

Infrared camera for the metal industry up to 2000 °C

Special wavelength reduces measurement errors

The new infrared camera optris PI 05M features a continuous measurement range from 900 to 2000 °C. It has an optical resolution of 764 x 480 pixels and measures at a wavelength of 500 to 540 nm. Thus, the PI 05M supplements the optris PI 1M (0.85 to 1.1 µm). Thanks to its special spectral range, measurement errors resulting from unknown or changing emissivities are reduced. “The PI 05M is another compact thermal imager, developed for the worldwide metal industry. It is especially suitable for temperature measurement of molten metals”, explains Dr.-Ing. Ulrich Kienitz, CEO of Optris.

Measuring high temperatures at frame rates of up to 1 kHz

The optris PI 05M measures surfaces continuously from 900 to 2000 °C. At a frame rate of 1 kHz, measurements can be conducted with an optical resolution of 72 x 56 pixels. This region of more than 4000 pixels can be freely positioned. Additionally, there is a direct real-time analog output, again featuring a freely positionable 8 x 8 pixel region. These possibilities offer an optimal adaptation to the respective application.

Special wavelength ideal for high temperature measurements and laser processing applications

The camera detects IR radiation in the spectral range between 500 and 540 nm and is therefore ideally suited for laser processing applications as radiation above 540 nm is blocked excellently. The, for the metal sector commonly used diode lasers in the range of 900-1030 nm and Nd:YAG laser at 1064 nm have thus no disturbing influence on the measurement. The camera works here without the need for additional filters. A general advantage of measuring metals at this short wavelength is a significant reduction of measurement errors resulting from changing or unknown emissivities.

About Optris

Optris was founded in 2003 and established itself as one of the leading manufacturers of non-contact temperature measurement equipment. The product range consists of both portable and stationary infrared thermometers and online infrared cameras for thermographic real time analyses. Optris products are developed and produced in Germany to ensure the highest standards in quality, a central element of company policy.

Images

(www.optris.com/press-pictures)

optris-pi-05m-pouring-stream.jpg

Caption: Measurement of a pouring stream with optris PI 05M

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optris-pi-05m-with-metal-application.jpg

Caption: optris PI 05 M measures the hot spot of a pouring stream

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optris-pi-05m.jpg

Caption: The new optris PI 05M for the metal industry

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