



Hydra5000 PTZ Cameras

Silent, precise and rugged video surveillance cameras designed for monitoring and protection of critical assets and infrastructure.





Introducing Hydra5000 PTZ Cameras

Building upon the proven success of the Hydra3000 range, Overview's Hydra5000 family incorporates numerous refinements and enhanced capabilities, designed to deliver exceptional performance and reliability in the most demanding environments.

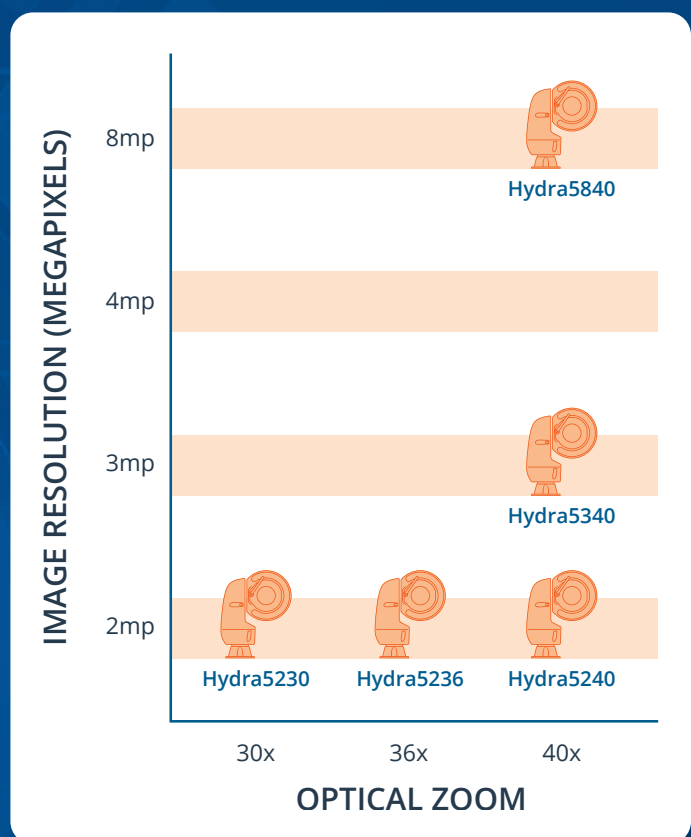
Flexibility to Fit Your Needs

Choose the camera best suited to your needs and budget. The Hydra5000 family offers a versatile range of resolution and zoom options, from the cost efficient full HD1080p 30x zoom to the UltraHD 4K resolution with 40x zoom.

The entry level 2MP camera, provides reliable performance with a high quality 30x zoom lens and video analytics for standard surveillance needs where low size, weight, power and cost are key considerations.

For the most demanding applications, the UltraHD 4K resolution camera with a 40x zoom lens delivers exceptional detail and clarity, perfect for high security environments where precise surveillance, at range, is critical.

The Hydra5000 family offers flexibility for advanced, high-definition monitoring and critical security applications.



Ultra Low Light Operation

All Hydra5000 models utilise Sony sensors, achieving superb image quality at all resolutions and lighting conditions, especially in low light.

Progressive scan ensures smooth pictures with minimal motion blur.

Noise suppression, advanced image processing algorithms and high dynamic range, provide colour video in light levels as low as 0.005 lux. In extremely low light conditions, monochrome sensitivity ensures the intelligent video analytic functions remain accurate and deliver true results.

Core Strengths



Agility

Overview's unique Integrated Servo Drives used within Hydra5000 provide market leading speed and agility while delivering ultra smooth and responsive camera movements, making it effortless to track targets and monitor wide areas of interest.



Zero Backlash Precision

Hydra incorporates Overview's award-winning, true zero backlash, Integrated Servo Drives. Our unique approach eliminates gears and belts from the drive chain delivering class leading positional accuracy and repeatability levels of up to 0.01° (17×10^{-5} rad).



Silence

Hydra5000 PTZ cameras are completely silent in operation bringing benefits to situations where covert or unobtrusive operation is required.



Low Light

Hydra5000's image sensors achieve superb image quality at all resolutions and lighting conditions, including low light. In zero light conditions, smart white light and IR LEDs provide visibility at extended range and intelligently manage the Field of View of the LEDs to ensure uniform illumination.



Video Analytics

Hydra5000 benefits from a comprehensive analytics suite, going beyond traditional motion detection. Advanced features include pixel change motion detection and object classification.



Rugged & Reliable

Extensive environmental qualification ensures Hydra withstands the harshest of conditions. Overview's underlying direct-drive technology removes belts and gears, massively reducing component count and complexity, while also enhancing operational reliability and reducing maintenance costs.



