IR camera for the detection of slightest temperature differences

Features:

- Smallest camera in its class (46 x 56 x 68 – 77 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 (17 µm x 17 µm)
- Spectral range: 8 – 14 µm
- Temperature ranges: –20 ... 100 °C, 0 ... 250 °C, (20) 150 ... 900 °C, optional temperature range: 200 ... 1500 °C
- Frame rate: 80 Hz / switchable to 27 Hz
- Optics (FOV): 18° x 14° / f = 20 mm or 29° x 22° / f = 12.7 mm or 53° x 38° / f = 7.7 mm or 80° x 54° / f = 5.7 mm
- Thermal sensitivity (NETD): 40 mK with 29° x 22° FOV / F = 0.9
  40 mK with 53° x 38° FOV / F = 0.9
  40 mK with 80° x 54° FOV / F = 0.9
  0.06 K with 18° x 14° FOV / F = 1.1
- 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) (optional): 2x 0 – 10 V input, digital input (max. 24 V), 3x 0/4 – 20 mA 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 68–77 mm (depending on lens + focus position) / IP 67 (NEMA 4)
- Weight: 237 - 251 g (depending on lens)
- Shock / Vibration: 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 (standard): 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) 150 °C ... 900 °C range effective starting at 150 °C
2) For further information see operator’s manual.
Specifications are subject to change without further notice · PI 450i-DS-EN2019-12-A

Dimensions

Dimensions in mm

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.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

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