

CES 2024

## **World First: Continental Integrates Face Authentication Invisibly Behind Driver Display Console**

- **Face authentication camera integrated invisibly behind driver display for secure start and digital payment functions**
- **Additional sensors embedded in the B-pillar for biometric authentication unlock the vehicle as soon as an authorized user is detected**
- **New level of interaction: display seamlessly integrated into vehicle exterior and only visible when in use**

Babenhausen, Germany, January 10, 2024. Continental presents the “Face Authentication Display,” a two-stage access control system based on biometric user recognition that uses special camera systems mounted externally on the vehicle’s B-pillar and invisibly behind the driver display console. Thanks to biometric face authentication, the vehicle opens and starts up as soon as it detects a registered user. The system reliably detects attempted deception thanks to unique liveness detection from trinamiX, a leading provider of biometric solutions and a subsidiary of BASF SE.

### **Perfect combination of user experience and design**

In order not to spoil the design of the vehicle interior, Continental has positioned the necessary camera technology behind the driver display console for the first time, which enables a frameless screen surface. The design of the screen area is an evolution of the technology, which won an Innovation Award at CES in 2023. A camera with biometric authentication in the interior checks whether the person in the driver’s seat is authorized to start the vehicle. Other digital services, such as a payment function, also have this feature. The high-contrast and bright OLED display has been specially adapted so that the optical components can detect people through the pixels of the activated display. In addition, the sensors integrated into the system include the functionality of reliable attention and fatigue detection.

“For us, user experience is defined not only by functional and technical aspects, but also by aesthetic appeal. Sophisticated convenience and safety functions – which are not visually noticeable when in use – are a complete success for us in this respect,” said Dr. Boris Mergell, head of the User Experience (UX) business area in Continental Automotive.

### **Keyless entry to the vehicle: facial identification**

Advanced facial authentication technology, which Continental also integrates into the vehicle's B-pillar, makes it possible to open the driver's door without a key or other means of access. Thanks to this system from trinamiX, a leading provider of biometric solutions, the vehicle is unlocked solely by secure authentication of the driver.

A special camera integrated into the B-pillar not only checks the visual match with a known user, but also allows for the recognition of real skin. The double authentication in the exterior and interior not only represents a further level of security to protect against theft, but rather it also makes it possible, for example, to grant all family members access to the car at any time, while preventing children from starting the engine.

### **Innovative concept: integration of a display in the exterior that is only visible when in use**

An additional display integrated into the B-pillar allows the user to interact with the vehicle. In addition to unlocking the doors, the charging progress of an electric car can also be displayed intuitively and in a visually impressive manner on the exterior as you approach the vehicle. When not in use, the display, which is seamlessly integrated into the B-pillar, is not visible and can therefore be fully integrated into any design concept. This means that the "In2Visible" technology developed by Continental is also being used in vehicle exteriors for the first time.

"Transferring our technologies from the interior to the exterior is a logical next step if this allows us to incorporate additional safety aspects and convenience functions. By extending our UX portfolio to the exterior, vehicle manufacturers and end users will benefit in equal measure from intuitive new interaction options," explained Mergell.

### **Highly secure biometric facial recognition from trinamiX**

Face authentication is based on innovative technology developed by trinamiX that meets the highest biometric security requirements. The technology is able to distinguish real skin from other materials. This additional layer of security prevents the vehicle from being unlocked using a realistically reproduced mask, AI-generated images or similar. "trinamiX Face Authentication ensures the highest security standards in both the exterior and interior. Together with Continental, we are improving existing driver monitoring systems and thus ensuring better interaction between the driver and the vehicle. The installation behind the OLED panel also enables exclusive display designs," says Wilfried Hermes, director of Consumer Electronics, North America and Europe at trinamiX.

### Continental at CES 2024

Continental will be presenting its latest technologies from Tuesday, January 9, to Friday, January 12, as part of a private exhibition on the Central Plaza located opposite Las Vegas Convention Center. The technology company offers a wide range of mobility innovations, from the road to the cloud. A media event is planned for invited guests on January 9. Further information, including on how to register for the event, is available from the Continental press team.

**Continental** develops pioneering technologies and services for sustainable and connected mobility of people and their goods. Founded in 1871, the technology company offers safe, efficient, intelligent and affordable solutions for vehicles, machines, traffic and transportation. In 2022, Continental generated sales of €39.4 billion and currently employs around 200,000 people in 57 countries and markets.

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### Images and captions



Continental\_PP\_Face\_Authentication\_Display\_B-Pillar



Continental\_PP\_Face\_Authentication\_Display\_Interior

Continental's "Face Authentication Display" makes it possible to unlock the vehicle safely and conveniently using biometric facial recognition. A display seamlessly integrated into the B-pillar provides additional information.

The camera hardware for facial recognition can be found behind the screen for the driver display console – the integrated technology is invisible and does not affect the interior design.