

Church of Our Lady Dresden, lens focal length (28... 850) mm



# ImageIR® 8300 / 9300 Z

## Super-Zoom Thermal Imaging System

1,280  
x  
1,024  
Detector

### Detector Format

High resolution thermal images for temperature measurement

5,000 Hz

### IR-Frame Rate

High resolution thermal images for monitoring large areas

25  
mK

### Thermal Resolution

Precise detection of smallest temperature differences

Focus

### Motor Focus

Precise, remote and quick motorised focusing

30x  
Optical

### Optical Zoom

Most detailed imaging of measurement objects

18  
km

### Detection Range

Detection of vehicles and persons at very large distances

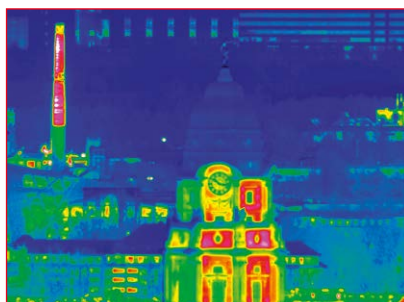
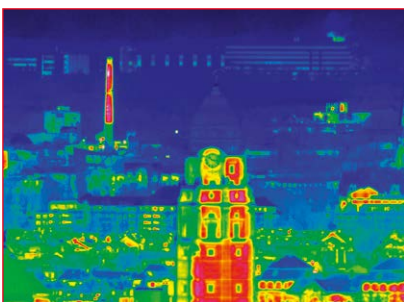
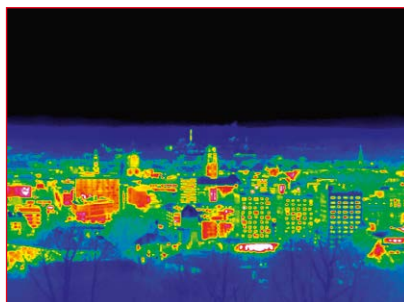
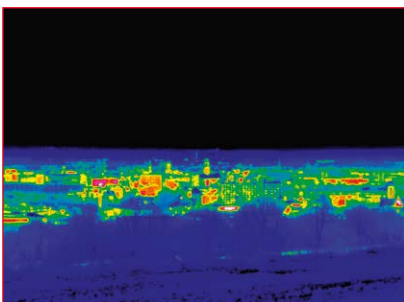
The **ImageIR® camera series** is a high-precision measurement solution that has been an indispensable tool in **high-quality research, development and automation solutions** for many years. There is more beyond high-end infrared camera series ImageIR®: The combination of this thermal imaging system with a premium **30x zoom lens facilitates complex observation and investigation**, such as border control, vehicle observation and monitoring of the environment or animals. The detection range is outstanding: vehicles can be detected up to 18 km and persons up to 15 km.

The rugged and exact **power zoom** together with the high-performance 30x zoom lens achieves a **continuously adjustable field of view** from  $(26.1 \times 19.8)^\circ$  down to  $(1.29 \times 1.04)^\circ$  with a detector format of  $(1,280 \times 1,024)$  IR pixels. Therefore, also objects being far away can be displayed with a high-resolution infrared image. The camera versions ImageIR® 8300 Z and ImageIR® 9300 Z with detector formats of  **$(640 \times 512)$  and  $(1,280 \times 1,024)$  IR pixels** are available. The customisable software interface offers **time coded real-time playback**.

## Technical Specifications

Spectral range	(3.6 ... 4.9) µm
Pitch	15 µm
Detector	InSb
Detector format (IR pixels)	ImagelR® 8300 Z: (640 × 512), ImagelR® 9300 Z: (1,280 × 1,024)
Image acquisition	Snapshot
Readout mode	ImagelR® 8300 Z: ITR/IWR, ImagelR® 9300 Z: IWR
Aperture ratio	f/5.5
Detector cooling	Stirling cooler
Temperature measuring range	(-10 ... 200) °C, up to 400 °C*
Temperature resolution @ 30 °C	0.02 K
Frame rate (full / half / quarter / sub frame)*	ImagelR® 8300 Z: Up to 200 / 570 / 1,000 / 4,700 Hz (14 bit), up to 200 / 670 / 1,200 / 5,000 Hz (13 bit); ImagelR® 9300 Z: Up to 50 / 200 / 390 / 3,400 Hz
Window mode	Yes
Focus	Motor focus with absolut focussing
Focusing time	300 m up to ∞: ≤ 0.5 s
Lens focal length	(28 ... 850) mm (30× optical zoom)
Zoom setting time	(100 ... 850) mm: ≤ 2 s
Field of view	ImagelR® 8300 Z: (19.8 × 15.9)° ... (0.6 × 0.5)° ImagelR® 9300 Z: (39.8 × 32.3)° ... (1.3 × 1.0)°
Minimum object distance	(3 ... 50) m
Max. detection range (vehicle / person)	18 / 15 km
Max. identification range (vehicle / person)	12 / 9.5 km
Dynamic range*	ImagelR® 8300 Z: 13 / 14 bit, ImagelR® 9300 Z: 14 bit
Integration time	ImagelR® 8300 Z: (0.6 ... 20,000) µs, ImagelR® 9300 Z: (0.5 ... 18,000) µs
Image synchronisation	Internal, IRIG-B, external
Interfaces	GigE-Vision compatible or 10 GigE**
Trigger	4 IN* / 2 OUT*
Analogue signals*, IRIG-B*	RS422 oder TTL*
Tripod adapter	Standing or hanging mechanical interface 8 x M6
Power supply	(24 ... 28) VDC, (12 ... 30) VDC*
Storage and operation temperature	(-40 ... 70) °C, (-20 ... 50) °C
Protection degree	IP54, IP65*
Dimensions, weight	(360 × 240 × 270) mm, 17 kg
Analysis and evaluation software	IRBIS® 3, IRBIS® 3 view, IRBIS® 3 plus*, IRBIS® 3 professional*, IRBIS® 3 control*, IRBIS® 3 online*, IRBIS® 3 process*, IRBIS® 3 active*, IRBIS® 3 mosaic*, IRBIS® 3 vision*

\* Depending on model



Dresden town hall, lens focal length (28 ... 850) mm

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