



VIDAR SPEED R

4TH GENERATION, MODULAR ANPR CAMERA



SPEED R is an option for any VIDAR Smart Camera to enable certified speed measurement with the camera's external Doppler-Radar.



Smart-enabled VIDAR models are capable of running onboard ANPR with superior accuracy, along with vehicle make, model and color recognition, in order to quickly gather vehicle identification information on the spot.

Each unit is protected inside a compact and robotically assembled IP67 rated weatherproof housing to ensure impressive performance in all environments from the arctic cold to the desert heat.

Integrated illumination and advanced brightness control work together to capture clearly visible high-contrast images of both reflective and non-reflective plates.

Also good news for our ITS customers is that VIDAR is natively GDS-ready. The external Doppler-Radar is able to return the speed, category and direction of any vehicle. With that, the Vidar Speed R cameras are capable to catch speedsters based on their vehicle type.



Main benefits

- VIDAR can work as a standalone traffic solution.
- Carmen ANPR and Make and Model Recognition runs on-board (optional).
- Built-in synchronized illumination for superior imaging at any traffic speed.
- Variable motorized optics for easy fine-tuning.
- Built-in laser trigger for precise vehicle detection.
- External Radar to return certified speed and classification
- 150% faster OCR recognition than in the previous models.
- High-quality automated manufacturing using robotic assembly.

Specifications

- Dual motorized optics • high-performance 4-core ANPR processor • built-in laser trigger • optional MMR + color
- reads reflective/non-reflective plates simultaneously • overview lens • optical speed measurement • direction detection
- wealth of features • 2 types of illumination • spectacular night-time performance • natively GDS-ready • doppler-radar

	VIDAR SMART HDx	VIDAR SMART 2xHDx LT	VIDAR SMART 2xFHD LT
Imaging			
Resolution	1440 x 1080	Sensor 1 & 2: 1440x1080	Sensor 1 & 2: 2048x1536 1920x1080
Max FPS	30 FPS	Sensor 1 & 2: 30 FPS	
Sensor	Color, Global shutter	Sensor 1 & 2: Color, Global shutter	
Day/Night switch	Automatic brightness control with predefined traffic environments or manual		
Lens	Motorized zoom and focus, remotely adjustable		
Lens mount	Custom mount		
Angle of View	Wide: 54° x 42° Tele: 3,4° x 2,5°	Optics 1 & 2: Wide: 54° x 42° Tele: 3,4° x 2,5°	Optics 1 & 2: Wide: 26° x 20° Tele: 8° x 6°
Optical Zoom	17x	Optics 1 & 2: 17x	Optics 1 & 2: 3.3x
Focal length	Variable 4.8 – 84.6 mm	Optics 1 & 2: Variable 4.8 – 84.6 mm	Optics 1 & 2: Variable 15 – 50 mm

ANPR

ANPR range	4 m – 20 m / 13 ft. – 65 ft.	10 – 20 m / 33 ft. – 65 ft.
Maximum ANPR range (at optimal conditions)	50 m / 164 ft.	40 m / 131 ft.
Maximum ANPR range at *0° LUX	20 m / 65 ft.	
Vehicle speed range (at optimal conditions)	0 km/h – 300+ km/h / 0 mph – 190+ mph	
Maximum lane width covered (at standard license plate size)	6 m / 20 ft.	9 m / 30 ft.

On-Board Intelligence

Carmen ANPR onboard	✓	✓	✓
ANPR Cloud compliant	✓	✓	✓
GDS & EVTS compliant	✓	✓	✓
MMR + Color	Opt.	Opt.	Opt.
Video analytics	Image preselection (vehicle detection), vehicle direction, approximate vehicle speed.		

Illumination

Wavelength	850 nm (white and 760 nm are optional)		
Illumination modes	Synchronized or continuous		
Illumination beam-angle	16°		
Variable intensity	Adjustable in 100 increments, parity flash (different intensity for odd and even frames)		

Technical specifications are subject to change without prior notice. This document does not constitute an offer.

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Processing & I/O

ANPR Processing unit	ARM Quad-core 1.4 GHz		
Communication protocols	ONVIF, ARP, ICMP, TCP/IP, DHCP, NTP, FTP, HTTP, SMTP, RTP, HTTPs, SFTP		
I/O ports	12-pin (UART, GPIO, USB, RS232)		
GPS	Optional (external GPS box)		
In-built Laser Trigger	X	8 mRad Point Laser	
Laser wavelength & safety class	X	905 nm CLASS 1 (60825-1 2014)	
Radar for triggering	Optional, K-Band		
Vehicle direction	✓		

Electrical Data

Power requirement	24-28 V AC		
Typical power consumption	14 W	20 W	

Mechanical Data

Operating temperture*	-45°C to +55°C / -49°F to +131°F (158°F)*		
IP&IK rating	IP67, IK10		
Dimensions (LxWxH)	299x251x276 mm / 11.77"x9.88"x10.86"		
Weight	6.4 kg / 14.11 lbs		
In the box	Camera, bracket, shield		

Radar

Measurement Principle	Doppler-Radar		
Measurement Frequency	24.165 GHz K-Band		
Vehicle speed data	Certified		
Event categorization	✓		
Measurement accuracy	up to 100 km/h: ±3 km/h; 100+ km/h : ± 3%		

Accessories

Binder M12 power cable, Phoenix Ethernet cable, Freeway-RADAR (Doppler radar), Junction Box, External IR-light, External GPS
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Certificate

Made in EU, NDAA compliant



internal temperature / ambient temperature: max 55°C (131°F)

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