

# Vidar PAX Camera for Passenger Counting

Get Images Through Windscreens to Count/Check Vehicle Occupants

Vidar PAX cameras capture high-resolution images suitable for accurate recognition and facial identification of vehicle occupants regardless of speed, light, and weather conditions. The camera's extra-wide lenses and built-in LED illuminators, which are highly recommended to be combined with external illuminators, allow users like police and authorities to determine who is inside vehicles with accuracy and speed.

## Laser-Based Triggering

The Vidar PAX camera comes with a spot laser that triggers the camera at the exact moment it needs to take pictures. This results in a highly precise and economical operation.

## In-Built Near-Infrared LED Illumination

The camera has built-in 760 nm near-infrared (NIR) LED illuminators, and also supports external ones for perfect images of vehicle occupants through a windscreen.

## Full Data Privacy Compliance

Vidar PAX fully complies with the strictest data security standards, such as the European Union's GDPR, by encrypting sensitive data before it leaves the device.





## Dual Optics With IR Pass Filter

# Detection Without Disturbance

Vidar PAX relies on the same dual optics configuration as our smart Vidar industrial cameras. This provides the unique option to simultaneously capture an overview of the approaching vehicle in color and its passengers in greyscale. Vidar PAX operates with wide optics, allowing a range of up to 9 meters and the option to install the cameras in the proximity of the road.

Passenger images are taken, without disturbing drivers thanks to the IR Pass filter. Combined with the built-in and (optional) external illuminators, you get a camera that can accurately recognize passengers behind the most common windscreen types under any light condition.



## PAX Software

# Enjoy Next-Level Vehicle Occupancy Detection

The dedicated PAX software automatically adds the necessary information to data packets coming from the camera without the need for human interference. The external PAX software can tell the exact number of passengers with great accuracy—up to 95% for first row occupants—but it also provides the confidence of results to avoid false positives such as pets and large objects in passenger seats.



# Future-Proof Design

## A Camera That Lasts for Decades

Like all members of this model family, Vidar PAX is designed to last for many years to come. The robust, IK10 & IP67 shock- and weatherproof housing made of durable aluminum ensures that the camera is protected from external harm. Vidar cameras feature virtually no moving parts, making them vandal-proof and significantly reducing the need for maintenance works—many of which can be performed remotely via the straightforward user interface.



✓ **PLATE NUMBER:** 248334

✓ **PASSENGER COUNT:** 4

**ANPR IMAGE:**



**FRONT IMAGE:**



**REAR RIGHT IMAGE:**



**REAR LEFT IMAGE:**





# Vidar Pax Camera

## Imaging

Resolution	Sensor 1 & 2: 1440x1080
Max FPS	Sensor 1 & 2: 120 FPS*
Sensor	Sensor 1: color + Allpass filter, global shutter Sensor 2: black & white + IR Bypass filter, 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	Optics 1 & 2: 79° x 63°
Optical zoom	Optics 1 & 2: 3x
Focal length	Optics 1 & 2: Variable 3–9 mm

