

#### BENEFITS IN PRACTICE:

Fully radiometric IR cameras manufactured in the EU

50-Hz real-time measurement and real-time image display ensure clear thermal images of high quality

High thermal sensitivity

High geometric resolution

Precise temperature measurement in the entire picture

Dual keypad/touchscreen control

5 megapixel digital camera for brilliant real images

Robust, shock-protected design in two-component construction with IP54 type of protection

Hinged 3.5-inch touchscreen colour display

DuoVision function for picture-in-picture display

Integrated laser pointer

Diverse measuring functions

Voice recording via Bluetooth possible

Data transmission via USB

High-quality analysis software included in the scope of delivery

#### Spot on measuring results!



Measuring spot sticker – practical help for spot-on documentation and chronological comparison measurements.

You will find this accessory item in the chapter "Multi-function" on page 35.

# IC085LV and IC125LV

## Advanced thermal imaging cameras of the IC series



### During measuring, now benefit from the latest model generation of a device series which leaves nothing to be desired

**It is no coincidence that the construction base of the IC series ranks among the top-selling thermal imaging camera platforms in the world.**

This series was specifically designed to satisfy the increasing demand for thermographic real-time measurement methods with a model range that allows the application of high-quality cameras even for smaller budgets.

With the models IC085LV and IC125LV you can now benefit from the numerous advantages of the next IC generation!

State-of-the-art microbolometer technology ensures yet more precise 50-Hz real-time thermal images made up of 110,592 individual temperature measuring spots with maximum interference and noise reduction.

A 5 megapixel digital camera enables razor-sharp real images, which using the DuoVision function can flexibly be superimposed on infrared images as picture-in-picture display.

Or you record complete infrared videos right away with your IC camera:

Optionally non-radiometric on SD card or as fully radiometric IR video on a connected PC with the optional real-time upgrade via USB connection.

The handling, too, is now more flexible: Thanks to the capacitive touchscreen you can control the thermal imaging camera as the situation requires optionally using the keypad or the 3.5-inch touchscreen.



## IC – Intelligent and clever ...

These IC cameras have everything to be expected from a professional compact thermal imaging camera. Smart electronics and functions, intelligent mobility concept, excellent value-for-money ratio.

### Always in the picture thanks to real-time presentation

The sophisticated sensors of the IC thermal imaging cameras can constantly detect even the smallest of temperature changes.

The trend-setting detector in the latest design accommodates 110,592 independent temperature measuring spots, every single one of which is able to capture the measuring object's current temperature values at a rate of almost sixty times per second and to display them on the large LCD screen.



Owing to the high refresh rate not one picture is omitted, thus not leaving out any important thermographic information, and every thermal image is displayed in real time.

Only a high Refresh rate with 50-Hz technology ensures working without tiring and steady, blur-free capturing of moving objects to be measured.

### High-precision even at high temperatures

A geometric resolution of 1.3 mrad and a thermal sensitivity of 0.05 °C ensure precise thermograms in real time for any measurement situation – with the IC125LV even up into high-temperature measuring ranges of +1,500 °C.

The cameras enable i.a. sector analyses and differential measurements at up to nine movable temperature measuring spots, eight of which can be configured individually. Additionally, via an isotherm and alarm function it is possible to indicate temperature limits set by you

in a special colour or else with an alarm signal – ideal for dew point detection at surfaces!

The integrated targeting laser simplifies the quick location of problematic areas and thanks to the integrated hot/cold



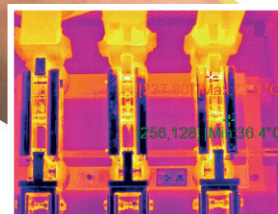
spot recognition looking for the hottest or coldest spot in the image has become superfluous.

Due to the short minimum focusing distance of only 50 cm, close objects can be examined straight to the point as well.

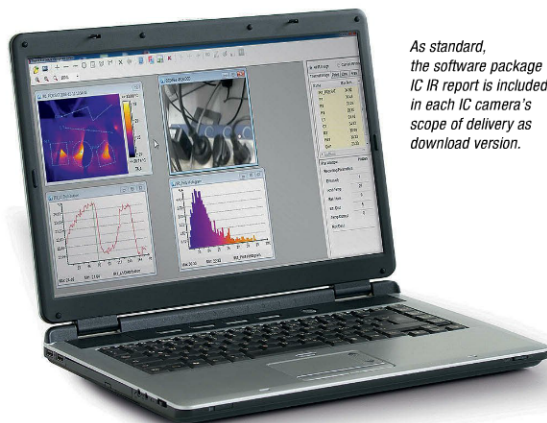
- Large, capacitive 3.5-inch touchscreen
- Dual keypad-touchscreen control for maximum user comfort
- Convenient folding function infinitely inclinable for optimum viewing angle adjustment, closed as protection for display and keypad

Independent comparison tests keep affirming the unmatched price leadership of the Trotec IC thermal imaging cameras:

Competition models with similar equipment and functional variety are often twice as expensive and devices with an analogue price structure are clearly inferior in terms of technology and equipment!



