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# Press Release

InfraTec GmbH Infrarotsensorik und Messtechnik

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Dresden, 19/01/2016

## Great Potential Inside Small Dimensions

InfraTec presents a miniaturized detector for the analysis of many gases

Even smaller, even stronger – this is how we might describe the new LRM-254 detector by InfraTec in just a few words. This miniaturized four channel detector in TO39 housing, with an aperture of only five millimeters, has just expanded the product range of the Dresden manufacturer, InfraTec.

A mere glance at its appearance gives clues about this sensor's first unique feature. In the cap where conventional multi channel detectors have sensitive narrow bandpass channel filters with special adhesive mounted, a central window has been added in the detector cap instead. This significantly more robust broadband filter, e. g. made of sapphire, offers substantially better protection against penetrating moisture. It can also be soldered to the housing to create a complete hermetic seal.

The channel filters are now placed inside the detector instead. There, they are shielded from mechanical and physical stress, as well as from other strains from harsh environments – and they are also located even closer to the pyroelectric elements. The reduction of this distance and the central window integrated into the detector cap are two of the factors that ensure that the field of view (FOV) is now significantly wider. At the same time, all elements are placed closer together inside the detector. This allows more radiation to reach the pyroelectric element and therefore a higher signal. In addition, since the optical correspondence of the individual channels remains consistently low, the LRM-254 proves to be extremely powerful.

The new detector is an example of an innovative product line, and one that provides users with additional possibilities for the use of sensors. The compact, miniaturized construction allows for more analysis channels with unchanged detector size. Or, the same number of channels can be integrated into significantly smaller packages.

This space saving and robust design will especially appeal to users who want to integrate sensors in mobile devices. In the fields of gas and flame sensor technology, this increasingly compact periphery plays a crucial role. With the LRM-254, which even can be thermally compensated due to its minimized stack design, you now have important new flexibility thanks to the latest developments by InfraTec.

**Information: 2,379 characters (incl. spaces)**

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### About InfraTec

The InfraTec infrared sensor and measuring technology company was founded in 1991 and has its headquarters in Dresden, Germany. The privately held company employs more than 200 employees and has its own design, manufacturing and distribution capabilities.

Infrared sensors, with electrically tunable filters based on MOEMS, count among the products of the infrared sensor division, next to spectrally mono and multi channel infrared detectors. These detectors can be used in gas analysis, fire and flame sensor technology and spectroscopy.

With its Infrared Measurement business unit, InfraTec is one of the leading suppliers of commercial thermal imaging technology. In addition to the high-end camera series ImageIR® and the VarioCAM® High Definition series, InfraTec offers turnkey thermographic automation solutions.

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