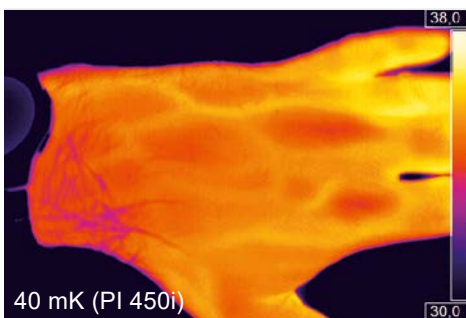
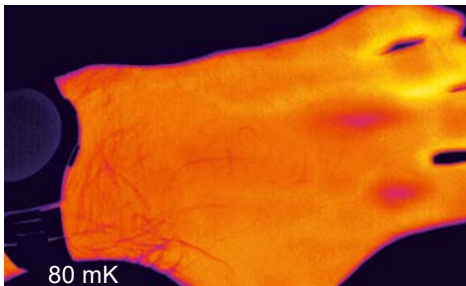
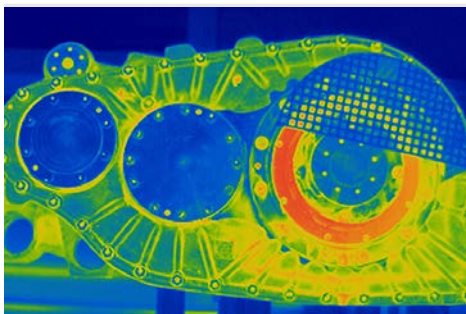


IR camera for the detection of slightest temperature differences



Features:

- Smallest camera in its class 46 x 56 x 68 – 77 mm (1.81 x 2.2 x 2.68 - 3.03 in)
- Interchangeable lenses and industrial accessories
- Superb thermal sensitivity of 40 mK
- Licence-free analysis software and full SDK included



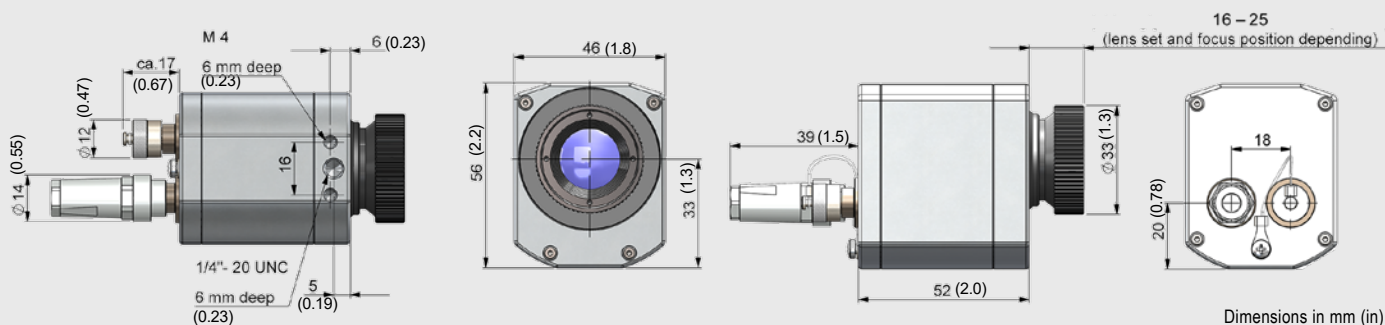
For further information as well as the product configurator please visit:
www.optris.com/thermal-imager-pi400i-pi450i

