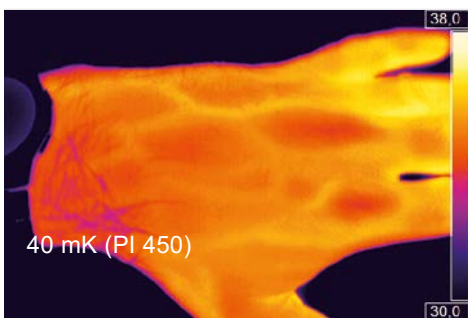
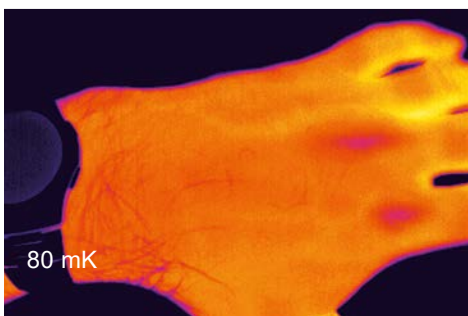
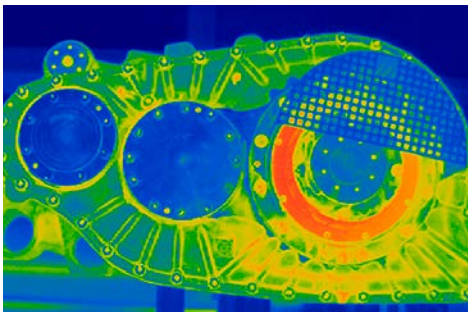


**IR camera for the detection of slightest temperature differences**



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)

**Features:**

- Smallest camera in its class (46 x 56 x 90 mm)
- Interchangeable lenses and industrial accessories
- Superb thermal sensitivity of 40 mK
- Licence-free analysis software and full SDK included

**Technical specifications**

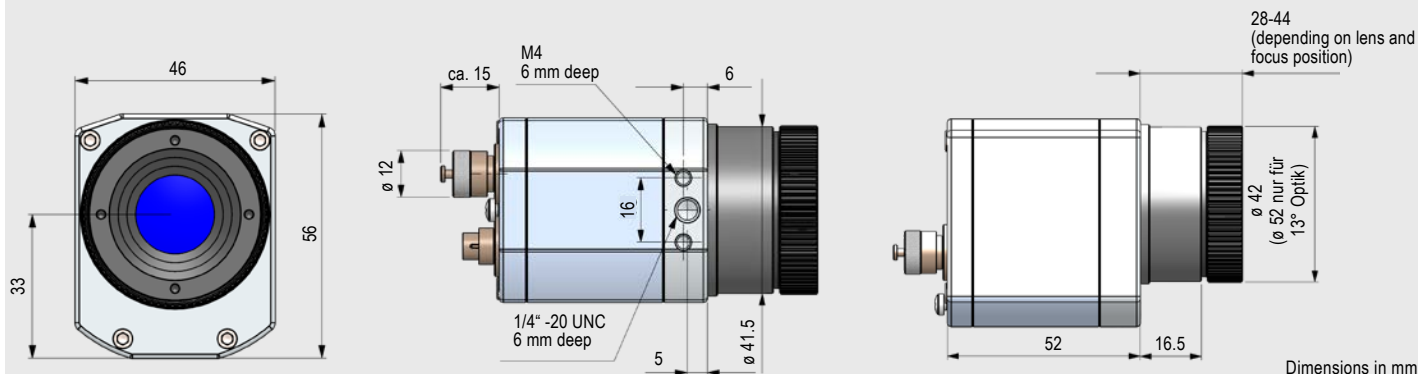
Optical resolution	382 x 288 pixels
Detector	FPA, uncooled (25 µm x 25 µm)
Spectral range	7.5 - 13 µm
Temperature ranges	-20 ... 100 °C, 0 ... 250 °C, (20) 150 ... 900 °C <sup>1)</sup> , optional temperature range: 200 ... 1500 °C <sup>2)</sup>
Frame rate	80 Hz switchable to 27 Hz
Optics (FOV)	13° x 10° / f = 41 mm or 29° x 22° / f = 18,7 mm or 53° x 40° / f = 10,5 mm or 80° x 56° / f = 7,7 mm
Thermal sensitivity (NETD)	0.04 K with 29° x 22° FOV / F = 0.8 0.04 K with 53° x 40° FOV / F = 0.8 0.04 K with 80° x 56° FOV / F = 0.8 0.06 K with 13° x 10° FOV / F = 1.0
System 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), 0 – 10 V output
Industrial process interface (PIF)	2x 0 – 10 V input, digital input (max. 24 V), 3x 0 – 10 V output, 3x relay (0–30 V/ 400 mA), fail-safe relay
Cable length (USB)	1 m (standard), 5 m, 10 m, 20 m 5 m and 10 m available as high temperature USB cable (180 or 250 °C)
Ambient temperature	0 ... 70 °C
Storage temperature	-40 ... 85 °C
Relative humidity	20 – 80 %, non condensing
Enclosure (size / protection)	46 x 56 x 90 mm/ IP 67 (NEMA 4)
Weight	320 g, incl. lens
Schock / 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. 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>• Rugged outdoor case</li> </ul>

