OCULUS EVO2

UNCOOLED LWIR THERMAL FIXED LENS OPTIONS:

13mm
35mm

The EVO2 range utilises the very latest in both thermal core and lens technology, providing advanced surveillance capabilities in the most extreme conditions. Available with fixed FoV lenses, the Oculus EVO2 range also benefits from a choice of three thermal sensor resolutions; **640 x 512 (12µm) and 1024 x 768 XGA (12µm).**

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 35mm and a HD visible sensor.

The camera sensors are housed within the Oculus's hard anodised, rugged enclosure which is tested to an IP67 level of environmental protection. The PTZ is well suited to mid range surveillance applications including maritime, CNI protection and vehicle mounted solutions.

KEY FEATURES

- Thermal camera detection* ranges up to 1km (human) and 3.4km (vehicle)
- Uncooled LWIR thermal sensors with fixed lens options up to 35mm
- Range of resolutions up to 1024 x 768 (XGA)
- Pixel pitch down to 12µm (improves range by up to 20%)
- 30x Zoom HD visible sensor with a wiper as standard
- 360° Continuous rotation with pan and tilt speeds up to 180° per second
- High level of camera positioning accuracy: 0.01°
- Compact and ruggedised for extreme and marine environments
- IP67 rating
- Mounting options include inverted, upright or inclined
- Suitable for mobile and vehicle mounted applications

WIPER AS STANDARD

The visible HD camera comes with a wiper as standard

VEHICLE SOLUTIONS

Popular for mobile and vehicle mounted applications

GYRO COMPATIBLE

The range is compatible with our two axis Gyro Stabiliser

*Johnsons Criteria, Human at 1.8m x 0.5m, vehicle at 2.3m², Detection at 2 pixels, Recognition at 8 pixels and Identification at 13 pixels. 50% probability subject to environmental conditions. Based on RC3-51IYJ30X-EB12FW.

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UK Manufacturer

SILENT SENTINEL
VISION & MOTION CONTROL

OCULUS EVO2

UNCOOLED LWIR THERMAL FIXED LENS CAMERAS

THERMAL IMAGER – 640 x 512, 12µm PIXEL PITCH

Part Number	RC3-51IYJ30X-EB33FW	RC3-51IYJ30X-EB12FW
Focal Length	13mm	35mm
Horizontal Field of View	33.8°	12.5°
F Number	F1.0	
Focus	Fixed	

THERMAL IMAGER – 1024 x 768, 12µm PIXEL PITCH

Part Number	RC3-51IYJ30X-EC35FW	RC3-51IYJ30X-EC20FW
Focal Length	19mm	35mm
Horizontal Field of View	35.8°	20.1°
F Number	F1.0	
Focus	Fixed	

THERMAL SENSOR

Sensitivity	≤50mK at 25°C, F1.0	
Detector Type	Uncooled VOx microbolometer	
Spectral Band	7.5 to 14µm (LWIR / 8 to 14µm)	
Frequency	50Hz (640 x 512 imager only)	30Hz (1024 x 786 imager only)
Digital Zoom	1x to 8x (0.1 steps) (640 x 512 imager only)	1x to 4x (0.1 steps) (1024 x 786 imager only)
Image Stabilisation	Yes, electronic (cost option)	
Image Processing	Non-Uniform Correction (NUC), noise filtering, polarity control, Digital Detail Enhancement (DDE)	
Image Control	Polarity: White hot / black hot, various colour palettes. Orientation: Invert / revert	

HD VISIBLE SENSOR

Focal Length	4.3 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; 0.01° 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
Interfaces	Ethernet (control + video), RS485 (control and firmware upgrade)

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 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

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
Thermal Imager	340 x 288 and 1280 x 1024 (HD options available upon request)
4K Visible Sensor	4K Colour sensor, 4.4mm to 88.4mm lens, 20x optical zoom, 12x digital zoom, colour 0.4 lux; colour 0.06 lux (slow shutter on). Replaces the HD visible sensor
Storage	Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x sensors)

PART CODES

RC3-51IYJ30X-EB33FW	Oculus EVO2 with a 640x512, 12µm, 50Hz thermal camera and a 13mm, F1.0 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour
RC3-51IYJ30X-EB12FW	Oculus EVO2 with a 640x512, 12µm, 50Hz thermal camera and a 35mm, F1.0 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour
RC3-51IYJ30X-EC35FW	Oculus EVO2 with a 1024x768, 12µm, 30Hz thermal camera and a 19mm, F1.0 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour
RC3-51IYJ30X-EC20FW	Oculus EVO2 with a 1024x768, 12µm, 30Hz thermal camera and a 35mm, F1.0 thermal fixed 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

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Specifications may be subject to change without notice.
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