

## TBS - Bi-metal Temperature Switches



### Benefits and Features

- Switch points From 14 to 212°F
- For Pipe Sizes 1/4" to 1-1/2"
- Brass or Stainless Steel Wetted Parts
- Simple Installation
- Highly Repeatable Setpoint

### General Description

The TBS series bi-metal temperature switches are ideal for temperature monitoring and control applications in pipes where a simple reliable design and ease of installation are required. The TBS switch operates on the bi-metal principle. A contact mechanism of two dis-similar metals expands and contracts at different rates as process temperature changes, causing movement of the contact. The design is such that the contact separates at a pre-determined temperature setpoint. This method of temperature monitoring is widely used and results in a very repeatable temperature setpoint.

For ease of installation, the TBS is supplied in a pipe tee in brass or stainless steel, from 1/4" to 1-1/2" line sizes. The contact has a normally closed (N/C) switching function and is available in one of 18 discrete setpoints ranging from - 10°C (14°F) to 100°C (212°F).

### Specifications

**Wetted Materials:** Brass or 304 SS, Viton

**Cable:** 5 Ft. Silicone cable

**Process Temp. Range:** -40 to 250°F

**Maximum Pressure**

**Brass:** 230 PSIG

**Stainless Steel:** 360 PSIG

**Setpoint Accuracy:** ±5°F

**Setpoint Hysteresis:** 7-14°F

**Contact Rating:** N/C. SPST Max. 240VAC/ 24 VDC, 1.3 Amps

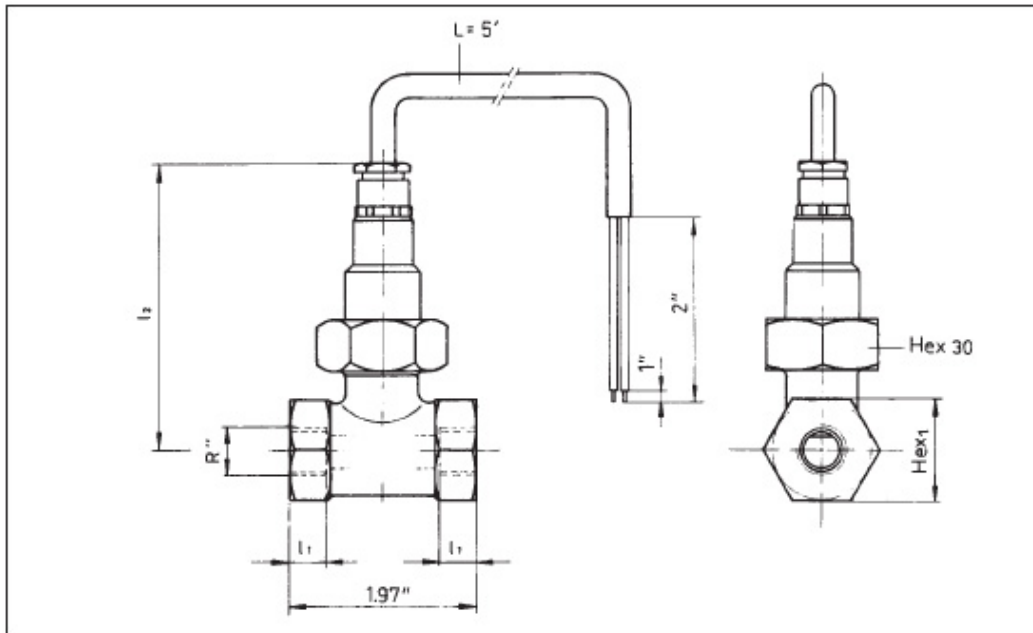
**Electrical Protection:** NEMA 4X/IP65

## TBS - Bi-metal Temperature Switches

### Ordering Information

Housing Material	Fitting Type		Switchpoint	
	NPT Thread	BSP Thread	(contact opens above switchpoint)	
TBS-11... = Brass TBS-12... = SS	...N08 = 1/4" NPT	...R08 = 1/4" NPT	...M10 = -10°C (14°F)	...035 = 35°C (95°F)
	...N10 = 3/8" NPT	...R10 = 3/8" NPT	...M05 = -5°C (23°F)	...040 = 40°C (104°F)
	...N15 = 1/2" NPT	...R15 = 1/2" NPT	...000 = 0°C (32°F)	...045 = 45°C (113°F)
	...N20 = 3/4" NPT	...R20 = 3/4" NPT	...005 = 5°C (41°F)	...050 = 50°C (122°F)
	...N25 = 1" NPT	...R25 = 1" NPT	...010 = 10°C (50°F)	...060 = 60°C (140°F)
	...N32 = 1-1/4" NPT	...R32 = 1-1/4" NPT	...015 = 15°C (59°F)	...070 = 70°C (158°F)
	...N40 = 1-1/2" NPT	...R40 = 1-1/2" NPT	...020 = 20°C (68°F)	...080 = 80°C (176°F)
			...025 = 25°C (77°F)	...090 = 90°C (194°F)
		...030 = 30°C (86°F)	...100 = 100°C (212°F)	

### Dimensions



Dimensions			
Connection	Hex <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>
Internal Thread	(inch)	(inch)	(inch)
1/4"	1.06"	0.39"	3.03"
3/8"	1.06"	0.39"	3.03"
1/2"	1.06"	0.39"	3.03"
3/4"	1.18"	0.59"	3.07"
1"	1.46"	0.39"	3.15"