UK Innovation

Designed and manufactured in the UK, combining technology innovation with stringent quality controls, meeting the highest standards.



Customisable

With its multi-layer finish and high performance powder coat, Hydra is highly resistant to corrosion in harsh environments and is available in any colour required.



Seamless Integration

Hydra products are ONVIF compliant and integrate seamlessly with industry standard VMS and C² systems. Dedicated APIs are available for more customised integration.

System Compatibility

ONVIF and PSIA compliance ensures that Hydra5000 cameras are interoperable with a wide range of Video Management Systems and allows seamless integration with specialist software, reducing setup time and costs in complex solutions.

Options

Enhanced Low Light Performance

Intelligent white light and IR LEDs provide uniform illumination at extended range, significantly improving image quality in zero and low light conditions.

Power over Ethernet

For ease of installation, Hydra5000 cameras can be powered via a single ethernet connection from an industry standard PoE++ IEEE 802.3bt Type 4 port.

Edge Storage with SD Card

When operating in areas with limited or unreliable network access, on camera edge recording ensures critical full motion video evidence is not lost.



Advanced Analytics Capability

The Hydra5000 family introduces a comprehensive analytics suite, going beyond traditional motion detection. Advanced features for improving situational awareness and minimising false alarms are available as standard, alongside pixel change motion detection. Object classification allows detection of people, faces, vehicles and vehicle number plates.

Users can easily configure Hydra5000 cameras to provide alerts for abnormal behaviour such as objects appearing (or disappearing), intrusions into protected zones or across virtual tripwires.

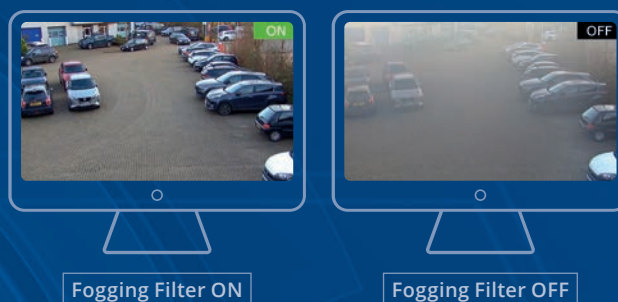
Image enhancement features are built in to ensure the clearest images possible.

Fast and Accurate Focusing Performance

In low light conditions, Hydra5000 cameras accurately focus on complex scenes using data accumulated from previously captured frames.

Defog

When the surrounding area of the subject is foggy and low contrast, the defog mode will reduce the effects of the fog and make the subject appear clearer.



Object Detection

Object Detection technology allows operators to automatically identify and track target objects by using modelling technology that creates a fixed background in the scene, allowing the detection and monitoring of moving objects.



Directional Detection

Detects objects travelling in the opposite direction to other objects in the scene. Set the direction of movement within a specific area. Alarms are generated when objects are detected moving in directions other than the set direction of movement.



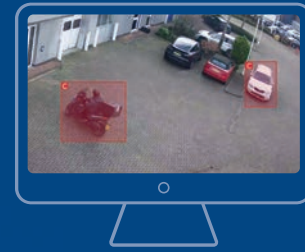
Object Blur

Operator defined objects can be blurred in the scene, for example people or vehicles or both.



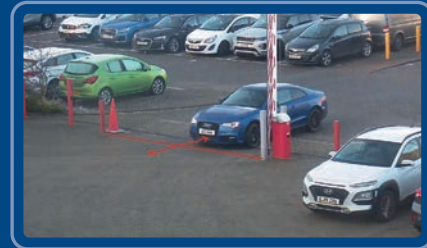
Abandoned Vehicles

Using deep learning analysis technology, in all weathers, unexpected situations on the road such as a vehicle stopping on the hard shoulder can be detected in real time, classified precisely and alerts sent to operators and situational management software.



Line Counting

Objects can be counted crossing a virtual tripwire, useful for traffic monitoring or measuring footfall at events or places of interest.



Protection of regions

Regions within a scene may require specific object detection and alarming, for example a person walking on the road or a vehicle entering a pedestrian area. Analysis of each region can be used to provide alerts for various changes. Unexpected objects appearing, remaining stationary or moving, the direction of flow, intrusion of objects leaving a region can all be configured.



Typical Applications

Protection of critical infrastructure

Safeguard critical infrastructure with high quality video, class leading smooth control and a suite of sophisticated analytics capabilities. These features empower users to proactively identify potential threats and anomalies, enhancing situational awareness and response times.

Monitoring of facility perimeters

A precise and efficient solution for monitoring facility perimeters. With its low SWaP-C footprint and proven long life, the Hydra5000 delivers reliable and cost effective surveillance.

