

GUARDIAN 710 inox



- AISI 316L stainless steel housing
- Number plate recognition
- Dangerous goods recognition
- Ideal for TUNNELS
- Perfect for marine areas
- Suitable for chemical industries

KEMLER
ONUANPR
OCRKEMLER - ONU
33-117033
1203SNJ693
LICENSE PLATE

SNJ693

LICENSE PLATE
LJI951

GUARDIAN 710

INOX

WE RECOGNIZE NOT ONLY
NUMBER PLATES, BUT ALSO
DANGEROUS GOODS.

■ For corrosive environments.

GUARDIAN 710 inox is a variation of GUARDIAN 704TKM where the ANPR camera is inside an AISI316L stainless steel housing. The electropolishing treatment increases the corrosion resistance and makes the housing ideal for installations in marine, industrial and chemical environments.

■ Low maintenance design.

The "clean glass" system has been developed to reduce maintenance costs: it keeps the front glass always free of any dust deposit, particularly inside tunnels.

■ Easy installation.

It is supplied with a special joint that allows the third axis tilt: in this way, the product can be perfectly installed also in an arched ceiling (this is the case of tunnels, for example) or on a wall that is not perpendicular to the ground.



integrati

3

OCR

ANPR + KEMLER

In addition to the
plates
reads the
danger



Up to

98%

Precision

Up to

-40%

Maintenance request

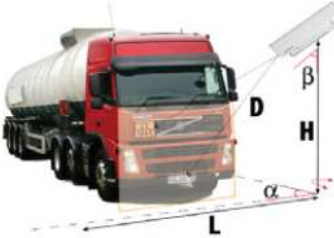

- ANPR CAMERAS
- KEMLER - ONU
- 3 OCR INSIDE
- HIGH ACCURACY

GUARDIAN 710

INOX






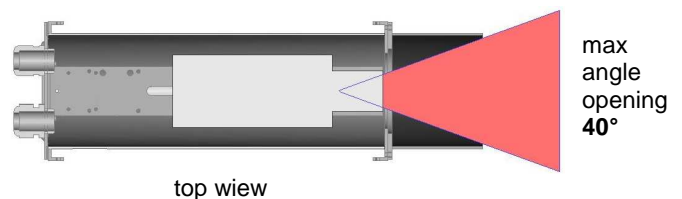
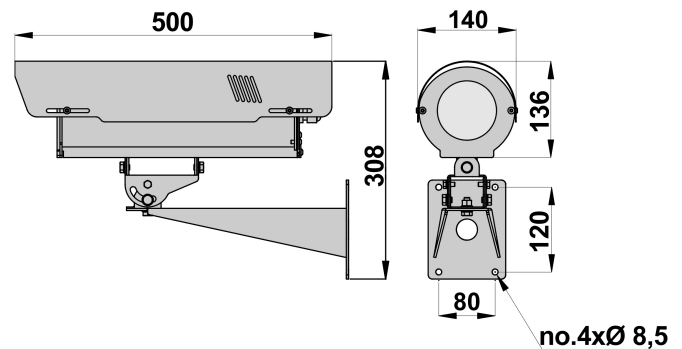
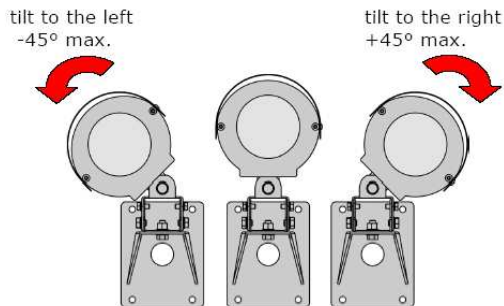
Description	Features
ANPR SENSOR	
Sensor	1/3" Progressive scan - Global Shutter CMOS sensor - high speed - B/W
Resolution	2 Megapixel
Frame rate	60 Fps
ANPR lens	5-55mm Varifocal IR lens (as standard)
AUXILIARY SENSOR (see the "optional" section)	
Digital auxiliary sensor (optional)	1/4" color CMOS sensor - WVGA 752x480 resolution - Rolling Shutter - fixed IR - manual lens- 12 mm fixed focal lens - M12 mount
PIP (Picture In Picture) function	Possibility of storing the image of a license plate and that of the auxiliary camera in a unique picture
OCR - LICENSE PLATES & KEMLER CODES	
OCR for number plate recognition	Built-in OCR technology
Reading synchronization	Automatic (free flow) with no need of sync devices
Recognized characters	All the occidental characters (Latin alphabet): European, Canadian, American, Turkish, Nigerian, South African...and many more...
Syntax and nationalities (Syntax free mode)	Unlimited syntax and nationalities regarding the characters that OCR can recognize (it is possible to train OCR to recognize any kind of character). The characters are not restricted by program libraries.
Nationality recognition	The camera is able to provide the nationality of the vehicle and create black/white lists (for specific nationalities, too).
Syntax filter	It is possible to choose from two modes: with syntax - useful where there is a well-defined syntax (in Italy, for example) - and without syntax (syntax free).
Recognizable vehicles	Cars, heavy vehicles, police vehicles, ambulances and military vehicles, motorbikes and motorcycles
Readable number plates	Front and rear ones
Readable ADR tables	Front and rear ones; the front reading is strongly recommended

