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 (1.8 x 2.2 x 3.0 - 3.9 in)
- Frame rate of up to 125 Hz
- Max. scan angle of 111° with 800 pixels per line

Technical specifications

- Optical resolution: 640 x 480 pixel
- Detector: FPA uncooled (17 µm x 17 µm)
- Spectral range: 7.9 µm
- Temperature range: 200 ... 1500 °C (392 ... 2732 °F)
- Sighting range: 0 ... 250 °C (32 ... 482 °F)
- Frame rate: 32 Hz / 125 Hz @ 640 x 120 pixels
- Optics (FOV):
  - 15° x 11° FOV / f=41.5 mm (=1.6 in) or
  - 33° x 25° FOV / f = 18.7 mm (=0.7 in) or
  - 60° x 45° FOV / f = 10.5 mm (=0.4 in) or
  - 90° x 66° FOV / f = 7.7 mm (=0.3 in)
- Maximum FOV: 111° / 800 pixels (diagonal scan line / 90° lens)
- Thermal sensitivity (NETD) at T_{Obj} = 650 °C (1202 °F): 80 mK
- Accuracy: ±2 °C or ±2 % (±3.6 °F 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 0/4 – 20 mA outputs, 3x relay (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)
- Ambient temperature: 0 °C ... 50 °C (32 °F ... 122 °F)
- Relative humidity: 20 – 80 %, non-condensing
- Enclosure (size / rating): 46 x 56 x 76 - 100 mm (1.8 x 2.2 x 3.0 - 3.9 in) (depending on lens + focus position) / IP 67 (NEMA 4)
- Weight: 269 - 340 g (10.59 - 13.38 oz), depending on lens
- Shock / Vibration 1) 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: USB powered
- Scope of supply:
  - USB camera with 1 lens
  - USB cable (1 m [3.3 ft])
  - Table tripod
  - Standard PIF with cable (1 m [3.3 ft]) and terminal block
  - Software package optris PIX Connect
  - Rugged outdoor case

1) For more details see operator’s manual

For further information on non-contact temperature measurement in the glass industry, please visit www.optris.com/temperature-monitoring-glass-industry
Dimensions

- **Dimensions in mm (in)**
  - 46 (1.81) x 33 (1.30)
  - 56 (2.20) x 33 (1.30)
  - 14 (0.55)
  - 12 (0.47)
  - 5 (0.20)
  - 39 (1.54)
  - 52 (2.05)
  - 16 (0.63)
  - 24-29 (0.94-1.14) depending on lens and focus position

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
  - Remotely configurable via web based management

  For further information please visit [www.optris.com/usb-server-industry-isochron](http://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 relais,
  - 1 fail-safe relay

  For further information please visit [www.optris.com/industrial-process-interface](http://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](http://www.optris.com/pi-netbox)