Spring Loaded Temperature Sensor

1.5 mm Spring Loaded Temperature Sensor

RJG developed the 1.5 mm Spring Loaded Temperature Sensor as a tool to analyze temperature variation inside the mold cavity. These sensors work in conjunction with RJG's e*DART*™ Process Control System to assist molders in diagnosing processing problems relating to temperature issues. The temperature of both the melt and mold make up two of the four "plastics variables" that determine how a part is formed.

Melt and cavity temperature can be critical to many parts, especially those that are made with semi-crystalline materials or that require tight dimensional tolerances. Thermodynamic stability in injection molding with crystalline material is extremely critical—achieving proper temperatures after a cycle break can require numerous cycles.

The spring loaded cavity temperature sensor is easy to install and remove, which greatly simplifies mold preventative maintenance. The sensor utilizes an adjustable aluminum bayonet connector system to accommodate variable plate depth and spring load.

Locate the sensors near areas where short shots, dimensional errors, or warp are likely to occur. Placing sensors in different areas of the part can show problems with non-uniform cooling. The best use of temperature sensors for control is with valve gates, particularly when there is little or no pressure at the point you wish to actuate a gate. For example, by placing a temperature sensor just after a gate, that gate can be opened immediately after the flow front goes by. A sudden rise in temperature indicates the arrival of the flow front.

Features and Benefits:

- 1.5 mm in diameter
- Type K thermocouple
- Spring Loaded
- Sensor tip good up to 600 °C/1112 °F
- Installation leaves no witness mark
- Easy installation and removal simplifies preventive maintenance