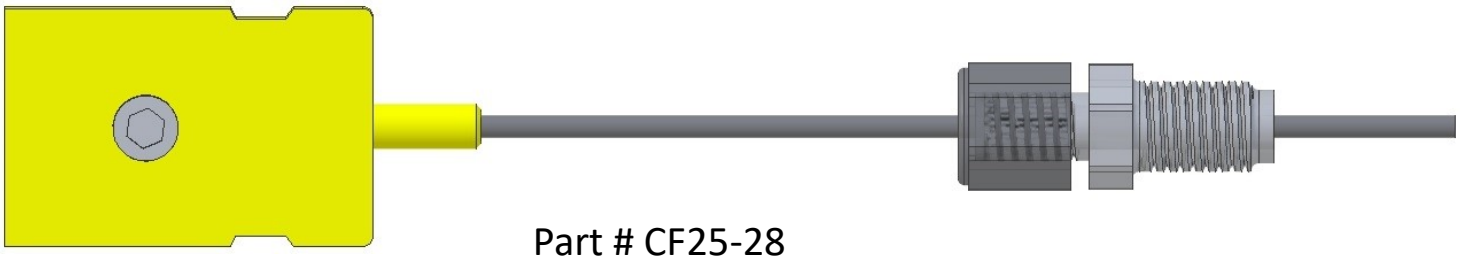
Temp-Sense ™ In-Mold Sensor “CF25-28”

Md Plastics developed the CF25-28 Flush Mount in-mold Temperature Sensor as a tool to analyze the polymeric flow inside the cavity. The Temp-Sense Sensor is precise enough to sense the molten polymer flow front as it enters the cavity and proceeds to the sensor position. As the Hot flow front progresses in the cavity from the gate position, the flow front heats up the air that is being displaced to the vent position and closer to the sensors micro-bead. The time it takes to reach the sensor is indicative of the injection velocity but the increased temperature along it’s path can be used to trigger the Melt-IQ to determine Good/Bad part production. The temperature of the melt and mold make up two of the four “Plastics Variables” that determine how a part is formed.



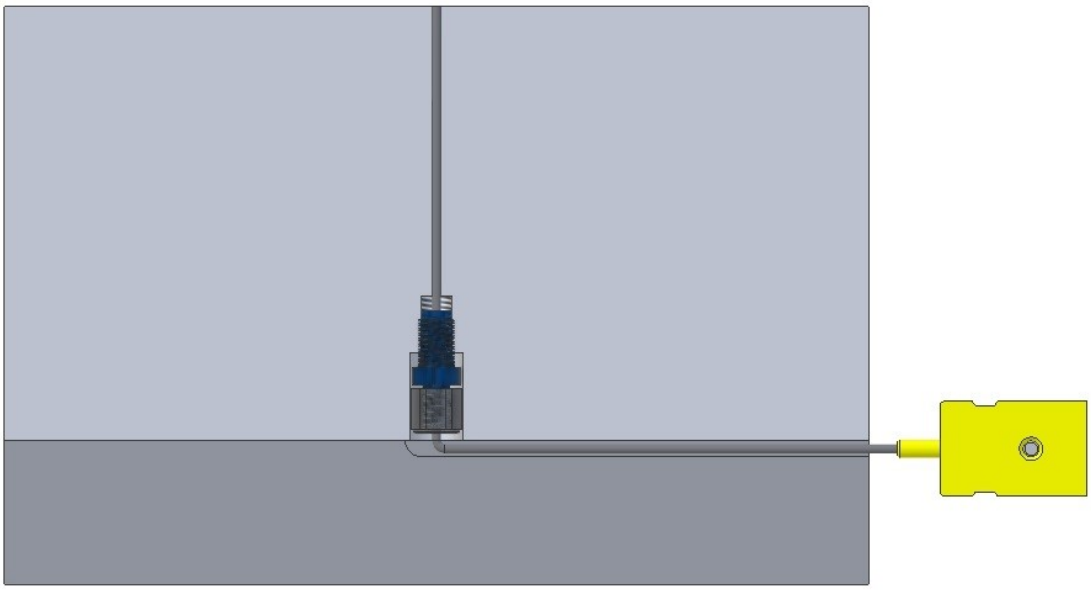
Part # CF25-28

Melt and cavity temperature can be critical to many parts, especially those made with semicrystalline materials and requiring 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 flush mount temperature sensor is small enough to be installed in smaller molds and molds with more challenging geometries. The sensor is very easily installed in position and held in position with an epoxy solution.

In order to find the best location for the sensor, a short shot progression test should be made and the sensor placed in the last to fill cavity, towards the last to fill position before the vent. Placement of the Temp-Sense™ Sensor (US patents #7,585,166 & 6,649,095) into the last to fill cavity will enable the processor to verify the thermal properties of the Polymer, promising 100% product verification. It’s as simple as 1,2,3!

The Temp-Sense™ Melt sensor takes the applied pressure (P) by the melt and measures the work applied to the polymer. The actual thermocouple meter readout



The Temp-Sense™ part # CF25-28 can be installed into a cavity block or an ejector pin. Instructions are as follows:

1. Pop 0.043” dia. Hole thru, drill 0.0625” x 1.225” deep, feed TC wire through Cavity Block hole, when sheathing material is close to full depth, apply High Strength Loctite #271 to body then continue to install until flush with cavity/Ejector Pin.
2. Take special care not to damage sheathing or micro-bead during installation.
3. Feed TC wire through passageway and install Mini-Connector to outside of Mold with M2 Bolt.