

**Compact high resolution infrared camera**

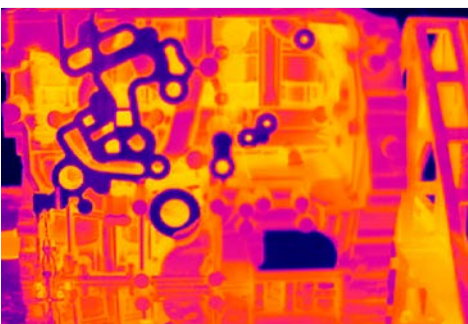
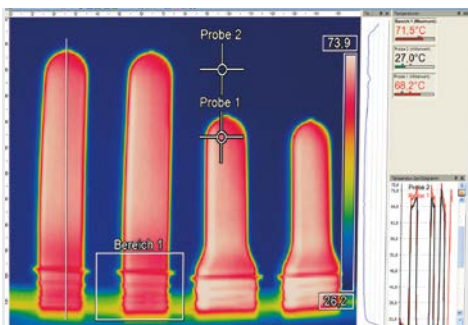
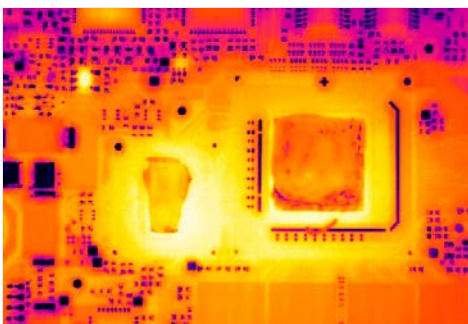


**Features:**

- Smallest camera in its class 46 x 56 x 76 - 100 mm
- Interchangeable lenses and industrial accessories
- Switchable Framerate 80Hz/27Hz
- License-free analysis software and full SDK included

**Technical specifications**

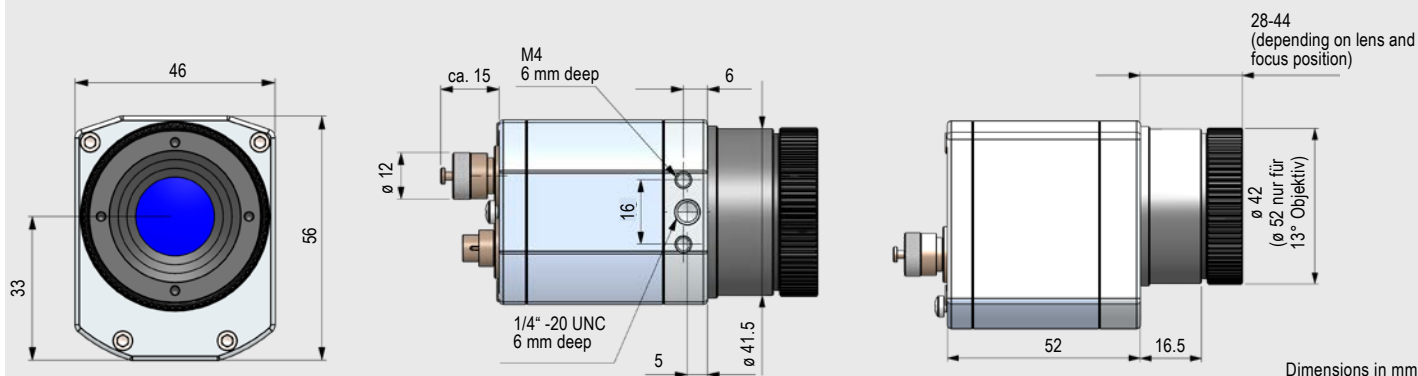
|                                    |  |
|------------------------------------|--|
| Optical resolution                 | 382 x 288 pixels   |
| Detector                           | FPA, uncooled (25 µm x 25 µm)  |
| Spectral range                     | 8 - 14 µm  |
| Temperature range                  | -20 ... 100 °C, 0 ... 250 °C, (20) 150 ... 900 °C <sup>1)</sup> ,<br>optional temperature range: 200 ... 1500 °C <sup>2)</sup>   |
| Frame rate                         | Switchable 27Hz/80Hz   |
| Optik (FOV)                        | 13° x 10° / f = 41 mm or<br>29° x 22° / f = 18.7 mm or<br>53° x 40° / f = 10.5 mm or<br>80° x 56° / f = 7.7 mm   |
| Thermal sensitivity (NETD)         | 75 mK with 29° x 22° FOV / F = 0.8<br>75 mK with 53° x 40° FOV / F = 0.8<br>75 mK with 80° x 56° FOV / F = 0.8<br>0.1 K with 13° x 10° FOV / F = 1.0   |
| Accuracy                           | ±2 °C or ±2 %, whichever is greater  |
| PC interfaces                      | USB 2.0 / optional USB to GigE (PoE) interface   |
| Standard process interface (PIF)   | 0 – 10 V input, digital input (max. 24 V),<br>0 – 10 V output  |
| Industrial process interface (PIF) | 2x 0 – 10 V input, digital input (max. 24 V), 3x 0 – 10 V output,<br>3x relays (0–30 V/ 400 mA), fail-safe relay   |
| Cable length (USB)                 | 1 m (standard), 5 m, 10 m, 20 m<br>5 m and 10 m also as high temperature USB cable (180 or 250 °C)   |
| Ambient temperature                | 0 ... 50 °C  |
| Storage temperature                | -40 ... 70 °C  |
| Relative humidity                  | 20 – 80 %, non condensing  |
| Enclosure (size / protection)      | 46 x 56 x 76 - 100 mm (depending on lens + focus position) / IP 67 (NEMA 4)  |
| Weight                             | 320 g, incl. lens  |
| Shock / Vibration <sup>3)</sup>    | IEC 60068-2  |
| Tripod mount                       | ¼ – 20 UNC   |
| Power supply                       | via USB  |
| Scope of supply (standard)         | <ul style="list-style-type: none"> <li>• USB camera, incl. 1 lens</li> <li>• USB cable (1 m)</li> <li>• Table tripod</li> <li>• PIF cable, incl. terminal block (1 m),</li> <li>• Software package optris PIX Connect,</li> <li>• Aluminum case</li> </ul> |



