VarioCAM® HDx head

Entry-level Access to Stationary Thermography at Premium Level

Europe’s leading specialist for infrared sensors and measurement technology

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

Microbolometer detector with (640 × 480) IR pixels

GigE Vision interface

Robust light metal housing (IP67)

Wide range of lenses

Convenient camera control and data acquisition

Made in Germany

www.InfraTec.eu
Spectral range (7.5 … 14) µm
Detector Uncooled microbolometer focal-plane array
Detector format (IR pixels) (640 x 480)
Temperature measuring range (-40 … 600) °C, optional up to 1,700 °C*
Measurement accuracy ± 2 °C or ± 2%
Temperature resolution @ 30 °C Up to 0.03 K*
Frame rate Full-frame: 30 Hz (640 x 480), sub-frame: 60 Hz (384 x 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 32x digital, stepless
Dynamic range 16 bit
Personnel detection range Up to 2.0 km with VarioCAM® HDx head security/40 mm lens
Vehicle detection range Up to 4.2 km with VarioCAM® HDx head security/40 mm lens
Interfaces GigE Vision, DVI-D (HDMI), C-Video, RS232, WLAN*, Process interface*
Trigger* 2 × digital I/O, 2 × analogue I/O
Tripod adapter 1/4“ photo thread
Power supply AC adapter, (12 … 24) V DC, PoE* 
Storage and operation temperature (-40 … 70) °C, (-25 … 55) °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 x 90 x 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® 3, IRBIS® 3 plus, IRBIS® 3 professional, IRBIS® 3 view, IRBIS® 3 remote HD, IRBIS® 3 online, IRBIS® 3 process, IRBIS® 3 vision, IRBIS® 3 active, IRBIS® 3 mosaic

The thermographic camera VarioCAM® HDx head is based on an uncooled microbolometer FPA detector with (640 x 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® 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® 3. The high-quality processing, modular design and motorised focusing are among the details that benefit users.

The VarioCAM® 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

Lens Focal lens (mm) FOV (°)
Wide-angle lens 10 (57.1 x 44.4)
Standard lens 20 (30.4 x 23.1)
Telephoto lens 40 (15.5 x 11.6)
Macro and microscopic lenses Min. object distance (mm) Pixel (µm)
Close-Up 0.2x for lens: 40 mm / 20 mm 137 60 / 121
Close-Up 0.5x for lens: 40 mm / 20 mm 47 24 / 49
Microscopic lens M=1.0x 50 17

Additional infrared interchangeable lenses are available on request.