

The RFID windshield label serves for the automatic, contactless identification of vehicles (Automatic Vehicle Identification, AVI).

The label is adhered to the inside of the windshield. The development of the RFID windshield label has been focused on a very high read range due to the special antenna behind the glass and a passive function without a battery.

The tag authentication uses an AES coprocessor and a 128-bit AES unique crypto key.

The Privacy protection is realised via an untraceable command and 128-bit AES group crypto key.

The label material is a combination of a PP and PET layer. Extra security kiss cuts improve security against removal and re-use.



## ➤ General Specifications

Order No.		52010397	52010396
Type		WSL-TP-DNA25-K-C	WSL-TP-U725-K-C
Frequency range	[MHz]	865–928	
Delivery lot	[pcs]	500	
Dimension (standard)	[mm]	100 x 25	
Thickness	[µm]	210	
Operating ambient temperature range	[°C]	–40 to +85	
Protocol		EPC Class1 Gen2v2/ISO 18000-63, ISO/IEC 29167-10	
Chip		UCODE DNA	UCODE 7
<b>Memory</b>			
EPC serialized		224 bit	128 bit
User Memory		3072 bit	–
Uniqe TID		96 bit	
Read Range (on non-metallised glass in center position)	[m]	typ. 12; max. 16*	
IT security		Tag authentication using AES coprocessor and 128-bit, Privacy protection via untraceable command and 128-bit, AES unique crypto key, AES group crypto key, ISO/IEC 29167-10	32-bit kill password to permanently disable the tag 32-bit access password
Programming		9-digit consecutive numbers in ASCII	
Serialisation		9 numeric characters in clear text; barcode	

\*This read range can only be guaranteed if all the storage and mounting conditions described in the *User Guide for Windshield Labels and Headlamp Tags* are met.

## ➤ Key Applications

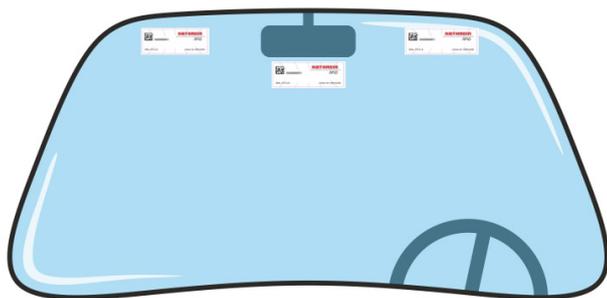
- Intelligent Transportation Systems (ITS)
- Electronic Toll Collection (ETC)
- Electronic Vehicle Registration (EVR)
- Smart City Applications

## > Mounting Instructions

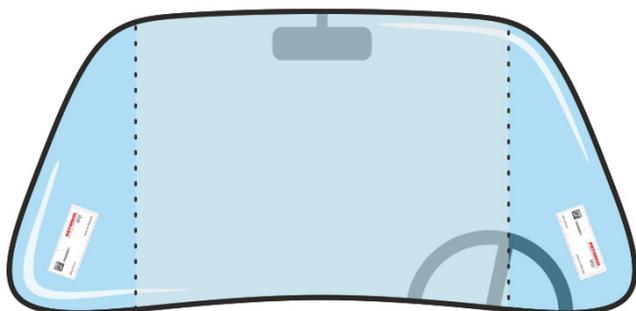
Kathrein RFID WSL Transponders are optimized to get a maximum read performance on a glass surface. Based on a high-performance antenna design, it is possible to achieve read ranges of more than 12 meters.

Use the following areas to mount the transponder.

### Cars with standard glass windshields



### Cars with heated windshields



### Cars with UV-protected windshields

