



Press Release

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Cavity temperature sensor

While cavity pressure measuring technology has over the years proved to be the ideal feature for monitoring and controlling the injection molding process, it has been disregarded that the quality of an injection molded part can only be described completely by pressure and temperature. Thus a constant cavity pressure signal can't compulsory lead to a constant shrinkage of the molded part because for this the temperature on the surface of the cavity, the so called cavity temperature, has to be measured, monitored and if necessary controlled.

The advantages of a cavity temperature sensor are obvious: unlike the cavity pressure sensor the cost-effectiveness of a cavity temperature sensor is essential and still it solves many monitoring and controlling tasks. With a front diameter of only one millimeter, the sensor is very small, insensitive to installation and does not change its sensitivity if it contacts the bore. In contrast to an infrared temperature sensor it measures exactly at the position where it has to measure: where the molded part shrinks.

The sensor is not only used for the balancing of multi cavity hotrunner molds, where this cost-effective cavity temperature sensor enables a simultaneous filling of cavities, but also for automatic switch over to holding pressure at the moment of the volumetric filling of the cavity.

Basically, the cavity temperature sensors type 4001 A and type 4002A are thermo couples of type N. This type does show a high sensitive stability after the linearization of the measuring signal and, unlike type J, is not corrosive nor has it irreversible defects after heating-up over a certain temperature as it can be seen with type K. To evaluate the measuring signals, various single- and multi channel devices respectively amplifiers are available. More details as well as data sheets are available at: <http://www.priamus-system.com>.

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