

# MERON™

## Small Sized Uncooled Thermal Imaging Camera



### Description

OPGAL's MERON™ is a new small-sized, lightweight thermal imaging camera. This powerful, compact camera brings the most advanced uncooled thermal imaging capabilities together with innovative engineering, signal processing and electronics. Based on opgal's latest Eye R25 high-performance engine, the camera provides superior thermal images through smoke, dust and other atmospheric obscurants. The MERON™ is tuned to long-wave infrared 8-14μm spectral region through a variety of focal length lenses.

### Applications

The MERON™ performs equally well as either a stand-alone camera or an OEM camera that can be integrated into third party systems. With its excellent features MERON™ provides an affordable solution for industrial process monitoring, security applications from surveillance to fences and Border protection. The MERON™ small pixel size enables smaller, lightweight optics to be used and allows increased detection range for a given focal length making the camera the best solution for UAV and portable application.

### Key Features

- Powerful proprietary algorithms fully tested and proven to be effective in poor visibility conditions
- Electronic Zoom x2, x4
- Digital Video Output via USB2 (optional)
- Camera control via communication protocol or discrete interface (configurable)
- High resolution graphics overlay
- User defined power up logo
- User defined Region Of Interest (ROI)
- On screen menu
- Snap shots grabbing and control
- OPTIMA - User-friendly interface software

### Advantages

- Cost-effective and affordable
- User friendly plug and play camera operation
- Flexible signal processing capabilities
- Off the shelf - short time to market
- Rugged and lightweight
- Easy to configure and operate
- Small sized



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Technical Data

## Camera Configuration Options

Features	Description / Performance
Focal Plane Array	ASi / VOx microbolometer
Spectral Range	8-14 $\mu$ m
Number of Pixels	384x288
Frame Rate	50/60 Hz Max
Pixel Size	25 $\mu$ m
Analog Video Output	CCIR or RS-170 (PAL or NTSC)
Digital Video Output (optional)	USB2
Remote Control	RS 232 or RS 422 or USB2 (optional)
Control Operation	Video Polarity, NUC, Zoom, Freeze, ROI
Operating Voltage	8-28 VDC
Power Consumption	2.2 W
NETD	50° mK @ f/1 lens
Operating Temperature Range	-40°C to +60°C
environmental qualification	IP 65
Dimensions (without lens)	61x61x90 / (HxWxL)
Weight (without lens)	< 600 g

## Powerful options

- Variety of lenses from 12mm to 210mm focal length

### Range performance 25mm



Man 1.8m X 0.5m

25 $\mu$  | Detection: 460m  
Recognition: 150m



Object 2.3m X 2.3m

25 $\mu$  | Detection: 1150m  
Recognition: 383m

### Range performance 50mm



Man 1.8m X 0.5m

25 $\mu$  | Detection: 920m  
Recognition: 307m



Object 2.3m X 2.3m

25 $\mu$  | Detection: 2300m  
Recognition: 766m

### Range performance 35mm



Man 1.8m X 0.5m

25 $\mu$  | Detection: 645m  
Recognition: 215m



Object 2.3m X 2.3m

25 $\mu$  | Detection: 1610m  
Recognition: 536m

### Range performance 100mm



Man 1.8m X 0.5m

25 $\mu$  | Detection: 1844m  
Recognition: 614m



Object 2.3m X 2.3m

25 $\mu$  | Detection: 4600m  
Recognition: 1533m

**note** – the distance defined are calculated in geometrical values only not accounting atmospheric conditions.

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