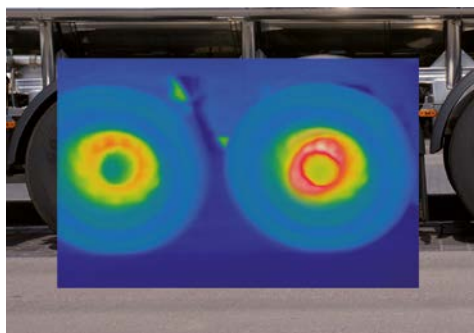
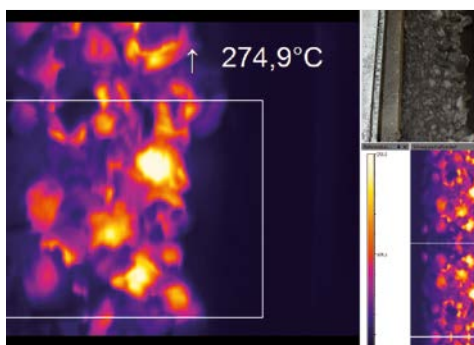
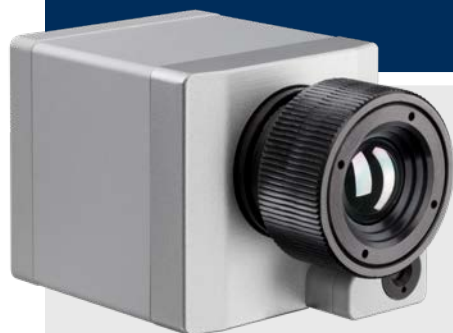


Infrared camera with BI-SPECTRAL Technology

Features:

- Time-synchronized visual image recording at up to 32 Hz (640 x 480 pixels)
- Real image camera is highly sensitive in low-light conditions
- Thermal images up to 128 Hz (160 x 120 pixels)
- Compact design 45 x 45 x 60 mm



For further information as well as the product configurator, please visit
www.optris.global/thermal-imager-optris-pi200-pi230

Technical specifications

Optical resolution	160 x 120 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 ¹⁾ , optional temperature range: 200 ... 1500 °C ²⁾
Frame rate	128 Hz ²⁾
Optics (FOV)	6° x 5° FOV / f = 35.5 mm or 23° x 17° FOV / f = 10 mm (recommended for PI 230) or 41° x 31° FOV / f = 5.7 mm (recommended for PI 200) or 72° x 52° FOV / f = 3.3 mm
Thermal sensitivity (NETD)	40 mK with 23° x 17° FOV / F = 0.8 0.3 K with 6° x 5° FOV / F = 1.6 0.1 K with 41° x 31° FOV und 72° x 52° FOV / F = 1
Visual camera	Optical resolution 640 x 480 pixels / Frame rate 32 Hz ³⁾ Optics (FOV): 54° x 40° (PI 200), 30° x 23° (PI 230)
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 relays (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 also available as high temperature cable (180 or 250 °C)
Ambient temperature	0 ... 50 °C
Storage temperature	–40 ... 70 °C
Relative humidity	20–80 %, non condensing
Enclosure (size / protection)	45 x 45 x 60 - 76 mm (depending on lens + focus position) / IP 67 (NEMA 4)
Weight	215 g, incl. lens
Shock / Vibration ⁴⁾	IEC 60068-2
Tripod mount	¼-20 UNC
Power supply	via USB
Scope of supply (standard)	• USB camera, 1 lense incl. • USB cable (1 m) • Table tripod • Standard PIF with cable (1 m), terminal block incl. • Software package optris® PIX Connect • Aluminium case

