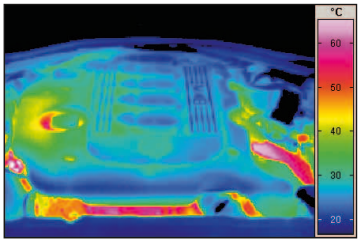
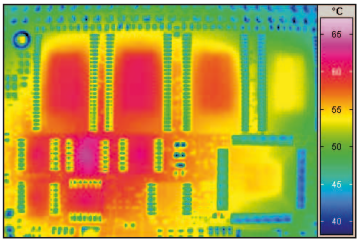
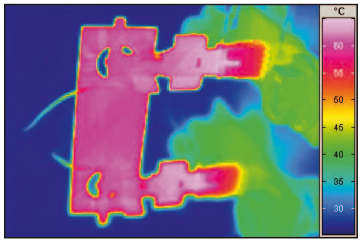
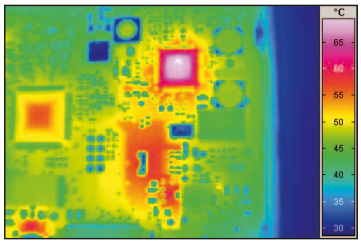
PIR uc 180

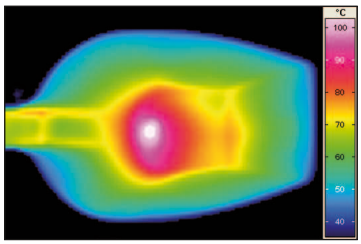
Infrared Thermography Camera for online Applications

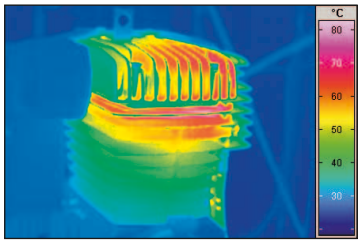












Features

- Uncooled Microbolometer FPA Detector with (160 x 120) IR pixels
- Spectral range (7.5 ... 13) µm
- Real-time thermography up to a frame rate of 100 Hz
- Can be triggered externally
- Robust low-weight metal housing
- High degree of protection (IP 65)
- Available interchangeable lenses
- Close-up function for very small objects to be measured
- Wide temperature range from (-20 ... 850) °C
- Wide range of accessories
- Compact design
- Very low weight of 280 g

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PIR uc 180

Infrared Thermography Camera for online Applications

Technical specifications

Spectral range	(7.5 ... 13) µm
Detector	Microbolometer Focal Plane Array, uncooled
Detector format (IR pixel)	(160 x 120)
Temperature measuring range	(-20 ... 250) °C, 850 °C optional
Measurement accuracy	± 2 K; ± 2 %
Temperature resolution @ 30 °C	0.08 K
IR-frame rate	100 Hz
Normal lens (field of view)	(30 x 23)° by detector with (160 x 120) IR pixel
Image storage	To hard disk (Notebook)
Interfaces	USB 2.0
Power supply	Via USB 2.0
High resistance to shock in operation	25 G, IEC 68-2-29
Operation temperature, encapsulation	(0 ... 50) °C, IP 65
Dimensions	(51 x 51 x 65) mm
Weight	280 g (complete system)

The radiometerised thermographic system PIR uc 180 has been designed for universal application and is based on an uncooled Microbolometer FPA Detector of (160 x 120) IR pixels. Thanks to its low weight and extremely small low-weight metal housing (IP 65) that is fit for industrial purposes, installations can also be implemented hassle-free and at reasonable cost in rugged industrial conditions. Various lens combinations allow optimal adjustment of the PIR uc 180 to the measuring job at hand.

The state-of-the-art interface concept of the PIR uc 180 permits both real-time image acquisition up to 100 Hz via USB 2.0 including online signal processing for process control on a PC. Therefore, PIR uc 180 is suitable for a multitude of applications in production and development – from process monitoring via quality assurance to product development. The thermographic system PIR uc 180 is on offer with capable tools of the thermographic software IRBIS® 3 family plus numerous accessories.

Lenses

Lens	Focal length	Aperture angle	Frame (d = 1 m)	Geometric resolution	Focusing range
Wide angle lens	6 mm	(64 x 48)°	(125 x 90) cm	7.8 mrad	ca. (0.1 ... ~) m
Normal lens	10 mm	(30 x 23)°	(54 x 42) cm	3.4 mrad	ca. (0.1 ... ~) m
Telephoto lens	36 mm	(9 x 7)°	(16 x 12) cm	1.0 mrad	ca. (0.3 ... ~) m

Applications

- Online process monitoring
- Quality control in manufacture
- Monitoring of machines and facilities
- Safety applications and fire protection
- Real-time analyses in research and development

Design and specifications will constantly be improved and thus be subject to technical progress.