



# USING THERMAL CAMERAS IN SEARCH AND RESCUE APPLICATIONS

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# NIGHT VISION & THERMAL CAMERA

- **The thermal camera „see“ at night as it records heat radiation. It is thus completely independent of daylight. For successful application of the thermal imager, temperature contrast or different material (different emissivity) is necessary. With increasing temperature contrast, the success and efficiency of thermocamera deployment increases.**
- In addition, infrared radiation is very well transmitted through smoke, fog and rain. There is also the second principle of night vision - noctovisor, but it works with the so-called residual light.

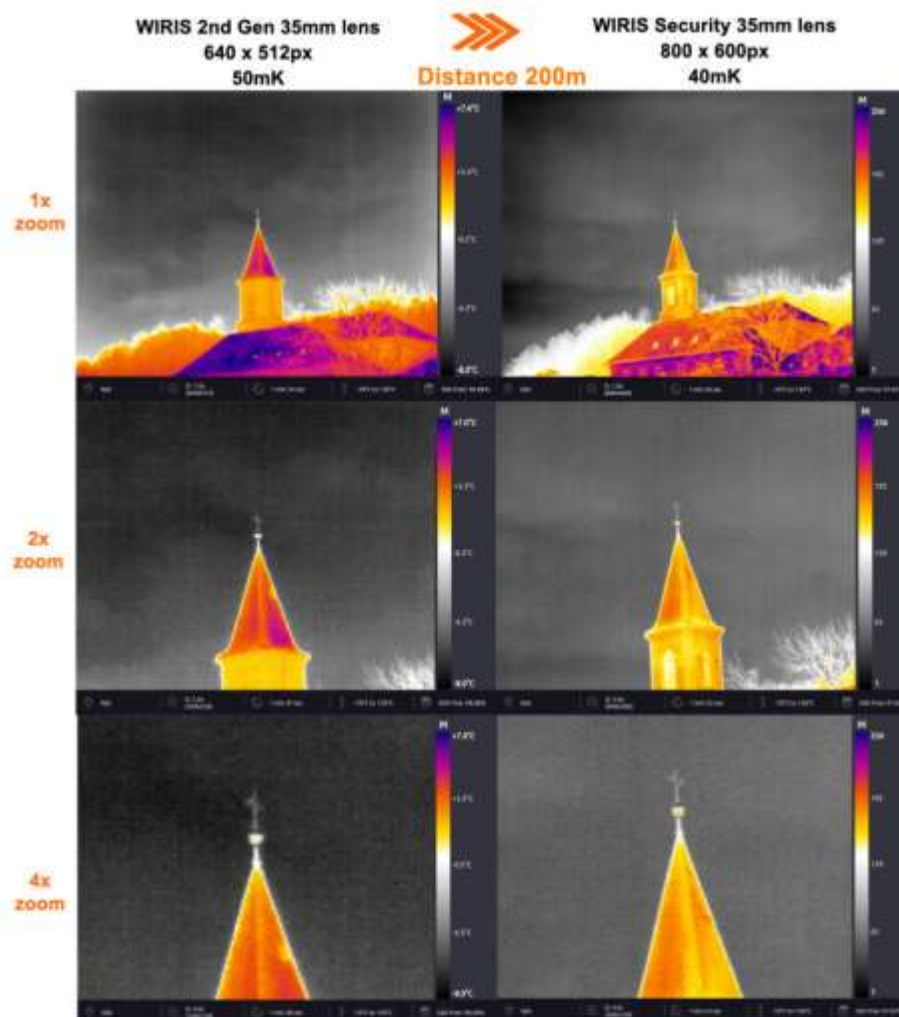


# WORKSWELL WIRIS SECURITY

- **Workswell WIRIS® Security** is a LWIR (7.5 – 13.5  $\mu\text{m}$ ) thermal camera for drones designed **specifically for search & rescue applications**, such as building and perimeter surveillance, searching for missing persons, firefighting operations etc.
- This thermal camera is fully adapted to these applications with a **high-resolution thermal camera (800×600 px)**, **30x optical zoom** in RGB spectrum, search & rescue functionalities, excellent **temperature sensitivity**, as well as rugged mechanical construction made of lightweight aluminum.



# RESOLUTION COMPARISON



# FOV CALCULATOR

## Product

WIRIS Security ▼

## Camera configuration

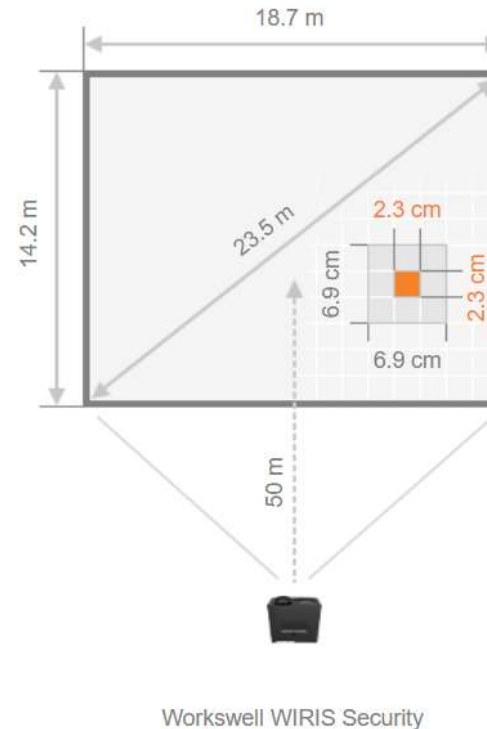
Resolution 800 x 600 pixels, f = 35 mm, FOV: 21.2° x 1 ▼

