

Imagine the invisible

Safety & Security



# Raven-640-Analog 17µm

Security solutions with SWAP infrared cameras

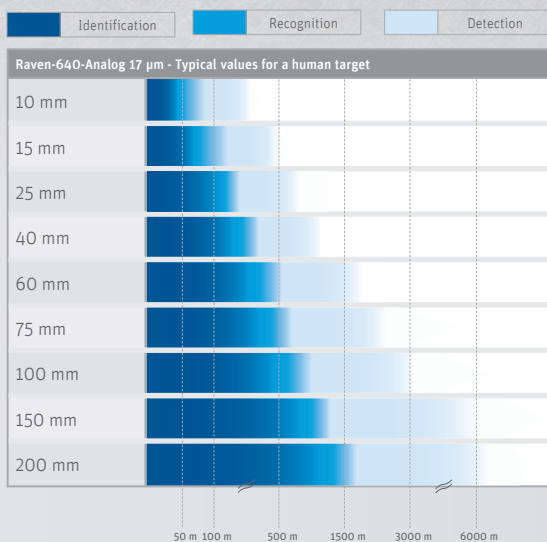
## Best Detection, Recognition and Identification values to protect your facilities

The Raven-640-Analog 17 µm is an infrared imaging camera, specially designed for the demanding security market with a high operating temperature range. The thermal image is crisp and clear, even under difficult weather conditions and in complete darkness without the use of additional illumination.

To meet the needs of the professional security community the Raven-640-Analog 17 µm can be configured with various lenses for short-range, medium-range and longrange observation. The camera interface can be PAL/NTSC video for a regular

CCTV security network. The camera is controlled by RS232. The integration and use of these infrared cameras are so easy, that no operator training is required.

The detector of the Raven-640 17 µm has a very high resolution of 640 x 480 pixels and offers the earliest and most reliable detection of even the smallest temperature change and the smallest object. The on-board image processing guarantees excellent image quality without the need for adjustment.



### Designed for use in



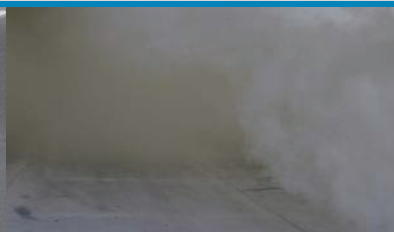
Security monitoring



Border security



Fire fighting thermal



Fire fighting visual

### Applications

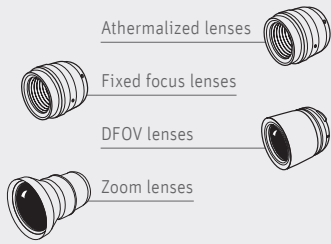
- Firefighting
- Surveillance
- Traffic safety
- Border control
- Perimeter security
- Search & Rescue (SAR)

### Benefits & Features

- Shutter manager
- On-board image processing
- Small pitch for longer DRI values
- One mount for exchangeable lenses
- Small, low weight and low power consumption

## Broad range of accessories

### ▸ Lens & filter options



▸ Discover our Lens Selector Guide  
[www.xenics.com/LSG](http://www.xenics.com/LSG)

### ▸ Inputs



### ▸ Software



- Xeneth
- Xeneth SDK (optional)
- Xeneth LabVIEW SDK (optional)

### ▸ Outputs

## Specifications

Camera specifications	Raven-640-Analog 17 $\mu\text{m}$
<b>Lens</b>	
Focal length	Various lenses available
Optical interface	Lens mount supporting multiple lenses
<b>Imaging performance</b>	
Frame rate (full frame)	30 Hz NTSC 25 Hz PAL
Integration time	1 $\mu\text{s}$ - 80 $\mu\text{s}$
Temperature stabilization	No ThermoElectric Cooling required (TEC-less)
Shutter	Yes
On-board image processing	NUC (Non-Uniformity Correction) Auto-offset and auto-gain with selectable region of interest XIE (Xenics Image Enhancement) Histogram equalization Digital zoom
Integration type	Rolling Shutter
A to D conversion resolution	16 bit
<b>Interfaces</b>	
Camera control	RS232: XSP (Xenics Serial Protocol)
Analog out	PAL or NTSC
Trigger	In or out (configurable)
<b>Power requirements</b>	
Power consumption	< 2 W
Power supply	12 V DC
<b>Physical characteristics</b>	
Shock	40 g, 11 ms according to MIL-STD810G
Vibration	5 g (20 Hz to 2000 Hz) according to MIL-STD883J
Ambient operating temperature	-40 °C to 60 °C (industrial components)
Storage temperature	-45 °C to 85 °C (industrial components)
Dimensions	49 W x 49 H x 61.35 L mm <sup>3</sup> (lens not included)
Weight camera head	222 g (lens not included)

Array specifications	Raven-640-Analog 17 $\mu\text{m}$
Array type	Uncooled microbolometer (a-Si)
Spectral band	8 $\mu\text{m}$ to 14 $\mu\text{m}$
# pixels	640 x 480
Pixel pitch	17 $\mu\text{m}$
NETD	55 mK @ 30° C with F/1 lens
Array cooling	Uncooled
Pixel operability	> 99 %

## Product selector guide

Part number	NETD (mK)	Frame rate (Hz)	Analog out
XEN-000067	55	25	PAL
XEN-000089		30	NTSC
XEN-000090		9	PAL
XEN-000091			NTSC