

### Media contact:

Ines Kuehn  
trinamiX GmbH  
Industriestraße 35  
67063 Ludwigshafen, Germany  
Tel: +49 621-60-42082  
info@hertzstueck.de

## Infrared PbS sensors with new encapsulation technology readily bondable

- New encapsulation technique for photo conductors enables direct wirebonding of lead sulfide (PbS) sensors
- Automatization and miniaturization in the sensor assembly
- PbS sensors with a spectral range up to 2.9 µm available now, PbSe sensors with a detection limit up to 5 µm available Q1 2017

trinamiX GmbH announces a new brand of lead sulfide (PbS) IR detectors under the trademark Hertzstück<sup>TM</sup>. Utilizing a patent-pending encapsulation technique Hertzstück<sup>TM</sup> sensors can be directly wire bonded to printed circuit boards as bare chips, without additional packaging.

Traditionally manufactured lead sulfide detectors require TO-packaging for environmental protection and long term stability. These packages take up space, their placement is difficult to automate, and precise adjustment or alignment is complex. The thin film encapsulation process utilized on bare chip Hertzstück<sup>TM</sup> sensors solves many of these problems. Environmental influences like water and oxygen are eliminated. Package size and total footprint are reduced. The highly regular size and shape of bare chip Hertzstück<sup>TM</sup> sensors make them well suited to automated assembly via pick-and-place robot. This combination of benefits means that with Hertzstück<sup>TM</sup> many applications can be smaller, cost less to assemble, and have better alignment tolerances.

Hertzstück<sup>TM</sup> PbS-sensors are manufactured by trinamiX GmbH at a production site in Ludwigshafen Germany and directly distributed. The detectors are available in the sizes 3 mm x 3 mm, 6 mm x 6 mm, and 10 mm x 10 mm. Other sizes and TO-packaged sensors are available on request. Detailed specifications can be found at [www.hertzstueck.de](http://www.hertzstueck.de).

Besides the PbS-sensors lead selenide (PbSe)-sensors are being developed using the same encapsulation method, which are capable of detection up to a wavelength of 5 µm. PbSe-sensors will be available in the first quarter of 2017. PbSe-sensors are being used for gas analysis, flame detection and spectroscopy when a wider detection range is necessary.

### About Hertzstück<sup>TM</sup>

Hertzstück<sup>TM</sup> is a brand of trinamiX GmbH, a spin-off and wholly owned subsidiary of BASF SE. trinamiX GmbH was founded in 2015 and is based in Ludwigshafen, Germany. The team around Hertzstück<sup>TM</sup> consists of experts from various competence areas such as chemistry, physics, material science and engineering. We offer standard and custom-engineered products in the field of infrared (IR) detection. Our focus is on providing the right sensor for your measurement need. [www.hertzstueck.de](http://www.hertzstueck.de)

**trinamiX GmbH**  
Industriestraße 35  
67063 Ludwigshafen  
Germany

**Contact**  
**T** +49 (0) 621 60 567 39  
**W** [www.hertzstueck.de](http://www.hertzstueck.de)  
**E** [info@hertzstueck.de](mailto:info@hertzstueck.de)

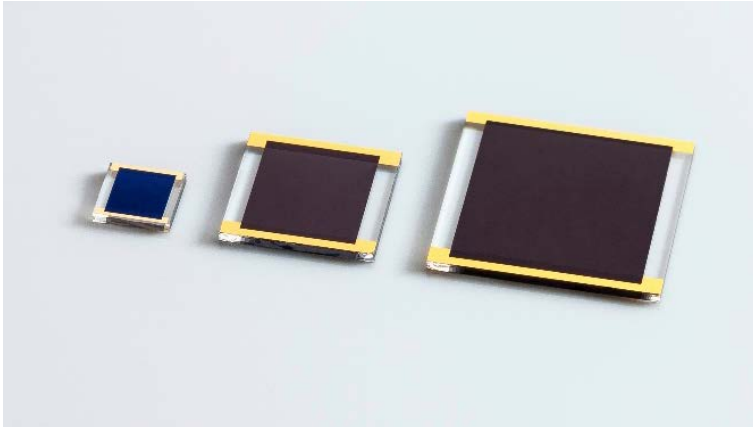
**Managing Director**  
Dr. Ingmar Bruder  
**Headquarter**  
67056 Ludwigshafen

**Registry Court**  
Amtsgericht Ludwigshafen  
**Commercial Register No.**  
HRB 62900  
**VAT No.**  
DE280928150

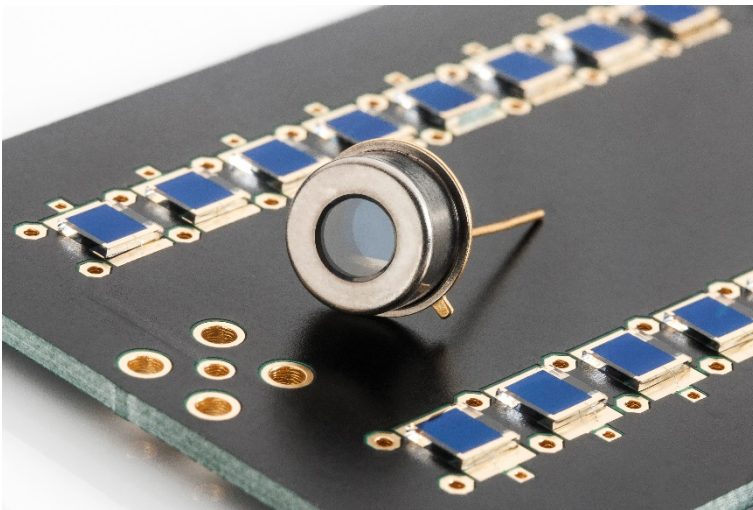
**Bank account**  
BNP Paribas S.A. – Frankfurt  
**IBAN** DE34 5121 0600 4220 7870 16  
**SWIFT BIC** BNPAP333

## Photos

High-resolution files are available upon request: [info@hertzstueck.de](mailto:info@hertzstueck.de)



*trinamiX GmbH developed a new lead sulfide (PbS) IR sensor, trademarked Hertzstück<sup>TM</sup>, that can be wirebonded directly onto printed circuit boards as a bare chip. (Credits: trinamiX)*



*The thin film encapsulation of Hertzstück<sup>TM</sup> protects the sensors from environmental influences, allows the direct connection of the bare chip with the circuit boards through wirebonding and enables automatization and miniaturization of sensor assembly. (Credits: trinamiX)*