\* On selected sensor and resolution

## PAX + ANPR

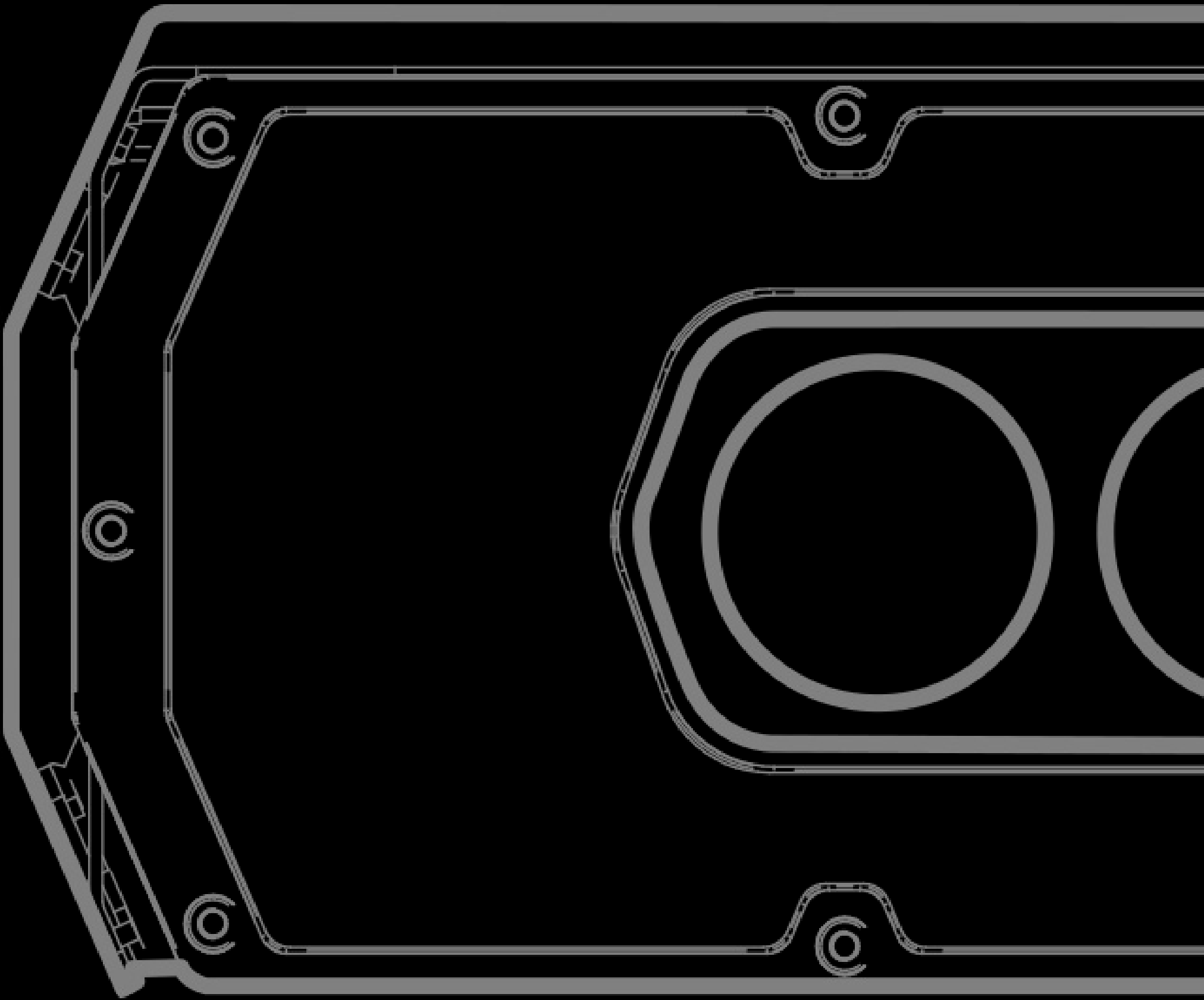
PAX + ANPR range	Up to 9 m (29.53 ft)
Vehicle speed range (at optimal conditions)	0 km/h – 300+ km/h / 0 mph – 190+ mph
Maximum lane width covered (at standard license plate size)	6 m / 20 ft

## Onboard Intelligence

Carmen® ANPR	Server side
Carmen® PAX	Server side
GDS compliance	Yes

## Illumination

Wavelength	760 nm near-infrared
Illumination modes	Synchronized or continuous
Illumination beam-angle	22°
Variable intensity	Adjustable in 100 increments, parity flash (different intensity for odd and even frames)



# Vidar Pax Camera

## Processing & I/O

Communication protocols	ONVIF, ARP, TCP/IP, DHCP, NTP, FTP, HTTP, RTSP, HTTPS, SFTP, DNS, SNMP, SSL/TLS, NTCIP
I/O ports	12-pin (External Illuminator, UART, GPIO, USB, RS232)
In-built laser trigger	8 mRad point laser
Laser wavelength & safety class	905 nm CLASS 1 (60825-1 2014)

## Electrical Data

Power requirement	24-28 V AC, 2A
Typical power consumption	18 W

## Mechanical Data

Operating temperature*	-45°C – +70°C (-49°F - +158°F)
IP & IK rating	IP67, IK10
Dimensions (LxWxH)	250 x 251 x 145 mm / 9.84" x 9.88" x 5.7"
Weight	4.5 kg / 9.92 lbs
In the box	Camera, bracket, shield

## Accessories

M12 power cable, Ethernet cable, Junction Box, External IR-light, External GPS, I/O cable
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## Certificate

Made in EU, NDAA compliant
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\* Internal  
Technical specifications are subject to change without prior notice. This document does not constitute an offer.

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