MICRO-EPSILON

More Precision

thermoIMAGER TIM QVGA // Compact thermal imaging cameras

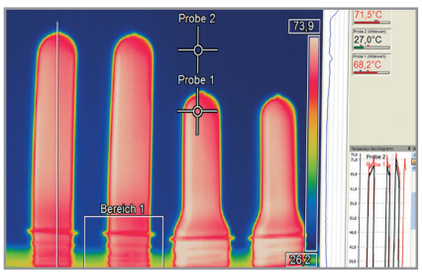
thermoIMAGER TIM QVGA

Thermal imaging camera with high resolution and sensitivity

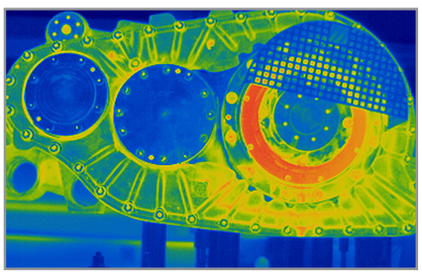
- Detector with 382 x 288 pixels
- Measuring range from -20 °C to 900 °C
- Fast, real-time thermal imager with up to 80 Hz
- Very high thermal sensitivity with 75 mK
- Compact design (46 mm x 56 mm x 68 - 77 mm)
- Lightweight (237 - 251 g, incl. lens)
- TIMConnect software delivered with Software Developer Kit

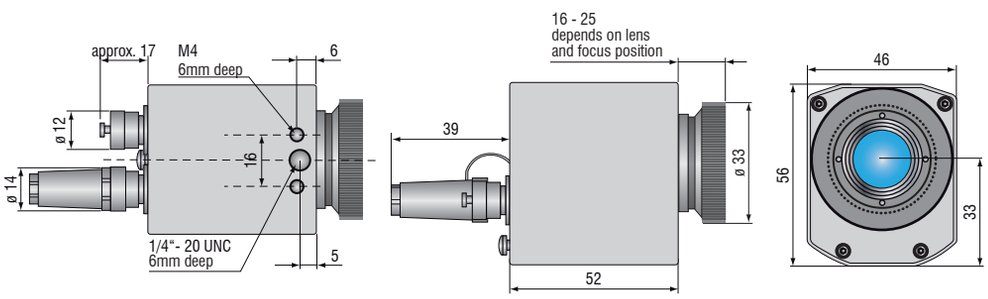
Software

- Display of the thermal image in real time (80 Hz) with recording function (video, snapshot)
- Complete set up of parameters and remote control of the camera
- Detailed analysis of fast, thermodynamic processes
- Output of analog temperature or alarm values via the process interface
- Digital communication via RS232 or DLL for software integration



80 Hz imaging with full pixel resolution
Thermal image shots of preforms in PET bottle production





Model	TIM QVGA
Optical resolution	382 x 288 pixels
Temperature ranges	-20 ... 100 °C, 0 ... 250 °C, (20) 150 ... 900 °C [1]
Spectral range	8 to 14 µm
Frame rate	switchable 80 Hz or 27 Hz
System accuracy	±2 °C or ±2 %, whichever is greater
Lenses	29° x 22° FOV / f =12.7 mm or 80° x 54° FOV / f = 5.7 mm
Thermal sensitivity (NETD) [2]	75 mK with 29° x 22° FOV / F = 0.9 75 mK with 80° x 54° FOV / F = 0.9
Detector	FPA, uncooled (17 µm x 17 µm)
Outputs/digital	USB 2.0 / optional interface USB to GigE (PoE)
Standard process interface (PIF)	0 - 10 V input, digital input (max. 24 V), 0 - 10 V output
Industry process interface (PIF)	2x 0 - 10 V inputs, digital input (max. 24 V), 3x 0/4 - 20 mA outputs, 3x relays (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 available as high temperature USB cable (180 °C or 250 °C)
Power supply	USB powered
Tripod mount	¼-20 UNC
Protection class	IP67
Ambient temperature	0 ... 50 °C
Storage temperature	-40 ... 70 °C
Relative humidity	20 to 80 %, non-condensing
Vibration	IEC 60068-2-6 (sinus-shaped) / IEC 60068-2-64 (broadband noise)
Shock	IEC 60068-2-27 (25 g and 50 g)
Housing (size)	46 mm x 56 mm x 68 - 77 mm (depending on lens and focus position)
Weight	237 - 251 g

[1] For the range (20)150 up to 900 °C, the accuracy specification applies from 150 °C
[2] Values apply with 40 Hz and 25 °C room temperature

Scope of supply

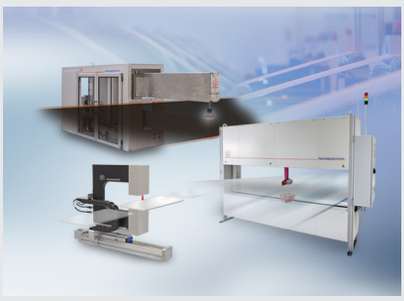
TIM QVGA

- TIM process camera
  incl. a selectable lens
- Operating instructions
- USB cable 1 m
- Software for real-time processing
  and analyzing thermal images
- Tripod mount
- PIF cable 1 m
- Transport case
- Test certificate

Sensors and Systems from Micro-Epsilon

Sensors and systems for displacement, distance and position

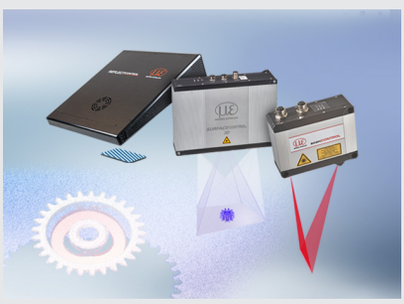
Sensors and measurement devices for non-contact temperature measurement



Measuring and inspection systems for metal strips, plastics and rubber

Optical micrometers and fiber optics, measuring and test amplifiers

Color recognition sensors, LED analyzers and inline color spectrometers



3D measurement technology for dimensional testing and surface inspection

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