High-resolution thermal imaging solution for the glass industry

Features:
- Line scan function through license-free analysis software optris® PIX Connect
- Compact in size: 46 x 56 x 76 - 100 mm
- Frame rate of up to 125 Hz
- Max. scan angle of 111° with 800 pixels per line

Technical specifications

- **Optical resolution**: 640 x 480 pixels
- **Detector**: FPA, uncooled (17 µm x 17 µm)
- **Spectral range**: 7.9 µm
- **Measurement ranges**: 200 ... 1500 °C, 150 ... 900 °C
- **Sighting range**: 0 ... 250 °C
- **Frame rate**: 32 Hz / 125 Hz @ 640 x 120 pixels
- **Optics (FOV)**:
  - 15° x 11° (f = 41.5 mm)
  - 33° x 25° (f = 18.7 mm)
  - 60° x 45° (f = 10.5 mm)
  - 90° x 64° (f = 7.7 mm)
  - Max. FOV: 111° / 800 pixels (diagonal scan line / 90° lens)
- **Thermal sensitivity (NETD)** at TObj = 650 °C: 130 mK
- **Accuracy**: ±2 °C or ±2 %, whichever is greater
- **PC interface**: 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**:
  - 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 also 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 / rating)**: 46 x 56 x 76 - 100 mm (depending on lens + focus position) / IP 67 (NEMA 4)
- **Weight**: 320 g, incl. lens
- **Shock / Vibration**
  - IEC 60068-2
- **Tripod mount**: ¼ – 20 UNC
- **Power supply**: via USB
- **Scope of supply (standard)**:
  - USB camera with 1 lens
  - USB cable (1 m)
  - Table tripod
  - PIF cable (1 m) incl. terminal block
  - Software package optris® PIX Connect
  - Rugged outdoor case

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For further information on non-contact temperature measurement in the glass industry, please visit [www.optris.com/temperature-measurement-glass-industry](http://www.optris.com/temperature-measurement-glass-industry)

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1) For more 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 over 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 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

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