



ProViu® ASL360 – greater awareness and confidence thanks to all-round vision



Safety

Efficiency



Minimize your accident risk – Low speed maneuvers.

Human error whilst executing driving maneuvers is the most common cause of personal injury accidents involving vehicles.

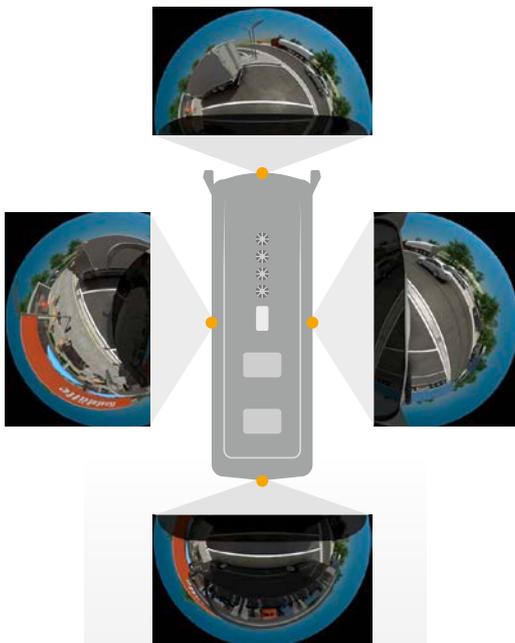
ProViu®ASL360 has been developed with this in mind and assists in risk reduction of avoidable accidents and incidents. Four cameras stitched together, provide a meaningful 360° all-round view, reducing blind spots and displaying pedestrians and other obstacles.

ProViu®ASL360 enables the user to see obstacles that may not usually appear in direct vision or mirrors. Thus the system improves the ease of maneuvering whilst decreasing the risk of accidents. Ultimately this helps increase efficiency via shorter turnarounds and downtimes, lower repair and damage costs and a lower level of associated risk. ProViu®ASL360 also greatly facilitates vehicle operation in critical situations such as; dense city traffic, narrow loading areas, cluttered factory yards and at bustling building sites etc.

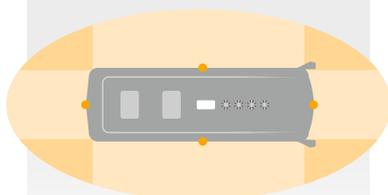
Retrofitting Safety.

With its market leading surround-view monitoring function, ProViu®ASL360 provides higher levels of awareness and confidence whilst operating commercial, industrial and special purpose vehicles. ProViu®ASL360 produces an unprecedented view of the vehicle's surroundings – in clear detail and in real time.

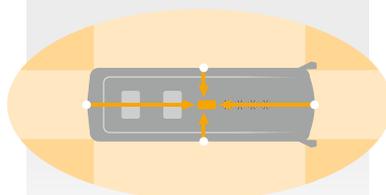
Functional principle



Installed cameras enable the driver to see 360° around the vehicle.



The recorded images are transmitted to the control unit.



The transmitted images are adjusted perspectively and consolidated to create a preview.

In most commercial and industrial vehicle operations blind spots can quickly become a life-threatening problem; ProViu®ASL360 is the solution to this problem. Formerly Continental produced surround view systems solely for OEM use – but with safety at the forefront of our minds, Continental now has this retrofittable ProViu®ASL360 variant within its product range.

Instead of single ‘point and look’ cameras, ProViu®ASL360 can integrate all the individual functions in one bird’s-eye view image.

This makes the 360-degree camera an indispensable safety feature for commercial and industrial applications. The surround view function enables the driver or operator to recognize a potentially dangerous situation immediately. This is made possible by four 180° plus cameras, located in strategic positions around the vehicle. The ProViu®ASL360 Electronic Control Unit (ECU) then merges these four images and/or selected views and displays them in a useful format on the screen, in the cab. Retrofitting of vehicles can also be performed at workshops equipped for this purpose.

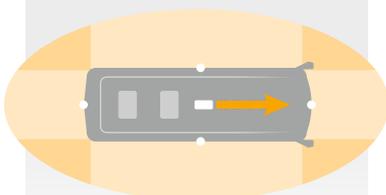
Driver assistance of the future

- Full retrofit and/or factory fit advanced surround view solution for commercial, industrial and special purpose vehicles
- Proven design and technology
- User-friendly, intuitive operation



The preview is transmitted to the display in the driver's cab.

The view can be configured individually and therefore shows an ideal view that is tailored to the driver's needs.



ProViu®ASL360 – Features.

ProViu®ASL360 is highly customizable and versatile making the high-performance and indispensable safety feature for today's traffic conditions.

Unlike CCTV and other mostly re-active monitoring systems, the ASL360 is a passive, pro-active system. The Surround View Driver Assistance uses 4 wide-angle, fisheye cameras with genuine real time delivery at 30 fps. The 4 super fish-eye images of the cameras are processed and stitched together to provide a perfect 360°, bird's-eye view of the vehicle surroundings. This totally eliminates blind spots in different traffic situations where precise maneuvering is a must. We have used techniques from our OEM work to provide perfect merging, 'alpha' blending and grading as a standard feature.

