

VarioCAM[®] HD head security

Infrared Thermal Imaging System for Security and Monitoring Tasks



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- 1) Vehicle-based surveillance
- 2) Monitoring of a parking lot

INFRA^{TEC}.

Europe's leading specialist for infrared sensors and measurement technology

Uncooled detector with (1,024 × 768) IR pixels

Optomechanical MicroScan with (2,048 × 1,536) IR pixels

Spectral range (7.5 ... 14) μm

Personnel detection range 6.1 km

Vehicle detection range 10.7 km

Solid light metal housing (IP67)

No US export license required



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Made in Germany



Spectral range	(7.5 ... 14) μm
Detector	Uncooled Microbolometer Focal Plane Array
Detector format (IR pixels)	(1,024 × 768), with built-in opto-mechanical high-precision scan unit (2,048 × 1,536)* (640 × 480), with built-in opto-mechanical high-precision scan unit (1,280 × 960)*
Temperature measuring range	(-40 ... 2,000) °C*
Measurement accuracy	± 1 °C or ± 1 %*
Temperature resolution @ 30 °C	Up to 0,02 K*
Frame rate	Full-frame: 30 Hz (1,024 × 768), sub-frame formats*: 60 Hz (640 × 480) / 120 Hz (384 × 288) / 240 Hz (1,024 × 96) Full-frame: 60 Hz (640 × 480), sub-frame formats*: 120 Hz (384 × 288) / 240 Hz (640 × 120)
Storage media	SDHC Card, external control computer for camera control and data acquisition*
Image storage	Time-, trigger- und temperature controlled recording of 16 bit single frames or image sequences with timestamp, video streaming in MPEG format
Realtime storage*	Computer-aided storage of radiometric sequences by GigE interface with up to 240 Hz
Lens mount	Bayonet to comfortably switch objectives, automatic objective detection and data transfer; screw-on interface*
Focus	Motor-driven, automatic or manual, accurately adjustable, laser-supported autofocus*
Zoom	Up to 32x digital, stepless
Personnel detection range	Up to 6.1 km
Vehicle detection range	Up to 10.7 km
Digital colour video camera	8 Megapixels, with a LED video light, vision mixer and cross-fade feature
Dynamic range	16 bit
Interfaces; Trigger*	GigE Vision*, DVI-D (HDMI), C-Video, RS232, USB 2.0, WLAN*, Bluetooth*, 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 529, 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 × 90 × 94) mm; 1.15 kg (basic configuration with standard lens)
Further functions	Camera internal emissivity correction, shutter free operation, use of various colour sets, contrast enhancement, user profile, language selection
Analysis and evaluation software*	IRBIS® 3, IRBIS® 3 report, IRBIS® 3 view, IRBIS® 3 plus*, IRBIS® 3 professional*, IRBIS® 3 remote HD, IRBIS® 3 control*, IRBIS® 3 online*, IRBIS® 3 process*, IRBIS® 3 active*, IRBIS® 3 mosaic*, IRBIS® 3 vision*

* Depending on model

The **thermographic high-resolution system VarioCAM® HD head security** was conceived for demanding monitoring and measurement tasks in stationary or vehicle-mounted operation. Images with resolutions of up to 3.1 Megapixels can be taken in combination with the integrated MicroScan feature, which was designed for continuous operation. The VarioCAM® HD head security generates **brilliant 16-bit thermographic images of highest quality** and offers unprecedented measurement ranges and efficiency, especially during **day and night detection and identification of distant persons and vehicles**.

The **various sets of equipment** make it easy to adjust the setup to the respective measurement task: The application range includes automatic threshold recognition and signalling up to digital realtime image acquisition via Gigabit-Ethernet. The **all-weather light metal housing (IP67)** allows **trouble-free and inexpensive operation** under harsh weather conditions.

The **big standard temperature range**, a complete optical assortment as well as the extensive equipment and the **powerful IRBIS® 3 software** for thermographic data acquisition and evaluation make the VarioCAM® HD head security an **ideal tool for monitoring and investigation**. With the application-specific configuration, this stationary thermographic system is even suited for tasks, which require continuous and automatic operation.

Application examples:

- Remote sensing and monitoring
- Integration in system solutions for ground vehicles, helicopters and maritime applications
- Undercover investigations from greater distances
- Stationary protection of critical infrastructure

Detector format (IR pixels)		(640 × 480)	(1,240 × 768)
Lens	Focal length (mm)	FOV (°)	FOV (°)
Super wide-angle lens	7.5	(93.7 × 77.3)	(98.5 × 82.1)
Wide-angle lens	15	(56.1 × 43.6)	(60.3 × 47.0)
Standard lens	30	(29.9 × 22.6)	(32.4 × 24.6)
Telephoto lens	60	(15.2 × 11.4)	(16.5 × 12.4)
Telephoto lens	120	(7.6 × 5.7)	(8.3 × 6.2)

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