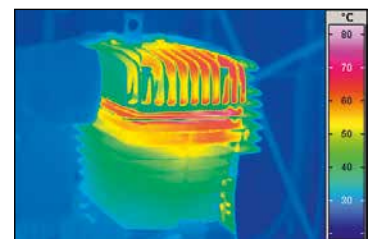
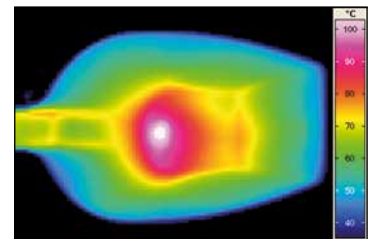
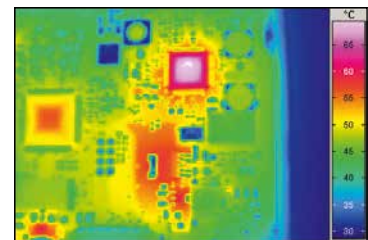
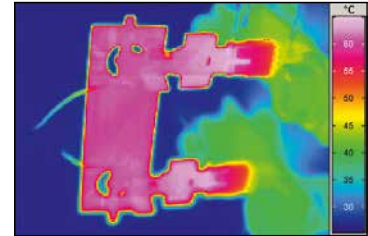
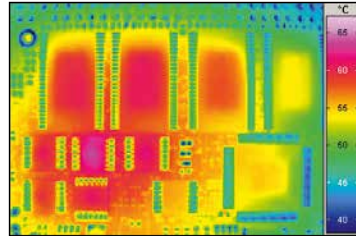
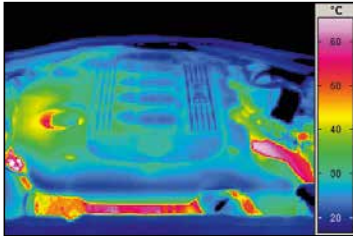




## PIR uc 180

Infrared Thermography Camera for online Applications



### Features

- Uncooled Microbolometer FPA Detector with (160 × 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 (IP65)
- 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

# PIR uc 180

## Infrared Thermography Camera for online Applications

### Technical specifications

Spectral range	(7,5 ... 13) $\mu\text{m}$
Detector	Microbolometer Focal Plane Array, uncooled
Detector format (IR pixel)	(160 $\times$ 120)
Temperature measuring range	(-20 ... 250) $^{\circ}\text{C}$ , 850 $^{\circ}\text{C}$ optional
Measurement accuracy	$\pm 2 \text{ K}$ ; $\pm 2 \%$
Temperature resolution @ 30 $^{\circ}\text{C}$	0.08 K
Frame rate	100 Hz
Normal lens (field of view)	(30 $\times$ 23) $^{\circ}$ by detector with (160 $\times$ 120) IR pixel
Image storage	To hard disk (Notebook)
Interfaces	USB 2.0
Power supply	Via USB 2.0
Operation temperature	(0 ... 50) $^{\circ}\text{C}$
Protection degree	IP65
High resistance to shock in operation	25 G, IEC 68-2-29
Dimensions	(51 $\times$ 51 $\times$ 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  $\times$  120) IR pixels. Thanks to its low weight and extremely small low-weight metal housing (IP65) 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<sup>®</sup> 3 family plus numerous accessories.

### Lenses

Lens	Focal length	Aperture angle	Frame (d = 1 m)	Geometric resolution	Focusing range
Wide angle lens	6 mm	(40 $\times$ 30) $^{\circ}$	(80 $\times$ 50) cm	4.7 mrad	ca. (0.1 ... $\infty$ ) m
Normal lens	10 mm	(23 $\times$ 17) $^{\circ}$	(40 $\times$ 30) cm	2.5 mrad	ca. (0.1 ... $\infty$ ) m
Telephoto lens	36 mm	(6 $\times$ 5) $^{\circ}$	(11.3 $\times$ 8.5) cm	0.7 mrad	ca. (0.5 ... $\infty$ ) 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