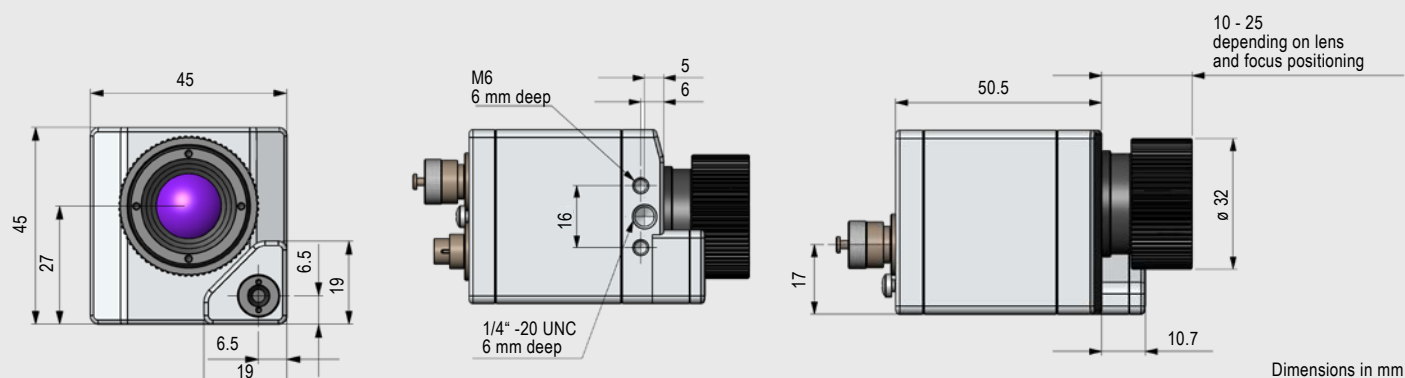
¹⁾ Accuracy effective starting at 150 °C

²⁾ Not available für 72° lense

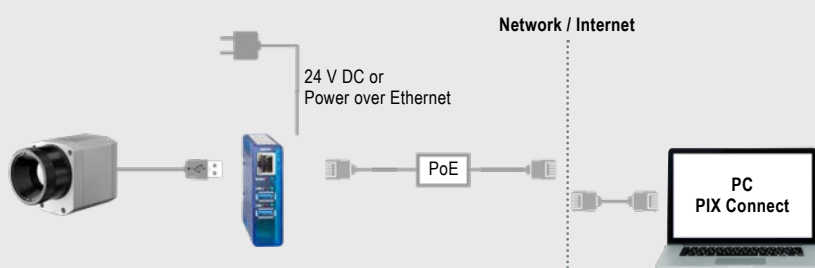
³⁾ Options: 1) IR with 96 Hz at 160 x 120 px; VIS with 32 Hz at 640 x 480 px
2) IR with 128 Hz at 160 x 120 px; VIS with 32 Hz at 596 x 447 px

⁴⁾ For further details see operator's manual

Dimensions



Process integration

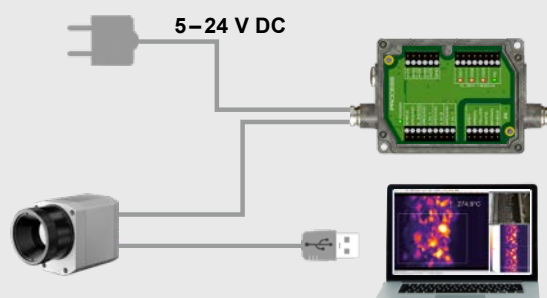


optris® USB-Server Gigabit 2.0

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

For further information please visit

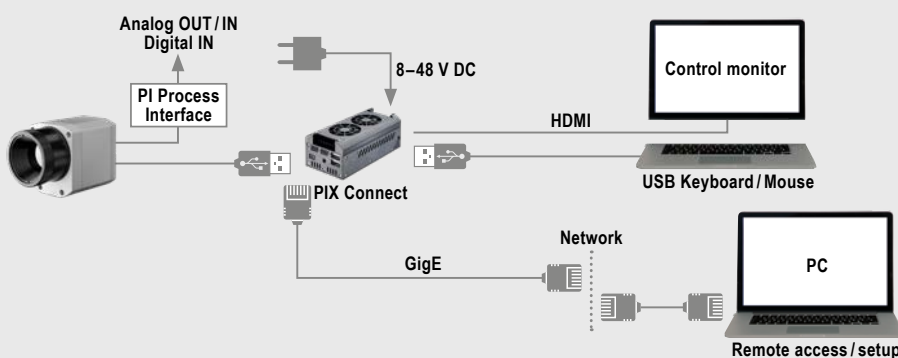
www.optris.global/usb-server-gigabit

**optris® Industrial Prozess 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/thermal-imager-optris-pi160

**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

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