

Temperature measurement on ultra-thin glass

Optris CTlaser G7 infrared thermometer measures up to 1,200 °C

Touch displays, such as for smartphones and tablets, use ultra-thin glass, which bring special challenges for temperature measurement technology in their manufacturing. For this application, Optris has now brought out the new CTlaser G7 infrared thermometer, which can precisely measure the surface temperatures of glass components in the range of 100 °C up to 1,200 °C. The optimum spectral range, which for flat glass is normally 5 µm, cannot be used for extremely thin glass components due to the higher transmissivity of the material. For this reason, Optris developed the CTlaser G7, which works at a special wavelength of 7.9 µm. This spectral range is optimized for low-reflection measurement on ultra-thin flat glass. Measurement errors, which are caused by the transmission of radiation, are therefore virtually eliminated. The measurement error is only 1 % of the measuring value – or 1.5 °C at low temperatures.

Double laser makes setup easier

The new infrared thermometer has an integrated double laser, which marks the exact measurement location, thereby making setting the application easier. The smallest size of the measurement spot at a measurement distance of 70 mm is just 1.6 mm, so that the temperature can even be measured on very small objects. With a standardized two-wire interface, the measurement values can be transferred to a supervisory control system, for example a PLC. The output can be adjusted to the exact requirements of the application. In this way, averaging, minimum or maximum value logging as well as an extended hold function with threshold value and hysteresis are possible.

Up to 85 °C without additional cooling

The CTlaser G7 is ideally suited for the environmental conditions which prevail during the glass manufacturing. So for example with ambient temperatures up to 85 °C, it

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works without additional cooling. For even higher temperatures, a matching cooling housing is available.