Description	Features
READING ACCURACY	
"A Class" OCR accuracy certified by INRIM, in compliance with UNI 10772 Italian standard	Reading accuracy of 100% at a speed of 70Km/h, at an angle of 60°. Reading accuracy of 94% at an angle of 70°: (Test report data on Global Proof OCR in compliance with UNI10772 standard, certified by the "Istituto Nazionale di Ricerca Metrologica" (INRIM))
Accuracy on the road, in any condition	> 95% at a speed of 160 Km / h
Reading angles	Up to 70°
DANGEROUS GOODS READING	
By law, ADR plates should be affixed at the front and on the sides of the vehicle, but it is not necessary to display them at the rear side. ADR plates that are displayed at the rear side of the vehicle are often hidden by stepladders or tubes. It is recommended to choose the front plate capture	
	Optimal parameters for the recognition of Kemler tables and front plates: D max = 20 mt H max = 4 mt L max = 4 mt β max = 20° α max = 30°
Passage length:	max. L = 5 m (maximum coverage area: 4 m)
Maximum vehicle speed to recognize ADR tables (free flow)	max. 120 Km/h - optimal speed: 80 Km /h
LICENSE PLATE READING	
Reading the rear plates allows the recognition of motorbikes and motorcycles, but there is the risk to miss the ADR tables. Reading the front plates allows the recognition of ADR plates and license plates of cars but not those of motorbikes and motorcycles.	
	Optimal parameters for the recognition of rear plates: D max = 20 mt H max = 4 mt L max = 4 mt β max = 30° α max = 30°
Passage length	max. L = 5 m (maximum coverage area: 4 m)
Maximum vehicle speed to recognize license plates (free flow)	max. 160 Km/h - optimal speed: 140 Km /h

Description	Features
INTEGRATED ALGORITHMS	
MAGIC SPOT®:	unique of its kind, it makes a number plate readable even when the image is considered unreadable for the human eye.
ANTI-DIRTY	it solves the problems caused by deposits of snow, soil, dust, insects ...
VIDEO ANALYSIS	it allows to choose the best picture from those captured with the Multi-exposure mode.
ANGLE COMPENSATION	it allows to recognize number plates even at a wide viewing angle (up to 70°)
ELIMINATE SYMBOLS	it allows to virtually eliminate symbols, such as labels, emblems, promotional stickers and other symbols, from the number plates.
PREDICTIVE ANALYSIS	it allows, by probabilistic approach, to improve reading accuracy.
IR ILLUMINATOR	
Illuminator category	In compliance with EN62471:2008 photobiological safety standard (eyes)
Automatic power adjustment	The pulsed IR illuminator is able to adapt the power output to the light reflectance and light condition of the environment
Exposure mode	Multi-exposure: each vehicle passage is subjected to multiple flashes.
Best illumination distance	20 m (Kemler plates) - 20 m (license plates)
Maximum illumination distance	25 m (Kemler plates) - 30 m (license plates)
Illuminator category	In compliance with EN62471:2008 photobiological safety standard (eyes)
BUILT-IN MEMORY	
Memory category	<ul style="list-style-type: none"> • 128 MB solid-state CF card • expandable up to 32 GB
Memory management	Automatic: the camera auto-deletes the older recordings when the memory is full (FIFO method).
OUTPUT VIDEO	
Video format with built-in auxiliary camera (D option)	Mpeg4 - the camera is able to monitor traffic flows at 15 Fps, also during the OCR reading phase, without video interruption.
Video compliance	RTP/RTSP Onvif, S profile
OCR image format	Jpeg - in addition to video recording, the camera captures screenshots.