### High-quality analysis software with upgrade option for fully radiometric IR video analyses and recordings on PC in real time



As standard, the software package IC IR report is included in each IC camera's scope of delivery as download version.

The software included in the scope of delivery is not only a simple transmission and display tool – along with every IC camera you also receive a professional range with numerous functions for the evaluation, organization and documentation of your measurement results.

The software's DuoVision function further provides an option for the overlay of infrared and real images in random intensities. Thusly generated and stored DuoVision images enable better evaluations and still more professional documentations.

And with the optionally available real-time expansion thermographs, synchronously to the measurement, can transfer fully radiometric infrared videos from their IC camera onto a PC and directly evaluate and record them there in real time using the software.



An ideal analysis option f.i. for the detailed examination of the heat-up and cooling behaviour of electronic and mechanical components or other objects over a defined period of time.

Trotec

Temperature

Multi-function

Climate

Moisture

Data loggers

Software

Emission

Velocity

Optical inspection

Leak detection

Tracing and detection

Planning and survey





Technical data		IC085LV	IC125LV
Article no.		3.110.003.014	3.110.003.023
Measurement	Temperature range	-20 °C to +600 °C	
	Accuracy	± 2 °C, ± 2 % from the measured value	
Radiometric image performance	Detector type	Focal Plane Array (FPA), uncooled micro-bolometer	
	Detector resolution	384 x 288 pixels	
	Spectral range	7.5 to 14 µm	
	Field of vision (FOV)	24° x 18°	
	Geometric resolution	1.3 mrad	
	Thermal sensitivity	0.05 °C at 30 °C	
	Refresh rate	50/60 Hz	
	Focus / min. focus distance	Manual / 0.5 m	
Visual image performance	Digital photo camera	5 megapixels, integrated photo lamp	
	Video norm	PAL/NTSC	
Image representation	Display	3.5-inch LCD touchscreen, capacitive	
	Image display	Pseudo colours, 6 colour palettes	
	Image display options	IR image, real image, different DuoVision options for combined display of IR and real images	
Measurement and analysis	Measuring spots	9 dynamic temperature measuring spots: 8 x manual, 1 x automatic temperature tracking (hot/cold spot)	
	Measuring functions	Isotherm, line profile analysis, sector analysis (rectangle), alarm function for hot/cold spot, differential measurements at up to 8 dynamic temperature measuring spots	
	Area measurement	2 areas	
	Degree of emission	User-defined variably adjustable from 0.01 to 1.0	
	Measurement correction	Correction of the reflected object temperature; automatic correction based on user-defined specifications for ambient temperature, distance, relative humidity	
Data storage	Memory	512 MB internal flash memory; MiniSD memory card slot	
	File format	Radiometric image: 14 bit JPEG; visual image: JPEG; non-radiometric thermographic video: MPEG-4; fully radiometric infrared video: 14-bit IR format	
	Data storage / transmission	Storage of non-radiometric IR videos (MPEG-4) as well as radiometric and real images on internal memory or SD card; storage of fully radiometric IR videos* on PC via USB 2.0	
	Voice recording	Comments can be stored along with every IR image (optionally available Bluetooth headset required)	
	Interfaces	USB 2.0, Bluetooth, analogue video (PAL/NTSC)	
Laser	Type	Semiconductor AlGaInP diode laser class 2, 1 mw / 635 nm red	
Power supply	Battery type	Standard lithium-ion; rechargeable, exchangeable	
	Operating time	≈ 3 h	
	Mains power	8 - 11V DC	
	Energy saving mode	User-defined	
Surrounding conditions	Temperature	-20 °C to +50 °C (operation), -40 °C to +70 °C (storage)	
	Humidity	10 % to 95 % RH (non-condensing)	
	Type of protection / shock / vibration	IP54 / 25G / 2G	
	Impact resistance (falling from)	1.8 m	
Physical characteristics	Dimensions / weight	230 x 80 x 195 mm / 650 g	
	Tripod mounting	1/4 inch – 20	
Scope of delivery	Standard lens	24° x 18°	
	Standard equipment	Camera with standard lens, LCD touchscreen and laser, battery charger 110/230 volts, lithium-ion battery, video cable, USB cable for downloading images to the PC, operating manual, transport case, software package, temperature test certificate, removable miniSD memory card	
	Optional interchangeable lenses	48° / 12° lens	
	Optional accessories	Power adapter, 12 V adapter for cigarette lighter, additional battery, Bluetooth headset, real-time upgrade for thermographic video recordings and evaluations in real time, further software packages upon request	

\* Saving fully radiometric IR videos requires the optionally available real-time upgrade



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