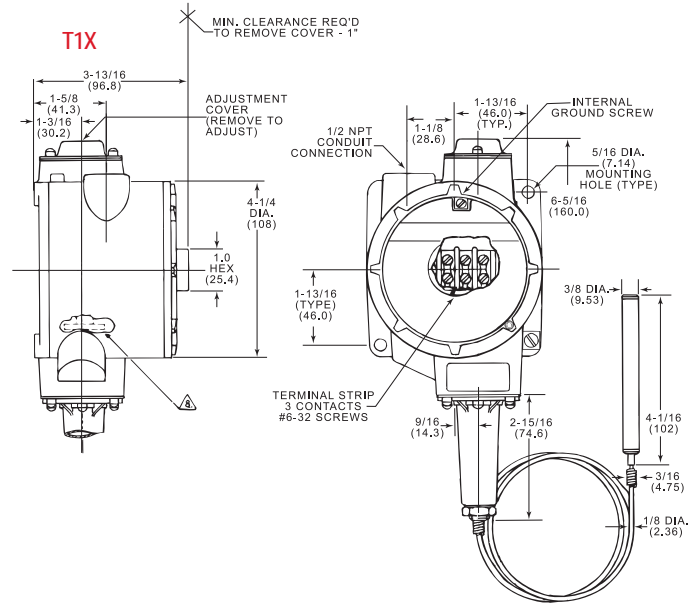
**Low Circuit**

Common: - Purple  
Normally Closed - Blue  
Normally Open - Red

**Circuit #2**

**High Circuit**

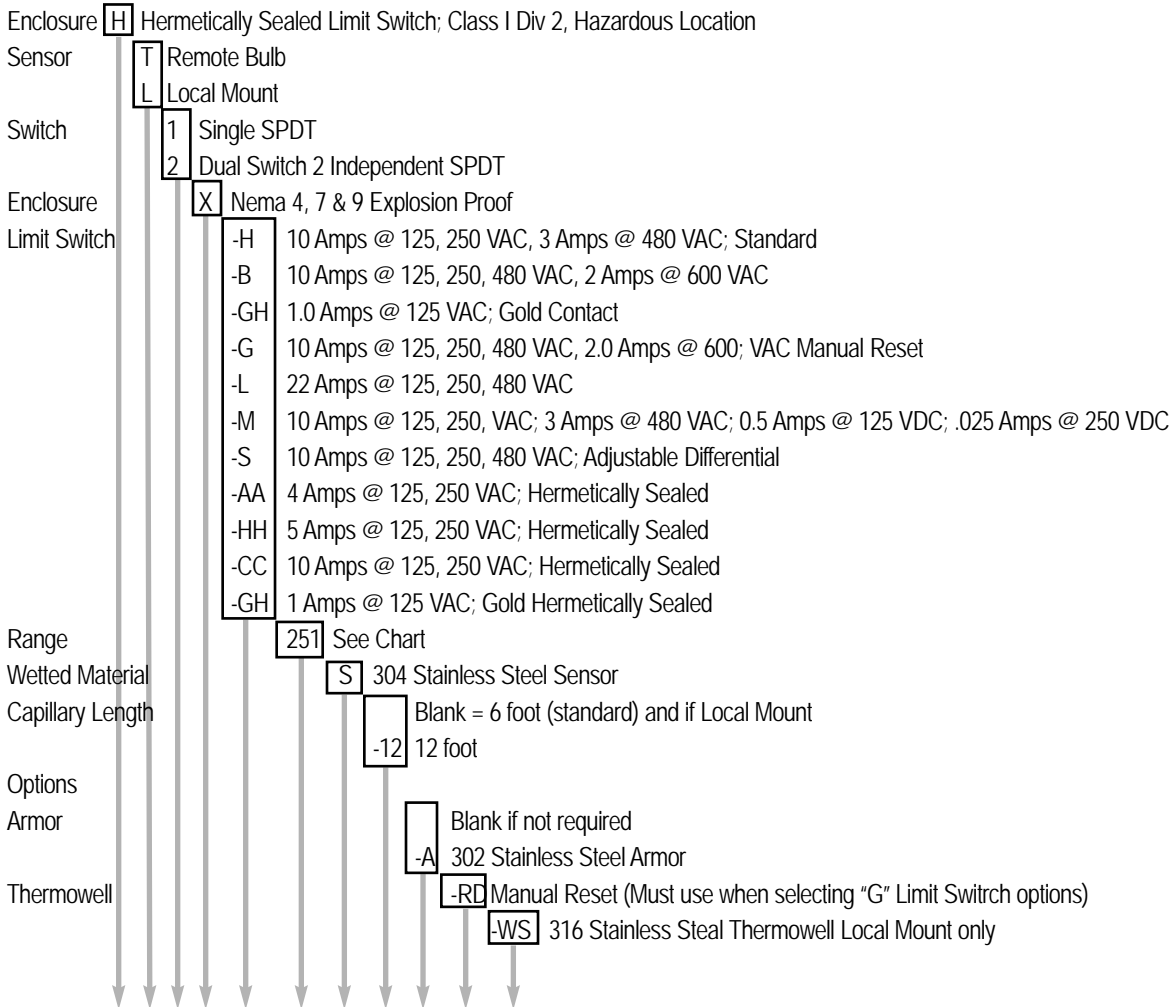
Common - Brown  
Normally Closed - Orange  
Normally Open - Yellow



# T1X, T2X, L1X Temperature Switches

## Explosion Proof Temperature Switches Configurator

### Series T1X, T2X, L1X



T 1 X -G 251 S -12 -A -RD

or: L 1 X -G 202 S -RD -WS

Examples: T1X-G251S-12-A-RD

or L1X-G202S-RD-WS

NOTE: When selecting the manual reset option on dual setting switches (T2X), 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				
	Low	High	Low	High	Low	High	Low	High	°F	°C			
<b>T1X &amp; T2X</b>	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	
<b>L1X</b>	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		
<b>L1X</b>	201	-50	+75	-45	+24	-100	+250	-73	+121	1 to 3	5 to 1.6	Calibrated	
	202	+15	+140	+9	+60	-100	+250	-73	+121	1 to 3	5 to 1.6	2° Subdivision	
	203	+75	+200	+24	+93	-100	+250	-73	+121	1 to 3	5 to 1.6	125° Span	
	351	+100	+225	+38	+107	-100	+400	-73	+205	1 to 3	5 to 1.6		
	204	-50	+200	-45	+93	-100	+250	-73	+121	1 to 3	1.6 to 3.3	5° Subdivision	
	354	+100	+350	+38	+177	-100	+400	-73	+205	1 to 3	1.6 to 3.3	250° Span	
	454	+150	+450	+66	+232	0	+500	-18	+343	3 to 6	1.6 to 3.3	10° Subdivision	
											300° Span		



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