



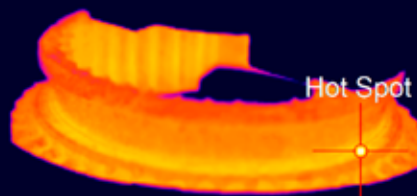
New

PI 1M

Short wavelength and ultra compact infrared camera for non-contact temperature measurement of metallic surfaces

innovative infrared technology

↑ 924,6°C



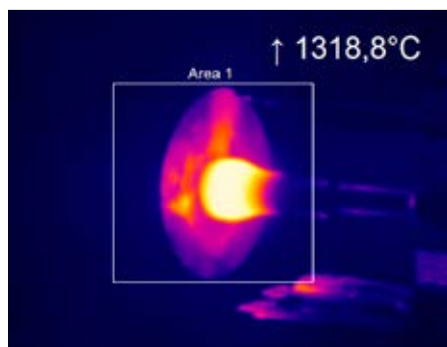
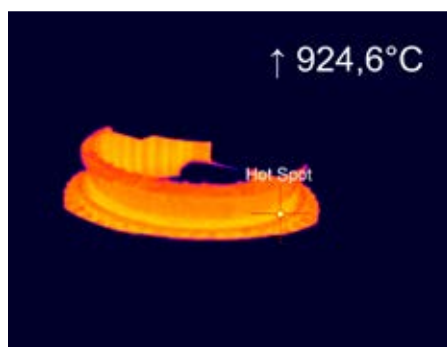
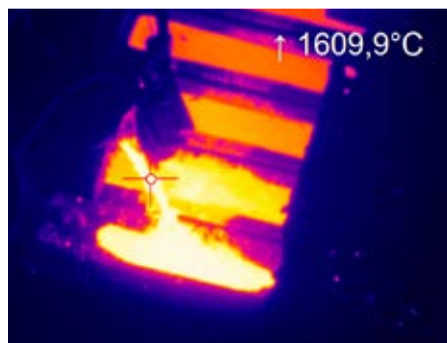
Short wavelength and ultra compact infrared camera for metal surfaces

Features:

- High dynamic CMOS detector with up to 764 x 480 pixel resolution
- Wide measurement ranges from 450 °C to 1800 °C without sub-ranges
- Up to 1 kHz frame rate for fast processes
- Real-time analog output with 1 ms response time
- Extensive software package and SDK included
- 1 kHz linescanning function possible

PI 1M

from **3.150 €**
incl. software & drivers



Typ	PI 1M
Optical resolution (switchable)/ Frame rate	764 x 480 pixels @ 32 Hz 382 x 288 pixels @ 80 Hz (switchable to 27 Hz) 72 x 56 pixels @ 1 kHz 764 x 8 pixels @ 1 kHz (fast linescanning mode)
Detector	CMOS (15 µm x 15 µm)
Spectral range	0.85 – 1.1 µm
Temperature ranges	450 ¹⁾ ... 1800 °C (27 Hz mode) 500 ¹⁾ ... 1800 °C (80 Hz and 32 Hz mode) 600 ¹⁾ ... 1800 °C (1 kHz mode)
Optics	FOV @ 764 x 480 px: 39° x 25° (f = 16 mm) 26° x 16° (f = 25 mm) 13° x 8° (f = 50 mm) 9° x 5° (f = 75 mm) FOV @ 382 x 288 px: 20° x 15° (f = 16 mm) 13° x 10° (f = 25 mm) 7° x 5° (f = 50 mm) 4° x 3° (f = 75 mm)
Thermal sensitivity (NETD) ²⁾	< 1 K (700 °C), < 2 K (1000 °C)
Accuracy (at T _{amb} = 23 °C)	± 1 % of reading (object temperature < 1400 °C)
PC interface	USB 2.0 / optional USB to GigE (PoE) conversion
High speed analog output (@ 1 kHz mode)	0–10 V real time output of the center pixel (1 ms response time)
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 inputs, digital input (max. 24 V), 3x 0–10 V outputs, 3x relay (0–30 V/ 400 mA), fail-safe relays
Cable length (USB)	1 m (standard), 5 m, 10 m 5 m and 10 m also available as HT cable (180 °C)
Ambient temperature	5 ... 50 °C
Storage temperature	–40 ... 70 °C
Relative humidity	20–80 %, non-condensing
Enclosure (size/ rating)	46 mm x 56 mm x 90 mm/ IP 67 (NEMA 4) ³⁾
Weight	320 g, incl. lens
Shock ⁴⁾	IEC 60068-2-27 (25 g and 50 g)
Vibration ⁴⁾	IEC 60068-2-6 (sinus-shaped)/ IEC 60068-2-64 (broadband noise)
Tripod mount	¼–20 UNC
Power supply	USB powered
Scope of supply (standard)	USB camera with 1 lens, lens protection tube incl. protective window, USB cable (1 m), Table tripod, PIF cable (1 m) incl. terminal block, Software package optris® PI Connect, Aluminum case, Optional: CoolingJacket, High temperature cable

¹⁾ +75 °C start temperature for optics with focal length f = 50 mm, f = 75 mm

²⁾ at 27 Hz, 32 Hz and 80 Hz

³⁾ Only applies when lens protection tube is used

⁴⁾ For more details see operator's manual