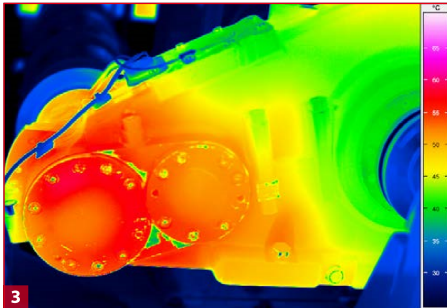
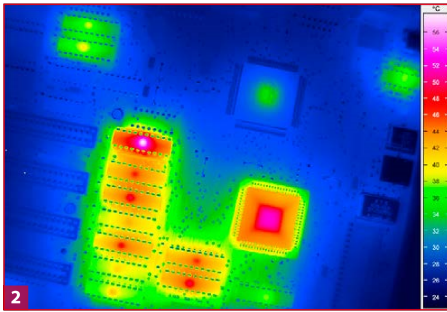


# VarioCAM® HDx head

Entry-level Access to Stationary Thermography at Premium Level



- 1) VarioCAM® HDx head
- 2) Optimisation of electronic components
- 3) Heating of a drive

## INFRA<sup>TEC</sup>.

Europe's leading specialist for infrared sensors and measurement technology

Microbolometer detector with (640 x 480) IR pixels

GigE Vision interface

Robust light metal housing (IP67)

Wide range of lenses

Convenient camera control and data acquisition

Made in Germany



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**NEW**



|  |   |
|--|---|
| Spectral range                                     | (7.5 ... 14) $\mu\text{m}$  |
| Detector   | Uncooled microbolometer focal-plane array   |
| Detector format (IR pixels)                        | (640 $\times$ 480)  |
| Temperature measuring range                        | (-40 ... 600) $^{\circ}\text{C}$ , optional up to 1,200 $^{\circ}\text{C}^*$  |
| Measurement accuracy                               | $\pm 2^{\circ}\text{C}$ or $\pm 2\%$  |
| Temperature resolution @ 30 $^{\circ}\text{C}$     | Up to 0.03 K*   |
| Frame rate   | Full-frame: 30 Hz (640 $\times$ 480), sub-frame: 60 Hz (384 $\times$ 288)   |
| Window mode*                                       | Yes   |
| Storage media                                      | SDHC Card, external control computer for camera control and data acquisition*   |
| Image storage                                      | Time-, trigger- and temperature controlled recording of 16 bit single frames or image sequences with timestamp, video streaming in MPEG format  |
| Lens mount   | Automatic objective detection   |
| Focus  | Motor-driven, automatic or manual, accurately adjustable  |
| Zoom   | Up to 32 $\times$ digital, stepless   |
| Dynamic range                                      | 16 bit  |
| Personnel detection range                          | Up to 2.0 km with VarioCAM <sup>®</sup> HDx head security / 40 mm lens  |
| Vehicle detection range                            | Up to 4.2 km with VarioCAM <sup>®</sup> HDx head security / 40 mm lens  |
| Interfaces   | GigE Vision, DVI-D (HDMI), C-Video, RS232, WLAN*, Process interface*  |
| Trigger*   | 2 $\times$ digital I/O, 2 $\times$ analogue I/O   |
| Tripod adapter                                     | 1/4" photo thread   |
| Power supply                                       | AC adapter, (12 ... 24) V DC, PoE*  |
| Storage and operation temperature                  | (-40 ... 70) $^{\circ}\text{C}$ , (-25 ... 55) $^{\circ}\text{C}$   |
| Protection degree                                  | IP54, IEC 60529, IP67 with screw-on interface*  |
| Impact strength, vibration resistance in operation | 25 G (IEC 68 - 2 - 29), 2 G (IEC 68 - 2 - 6)  |
| Dimensions, weight                                 | (221 $\times$ 90 $\times$ 94) mm, 1.15 kg (basic configuration with standard lens)  |
| Further functions*                                 | Camera internal emissivity correction, shutter free operation, temperature alarm  |
| Analysis and evaluation software*                  | IRBIS <sup>®</sup> 3, IRBIS <sup>®</sup> 3 plus, IRBIS <sup>®</sup> 3 professional, IRBIS <sup>®</sup> 3 view, IRBIS <sup>®</sup> 3 remote HD, IRBIS <sup>®</sup> 3 online, IRBIS <sup>®</sup> 3 process, IRBIS <sup>®</sup> 3 vision, IRBIS <sup>®</sup> 3 active, IRBIS <sup>®</sup> 3 mosaic |

\* Depending on model

The thermographic camera **VarioCAM<sup>®</sup> HDx head** is based on an **uncooled microbolometer FPA detector with (640  $\times$  480) IR pixels**. Thanks to its **wide standard temperature measuring range** it is suitable for **universal measuring, testing and monitoring tasks** in many sectors.

Even the low-cost models of the VarioCAM<sup>®</sup> HDx head as entry-level access to the class of professional, stationary microbolometer thermography systems provide brilliant thermographic images in high quality that can be created and evaluated very easily using the powerful software family IRBIS<sup>®</sup> 3. The high-quality processing, modular design and motorised focusing are among the details that benefit users.

The VarioCAM<sup>®</sup> HDx head convinces with its **extensive range of standard options**. The range includes automatic threshold detection and signalling by means of digital real-time image acquisition via the **integrated GigE Vision interface** as well as **online processing of thermographic data** for controlling time-critical thermal processes. With the **industrial-grade light metal housing (IP67)** installations in manufacturing processes are easily possible even in harsh process environments. Even monitoring tasks requiring **automatic continuous operation** can be implemented easily.

#### Application areas:

- Real-time thermography for industry and science
- Assembly control and process monitoring
- Machine and plant monitoring
- Security engineering
- Early fire detection

|                                    |                   |                      |
|------------------------------------|-------------------|----------------------|
| <b>Detector format (IR pixels)</b> |                   | (640 $\times$ 480)   |
| <b>Lens</b>                        | Focal length (mm) | FOV ( $^{\circ}$ )   |
| Wide-angle lens 60 $^{\circ}$      | 10                | (57.1 $\times$ 44.4) |
| Standard lens 30 $^{\circ}$        | 20                | (30.4 $\times$ 23.1) |
| Telephoto lens 15 $^{\circ}$       | 40                | (15.5 $\times$ 11.6) |

**Additional infrared interchangeable lenses** are available on request.



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