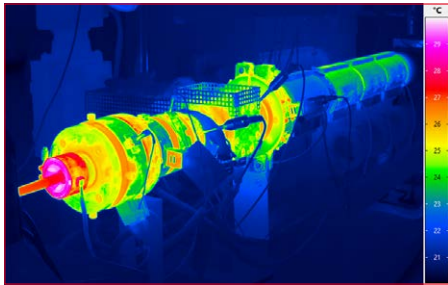


Optimisation of drive assemblies



Production in the plastics industry



# PIR uc LWIR

## Stationary Thermographic Cameras for Industrial Use

**640  
×  
480**  
Detector

### Detector Format

Efficient solution for various measurement tasks in production and development

**25 Hz**  
Fullframe

### Frame Rate

Analysis of high-speed dynamic temperature changes and processes



### Compact light metal housing

Reliable protection from climatically and mechanically extreme conditions

**IP65**

### Protection Degree

Constant excellent optical and metrological performance



### Complete Optical Assortment

Adaptation of the image geometry to almost every measuring situation



### Power over Ethernet (PoE)

Optional power supply via data network

The outer appearance suggests immediately – the **PIR uc LWIR** from InfraTec has proved itself most of all in particularly harsh conditions. The robust light metal housing reliably protects the inside of the models in this **camera series for the long-wave spectral range** from climatically and mechanically extreme conditions. High temperatures, dust, dirt – these thermographic cameras with protection degree **IP65** are able to withstand very much. This qualifies them for numerous applications, such as in the area of process monitoring and security technology, which require a stationary camera for the **contactless temperature measurement on many different surfaces**. In addition to this robustness, the compact design and small dimensions simplify the integration into diverse industrial processes.

An uncooled microbolometer focal-plane array detector with **(640 × 480) IR pixels** serves as a basis of the camera series. Users are offered numerous options in terms of further equipment features. These include the wide range of lenses, miscellaneous protective windows, an extended calibration range up to 1,000 °C, an integrated air purge as well as extensive accessories. Last but not least, the PIR uc LWIR offers a very attractive price-performance ratio.

## Technical Specifications

|                                   |   |
|-----------------------------------|---|
| Spectral range                    | (8 ... 14) $\mu\text{m}$  |
| Pitch                             | 17 $\mu\text{m}$  |
| Detector                          | Uncooled microbolometer focal-plane array                         |
| Detector format (IR pixels)       | (640 × 480)   |
| Temperature measuring range       | (-20 ... 135) °C / (0 ... 400) °C, up to 1,000 °C                 |
| Measurement accuracy              | $\pm 5 \text{ K}$ (0 ... 100) °C, $\pm 5 \%$ (< 0 resp. > 100) °C |
| Temperature resolution @ 30 °C    | $\leq 0,06 \text{ K}$   |
| Frame rate (full-frame)           | 25 Hz   |
| Data interface                    | Ethernet RJ45, 100 BaseT  |
| Tripod adapter                    | 1/4" photo thread   |
| Focus                             | Manual  |
| Power supply                      | Power over Ethernet (PoE)   |
| Storage and operation temperature | (-45 ... 75) °C, (-40 ... 60) °C*                                 |
| Protection degree                 | IP65  |
| Protective housing                | Solid industrially-suited metal housing                           |
| Dimensions, weight                | ( $\varnothing 100 \times 255$ ) mm, approx. 1.8 kg               |

\* Depending on model

Easy handling, enormous resistance of the cameras in continuous operation and low maintenance already characterise the PIR uc LWIR as a standalone solution. Above all, however, such characteristics qualify these models as **components of turnkey thermography automation systems**. These can be **combined** so flexibly with **numerous evaluation and analysis programs of the IRBIS® 3 software range**. Thus, users can adjust the control of the cameras and the recording of data optimally to their specific requirements.

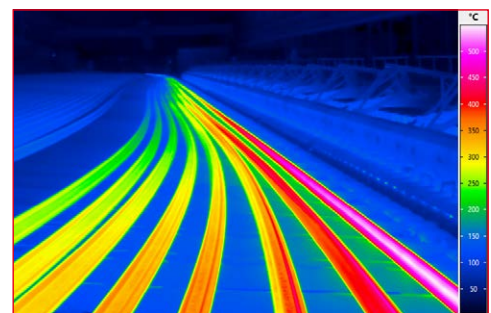
## Application Examples

- Assembly control and process monitoring
- Monitoring of machinery and equipment
- Real-time thermography in research and development
- Early fire detection and security technology



## Lenses

|                             |             |
|-----------------------------|-------------|
| Detector format (IR pixels) | (640 × 480) |
| Lens                        | FOV (°)     |
| Super-wide-angle lens       | (95 × 78)   |
| Wide-angle lens             | (59 × 46)   |
| Standard lens               | (32 × 24)   |
| Telephoto lens              | (12 × 9)    |



Coating of railway rails

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