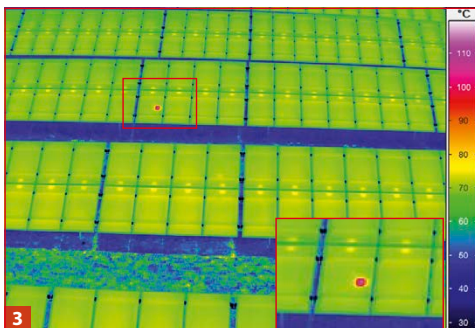
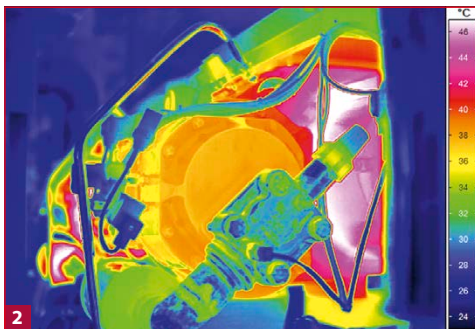


# VarioCAM® High Definition

Thermographic Solution for Universal Use

## InfraTec

Europe's leading specialist for infrared sensors and measurement technology



- 1) VarioCAM® HD from Jenoptik
- 2) Transmission
- 3) Photovoltaic power plant

**Microbolometer camera with up to (1,024 × 768) IR pixels**

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

**Frame rate of up to 240 Hz, GigE-Vision interface**

**Integrated light-sensitive digital 8 MP camera**

**5.6" colour TFT display with (1,280 × 800) pixels**

**Laser rangefinder and GPS sensor**

**Wireless camera control and data acquisition via WLAN**

**Made in Germany**

[www.InfraTec.eu](http://www.InfraTec.eu)



**NEW**



Spectral range	(7.5 ... 14) $\mu\text{m}$
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 ... 1,200) °C, > 2,000 °C*
Measurement accuracy	$\pm 1$ °C or $\pm 1$ %*, otherwise $\pm 1.5$ °C or $\pm 1.5$ %
Temperature resolution @ 30 °C	Better than 0.03 K*, otherwise better than 0.05 K
Frame rate	Fullframe: 30 Hz (1,024 × 768), subframe formats*: 60 Hz (640 × 480) / 120 Hz (384 × 288) / 240 Hz (1,024 × 96) Fullframe: 60 Hz (640 × 480), subframe formats*: 120 Hz (384 × 288) / 240 Hz (640 × 120)
Image storage	SDHC-card, GigE-Vision up to 240 Hz, internal real-time storage
Lens mount	Bayonet to comfortably switch objectives, automatic objective detection and data transfer
Focus	Motor-driven, automatic or manual, accurately adjustable, laser-supported autofocus
Zoom	Up to 32x digital, stepless
Digital colour video camera	8 Megapixels, with a LED video light, vision mixer and cross-fade feature
Dynamic range	16 bit
Interfaces	GigE-Vision, DVI-D, C-Video, RS232, Trigger, Analog output*, Digital I/O*, WLAN, USB 2.0, Bluetooth, GPS
Tripod adapter	1/4 " photo thread
Power supply	Lithium-Ion battery (quick rechargeable, with status display), AC adapter
Laser range finder*	Red semiconductor laser, laser safety class 2, range up to 70 m
Display	5.6 " colour TFT display (1,280 × 800) pixels, daylight suited
Colour viewfinder*	Tiltable colour viewfinder with diopter compensation
Single-handed operation	Intuitive operation with ergonomically arranged function keys and multifunctional joystick, programmable keys
Storage and operation temperature	(-40 ... 70) °C, (-25 ... 50) °C
Protection degree	IP54, IEC 529
Impact strength/vibration resistance in operation	25 G (IEC 68 - 2 - 29), 2 G (IEC 68 - 2 - 6)
Dimensions, weight	(210 × 125 × 55) mm, 1.7 kg
Automatic functions	Autofocus, permanent autofocus, automatic distance indicator, distance-dependent calculation of permitted pixel size, Autoimage, Autolevel, Min./Max. temperature alarm: visual/acoustic, alarm triggered image storage
Measurement functions	8 free choosable, movable measurement fields/-points, automatic hot/cold spot display: global and internal defined measurement fields, differential temperature measurement: temporally/locally, temperature profile, histogram, differential image, isotherms display
Further functions	EverSharp function (multifocus), shutter-free operation, temperature alarm, image merging, synchronous display of thermal and visual image in real-time
Analysis and evaluation software*	IRBIS® 3, IRBIS® 3 professional, IRBIS® 3 view, IRBIS® 3 plus, IRBIS® 3 remote HD, IRBIS® 3 online, IRBIS® 3 process, IRBIS® 3 active, IRBIS® 3 mosaic, IRBIS® 3 vision, FORNAX 2.0

\* Depending on model

For the first time a handheld thermographic microbolometer cameras with a **detector format of (1,024 × 768) IR pixels** is available: The **VarioCAM® HD** is manufactured by the **German manufacturer Jenoptik**. It comes with a resolution 2.5 higher than previous high-class models. In connection with the outstanding thermal resolution and **unique precision optics**, crystal clear high-precision thermal images can be taken. Large test objects can be captured thermographically with unprecedented efficiency.

Detector format (IR pixels)		(640 × 480)	(1,024 × 768)
Lens	Focal distance (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 × 25.6)
Telephoto lens	60	(15.2 × 11.4)	(16.5 × 12.4)
Telephoto lens	120	(7.6 × 5.7)	(8.3 × 6.2)
<b>Macro and microscopic lenses</b>	Min. object distance (mm)	Pixel ( $\mu\text{m}$ )	Pixel ( $\mu\text{m}$ )
Close-Up 0.2× for 30 mm	69.7	75	51
Close-Up 0.5× for 30 mm	32.6	42	29
Close-Up 0.5× for 60 mm	78.3	42	28
Microscopic lens M=1.0×	40	25	17

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