MICRO-EPSILON

More Precision

thermoIMAGER TIM QVGA-HD-T100 // Thermal imager for body screening

- *Detector with 382 x 288 pixels*

- *Measuring range from -20 °C to 100 °C*

- *Fast, real-time thermal imager with up to 80 Hz*

- *Very high thermal sensitivity with 40 mK*

- *Compact design*

- *Lightweight (320 g incl. lens)*

- *TIMConnect software delivered with Software Developer Kit*

- *Certificate of calibration for 35 °C is included in the scope of supply*

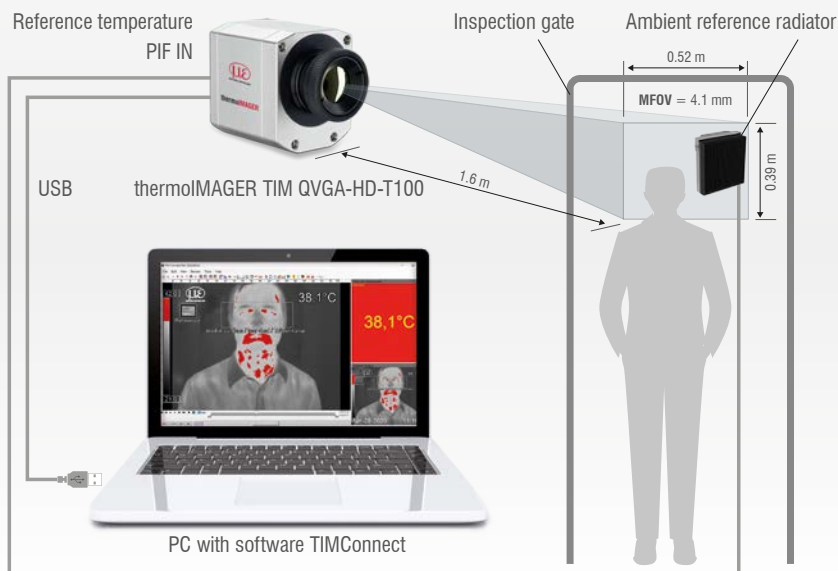## thermoIMAGER TIM QVGA-HD-T100

The TIM QVGA-HD-T100 is a compact thermal imager for automatic body temperature screening. This camera is designed for temperature measurement of a group of people and for targeted temperature measurement of an individual person. The software automatically recognizes and displays people with increased body temperature. The software setup is adapted to body temperature and is suitable for common Windows PCs or the Micro-Epsilon NetPCQ (industrial PC with passive cooling). The record/snapshot functions automatically store the thermal images. With its compact design and USB port, the camera is easy to install and can be easily set up and dismantled.

The thermal imager is intended for visitor and staff entrances, security gates, train stations and airports.


Ambient reference radiator TM-BR20AR-TIM

Installation of TIM QVGA-HD-T100 and TM-BR20AR-TIM at an inspection gate for individual fever screening

Reference temperature
PIF IN

Inspection gate   Ambient reference radiator

0.52 m

MFOV = 4.1 mm

0.39 m

USB   thermoIMAGER TIM QVGA-HD-T100

1.6 m

38.1°C

38,1°C

PC with software TIMConnect

Industrial process interface with fail-safe monitoring
Integration of thermal imaging cameras in automated processes

thermoIMAGER TIM NetPCQ
PC solution for thermoIMAGER TIM applications
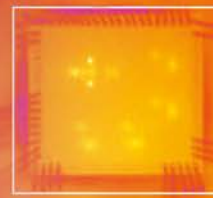
Model	TIM QVGA-HD-T100
Optical resolution	382 x 288 pixels
Temperature ranges	-20 ... 100 °C
Spectral range	8 to 14 μm
Frame rate	switchable 80 Hz or 27 Hz
System accuracy	± 0.5 °C with ambient reference radiator TM-BR20AR-TIM [1]
Lenses	18° x 14° FOV / f =20 mm or 29° x 22° FOV / f =12.7 mm or 53° x 38° FOV / f =7.7 mm
Thermal sensitivity (NETD) [2]	60 mk with 18° x 14° FOV / F = 1.1 40 mK with 29° x 22° FOV / F = 0.9 40 mK with 53° x 38° 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 ... 70 °C
Storage temperature	-40 ... 85 °C
Relative humidity	20 to 80 %, non-condensing
Vibration [3]	IEC 60068-2-6 (sinus-shaped) / IEC 60068-2-64 (broadband noise)
Shock [3]	IEC 60068-2-27 (25 g and 50 g)
Housing (size) [3]	46 mm x 56 mm x 68 - 77 mm (depending on lens and focus position)
Weight	320 g, incl. lens

[1] ± 2 °C without ambient reference radiator TM-BR20AR-TIM
[2] Values apply with 40 Hz and 25 °C room temperature
[3] For more information see operating instructions
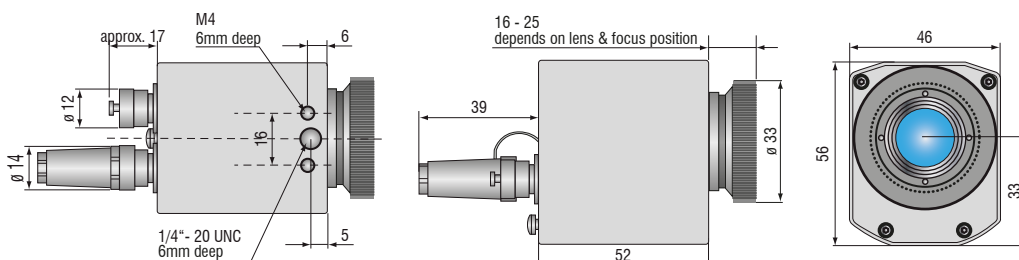
Scope of supply
TIM QVGA-HD-T100
- TIM process camera incl. a selectable lens
- Operating instructions
- USB cable 1 m
- Software for real-time processing and analyzing thermal images
- Tripod mount
- PIF cable 1 m
- Transport case
- Certificate of calibration at 35 °C

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

Sensors and Systems from Micro-Epsilon

Sensors and systems for displacement, distance and position

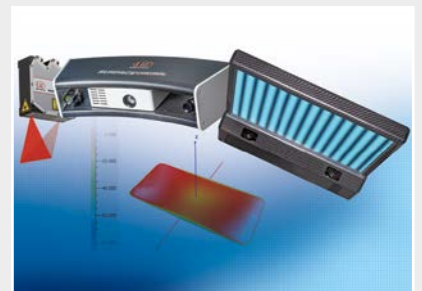Sensors and measurement devices for non-contact temperature measurement

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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