

Helios

Thermal Surveillance System



DESCRIPTION:

The Helios Thermal Surveillance System is a Day/Night Thermal Camera System designed for both fix-mounted and mobile platforms. Fully marinized, or in desert sand, this rugged IP-67 rated environmentally sealed camera system comes complete with an EPT-40 pan/tilt positioned, field replaceable IR and color CCD camera housings, and cabling.

Available with 75mm or 100mm lens configurations, and offering either 320 x 240 Amorphous Silicon or 640 x 480 Vanadium Oxide focal plane arrays, the Helios System provides superior nighttime performance over land or water. For daytime operations, the system provides users with a high performance color CCD camera with 36X optical zoom.

The Helios Systems can be controlled via IP, wireless, fiber optic, or traditional cable. Uses include the following:

- Navigational aid for commercial/military watercraft
- Surveillance/search rescue applications for law enforcement and military vehicles
- Day/Night perimeter surveillance of military installations, prisons, nuclear, chemical or oil facilities



HL-640-75 Thermal Camera
(Shown with Optional 7.5 Mil. Spotlight)

FEATURES

- Uncooled Microbolometer Thermal Image - Spectral Response 7-14 microns.
- 75mm or 100mm Electric Focus (EF) Lens
- IP67 Rated Dry Nitrogen Pressurized Environmental Enclosures.
- IP66 Rated Pan/Tilt with Rugged, Aluminum Alloy Housing
- 360° Continuous Azimuth Rotation, 60° per second with proportional control.
- +45 degree to -45 degree Up and Down Tilt
- 36X Optical Zoom Color CCD Camera with 12X Digital Zoom (Boresighted to Thermal Image Picture) Low Light 0.01 Lux
- VIDEO OUT for monitor or VCR.

Options:

- Laser Range Finder
- Global Positioning System
- High Powered Spotlight
- 150mm Electric Focus (EF) Lens
- Long range 60X Color Camera

Part Numbers:

Helios 320-75 Surveillance System: HL-320-75

Helios 320-100 Surveillance System: HL-320-100

Helios 640-75 Surveillance System: HL-640-75

Helios 640-100 Surveillance System: HL-640-100



Model	FPA Format	Optic	Field of View	Human Det.	Vehicle Det.
HL-320-75	320 x 240	75 mm	7.3 degrees	1500 meters	3000 m
HL-320-100	320 x 240	100 mm	5.5 degrees	2200 meters	4400 m
HL-640-75	640 x 480	75 mm	7.3 degrees	2800 meters	5600 m
HL-640-100	640 x 480	100 mm	5.5 degrees	3500 meters	7000 m

Optics	Aperture	f/1.0
	Field of View	See chart above based on Model Number
	Depth of Field	3 Meters to Infinity
	Focus	8 Meters to Infinity

Thermal Imaging Performance	Detection Range	See Above based on Model Number
	Warm Up	< 30 Seconds (typical)
	Video Sample Rate	30 Hz for 320 series, 60 Hz for 640 series

Environmental	Operating Temp	-40°C to +70°C
	Storage Temp	-40°C to +90°C
	Vibration	MIL-STD-810D, Method 514.3, Proc 1, Cat 1.8
	Rated	IP-67
	Operating Voltage	+ 12 VDC to + 24 VDC
	Power Consumption	.7 Watts (nominal) for 320 series; 1.4 Watts (nominal) for 640 series

Detector	Type	320 Series: Amorphous Silicon, Uncooled Microbolometer, 30 um detector pitch 640 Series: Vanadium Oxide, Uncooled Microbolometer, 25 um detector pitch
	Spectral Range	7-14 microns
	MTF	22% typical @ fundamental spatial frequency
	Sensitivity	45 mv/°C
	Absorption Efficiency	76%
	Pixel Clock Speed	~ 6 MHz
	FPA Temp. Stab	Thermoelectric Cooler
	FPA Window Type	Silicon

Color CCD Camera	Image Device	1/4" EX-View HAD CCD NTSC Signal
	Sync System	Internal / External Sync
	Horizontal Resolution	Approx 480 Line (NTSC, High Resolution), Approx 320 Line (NTSC, Normal Resolution)
	Lens	36X Optical Zoom F = 3.4mm (wide) to 122.4mm (telescopic), F1.6 to F4.5
	Digital Zoom Ratio	12X Digital (Total Zoom Ratio: 432X)
	Video Output	VBS: 1.0 Vp-p (synch negative), Y/C
	Operating Temperature	0°C to 50°C
	Rated	IP-67

All specifications are subject to change without prior notice.

Authorized Dealer

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