<sup>1)</sup> Accuracy effective starting at 150 °C

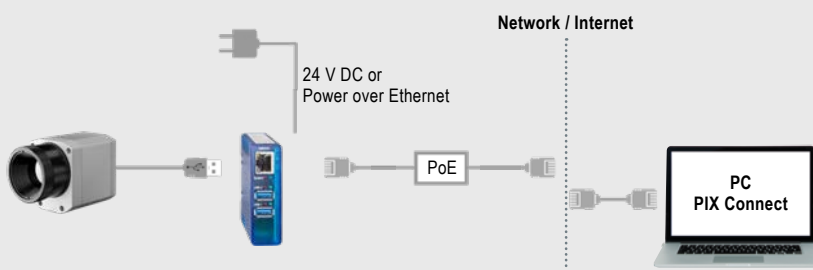
<sup>2)</sup> Not available for 80° optics

<sup>3)</sup> For further information see operator's manual

## Dimensions



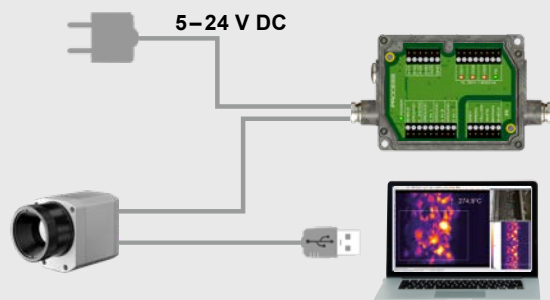
## Process integration



### optris® USB Server Gigabit 2.0

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

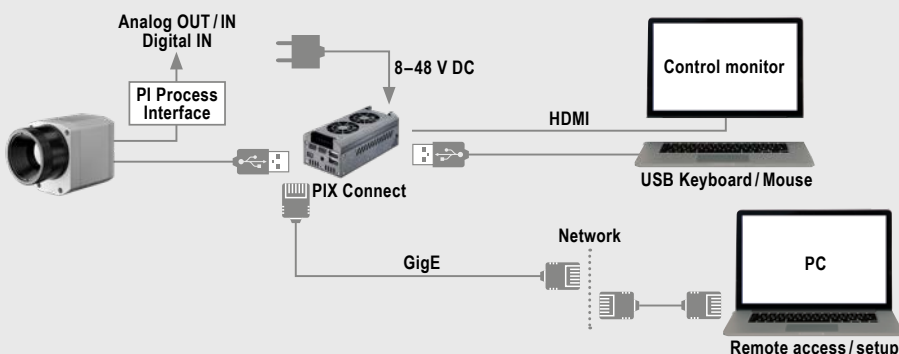
For further information please visit [www.optris.global/usb-server-gigabit](http://www.optris.global/usb-server-gigabit)



### 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 relay 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)