

Online: <https://www.optris.global/details/compact-infrared-Camera-for-laser-machining-processes>

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Compact infrared camera for laser machining processes

Measure temperatures of up to 1900 °C with the Optris PI 08M

Temperature measurement in processes where lasers are used provides major challenges for infrared measurement technology: So for example the camera needs to be insensitive to the laser's scattered light. The new Optris PI 08M is ideally suited to these kinds of applications. It has a very narrow-band spectral sensitivity at 800 nm. Most industrial machining lasers, such as for example NIR or CO2 lasers work outside this range, so that the detector is protected against scattered laser light without additional filters. Typical applications include laser welding, laser soldering or laser hardening processes, where the temperature plays a key role.

Precise temperature measurement

With the wavelength range of 800 nm the PI 08M has an additional advantage: The measurement error is also minimal with unknown or changing emissivities. At high temperatures it is only 1.5% of the measuring value; below 1,500 °C even only 1%. The measuring range is from 575 °C to 1,900 °C. In the interior of the infrared camera there is a highly dynamic CMOS detector with an optical resolution of up to 764 x 480 pixels, which can be operated with a maximum frame rate of 1 kHz. This means the infrared camera is also suitable for very fast processes.

Optimum integration into the application

The new PI 08M can be integrated very easily into a wide range of applications. A real-time analog output provides an output signal of 0 to 10 V. Here the temperature is averaged over an area of 8 x 8 pixels - the position of the area can be selected freely. The scope of supply also includes a Software-Development-Kit which provides the user with all functions.



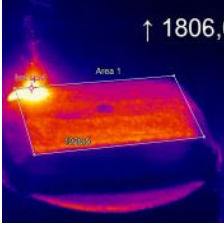
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About Optris GmbH

Optris GmbH was founded in 2003 and has established itself as one of the leading manufacturers of non-contact temperature measurement devices. Its product portfolio consists of both wearable and stationary infrared thermometers and online infrared cameras for thermographic real-time analyses. Optris develops and produces in Germany to ensure the highest standard in quality as a key component of its company policy.

Images

(www.optris.de/pressefotos)

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