Technical specifications

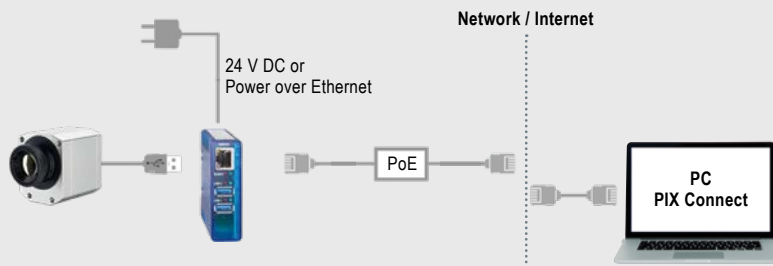
| | |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Optical resolution | 382 x 288 pixels |
| Detector | FPA, uncooled (17 µm x 17 µm) |
| Spectral range | 8 – 14 µm |
| Temperature ranges | -20 ... 100 °C (-4 ... 212 °F) 0 ... 250 °C (32 ... 482 °F) (20) 150 ... 900 °C ([68] 302 ... 1652 °F) ¹⁾ optional temperature range 200 ... 1500 °C (392 ... 2732 °F) ²⁾ |
| Frame rate | 80 Hz switchable to 27 Hz |
| Optics (FOV) | 18° x 14° / f = 20 mm (f = 0.7 in) or 29° x 22° / f = 12.7 mm (f = 0.5 in) or 53° x 38° / f = 7.7 mm (f = 0.3 in) or 80° x 54° / f = 5.7 mm (f = 0.2 in) |
| Thermal sensitivity (NETD) | 40 mK mit 29° x 22° FOV / F = 0,9 40 mK mit 53° x 38° FOV / F = 0,9 40 mK mit 80° x 54° FOV / F = 0,9 0,06 K mit 18° x 14° FOV / F = 1,1 |
| Accuracy | ±2 °C or ±2 % (±3.6 °F or ±2 %), whichever is greater |
| PC interfaces | USB 2.0 / optional USB to GigE (PoE) interface |
| Process interface (PIF), standard | 0–10 V input, digital input (max. 24 V), 0–10 V output |
| Process interface (PIF), industrial (optional) | 2x 0–10 V input, digital input (max. 24 V), 3x 0/4–20 mA outputs, 3x relays (0–30 V/ 400 mA), fail-safe relay |
| Cable length (USB) | 1 (standard) / 5 m / 10 m / 20 m (3.3 / 16.4 / 32.8 / 65.6 ft) 5 and 10 m (16.4 and 32.8 ft) also as HT cable (180 or 250 °C [356 or 482 °F]) |
| Ambient temperature | 0 °C ... 70 °C (32 °F ... 158 °F) |
| Storage temperature | -40 °C ... 85 °C (-40 °F ... 185 °F) |
| Relative humidity | 20–80 %, non-condensing |
| Enclosure (size / rating) | 46 x 56 x 68 – 77 mm (1.81 x 2.2 x 2.68 - 3.03 in) (depending on lens + focus position) / IP 67 (NEMA 4) |
| Weight | 320 g (11.29 oz), incl. lens |
| Shock / Vibration ²⁾ | IEC 60068-2-27 (25G and 50G) / IEC 60068-2-6 (sinus shaped), IEC 60068-2-64 (broadband noise) |
| Tripod mount | ¼-20 UNC |
| Power supply | via USB |
| Scope of supply | <ul style="list-style-type: none"> • USB camera, incl. lens • USB cable (1 m) • Table tripod • PIF cable, incl. terminal block (1 m) • Software package optris PIX Connect • Test certificate • Rugged outdoor transport case (IP67) |

¹⁾ Accuracy for the (20°C/ 68°F) 150 °C (302 °F)... 900 °C (1652 °F) range effective starting at 150 °C (302 °F)
²⁾ For further information see operator's manual.

Dimensions



Process integration

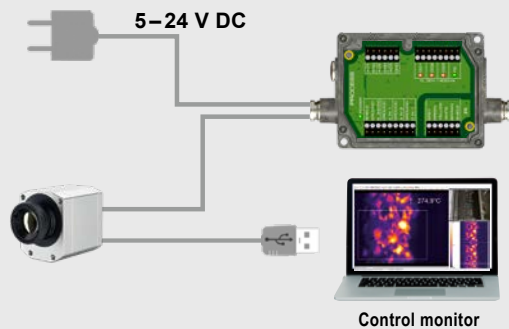


optris USB-Server Gigabit 2.0

- Network connection via Gigabit Ethernet
- Full TCP/IP support incl. routing and DNS
- Two independent USB ports
- Power over Ethernet 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.com/usb-server-industry-isochron

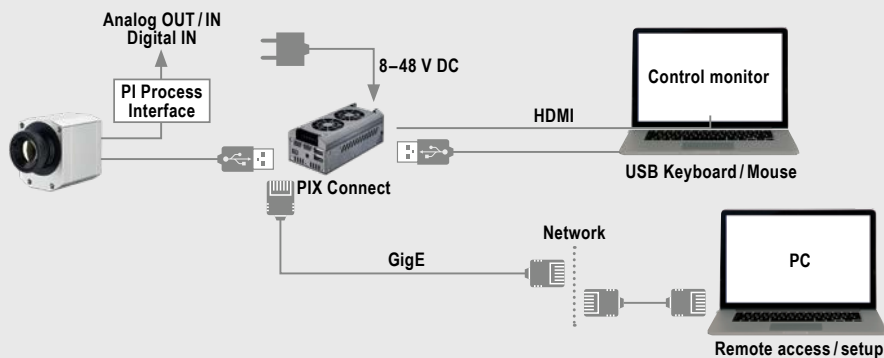


optris Industrial process interface

- 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.com/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.com/pi-netbox