ADAPTIVE RECOGNITION

Vidar – ANPR/ALPR cameras for traffic monitoring

Imaging

Imaging	Vidar HDx	Vidar Smart HDx	Vidar Smart 2xHDx LT	Vidar Smart 2xFHDx LT	Vidar Smart 5MpHDx LT
Resolution	Sensor: 1.5MP (1440 x 1080)		Sensor 1&2: 1.5MP (1440×1080)	Sensor 1&2: 3MP (2048×1536)	Sensor 1: 5MP (2464×2048) Sensor 2: 1.5MP (1440×1080)
Max FPS	120 @ 720p		120 @ 720p	60 @ 1080p	45 @ 3MP on Sensor 1 or 120 @ 720p on Sensor 2
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: 55.7° x 43.2° Tele: 3.4° x 2.5°		Optics 1&2: Wide: 55.7° x 43.2° Tele: 3.4° x 2.5°	Optics 1&2: Wide: 26.5° x 20° Tele: 8.1° x 6.1°	Optics 1: Wide 25.1°×21.3° Tele: 7.7° × 6.4° Optics 2: Wide: 55.7° × 43.2° Tele: 3.4° × 2.5°
Optical Zoom	18×		Optics 1&2: 18×	Optics 1&2: 3.3×	Optics 1: 3.3× Optics 2: 18×
Focal length	Variable 4.8 – 84.6 mm		Optics 1&2: Variable 4.8 – 84.6 mm	Optics 1&2: Variable 15 – 50 mm	Optics 1: Variable, 15 – 50 mm Optics 2: Variable, 4.8 – 84.6 mm

Custom sensor configurations (e.g., resolution, color or b/w), optics (zoom or fix, focal length, etc.) and filters (IR-band, IR-Cut, All Pass, and Polarized) are available upon request.

On-Board ANPR+MMR, powered by:

CARMEN®

Distance ANPR Range
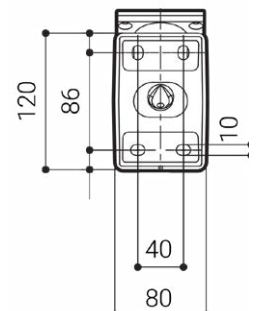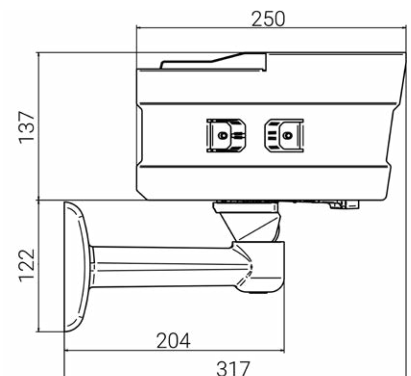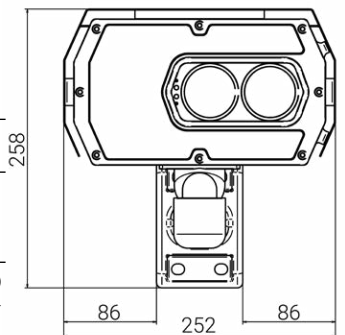
Distance ANPR Range			
Optimal ANPR range at ambient light	4 m – 20 m (13 feet – 65 feet)	10 m – 20 m (33 feet – 65 feet)	
Maximal ANPR range at optimal conditions	50 m (164 feet)	40 m (131 feet)	50 m (164 feet)
Maximum ANPR range at "0" lux*	35 m (115 feet)		
Vehicle speed range (at optimal conditions)	0 km/h – 320+ km/h / 0 mph – 199+ mph		
Maximum road width covered (at standard license plate size)	6 m (20 feet)	8 m (26 feet)	10 m (33 feet)

* In the case of reflective license plates
ANPR range can be tailored with different lens and sensor combinations to meet specific project requirements.

On-Board Intelligence

On-Board Intelligence	Vidar HDx	Vidar Smart HDx	Vidar Smart 2xHDx LT	Vidar Smart 2xFHDx LT	Vidar Smart 5MpHDx LT
Carmen on-board ANPR	–	✓	✓	✓	✓
GDS compliant	✓	✓	✓	✓	✓
MMR + Color	–	✓	✓	✓	✓
Vehicle category	–	✓	✓	✓	✓
Video analytics	Image preselection (license plate detection)	License plate detection, vehicle direction detection, vehicle category			
Seat belt usage detection*	–	✓	✓	✓	✓
Mobile phone usage detection*	–	✓	✓	✓	✓
ADR Recognition	–	✓	✓	✓	✓

*Additional AI-based features such as seatbelt detection, mobile phone usage detection, driver photo capture, optical speed measurement and passenger counting can be enabled for selected projects. ANPR Cloud based recognition can be enabled when requested.

