

Sensors

Pressure Sensors

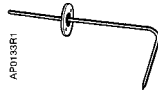


Figure 28. Pitot Tube (Part Number 269-062).

Pressure sensor selection is based on the medium to be measured, the measurement type (static or velocity), and the required range and accuracy. In addition, the following considerations should be reviewed when selecting a sensor to monitor the pressure in an application:

- The pipe that connects the sensor to the vessel must be capable of withstanding the maximum operating pressure.
- Steam lines should incorporate a “corkscrew” or other condensate trap that allows the actual input to the sensor to be at a reduced temperature.
- Water, steam, fuel lines, and compressed air lines should include a hand-operated valve to allow service removal or isolation of the pressure sensor.

Pressure sensors measure the difference between two sensing ports, usually labeled high and low. This provides a pressure measurement against a reference. Measuring the pressure inside a pipe or duct and comparing it to the air outside (ambient) the pipe or duct is an example of static pressure measurement. A sensor measuring the pressure differential across a pump or chiller measures velocity pressure.