Imagine the invisible



Pumair

Affordable multi-sensor gimbal for fixed and rotary wing aircraft



What makes this airborne inspection system so complete?

European-based Xenics introduces a new series of stabilized reconnaissance and targeting systems perfectly suited for demanding day and night surveillance, perimeter control, Search & Rescue (SAR), law enforcement, fire detection, UAV and others.

The gyro-stabilized gimbal can be nose- or side-mounted on an airborne system depending on the given payload condition. It is based on 2 customizable configurations for thermography, low-, medium- and tactical-altitudes. Camera solutions range from longwave (LWIR) to midwave (MWIR) types, as well as long-distance for target distances of about 2,500 meters. The Pumair combines a high resolution daylight camera and is so easy to integrate that no operator training is required. Affordability is the key word giving best value for money and short ROI.

Designed for use in



Benefits & Features

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⊪ Thermal security

⊪ High voltage power lines

Law enforcement

Applications

- Fire fighting
- Search & Rescue (SAR)
- HV power line inspection
- Day and night surveillance
- Reconnaissance and targeting system
- Law enforcement and crisis management

High resolution visual and thermal images Low cost, high performance dual sensor system

The best value for money and a short ROI

- Realtime remote detection of thermal anormalities
- Suitable for use under any light and weather condition

• Gyro stabilized

The gyro-stabilized four-axis gimbal achieves a stabilization of <100 microRad. Two different camera platforms are available: with 300mm or 400mm diameter. This enables the use of both, single and double sensor configurations in almost any size.

• Optional

- Thermography capability
- Analysis PC-software
- Laser rangefinder
- Monitor



• Tactical altitudes

For tactical altitudes the Pumair can be configured with a Stirling-cooled InSb/MCT MWIR camera featuring an array size of 640×512 pixels and a dual field of view 50/250 mm lens offering an FOV of $11^{\circ} \times 8.7^{\circ}$ or $2.2^{\circ} \times 1.7^{\circ}$.

Longwave Infrared (LWIR) camera

The thermal camera has unsurpassed imaging quality, thermal sensitivity and accuracy by applying advanced image enhancement and image stability. A wide choice of zoom, single and multiple field of view lenses makes this the preferred system of any rotary wing or fixed wing aircraft pilot and UAV operator.

Specifications

IR Camera	Pumair-300	Pumair-400
Array type	Uncooled microbolometer LWIR	Stirling cooled InSb MWIR Stirling cooled MCT MWIR Striling cooled MCT LWIR
Array size	640 x 480 pixels	640 x 512 pixels
FOV	Dual FOV 24/120mm	Dual FOV 50 / 250mm
Spatial resolution (IFOV)	1.0 / 0.2 mRad	0.3/0.05 mRad
Thermal sensitivity	80 mK at 30 °C	20 mK at 30 ° C
Spectral range	8 – 14 µm	3 – 5 µm
Focus	Motorized or manual	Motorized or manual
Temperature range	-40°C - 400°C	-40°C - 400°C
Temperature accuracy	Temperature measurement accuracy within 2% or 2°C	Temperature measurement accuracy within +/-1°C
TV Camera		
Sony FCB IX 11Gimbal	High definition color camera	
Image sensor	1/3 type CMOS	
Picture elements	Approx 2.000.000 effective pixels	
Lens	10x optical zoom (approx 50° to 5°)	
Minimum illumination	1.0 lx (ICR-On Mode)	
Gimbal System		
Four-axis gyro-stabilized Gimbal	Coverage Az 360º Continuous Coverage El +20º to -120º	
Stabilization	< 100 microRad	
		<i>d</i> 100
Dimension	Ø 300 mm	Ø 400 mm
Dimension Weight	Ø 300 mm 20 kg (44 lb)	Ø 400 mm 30 kg (66 lb)



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