## Distance

50 mm cm **m** in ft

## Parameter overview

Parameter	Value
Camera distance	50 m
Spot size 1x1	2.3 cm
Spot size 3x3	6.9 cm
IFOV	0.5 mrad
Horizontal FOV	18.7 m
Vertical FOV	14.2 m
Diagonal FOV	23.5 m



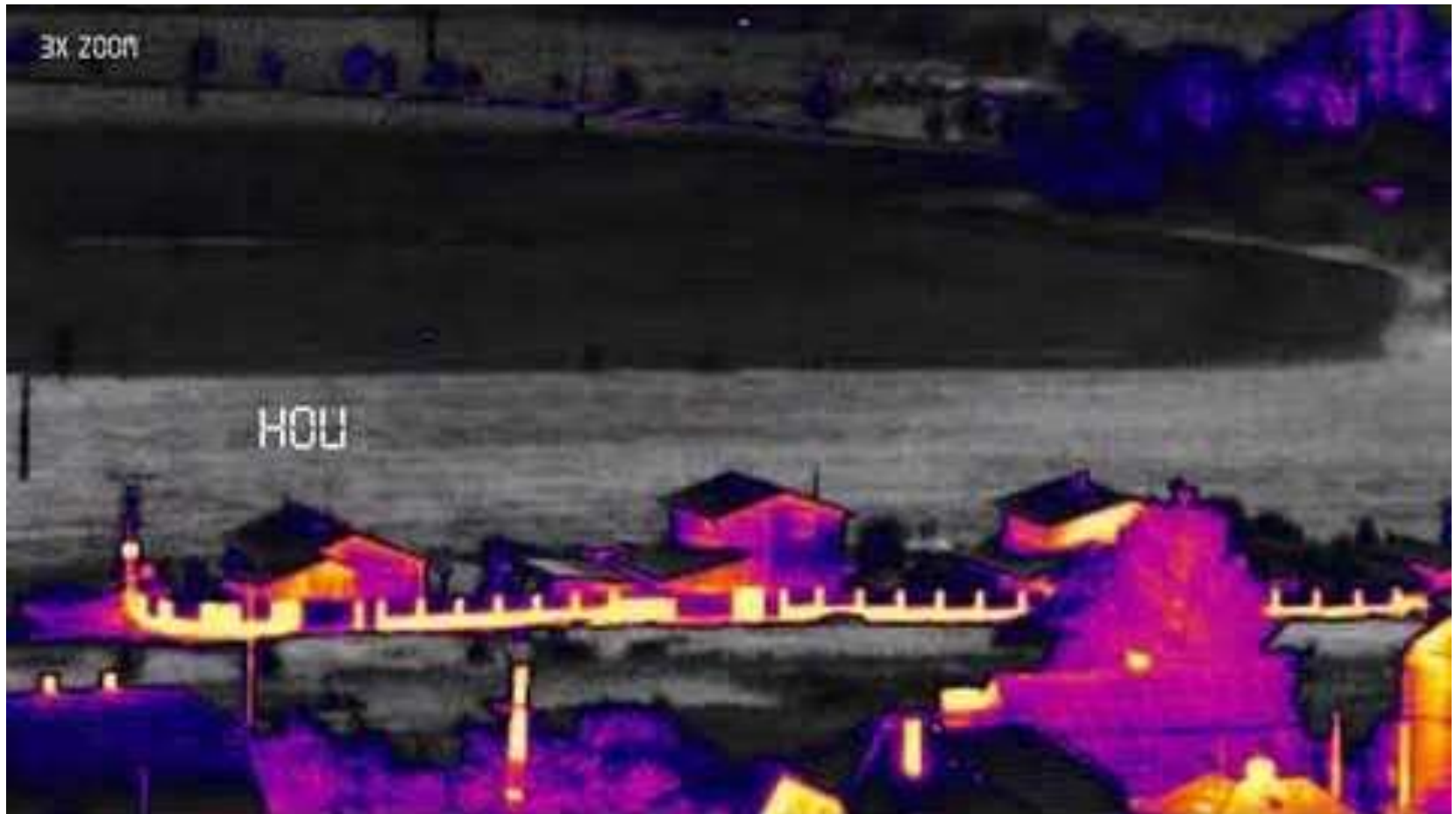
URL: <https://www.workswell-thermal-camera.com/field-of-view-calculator/>

# 30X OPTICAL ZOOM



video URL: <https://www.youtube.com/watch?v=eD-lwWDtKLs>

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video URL: <https://www.youtube.com/watch?v=oFkU70RxEws>

# MANY INTERFACES

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Workswell WIRIS® Security also brings an interface enabling the widest range of connections to the drone, the control unit, an external GPS sensor etc. **Wi-Fi low latency live video streaming and command link is also available.** The following HW interfaces are available: **S.Bus**, **CAN bus** (DJI M600 and A3 controller compatible), **Ethernet** (RJ 45), **MavLink**, **external GPS connection**, **external trigger**

- S.BUS
- CAN bus
- GPS
- Trigger
- MAVLink
- USB
- Ethernet
- HDMI





QUESTIONS?

[HTTPS://WWW.DRONE-THERMAL-CAMERA.COM/](https://www.drone-thermal-camera.com/)

