Special infrared cameras - further information...

#### **BENEFITS IN PRACTICE:**

Externely robust thermal imaging systems

Extremely high geometric resolution

Binocular control unit – detachable camera remote control

High thermal sensitivity

Broad field of vision – ideal for carrying out discreet reconnaissance and investigative work from long distances

High resolution OLED display

Lightweight, easy to use, long battery life

ICS 30 LRF with laser distance measuring for long-distance measuring complete with distance-to-target information superimposed on display

# **Special infrared thermal imaging cameras**

For home and property security, surveillance, reconnaissance and investigation work...



The extremely portable, lightweight infrared thermal imaging cameras do not only excel in their robust construction but also the simplicity with which they can be operated.

This makes them ideal for a whole host of different surveillance and reconnaissance assignments, e.g. for military sorties or police operations, SAR missions, customs and excise duties, and border patrol or home and property security activities.



## ICS 30

The uncooled ICS 30 camera system is built on the latest, cutting-edge microbolometer technology and the exceptionally high geometric resolution and quick image transfer rates add to the camera's already long list of impressive features.

The ergonomically-formed, lightweight but nonetheless extremely sturdy infrared camera with IP54 classification can be used in practically every environment. Each and every component has been constructed with an uncompromising eye on robustness and durability.

A very high thermal sensitivity and a geometric resolution of 0.46 mrad mean that the ICS 30 can be used both by day and at night to detect even the smallest objects or movements over a great distance.

## ICS 30 LRF

The ICS30 LRF surveillance camera combines all the benefits of a high-performance camera with a long-distance laser range finder which is able to display the exact distance to persons or vehicles that have been detected on the high-resolution OLED display in real-time.

This unique combination ensures that the ICS 30 LRF is just the right thermal imaging camera for a variety of different applications when it comes to detecting, distinguishing and identifying any objects or persons.

Both models are equipped with binocular controls which can used separately to monitor and control the camera up to a distance of 6 metres – ideal for stakeouts or operations at night with low outdoor temperatures.

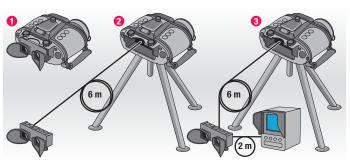








# Both surveillance cameras can be used for a variety of applications in three different ways:



#### Technical data:

Model	ICS 30	ICS 30 LRF
Article no.	3.110.003.230	3.110.003.231
Scope of supply	Camera, carry case, extension cable for binocular controls, rechargeable battery (ICS30 LRF 2 x Li-ion), battery charger, mains cable, mains adapter, video cable, operating instructions	

Oystoni	10030	100 00 Lili
Warm-up time	< 20 seconds	
Controls	Soft touch keys on the camera and binocular controls	
Control function	Automatic alignment of the temperature range/ adjustment of brightness and contrast; automatic temperature adjustment; digital zoom; colour: grey and inverted grey; squelch (three times average); freeze function; camera remote control via binocular control unit and extension cord	

Viewfinder	binocular control unit, with dioptre compensation and eye-cup	
Display	OLED, monochrom	e, 800 x 600 pixels
Video out	Composite vio	deo, PAL/NTSC
Power supply	Li-ion battery, rechargeable	
Battery life	approx. 5 hours	> 4 hours
Dimensions	236 x 176 x 89 mm	236 x 176 x 104 mm
Weight (incl. battery)	1,600 g	< 2,500 g

Environmental conditions	ICS30	ICS 30 LRF
Protection class	IP 54	
Shock	25G	30G
Vibration	2.5G	
Operating temperature	-30 °C to +50 °C	
Storage temperature	-40 °C to +70 °C	



- 1. In the field as a mobile handheld.
- The camera is mounted on a tripod and connected to the binocular control unit via a 6 metre long connecting cable.
  The operator can then monitor the whole terrain and control the most important camera functions from a hiding place, dugout or vehicle using the binocular controls.

3. The camera is used as described in point 2 above and additionally connected to a surveillance monitor from which the operator can check and monitor any movements on a display and still adjust the most important



Infrared camera	ICS30	ICS 30 LRF
Detector type		Array (FPA), crobolometer
Detector resolution	384 x 28	38 pixels
Spectral range	8 to 1	4 μm
Thermal sensitivity	0.08 °C to 30 °C	< 0.1 °C
Geometric resolution	0.46 mrad	1.5 mrad
Field of Vision (FOV)	10.2° x 7.7°, standard lens f=75 (optional lenses: f=50 with FOV 12.8° x 9.6°, f=100 with FOV 6.5° x 4.8°)	11° x 8.2°
Image repetition frequency	50/60 Hz	50/60 Hz
Focus	0.5 m ~ ∞	10 m ~ ∞
Zoom	1x digital	2x digital

Laser distance measuring	only with the ICS 30 LRF model
Laser type	Class 3, wavelength 1.06 µm, pulse length 10 ns, pulse energy > 5 mJ
Area of operation	> 200 m
Range	max. 5,000 m
Accuracy	± 5 m
Distance display	in the thermal image, either in metres or inches
Surveillance distance	Persons up to 1,000 m, vehicles up to 1,500 m
Recognition distance	Persons up to 500 m, vehicles up to 1,000 m