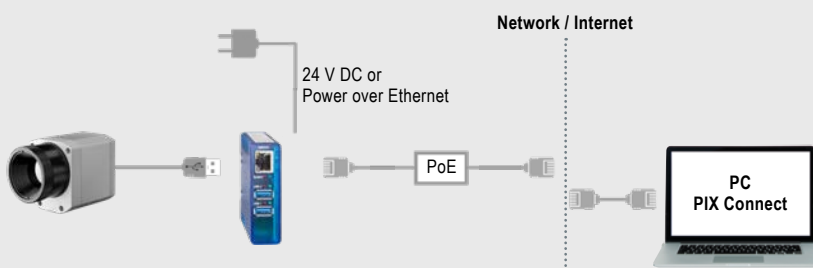
For further information as well as the product configurator, please visit [www.optris.global/thermal-imager-optris-pi400-pi450](http://www.optris.global/thermal-imager-optris-pi400-pi450)

<sup>1)</sup> Accuracy effective starting at 150 °C  
<sup>2)</sup> Not available for 80° optics  
<sup>3)</sup> For further details see operator's manual

## Dimension



## Process integration

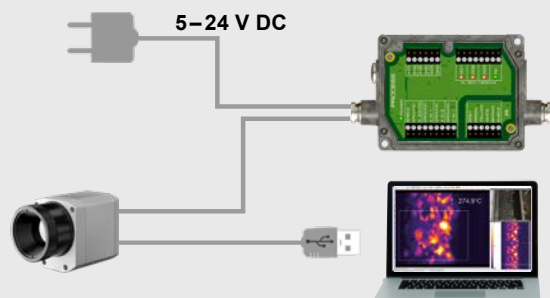


### optris® USB-Server Gigabit 2.0

- Network connection via Gigabit Ethernet
- Full TCP/IP support incl. routing and DNS
- Two independent USB ports
- Power via PoE or external voltage supply at 24 – 48 V DC
- Galvanic isolation 500 V<sub>RMS</sub>
- Remotely configurable via web based management

For further information please visit

[www.optris.global/usb-server-gigabit](http://www.optris.global/usb-server-gigabit)

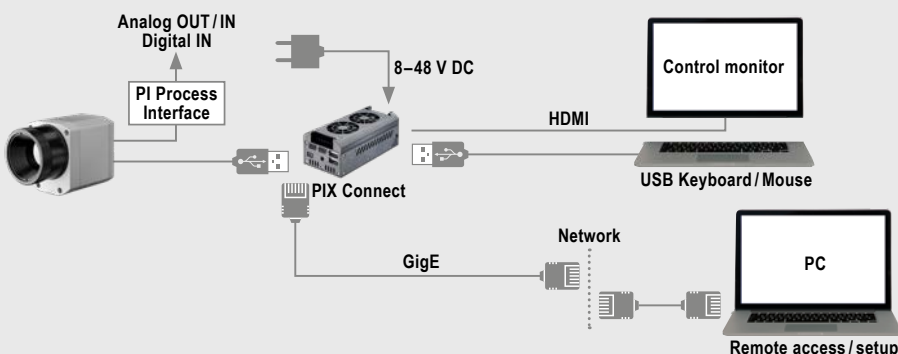


### optris® Industrial Process Interface

- Use of camera for process monitoring in industrial environments
- Continuous fail safe monitoring of imager, software and cable connections
- 3 analog/ alarm outputs, 2 analog inputs, 1 digital input, 3 alarm relays, 1 fail-safe relay

For further information please visit

[www.optris.global/neu-industrial-process-interface](http://www.optris.global/neu-industrial-process-interface)



### optris® PI NetBox

- Miniature PC as add-on to the PI series for stand-alone system
- Integrated hardware and software watchdog
- Connections: 2x USB 2.0, 1x USB 3.0, 1x Mini-USB 2.0, Micro-HDMI, Ethernet (Gigabit Ethernet), micro SDHC / SDXC card

For further information please visit

[www.optris.global/pi-netbox](http://www.optris.global/pi-netbox)