



Thermal Flowmetering

Simple Insertable Thermal Flow Sensors for Gas Applications

Method

This flow measurement method is relatively simple to understand compared to some of the other measurement technologies.

A thermal flow sensor is based on the very simple concept that when you blow on something, it becomes cooler.

In fact, the amount of heat lost is proportional to the rate of flow - so by heating an element and measuring the heat loss (or by measuring the power required to keep a wire at a particular temperature), you can take a relatively accurate measurement of flow.

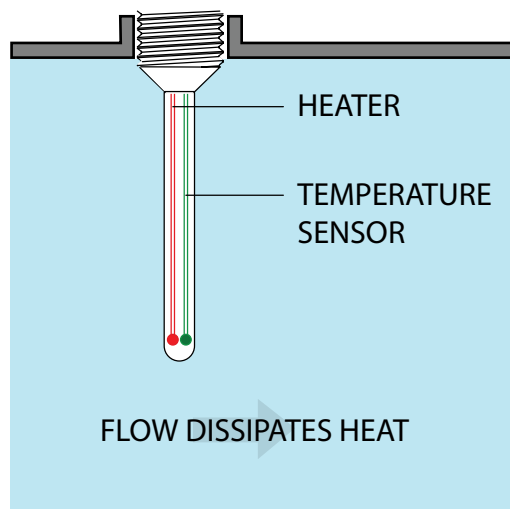
The sensor itself is a simple insertion sensor that can be run through a tapping point into your pipe or ductwork, making installation quick and extremely easy.

Advantages

- Cost effective for simple applications
- No moving parts
- Extremely simple and unobstructive installation

Disadvantages

- Mainly suitable for gas or air applications, although some switch models are usable on water and oils.
- Not as accurate as some other sensors
- Unsuitable for an application with rapid temperature changes.



An EE75 Thermal Flow Sensor for Air

