

# Direct Mount Temperature Switch

## Model TSB

The TSB switch is a direct-mount switch for temperature sensing. It has one limit contact that can be used to activate an alarm, actuate indicator lights or shut down equipment.

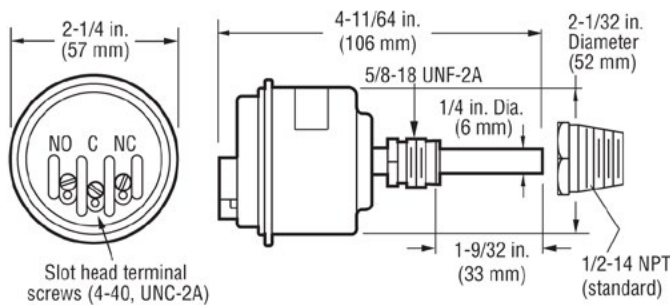
The construction of this instrument is the same as our time-proven Swichgage®. A precision machined brass mounting plate and port captures a high quality stamped beryllium copper diaphragm. The single-pole, double-throw (SPDT) snap-switch is operated directly from the diaphragm, for quick acting and positive switching. Trip point is factory preset according to your specifications.

Housing is weather sealed to prevent entry of moisture, dust, etc. A glass-filled nylon terminal block with quick-screw terminal connections gives the TSB switch a real advantage in industrial engine applications. The TSB is ideal when reading is not desired but temperature is critical to operational efficiency.

Intended for use in general purpose non-classified areas. Applications include:

- Engine coolant
- Compressors
- Engine lubrication
- Mobile equipment
- Generators
- Irrigation systems
- Oil field systems
- Construction equipment
- Marine engines
- Electric motors

### Dimensions



\*Products covered by this bulletin comply with EMC Council directive 89/336/EEC regarding electromagnetic compatibility except as noted.

### Specifications

**Housing:** Plated steel

**Connections:** Popular NPT and metric (specify)

**Diaphragm:** Formed beryllium copper (heat treated)

**Sensing Bulb:** Copper

**Terminal Block:** Three # 4-40 screws

Accuracy	Switch Trip Point Range 150°-295°F (66°-146°C)
Trip Point	±3°F (1.7°C)
Switch Reset Differential	±15°F (9°C)
Repeatability	±3°F (1.7°C)

**Contact Rating:** SPDT 3 A @ 30 VDC inductive

**Maximum Temperature:** See chart

**Factory Trip Point Setting:** 210°F (99°C) Rising. Other trip point setting must be specified at time of order.

**Contact:** Operates on rising or falling temperature (specify)

**Approximate Shipping Weight:** 10 oz. (0.31 kg)

**Approximate Shipping Dimensions:** 4-3/4 x 4-3/4 x 2-5/8 in. (121 x 121 x 67 mm)

**NOTE:** No customer replacement parts

# How to Order

Options listed below. All configurations may not be available. Call your sales representative or Enovation Controls for more information.

## TSB – R230 – 3/8

<b>Standard Switch Trip Point</b>	
Specify trip point value. Example: TSB-R200	
<b>Standard Switch Trip Point Values (rising)*</b>	
	<b>Accuracy</b>
<b>R165</b> = 165°F (74°C)	165–210°F ±5°F (±2.7°C) Water/glycol 10% used for setpoint
<b>R180</b> = 180°F (82°C)	
<b>R200</b> = 200°F (93°C)	
<b>R205</b> = 205°F (96°C)	
<b>R210</b> = 210°F (99°C)	
<b>R220</b> = 220°F (104°C)	215–230°F ±7°F (±3.8°C) 240–250°F ±10°F (±6.5°C) Heat transfer fluid used for setpoint (276 viscosity @ 100°F)
<b>R225</b> = 225°F (107°C)	
<b>R230</b> = 230°F (110°C)	
<b>R240</b> = 240°F (116°C)	
<b>R250</b> = 250°F (121°C)	
* Non standard trip points require a minimum quantity order. Trip point must be in 5°F increments between 165–250°F (74–121°C).	
<b>Switch Reset Differential</b>	±15°F (±8.3°C)
<b>Switch Repeatability</b>	±3°F (1.7°C)

<b>Connection Size</b>	
<b>Blank</b> = 1/2-14 NPT**	10-05-0131**
<b>3/8</b> = 3/8-18 NPT	10-05-0069
<b>M14</b> = 14 mm x 1.5†	10-05-0104†
** Standard connection.	
† Includes copper seal.	