

# OCULUS SCOUT

UNCOOLED LWIR THERMAL FIXED LENS OPTIONS:

- 14mm
- 35mm
- 50mm



Above: Oculus Scout 50mm.  
Other models will vary.

The Oculus is a compact, ruggedized, continuous rotation dual sensor PTZ camera utilising an uncooled LWIR thermal sensor with a range of fixed lenses up to 50mm and a HD visible sensor.

These camera sensors are housed within the Oculus's rugged enclosure, which also provides fast and accurate camera positioning. Tested to an IP67 level of environmental protection and hard anodised, the Oculus can be used in the most harsh and challenging applications including coastal surveillance, perimeter security and vehicle mounted installations.

## KEY FEATURES

- Thermal camera detection\* ranges up to 1.1km (human) and 3.39km (vehicle).
- Uncooled LWIR thermal sensors with fixed lens options up to 50mm
- 30x zoom HD visible sensor with a wiper as standard
- 360° continuous rotation with pan and tilt speeds up to 180° per second
- High levels of camera positioning accuracy: 0.01°
- Absolute feedback, virtually zero backlash with automatic self position correction
- Compact and ruggedised for extreme and marine environments
- IP67 rating
- Mounting options include hanging, upright or vehicle



### FLEXIBLE MOUNTING

Options include upright and hanging, as well as vehicle



### WIPER AS STANDARD

The visible HD camera comes with a wiper as standard



### 360° ROTATION

The Oculus Scout offers continuous 360° rotation

\* Johnsons Criteria,  
(Human at 1.8m x 0.5m, vehicle at 2.3m<sup>2</sup>, Detection at 2 pixels, Recognition at 8 pixels and Identification at 13 pixels. 50% probability subject to environmental conditions)



# OCULUS SCOUT

UNCOOLED LWIR THERMAL FIXED LENS CAMERAS



Above: Oculus Scout 50mm. Other models will vary.

## THERMAL IMAGER - 640 x 480, 17µM PIXEL PITCH

Part Number	SCOUT-14	SCOUT-35	SCOUT-50
Focal Length	14mm	35mm	50mm
Field of View	44°	17.6°	12.4°
Optical Zoom	-	-	-
F Number	F1.4	F1.2	F1.2
Sensitivity	<50 mK (NETD) f/1.0 at room temperature		
Detector Type	Uncooled VOx microbolometer		
Resolution	640 x 480, 17µm		
Spectral Band	8 to 14 µm (LWIR)		
Frequency	25Hz (9Hz, 30Hz options)		
Focus	Fixed		
Digital Zoom	4x digital zoom (8x optional)		
Image Stabilisation	Yes, electronic (cost option)		
Image Processing	Polarity control, tunable contrast enhancement		

## HD VISIBLE SENSOR

Focal Length	4.3mm to 129mm
Image Sensor	1/2.8" CMOS Exmor (2.13MP), full HD 1080p (1920 x 1080)
F-Number	F1.6 to F4.7
Horizontal FOV	63.7° (W) to 2.32° (T)
Optical Zoom	30x
Digital Zoom	12x
Focus	Automatic, manual
Min. Sensitivity	Colour 0.01 lux, mono 0.0008 lux (high sensitivity mode)
Other Features	De-fog, digital noise reduction, WDR, image stabilisation

## OCULUS PAN AND TILT UNIT

Pan Range; Pan Velocity	360° continuous; 0.1° to 180° per second
Tilt Range; Tilt Velocity	-30° -to +90°; 0.01° to 180° per second (upright) -90° -to +30°; 0.01° to 180° per second (inverted) -68° -to +90°; 0.01° to 180° per second (inclined)
Accuracy	0.01° / 0.17 mRad
Repeatability	0.05° / 0.87 mRad
Actuation	Custom stepper motors

## PART CODES

RC3-51YJ30X-DB44FW	Oculus Scout 14, IP, 640x480, 17µm, 25Hz thermal camera with a 14mm, F1.4 thermal lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour
RC3-51YJ30X-DB18FW	Oculus Scout 35, IP, 640x480, 17µm, 25Hz thermal camera with a 35mm, F1.2 thermal lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour
RC3-51YJ30X-DB12FW	Oculus Scout 50, IP, 640x480, 17µm, 25Hz thermal camera with a 50mm, F1.2 thermal lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour
Options	All optional features, modules, cable and ancillary part numbers are available upon request

## TYPICAL OCULUS COMPACT PTZ CAMERA



[Upright]



[Inclined]

\* Illustrations are indicative and subject to the final configuration/model.

## IMAGE PRESENTATION

Video Output	IP, ONVIF, RTSP {Composite (PAL / NTSC) and HD-SDI are cost options}
Video over IP	Integrated IP encoders provide simultaneous H.264 RSTP (H.265 optional) and ONVIF Profile-S

## TELEMETRY

Presets	127x Preset positions, 16x preset tours
Protocols	Pelco D, Pelco D Extended, ONVIF Profile-S
Interface	RS485, ONVIF Profile-S, Serial <> IP
Positioning	Absolute positioning feedback

## INTERFACES

Ethernet	Command and control of all functions incl. streaming of H.264 Video (ONVIF)
RS485	Command and control of all functions and firmware upgrade

## ELECTRICAL AND MECHANICAL

Input Voltage	Nominal 28VDC (24-32VDC)
Power Consumption (Typical)	Typical: 60W, peak: 100W (with heater)
Housing Material	Anodised aluminium, white powder marine grade paint finish (other colours are available upon request)
Camera Weight (Typical)	7.6kg / 16.7lb
Camera Turning Diameter (Typical)	220mm / 8.660" Normal - 370mm / 14.57" offset
Height (Typical)	370mm / 14.57" Normal - 340mm / 13.86" offset

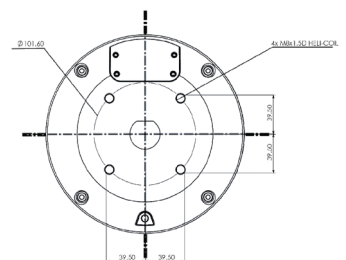
## ENVIRONMENTAL

IP Rating	IP67
Temperature Range	-30°C (-22°F) up to 65°C (149°F) (-40°C with optional heater)

## OPTIONS

Automatic Tracking	Hardware based target acquisition and tracking capability.
Stabilisation	Electronic image stabilisation (for the thermal)
GYRO	2-AXIS GYRO stabilisation
SD Visible Camera	SD day/night camera, 3.4-122.4mm lens, 36x optical zoom, 12x digital zoom, colour 0.1 lux; mono 0.01 lux. Replaces the HD visible camera.
4K Visible Camera	4K colour camera, 4.4-88.4mm lens, 20x optical zoom, 12x digital zoom, colour 0.4 lux; colour 0.06 lux (slow shutter on). Replaces HD visible camera.
Storage	Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x cameras)

Oculus Fixing Points  
(base of the Oculus with an industry standard  
4" PCD mount)



Specifications may be subject to change without notice.  
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**SILENT SENTINEL**  
VISION & MOTION CONTROL