

KOLO HC9 DUAL SENSOR LASER PTZ CAMERA



HC9 Multisensor laser PTZ Series

HC9 series PTZ is a dual-sensor system including a powerful thermal and HD day/night zoom camera. High-performance imagers for true 24/7 work duty. Integrating two sensors provides unparalleled performance resulting in accurate detection, recognition, and identification of intruders and threats.

Integrated into an IP66 housing constructed of anti-corrosive aluminum alloy and a high-performance pan/tilt system. HC9 includes internal heater/blower, this allows HC9 series to withstand the harshest climates and making it ideal military and critical security applications, homeland defense, and coastal security.



Extreme Long Range Detection

HC9 includes advanced Long-Wave Infrared (LWIR) HD thermal sensors in 640x512 or 1280x1024 capable of detecting vehicles at over 30km. distance and humans at over 15 km. distance.

Extreme PT performance

HC9 includes a heavy duty high precision and high repeatability pan/tilt unit. All worm gears (no transmission belt) and encoders to ensure best performance and low maintenance.

Key Features




- HD Thermal resolution in 640x512 or 1280x1024 pixels
- High performance NETD thermal Vox sensors with 12 μ m. pixel
- Long range zoom or fixed thermal lens up to 350mm.
- 2mp. - 8mp. day/night cameras, up to 1200mm zoom lens
- Starvis super low lux sensor
- 30/60fps. video
- EIS/OIS video stabilization for perfect image video stability
- High precision motor technology, accurate pan/tilt 0,001o
- Worm drive engine with long lasting / high repeatability
- High speed azimuth with -90/90o elevation
- 48v. DC power
- Laser illuminator
- IP66 waterproof housing
- High / Low temperature ready
- Heater, fan, encoders
- Military connectors
- Onvif 2.5 and Profile S




Specifications:




MODEL	HC9 SERIES				
THERMAL CAMERA	Typ	Dual sensor PTZ camera			
	Sensor	LWIR, uncooled Vox micro-bolometer			
	Wavelength	8-14µm.			
	NETD	<35mK@f/1,0 50Hz., 300K			
	Pixel pitch	12µm.			
	Resolutions	640x512 / 1280x1024			
	Display resolution	Up to 1280x1024 or 1920x1080			
	Color palette	10 colors			
	Image enhancement	Yes			
	Frames/second	30fps			
	Focal length	Up to 350mm.			
	F. number	From f.1 depending in the lens			
	HFOV	Up to 0.4 depending in the lens/resolution			
	Focus	Autofocus, motorized remote focus			
	Video compression	H.265, H.264, Mjpeg			
	Streams	Triple stream			
	Bitrate	256-6,144Kbps. / 1536-7,424Kbps. , VBR/CBR			
	Image settings	Contrast, Brightness, Mirror, Flip, sharpness, Image Enhancement, NR 2/3D			
Analogue video	Optional				
Motion detection/ROI	Yes				
Advanced video analysis	Tripwire, Cross Fence detection, Intrusion, Loitering detection				
Fire detection	Yes				
DAY/NIGHT CAMERA	Sensor	Low lux CMOS sensor, base in module selection			
		Resolution	Zoom	Focal length	
		2 megapixel	57X OIS	15-850mm.	HFOV 29,1-0,5°
		2 megapixel	80X	15-1200mm.	23-0,3°
		4 megapixel	88X	10,5-920mm.	40-0,49°
		2 megapixel	86X	10-860mm.	39,6-0,5°
		2 megapixel	35X	21-750mm.	22-0,48°
		2 megapixel	80X	12,5-1000mm.	18-0,37°
		2 megapixel	80X	25-2000mm.	15,1-0,18°
		Video compression			H.265, H.264, Mjpeg
		Streams			Triple stream
	Bitrate			1024-8,384Kbps., VBR/CBR	
Image settings	Contrast, Brightness, Mirror, Flip, sharpness, Enhancement, 2/3DNR, AWB, BLC, HLC, WDR, Near Infrared				
Day/Night	Day, night, auto				
Frames/second	30fps. / 60fps.				
Focus type	Autofocus, remote motorized				




DAY/NIGHT CAMERA	Defogging	Optical or digital, base in selection
	Video output	Digital
	Video analysis (D/N)	Tripwire, Cross fence, Intrusion, Abandoned-missing object, Fast moving, Parking detection, Crowd gathering estimation, Loitering Detection
	EIS	In D/N camera
	Local storage	Up to 256Gb. for each camera
GENERAL	Web browser IE8 or above,	Chrome, Edge, Firefox
	Pan/tilt movement	Pan 360° endless, tilt -90/90°
	Pan/tilt speed	0,001°-600°/Sec. - 0,001°-40°/Sec.
	Accuracy	+/- 0,006°
	Tours	8
	Presets	256
	Auto scan / Auto pan	Yes
	Patterns	5 (10min.)
	Groups	4
	Idle action / Start up	Yes
	Protocols	Pelco D
	Digital alarms	Motion detection, IVS alarms, memory full
	Alarm I/O	D/N 1/1 - IR 1/1
	RS485	Yes
	Serial baudrate	2400-115200Kbps.
	Encoders	High end absolute positioning encoders
	Connector	Military type
	Network	RJ45 1x Giga Ethernet
	Network protocols	IPv4/v6, RTSP/RTP/RTCP, TCP/UDP, HTTP, HTTPS, DHCP, DNS, FTP, DDNS, PPPoE, SMTP, SNMP V1/V2, IEEE802.X, Bonjour, IP filter, QoS, ICMP, IGMP, NTP
	Fan/Heater	Yes
	Platform	Onvif 2.5, Profile S
	Environmental	-40°/65°C. - 0/95% RH not condensing
	Power	48v.DC (24-48v.)
	Laser illuminator	Fiber Coupling EEL type, up to 5Km. with zoom collimator
	Waterproof	IP66
	Weight	50Kg. without cameras / Max. payload 30Kg. per side
	Size	800x535x520mm.
Options	LRF, DMC, GPS, Marine coating	

Thermal - DRI Distances

Human target 1,8x0,5m.	Johnson´s criteria - NATO standard - 225mm. focal length	
Detection		9.375m.
Recognition		2.344m.
Identification		1.172m.

Vehicle target 2,3x2,3m.	Johnson´s criteria - NATO standard - 225mm. focal length	
Detection		19.167m.
Recognition		4.792m.
Identification		2.396m.

Human target 1,8x0,5m.	Johnson´s criteria - NATO standard - 350mm. focal length	
Detection		14.583m.
Recognition		3.646m.
Identification		1.823m.

Vehicle target 2,3x2,3m.	Johnson´s criteria - NATO standard - 350mm. focal length	
Detection		44.722m.
Recognition		11.181m.
Identification		5.590m.

Human target 1,8x0,5m.	DORI distances for 1200mm.	
Detection		20.000m.
Observation		7.937m.
Recognition		4.000m.
Identification		2.000m.

* Different weather conditions and temperature changes may affect to final distances, the stated distances are references.
 * GE window, fire detection/analytcs, GPS, DMC, LRF are optional.
 * Different laser illuminator configurations up to 5Km. distance
 * STANAG4347 / Thermal Imager- 20 temp difference & $\sigma=0.2$ km-1 atmospheric attenuation factor / Day Imager- 1000 lux illumination and target contrast of 20%. Probability 50%.
 * Infrared CVBS video available only for 640x512, higher resolution HDSDI, analog video for day/night cameras not available.
 * Pan/tilt speed would be adjusted to different speeds depending the payload weight.
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