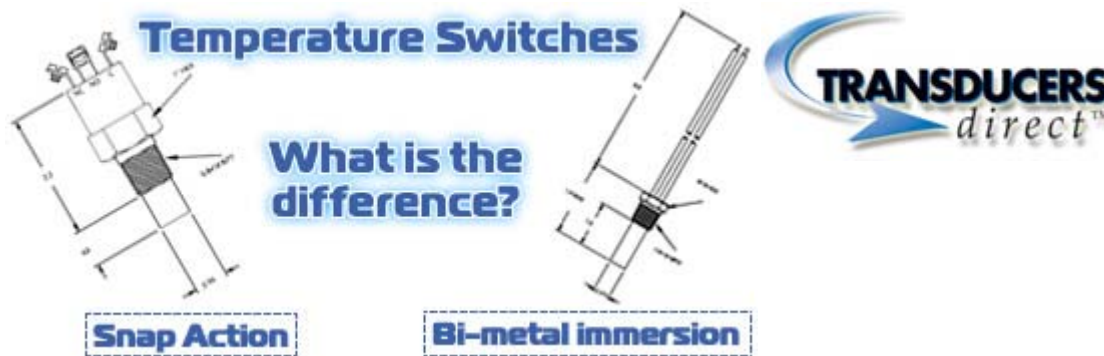


## Transducers Direct Monthly Tech Notes - November 2009

### The Difference in Snap Action and Bi-Metal Immersion Temperature Switches



### What is the difference in Snap Action and Bi-Metal Immersion Temperature Switches?

#### Snap Action

The snap action utilizes a snap action switch and a snap disc, which "pops", activating the snap action switch when the temperature reaches the set point. The snap action temperature switch has a differential of 8-16° F. This means that if the switch is set to close at 150° F on the rise, the temperature will have to drop to 142 -130° F before the switch reopens.

#### Bi-metal

The bi-metal immersion uses two dissimilar metals to sense temperature. When the temperature increases the metal deflects coming closer to the other piece of metal and makes contact at the designated set point. As the temperature drops, the metal cools, moves back and no longer makes contact. As a result, this type of temperature switch has minimum differential (1° F).

### Temperature Switch Applications

Temperature switches are used successfully in a great variety of industrial applications such as:

- Cooling Fans
- Hydraulic Systems
- Industrial Engine Oil
- Industrial Transmission Fluid
- CAT Scan Machine Oil
- Hot tubs / Pools

### Transducers Direct Uses Both Technologies for Temperature Switches

#### Introducing the TDT531 Series Temperature Switch.



Our temperature switches are Industrial Grade, low cost, high quality, and are available from stock with either snap disc or bi-metal immersion sensing technology. Our snap disc temperature switches feature a high quality snap action switch and are factory preset in 10 degree increments from 150 to 300 degrees Fahrenheit.

Our bi-metal immersion temperature switches are factory preset in 10 degree increments from 40 to 300 degrees Fahrenheit. Both styles of switches

## Introducing the TDTS30 Series Temperature Switch.



come with screw terminal or wire lead electrical connections, and media connections. The TDTS30 comes in various probe lengths. Transducers Direct temperature switches are NEMA 4, 13 rated.

## Transducers Direct Products



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