INFRATEC.
MADE IN GERMANY

Vehicle-based surveillance

VarioCAM® HD head security
Infrared Thermal Imaging System for Security and Monitoring Tasks

1,024 × 768 Detector

Detector Format
Efficient measurement of smallest details on large-scale objects

10,7 km

Detection Range
Detection of vehicles and persons at very large distances

≥ 20 mK

Thermal Resolution
Precise detection of smallest temperature differences

Fokus

Motor Focus
Precise, remote and quick motorised focusing

3,1 MegaPixel

MicroScan
IR pixels by genuine camera hardware

IP67

Protection Degree
Camera operation under harsh environmental conditions

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.

Technical Specifications

Spectral range	(7.5 … 14) µm
Detector	Uncooled Microbolometer Focal Plane Array
Detector format (IR pixels)	(1,024 × 768), with built-in opto-mechanical MicroScan unit (2,048 × 1,536)*
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)
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× 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 × 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 × 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*

* Modellabhängig

Detector format (IR pixels)		(1,024 × 768)
Lens	Focal length (mm)	FOV (°)
Super wide-angle lens	7.5	(98.5 × 82.1)
Wide-angle lens	15	(60.3 × 47.0)
Standard lens	30	(32.4 × 24.6)
Telephoto lens	60	(16.5 × 12.4)
Telephoto lens	120	(8.3 × 6.2)

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

Monitoring of parking lots