innovative infrared technology

GLASS INDUSTRY
Non-contact temperature measurement
Made in Germany
Glass Industry

Products and Applications

The infrared thermometer optris® CT Laser G5 allows for temperature measurement of smallest objects of 1 mm from a distance of 70 mm. Due to its very short response time of 10 ms it is often used for fast processes.

The temperature range of 200 °C bis 1500 °C allows the implementation in diverse applications in production, dressing and further processing of glass.

optris® CT Laser G5

With a spectral range of 5.0 µm, the two-part infrared thermometer optris® CT Laser G5 is especially designed for precise measurement of glass surfaces. The devices are employed for temperature measurement in e.g. manufacturing processes of vehicle glass and flat glass. Also in the manufacturing of laboratory glass equipment or the production of glass bottles, the pyrometer delivers excellent results and is thus employed for quality assurance and process coordination.

The temperature range is from 100 °C to 1.650 °C.

optris® Pi 450 G7

The infrared camera has to be used when temperature values within a field should be detected. In due to the low price an infrared camera could be the better solution in comparison to rows of infrared thermometers.

The temperature range of 200 °C bis 1500 °C allows the implementation in diverse applications in production, dressing and further processing of glass.

optris® Pi 450 G7

The IR thermometer’s stainless steel measuring head is extremely small and can be employed in ambient temperatures of up to 85 °C without additional cooling. A multi-installation of the pyrometers, e.g. in series as line scanner, is therefore cost-efficient and can be performed even in limited spaces.

The temperature range is from 100 °C to 1.650 °C.

optris® CT G5

Due to its special spectral range of 5.0 µm, the pyrometer optris® CT G5 is perfectly suited for the measurement of glass temperatures, e.g. during container glass production and vehicle glass production.

The temperature range of 200 °C bis 1500 °C allows the implementation in diverse applications in production, dressing and further processing of glass.

The infrared camera optris® PI 450 G7 is the newest model of the PI series of Optris GmbH. It’s a special development for the glass industry with a spectral range of 7.9 µm.

The temperature range of 200 °C bis 1500 °C allows the implementation in diverse applications in production, dressing and further processing of glass.
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Optris infrared cameras come with the **free of charge and license-free analysis software** optris® PI Connect. It allows an in-depth temperature data analysis and documentation as well as easy integration into control processes. The integrated line scan function is applied in the glass industry.

**optris® PI CONNECT with line scan function**

During the manufacturing of glass, the sheets are usually transported on conveyor belts. To monitor the surface temperature at freely-accessible points, like between heating and cooling zones, an infrared camera is installed. Through the unchoppered sensor, a **continuous temperature surveillance of fast processes** is achieved in a spectrum of -50 °C up to 975 °C. The thermal imager optris® PI 160 allows for exact measurements from an object size of 1.5 mm on.

The infrared thermometer optris® CTFast LT has an extremely short response time of 6 ms. The unchoppered sensor allows a **continuous temperature surveillance of fast processes** in a spectrum of -50 °C up to 975 °C. The thermal imager optris® PI 160 allows for exact measurements from an object size of 1.5 mm on.

For fast processes

**optris® PI 160 and optris® CTFast LT**

Both products are preferably used in the packaging industry and in bottling plants. In mass production, it is essential that high-output processes are monitored continuously and without friction. and is, due to its measurement speed of 120 Hz, perfectly suited for employment in research and development, test stations, and process automation as well as for portable measurement tasks.

The infrared thermometer optris® CS Laser G5HF has been specifically designed for temperature measurement of glass. Its standardized two-wire interface provides a **reliable measuring data transmission** and allows for an easy integration of the temperature sensors into a Siemens PLC. The IR thermometer is additionally equipped with an innovative double laser visor for a precise marking of the measuring spot. A variety of optics ensures high adaptability with diverse applications.

**optris® CS Laser G5HF**

The optris® CS Laser G5 is perfectly suited for temperature control of production processes of **flat glass and vehicle glass**. Also, the measurement during cooling and heating processes of **single-pane safety glass** and **laminated sheets safety glass** is important.
GLASS INDUSTRY
PRODUCTS AND APPLICATIONS

The pyrometer optris® CThot LT has been developed for the most extreme conditions in high-temperature areas and is acclaimed for its especially high temperature resistance. Employment of the infrared thermometer in ambient temperatures of up to 250 °C without additional cooling poses absolutely no problems.

Due to the mentioned features, the IR pyrometer is especially suited for applications in glass industries. On request, the IR thermometers are available as models for applications in explosion-threatened areas.

optris® CThot LT
The optris® CThot LT is used in production processes and refining processes of glass. Due to its extremely high temperature resistance, it is also suitable for ovens and closed chambers.

The infrared thermometer optris® CTlaser MT offers a special measuring wavelength for precise temperature measurement through flames of 200 °C to 1,650 °C. It is thus perfectly suited for surveillance of work pieces in ovens. The stainless steel measuring head with its highly precise double laser visor allows for exact marking of measurement spots in any distance at any time. The temperature of even the smallest objects with a size of only 1.6 mm can be easily measured with the IR thermometer.

optris® CTlaser MT
The optris® CTlaser MT is used for temperature measurements of work pieces in ovens as it measures through flames. Also brick lining of furnaces is controlled continuously.

For further information on non-contact temperature measurement in the glass industry, please visit www.optris.com/temperature-measurement-glass-industry