

VarioCAM® HD head security

Infrared Thermal Imaging System for Security and Monitoring Tasks



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

INFRAtec.

Europe's leading specialist for infrared sensors and measurement technology

Uncooled detector with up to $(1,024 \times 768)$ IR pixels

Opto-mechanical MicroScan with up to $(2,048 \times 1,536)$ IR pixels

Spectral range $(7.5 \dots 14) \mu\text{m}$

Personnel detection range 6.1 km

Vehicle detection range 10.7 km

Solid light metal housing (IP67)

No US export license required



www.InfraTec.eu

Made in Germany



Spectral range	(7.5 ... 14) μm
Detector	Uncooled Microbolometer Focal Plane Array
Detector format (IR pixels)	(1,024 \times 768), with built-in opto-mechanical MicroScan unit (2,048 \times 1,536)* (640 \times 480), with built-in opto-mechanical MicroScan unit (1,280 \times 960)*
Temperature measuring range	(-40 ... 2,000) $^{\circ}\text{C}^*$
Measurement accuracy	$\pm 1^{\circ}\text{C}$ or $\pm 1\%$ *
Temperature resolution @ 30 $^{\circ}\text{C}$	Up to 0,02 K*
Frame rate	Full-frame: 30 Hz (1,024 \times 768), sub-frame formats*: 60 Hz (640 \times 480) / 120 Hz (384 \times 288) / 240 Hz (1,024 \times 96) Full-frame: 60 Hz (640 \times 480), sub-frame formats*: 120 Hz (384 \times 288) / 240 Hz (640 \times 120)
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
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
Zoom	Up to 32 \times digital, stepless
Personnel detection range	Up to 6.1 km
Vehicle detection range	Up to 10.7 km
Dynamic range	16 bit
Interfaces; Trigger*	GigE Vision*, DVI-D (HDMI), C-Video, RS232, USB 2.0, WLAN*; 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, 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
- Detection in system solutions for ground vehicles, helicopters and maritime surveillance
- Remote investigations from greater distances
- Standby protection of critical infrastructure

Detector format (IR pixels)			(1,024 \times 768)
Lens	Focus length		Focal range
Standard lens		(9.5 ... 30)	(98.5 ... 32.1)
Zoom lens		(9.5 ... 30)	(100.3 \times 47.0)
Telephoto lens	30	(24.9 \times 22.6)	(32.4 \times 24.6)
Photo lens	60	(15.2 \times 11.4)	(16.5 \times 12.4)
Telephoto lens	120	(7.6 \times 5.7)	(8.3 \times 6.2)

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