The system's advanced analytics capabilities, including customisable motion detection zones, enable users to focus on critical areas, minimising false alarms and maximising operational efficiency. By tailoring surveillance to specific security needs, the Hydra5000 provides a robust and intelligent solution for perimeter protection.

Surveillance of highways

The direct-drive reliability, IP67 and IK10 ratings ensure durability in harsh outdoor environments, while minimal maintenance requirements reduce operational costs.

The system's advanced analytics capabilities, including line counting, ANPR, vehicle speed detection, and directional detection, provide valuable insights for traffic management and incident response. By identifying potential threats and anomalies, the Hydra5000 helps to enhance highway safety and security.

Protection of high value properties

A discreet and effective solution for protecting high value properties. The low SWaP-C footprint allows for unobtrusive integration into various environments, while its silent operation minimises disturbance.

The system's advanced analytics capabilities, including object and region blurring, ensure compliance with privacy regulations. By safeguarding sensitive information and personal privacy, the Hydra5000 provides a reliable and ethical solution for high value property protection.

Hydra5000 Family Technical Specification

IMAGING					
	HY5230	HY5236	HY5240	HY5340	HY5840
Sensor Type	1/2.8" CMOS Progressive Scan	1/2.0" CMOS Progressive Scan	1/2.0" CMOS Progressive Scan	1/1.8" CMOS Progressive Scan	1/1.8" CMOS Progressive Scan
Pixel	2MP			3MP	8MP
Resolution	1920 x 1080			2304 x 1296	3840 x 2160
Sensitivity	Colour: 0.01 Lux (1/30sec, 30IRE)	Colour: 0.005 Lux (1/30sec, 30IRE)	Colour: 0.005 Lux (1/30sec, 30IRE)	Colour: 0.005 Lux (1/30sec, 30IRE)	Colour: 0.005 Lux (1/30sec, 30IRE)
	BW: 0.0001562 Lux (1/30sec, 30IRE)	BW: 0.000039 Lux (1/30sec, 30IRE)	BW: 0 Lux (IR ON)	BW: 0 Lux (IR ON)	BW: TBA
Electronic Shutter	1/1 ~ 1/100,000				
Day Night	Day / Night / Auto / IR-Cut filter				
Back Light Compensation	BLC, HLC, WDR				
Wide Dynamic Range	120dB				
White Balance	Auto tracing white / Auto White / Manual				
Gain Control	Auto				
Noise Reduction	Auto, Manual				
Image Stabilisation	EIS (Gyro Sensor)				
Defog	Support				

LENS					
	HY5230	HY5236	HY5240	HY5340	HY5840
Lens Type	DC auto iris				
Zoom	Optical 30x, Digital 8x	Optical 36x, Digital 8x	Optical 40x, Digital 8x		
Focal Length	f = 5.2 ~ 156mm	f = 6 ~ 216mm	f = 6.5 ~ 260mm	f = 6.5 ~ 260mm	f = 6.5 ~ 260mm
Field of View	Horizontal: 58.1° (wide) ~ 1.94° (tele)	Horizontal: 58.2° (wide) ~ 1.6° (tele)	Horizontal: 61.4° (wide) ~ 1.6° (tele)	Horizontal: 58.6° (wide) ~ 1.42° (tele)	Horizontal: 61.4° (wide) ~ 1.6° (tele)
Maximum Aperture	F1.3 (wide) ~ F4.8 (tele)	F1.5 (wide) ~ F4.8 (tele)	F1.4 (wide) ~ F4.9 (tele)	F1.4 (wide) ~ F4.9 (tele)	F1.4 (wide) ~ F4.9 (tele)
Focus Control	Manual, Auto, Oneshot AF				
Minimum Focus	3m				

* Factory fitted option - specify at time of ordering.
 Specifications are subject to change at any time without notice.

VIDEO

	HY5230	HY5236	HY5240	HY5340	HY5840
Compression	H.264 / H.265 / MJPEG				
Resolution	Primary 1920 x 1080		Primary 2304 x 1296		Primary 3840 x 2160
	Secondary (#1) 1920 x 1080 ~ 352 x 240				
	Secondary (#2) 1280 x 720 ~ 352 x 240				
	Secondary (#3) 720 x 576 ~ 352 x 240				
Frame Rate	Max 60fps @ 1920 x 1080		Max 60fps @ 2304 x 1296		Max 30fps @ 3840 x 2160
Bitrate	Primary: 32Kbps ~ 16Mbps				
	Secondary: 32Kbps ~ 4Mbps				
Bitrate control	H.264/H.265: CBR / VBR Hybrid, MJPEG: VBR				
Streaming (Quad)	Primary: H.264, H.265				
	Secondary (x3): H.264, H.265, MJPEG				
Output	IP Video over ethernet				
Edge Storage*	512GB Micro SD/SDHC/SDXC				
Motion Detection	8 regions, 23x15 cells				
Privacy Masking	8 regions each user defined polygon of 8 point				
Digital Zoom	Enable / Disable				
Image Rotation	Horizontal (Mirror), Vertical (Flip)				
OSD overlay	Camera title, direction, special characters, multi-lingual: English, Korean, French, German, Spanish, Italian, Russian, Japanese, Swedish, Portuguese, Dutch, Hungarian, Finnish, Special Characters				
Video Analytics	Motion Detection, Object Detection, Face Detection, ANPR, Vehicle speed, Intrusion Detection, Line Counting, Directional detection, Defocus detection, Object blurring				

