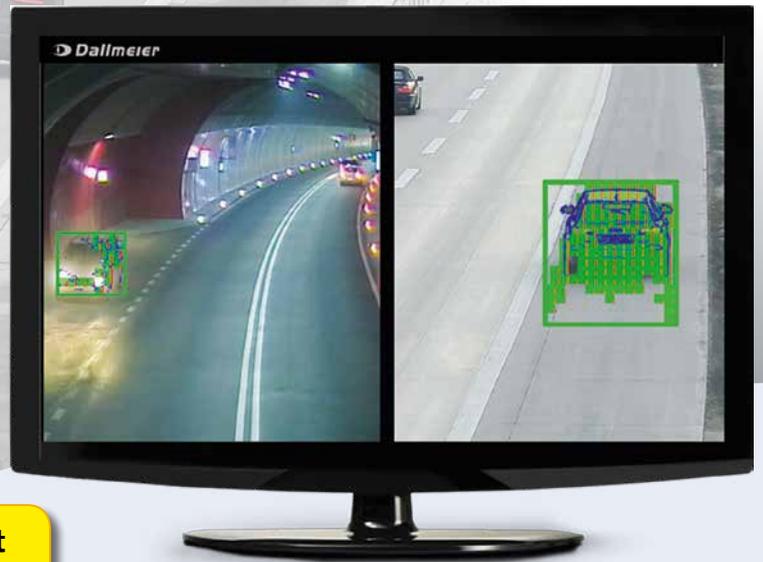


Multifocal sensor system

# PANOMERA®

TRAFFIC

EN



**Most cost-efficient  
camera available**

## Innovative video solution for traffic telematics applications

Panomera® is a completely novel camera technology, which was specially developed for the all-encompassing video surveillance of expansive areas. With Panomera®, huge widths, as well as areas with large distances can be displayed with a completely new resolution quality, in real time and at high frame rates of up to 30 fps.

With Panomera®, a huge area can be surveyed from a single location, and depending on the customer's needs, the resolution can be scaled nearly limitlessly.

**ONVIF**

ONVIF compatibility: open software and hardware interfaces

## Innovative multifocal sensor technology

Panamera® enables reliable, cost-effective surveillance of motorway hard shoulders. Until now, this function has entailed the use of pan and tilt heads, with significant maintenance effort.

However, this solution has one fundamental drawback: When scanning a stretch of road, the camera can only ever keep certain sections in view, the overview is lost. Furthermore, the moving, mechanical parts are highly prone to wear, and shorten the service life of the components.

With Panamera® on the other hand, it is possible to provide continuous surveillance and automatic analysis of long sections of road from a single location.



## Panamera® Traffic

Panamera® Traffic is a new, intelligent Video-IP total solution for traffic telematics applications from Dallmeier. It consists of a Panamera® multifocal camera system for the transport sector, the special traffic telematics video analysis for high resolution video streams, the virtual video matrix and the proven Dallmeier SeMSy® video management system with Traffic Package.

## Advantages

### Sophisticated technology:

- Uninterrupted view of a long section of road for rapid evaluation of the traffic situation
- Continuous recording for preservation of evidence
- High resolution and detail recognition over great distances
- No mechanical parts, therefore no wear and no expensive maintenance costs

### Reduced burden on personnel:

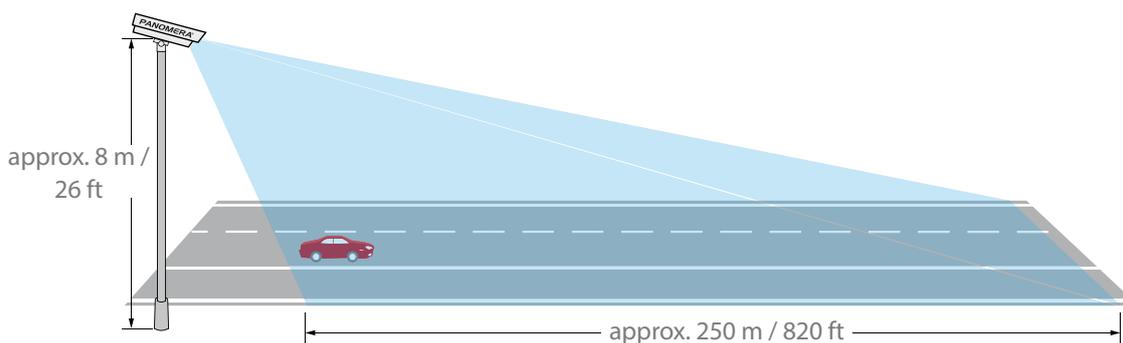
- Active control by the operator unnecessary
- Optimised user interface with display of contiguous road

### Innovation and experience:

- Over 30 years of experience and expertise in video security technology
- Cutting-edge technology with completely new, practically oriented approach to problem solving
- 100% in-house development and production: Made in Germany, made by Dallmeier

## Cost efficiency compared with single sensor cameras

Enormous savings due to the very small number of installation points on larger sections of road. Simpler, less extensive maintenance.