The entire system is designed for spot-on accuracy and has the added advantage of a flexible SW tool chain with multiple screens, configuration, custom user interface etc., Light/dark balance is achieved by the automatic balancing of the whole image on the screen, reducing the differential between the images. The ProViu®ASL360 is a totally secure system – and as in our automotive systems, we guarantee no frozen frames up to the point of output, so the

system is self-monitoring. The ProViu®ASL360 is built to our automotive standards, which are universally acknowledged to be extremely high – and it has full certification for EMC and type approval.

We have also added configurable image stitching, meaning you can change the position and shape of the join between two camera images to give you the least impact on a particular surround view – meaning that if two cameras can see one piece of ground, then you can move the join around in that area. We believe that flexibility is a must – and the ProViu®ASL360's software is totally configurable: you can increase or reduce the blended areas, control the system via opto-isolated inputs (e.g. automatic reverse or front views depending on driver action, the situation and tacho-related speed inputs). Our pedigree is such that Continental is a recognized industry leader in vision research for OEM automotive. And as far as support is concerned, we'll be ready to help you and the end user if a change in the operation is requested.

Advantages at a glance

- Passive system
- Spot-on accuracy – and a flexible software tool chain, with multiple screens, configuration, custom user interface and much more
- Customized view – just move the joins between the images to suit the current vehicle location
- No blind spots – because 4 wide-angle fish-eye cameras create 4 180° plus images, which the system then combines, stitches, blends and grades to produce a perfect, all-round view from above the vehicle
- Reliability – self-monitoring system, guaranteeing no frozen frames up to output
- Cutting-edge technology – Continental is an industry leader
- Fast, real-time image delivery – 30 fps
- Hardware – fully certificated
- Support – fast, efficient support if system changes are requested

ProViu®ASL360 – the hardware.

The hardware in any monitoring system must have cutting-edge technology. It must also be durable and of course totally reliable. ProViu®ASL360 has proven to be simply outstanding indeed surviving the frozen Antarctic wastes and the boiling heat of the desert.

Camera



- 4 x ASL360 CM02 cameras
- 180° plus lenses
- Horizontal viewing angle
- 'Intelligent camera' (software driven, light balance etc.)
- Robust IP 69K rating

ASL360 Electronic Control Unit



- 4 - 6 real time 30 fps inputs
- Multiple real time 30 fps outputs
- Normal voltage 12 - 24 V /
Operating voltage 9 - 32 V
- Operating temperature -40 ... +85 °C
- Fully approved for factory or retrofit applications
- EMC (Electromagnetic Compatibility) in conformance with CE, ECE-R10 (E11 label), FCC

ProViu®ASL360 example applications.

School, city and trip buses.

Ensuring the safety of bus passengers and pedestrians is vital – and that's why having a 360° view of what's happening around a bus is a must.

City bus



Trip bus



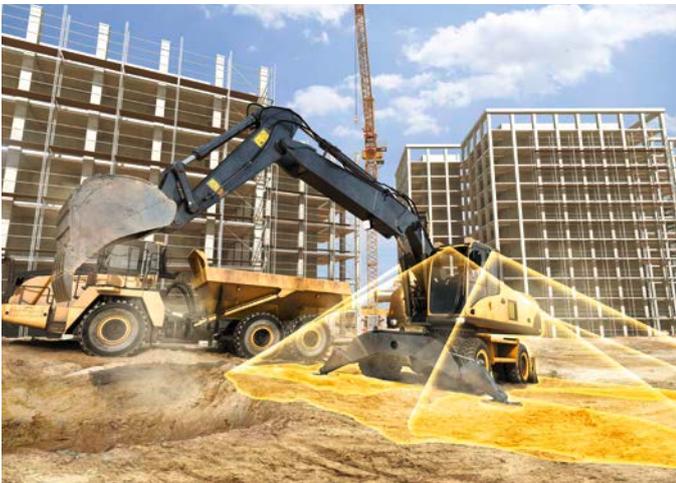
Mobile cranes, excavators and construction vehicles.

ProViu®ASL360 gives operators a perfect view of areas that would normally be difficult to negotiate – this means safer, more efficient maneuvering and precise positioning for loading and unloading ... saving both time and money.

Mobile crane



Excavator



Construction vehicle



Tractors and combine harvesters.

Precision and accuracy are important factors for these vehicles. With a perfect view, operators can work and maneuver faster and better.

Tractor



Combine harvester



General trucks, garbage trucks and delivery vehicles.

If the operators of these vehicles can maneuver safely and easily at loading ramps, etc. injuries could be avoided and time and costs reduced.

General truck



Garbage truck



Delivery vehicle



Continental Trading GmbH
Continental Automotive GmbH
Sodener Straße 9
65824 Schwalbach am Taunus
Germany
Tel. +49 6196 87-0
www.continental-corporation.com

Legal notice

The information provided in this brochure contains only general descriptions or performance characteristics, which do not always apply as described in case of actual use or which may change as a result of further development of the products. This information is merely a technical description of the product. This information is not meant or intended to be a special guarantee for a particular quality or particular durability. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. We reserve the right to make changes in availability as well as technical changes without prior notice.