AUDIO

	HY5230	HY5236	HY5240	HY5340	HY5840
Compression	G.711				
Resolution	8-bit				
Sampling rate	8KHz				
Bitrate	64kbit/s				
Streaming	Full Duplex				
Input	1 x Line In for external microphone				
Output	1 x Line Out for external speaker				

Hydra5000 Family Technical Specification

MOTION CONTROL

	HY5230	HY5236	HY5240	HY5340	HY5840
Mechanism	Direct-drive brushless DC				
Pan speed	0.05°/s to 540°/s				
Tilt speed	0.05°/s to 540°/s				
Rotation (Pan and Tilt)	Continuous 360°				
Tilt Endstop	Software enabled +/-90°				
Pan resolution	0.01°				
Tilt resolution	0.01°				
Presets	500				
Tours	8 programmable				
Auto parking	User defined				

NETWORK

	HY5230	HY5236	HY5240	HY5340	HY5840
Interface	10/100 Base-T(X) Ethernet				
Protocol	IPv4 / IPv6, TCP, UDP, IGMP (Multicast), ICMP, DHCP, HTTP, HTTPS, RTP, RTSP, FTP, SNMP, SMTP, UPnP, WS-Discovery, NTP, DDNS, RTMP				
Security	SRT (Secure Reliable transport), Basic/Digest Authentication, HTTPS(SSL), IP Filtering, 802.1x, User Access Login, TTA Certification				
Programming Interface	ONVIF Profiles G, S, T				

LIGHTING

	HY5230	HY5236	HY5240	HY5340	HY5840
LED module operation	Factory fitted option: High performance LED module includes combination of 3 Infra Red 850nm and 3 White Light LED bars. Smart triggering linked to zoom ensures even illumination across field of view. Range up to 500m				
Infra Red 850nm and White Light beam angles	Wide 53°				
	Medium 14°				
	Narrow 10°				

I/O

	HY5230	HY5236	HY5240	HY5340	HY5840
Alarm Input	Single opto-isolated				
Alarm Output	Single Normally Open (NO) Volt-free contacts, Output 24VAC/48VDC, 100mA				
Reset	Active Low, Short pin to GND (0V)				

POWER

	HY5230	HY5236	HY5240	HY5340	HY5840
Operating voltage	46-50VDC				
Maximum Current	2A				
Power consumption	5-10W typical, static with lights off				
	15-20W typical, static with lights on				
	96W maximum power consumption (70W when PoE)				
PoE	PoE++ IEEE 802.3bt (option)				

PHYSICAL

	HY5230	HY5236	HY5240	HY5340	HY5840
Mounting	4" PCD with 4 x M8 clearance holes				
Unit Orientation	Upright (Tilt above Pan) or Hanging (Pan above Tilt) software configurable				
Material	Passivated Die-cast Aluminium				
Finish	Powder coated epoxy paint, RAL9002 (grey-white) or RAL 9005 (jet black). Custom colours available on request				
Window	Scratch resistant coating on clear glass				
Wiper	Silicone rubber. User operated				
Dimensions (h*w*d)	382 x 276 x 168mm	400 x 308 x 235mm			
Swept Volume	407mm diameter cylinder, 382mm tall	455mm diameter cylinder, 399mm tall			
Weight (max)	7.5kg	9.5kg			
Operating Temperature	-30°C to +60°C				
Storage Temperature	-30°C to +60°C				
Operating Humidity	0 to 100% RH				

CERTIFICATIONS

	HY5230	HY5236	HY5240	HY5340	HY5840
Ingress Protection	EN 60529: IP67				
Impact	EN 62262: IK10				
EMC	EN 55032: Class A, EN 50130-4				
Corrosion	Salt spray - EN 60068-2-52: Severity Level 1				
Safety	EN 62368-1				
Shock	EN 60068-2-6 Test Fc				
Vibration	EN60068-2-27 Test Ea				
Regulatory	CE Marked, RoHS				



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