## Traffic analyses

Panomera® Traffic offers traffic analyses for motorways, trunk roads, tunnels and urban roads in real time. The analysis modules have been designed specifically for the Traffic sector. They are based on the proprietary Dallmeier texture model, which means they are unaffected by fluctuations in outdoor lighting conditions. The analysis also includes image stabilizing mechanisms that can be used with plannable, affordable masts to significantly reduce the risk of false alarms. Panomera® Traffic is able to reliably detect objects as small as 15 x 15 x 15 cm (6 x 6 x 6 inches) from distances up to 250 m (820 ft). So Panomera® Traffic is ideally equipped to provide effective assistance for hard shoulder release instructions. There are also modules for detecting people, stationary and stop-and-go traffic as well as wrong-way drivers. In addition to the above, the traffic data module can be used to capture vehicle classifications, speeds and vehicle-to-vehicle distances.

The system is equipped with many validation processes for events. For this, there is a quality-of-video module, which delivers a continuous estimate of visibility conditions, controls the analyses and associated events, and provides the operator in charge with objective decision making criteria for the situation as it happens.

### Detection on the normal roadway

- Traffic jam
- Risk of traffic jam
- Standstill
- Distance
- Speed
- Wrong-way drivers



### Opening of hard shoulder

- Abandoned vehicles
- Pedestrians on the roadway
- Objects on the roadway



### Tunnels and tunnel detection

- Pedestrians in the tunnel
- Traffic situations (traffic jam, wrong-way driver...)
- Smoke detection



### Monitoring of urban traffic

- Traffic situations
- Junctions
- Accident black spots
- Automatic Number Plate Recognition (ANPR)



# Highlights of the Panomera® Traffic

## Multifocal camera technology

### Maximum detail resolution even over long distances

Panomera® stands out due to a completely novel lens and sensor concept. With innovative geometric construction principles, Panomera® uses its pixels such that even objects that are farther away can be displayed with the same resolution as objects in the foreground of the picture. Unlike conventional PTZ cameras, Panomera® works with multiple sensors, each of which has a different focal length. Panomera® technology thus combines several focal ranges to create a single, contiguous, harmonised field of view with outstanding resolution and pin-sharp detail. The operator can then navigate dynamically in the video stream depending on the nature and requirements of the traffic conditions.

The Panomera® Traffic is always aligned in the direction in which the traffic is moving, and so helps to ensure consistently good quality analysis.

### Scalable resolution

Depending on the area of application, different Panomera® models are available. Besides watching over the motorway itself, solutions are also available that provide surveillance of vast parking and rest areas.

### No moving mechanical parts

In contrast to PTZ cameras, Panomera® has no movable mechanical parts, which means there is no wear, extending the camera's lifetime.

### Coordinated picture sensor concept

The modern low-light picture sensor with wide dynamic range surpasses the picture quality of the proven but outdated CCD technology.

## Full IP management system with Virtual Digital Matrix

### Permanent availability of the entire scene

Panomera® solves the well-known problem with PTZ cameras whereby the operator has to choose between overview image and detailed view: Regardless of the portion of the surveillance area the operator is currently concentrating on, with Panomera® everything that happens is always available.

### Multi-user capability

In contrast to PTZ cameras, with which only one operator can control the camera, with Panomera®, an unlimited number of operators can navigate across the entire scene independently of each other. Although all operators are connected with the same camera, each of the individual users can select their view individually and zoom or pan as they desire. This means that the police, rescue crews and operators do not have to wait while joint responses are planned. Accordingly, for example, rescue operations can be coordinated more efficiently and initiated faster.

### Assistance system

Panomera® is fully embedded in the Dallmeier management solution, and together with the analysis functions and the Traffic package it constitutes an assistance system in which the operator is always in control of all decisions. He receives all important telematic information, displayed logically and in real time. The special Traffic Package enables him to carry out a virtual overflight of his area of responsibility from one camera to the next in the performance of his surveillance tasks.

### Data protection

Panomera® only reproduces the important areas in full detail, e.g., the hard shoulder to be analysed on the major road network. All other areas are protected automatically by the graduated resolution concept. The full IP solution provides the operator with a range of different resolutions, so that data protection regulations can be complied with very easily. And full resolution capability can be restored without delay when necessary.

Panomera® Traffic is a novel, intelligent complete system and is the first one ever to combine excellent detection depth with an exceptionally low false alarm rate. This is made possible by the patented Panomera® technology and decades of experience gained from many thousands of analysis installations. Panomera® Traffic stands for quality from Dallmeier.

Further information to all of our products can be found at:

[www.dallmeier.com](http://www.dallmeier.com)

