# Injection Molding Sensor Combines Pressure and Temperature Cavity Measurement



Kistler introduced the Type 6190 high-precision

transducer designed to offer combined measurements of both cavity pressure and contact temperature during industrial thermoplastic and elastomeric injection molding operations. It is said to be the only sensor of its kind offering this type of combined measurement capability within a single, compact package. The pressure sensor incorporates a high-quality quartz sensing element and a diaphragm-free design with a flat, measuring front and four-millimeter bore diameter, allowing it to support space-constrained mold cavity pressure measurements of up to 2000 bar. An integral thermocouple and field replaceable connecting cable are included to support enhanced temperature measurement capabilities, with the compact sensor dimensions allowing for fast temperature response times. Mounting dimensions are directly compatible with bore sizes of Kistler Types 6175B and 6177 pressure sensors for the easy drop-in replacement of legacy sensors in applications where additional temperature measurement capabilities are important for improved process data collection. This is particularly useful in such applications as injection molding surface analysis and the evaluation of knit lines in components with longer flow paths.

The rugged combination cable feeds both pressure and temperature signals to two connectors. The cable is screwed behind the sensor with a union nut and can be exchanged. Sensors without connectors, available as Type 6190CAG, are available for multi-cavity molds. The charge cable can then be connected to Kistler Type 1708 or 1710A multi-channel connectors and the temperature conductors to the Type 2205A temperature amplifier. The sensor is designed to reliably operate in temperatures of up to +200°C (+392°F). Recommended accessories, sold separately, include Type 1661A pressure cables, Type 2290A temperature cables, the Type 1315A installation tool, and the Type 1383 mounting wrench for split nut.

#### Kistler Instrument Corp. 888-547-8537, <u>www.kistler.com</u> [1]

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