CE FC UL RoHS Onvif

3-year warranty Made in EU

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For any specific requirements beyond our standard products, custom configurations are available. Please contact our sales team to discuss your project needs and explore tailored solutions. We are happy to help.
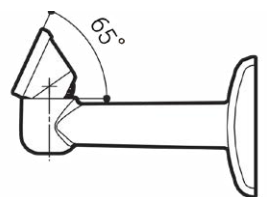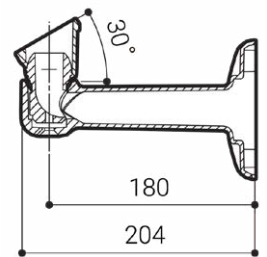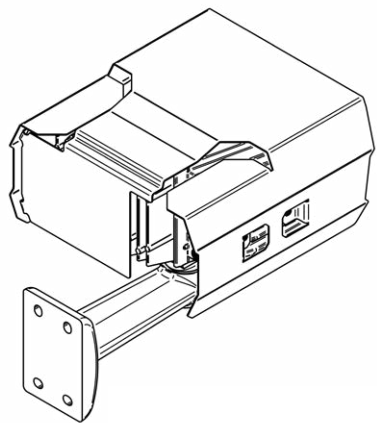
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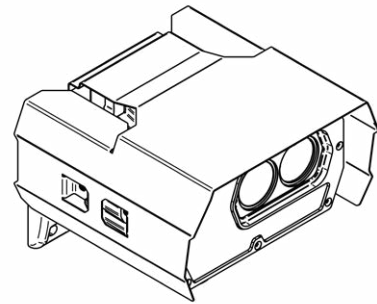
· dual motorized optics · high-performance 4-core ANPR processor · built-in laser trigger · MMR + color · up to 120 FPS on selected models · reads reflective/non-reflective plates simultaneously · overview lens · direction detection · wealth of features · 850 nm IR illumination · spectacular night-time performance · natively GDS-ready · vehicle categorization

Release date: 12/03/2025

Vidar – ANPR/ALPR cameras for traffic monitoring

Illumination	Vidar HDx	Vidar Smart HDx	Vidar Smart 2xHDx LT	Vidar Smart 2xFHDx LT	Vidar Smart 5MpHDx LT
Wavelength	850 nm				
Number of LEDs	12 high-power LEDs				
Illumination modes	Synchronized or continuous				
Illumination beam-angle	22°				
Variable intensity	Adjustable in 100 increments, parity flash (different intensity for odd and even frames)				

Processing & I/O — Any required wavelength (white, 760nm IR, 850nm IR, etc.) even mixed with different beam-angles are also available upon request.

Processing & I/O					
ANPR Processing unit	–	ARM 64-bit Quad-Core @ 1.4 GHz			
Communication protocols	ONVIF, ARP, TCP/IP, DHCP, NTP, FTP, HTTP, RTSP, HTTPs, SFTP (Smart models only), DNS, SNMP, SSL/TLS, NTCIP				
I/O ports	12-pin (UART/GPIO/USB/RS232)				
In-built Laser Trigger	–	–	8 mRad Point Laser		
Laser wavelength & safety class	–	–	905 nm CLASS 1 (60825-1 2014)		
Radar for triggering	–	Optional			
Certified vehicle speed data	–	–	–	Optional, 4D MultiLane Radar	

Storage					
Internal storage size and type	–	32 GB* SSD			
Stored number of events (Internal)**	–	approx. 90000	approx. 90000	approx. 50000	approx. 40000
Event package size for external upload**	~ 200 kB	250 - 400 kB	250 - 400 kB	350 - 500 kB	400 - 550 kB
External storage type	FTP, HTTP, SMTP	FTP, SFTP, HTTP, HTTPS	FTP, SFTP, HTTP, HTTPS	FTP, SFTP, HTTP, HTTPS	FTP, SFTP, HTTP, HTTPS

* Internal storage: max. 1 TB SSD (available upon request)
**With default settings

Electrical Data					
Power requirement	24 - 28 V AC*; min. 2A		24 - 28 V AC*; min. 2.5A		
Typical power consumption	11 W	18 W	20 W	20 W	20 W
Maximum power consumption	30 W	50 W	60 W	60 W	65 W

*36 V DC, when galvanically isolated, double-insulated power supply is in use

Mechanical Data					
Operating temperature*	-45°C – +70°C (-49°F – +158°F)				
IP&IK rating	IP67, IK10**				
Dimensions with bracket (L×W×H)	250 x 252 x 258 mm / 9.84" × 9.92" × 10.16"				
Weight	4.5 kg / 9.92 lbs				
In the box	Camera, bracket, shield				

*Internal
** For IK10 protection an additional accessory component might be required

Accessories

M12 power cable, Ethernet cable, I/O Cable, 4D MultiLane Radar, Junction Box, External IR-light

Certificate

Made in EU, NDAA compliant

**3-year warranty
Made in EU**

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