

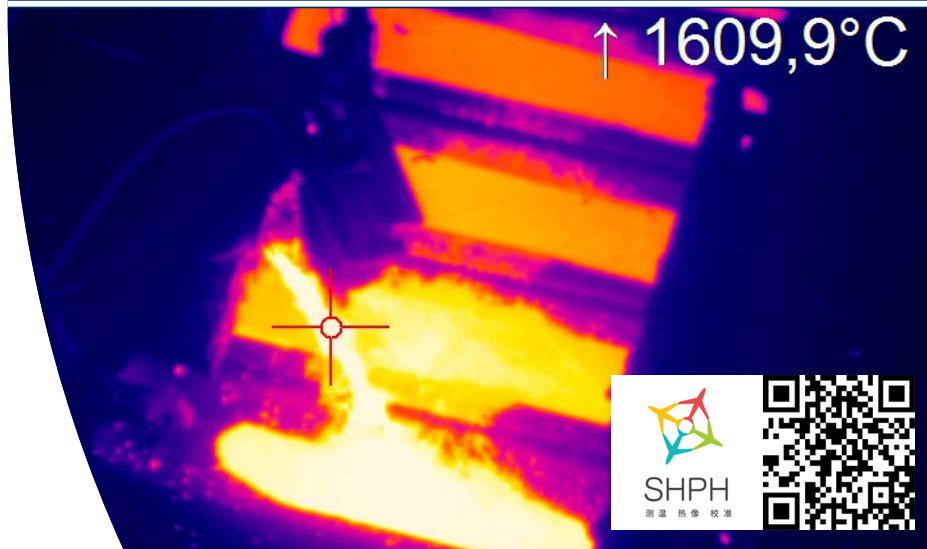


New

PI 05M

Short wavelength and ultra compact infrared camera for non-contact temperature measurement of molten metals and metallic surfaces from 900 °C to 2000 °C

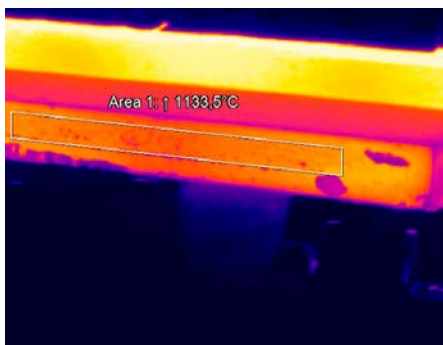
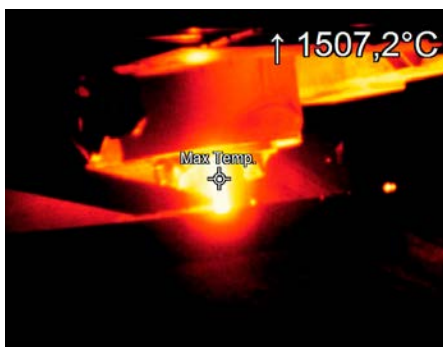
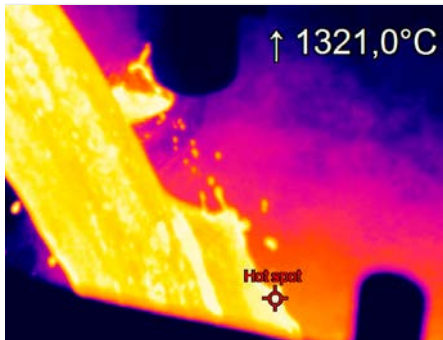
innovative infrared technology



Short wavelength and ultra compact infrared camera

Features:

- High dynamic CMOS detector with up to 764 x 480 pixels resolution
- Special wavelength range of 500-540 nm minimizes errors due to uncertainty of emissivity
- Wide measurement range from 900 °C to 2000 °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
- Usable without filter for laser applications



Typ	PI 05M
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 ¹⁾ 764 x 8 pixels @ 1 kHz (fast linescanning mode) ¹⁾
Detector	CMOS (15 µm x 15 µm)
Spectral range	500 ... 540 nm
Temperature range	900 °C ... 2000 °C (27 Hz mode) 950 °C ... 2000 °C (32 / 80 Hz mode) 1100 °C ... 2000 °C (1 kHz mode)
Optics	FOV @ 764 x 480 px: 26° x 16° (f = 25 mm) FOV @ 382 x 288 px: 13° x 10° (f = 25 mm)
Thermal sensitivity (NETD)	< 2 K (1400 °C) for 27 Hz, 32 Hz and 80 Hz < 2.5 K (1400 °C) for 1 kHz
Accuracy	±1.5 % of reading
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 8x8 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 °C ... 50 °C
Storage temperature	–40 °C ... 70 °C
Relative humidity	20 – 80 %, non-condensing
Enclosure (size/ rating)	46 mm x 56 mm x 90 mm/ IP 67 (NEMA 4) ²⁾
Weight	320 g, incl. lens
Shock ¹⁾	IEC 60068-2-27 (25 g and 50 g)
Vibration ¹⁾	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⁾ Can be placed anywhere within the full FOV

²⁾ Only applies when lens protection tube is used