Description	Features
VIDEO INPUT	
Input for connecting an auxiliary analog camera	Web/codec server for connecting a PAL/NTSC auxiliary camera. Who chooses the "D" built-in auxiliary camera cannot use this input port.
Correlation between the images of the auxiliary camera and number plate ones	Possibility of storing the image of a license plate and that of the auxiliary camera in a single picture (Picture In Picture function).
DATA INTERFACE and I/O	
Data transmission interface	n.1 Ethernet port (as standard)
Camera accessibility	The camera is a web-server. It allows: live image display, memory data access and parameter configuration via browser.
Communication interfaces	RS232-RS485 (as standard); Wiegand, OSDP (optional equipment)
Input	N.2 digital inputs
Output	N.1 digital output or dry contact (relay)
GENERAL	
Integration	The device can be integrated with the most common video-surveillance platforms like Genetec, Milestone, Tyco, etc.....
Protocol transmission	TCP/IP, UDP, HTTP, RTP/RTSP, DHCP, FTP
Operating temperature (*)	From -30°C to +60 °C
Power supply	230 Vac or, upon request: 12 Volt, 24 Volt, POE+
Input power	Max. 30 Watt, when the heater is ON
Dimensions	Ø 140 mm, 500 mm depth
Weight	8,5 Kg
Body, sunshield and wall mount	AISI316L stainless steel
IP weatherproof rating	IP67

Description	Features
OPTIONAL ACCESSORIES to be requested at the purchase order stage	Composition of the code for products with optional accessories: GUARDIAN 710 inox ... (D B B1 P)
D- Built-in auxiliary color camera 	CMOS color sensor, Rolling Shutter, WVGA resolution, 12 mm fixed focal lens with M12 mount. As it does not have an IR filter, it is recommended to use it at day or in well-lighted environments only.
B and B1- Vdc adaptor 	B= camera power adapter, + 12 Volt with 10 – 13,5 Vdc range B1= camera power adapter, + 24 Volt with 20 – 28 Vdc range
P = Power over Ethernet 	POE+ camera module, 802.3at standard. The POE camera version is not able to power the heater if the camera is installed in areas where the temperature drops below -15°C



SOFTWARE SOLUTIONS


As well as designing hardware devices, Global Proof develops software solutions, that are useful to provide customers with a turnkey package and full assistance service.

As we are manufacturers, we are always ready to modify existing solutions and customize them according to specific design requests.

GLOBAL PROOF PRODUCT INTEGRATION

One of Global Proof's goals is to make its products compatible with the different platforms in the market. GUARDIAN communicates using standard communication protocols such as RTP / RTSP and FTP for the video section and M2M XML for the meta data section. Together with these protocols, Global Proof has developed some SDKs and integration plug-ins for the most popular VMS platforms. Global Proof is always ready to provide technical support to anyone who wants to integrate GUARDIAN with pre-existing solutions.


CAR PLATE SERVER (CPS)

CPS is the software solution of Global Proof for city surveillance and for capturing the passage of cars, dangerous goods and containers.

This solution allows to:

- store the images of the license plates and those of the auxiliary camera;
- quickly search data by typing a small part of the license plate or wildcard characters only;
- send alerts if there are vehicles listed in external databases (stolen, foreign, uninsured, without a MOT certificate...) or internal databases (white or black lists);
- manage multiple lists and multiple users (also in the Cloud storage);
- show statistical analysis of the traffic;
- save bandwidth

More information are available in CPS datasheet.

PARKING MANAGEMENT (PAM)

PAM is the perfect solution for access control management. It is ideal for controlling private parkings, pay and display parkings, residential parkings.

This solution:

- allows access to authorized user categories only;
- allows to display and save the faces of the people who come in or leave the area, their vehicle data and description;
- allows free access to the area at specific times/days;
- assigns a preset number of license plates and parking spaces to each user category;
- allows to deny access to the parking when all the parking spaces are full.

VIDEO SURVEILLANCE (MULTICAM)

Multicam software solution, developed by Global Proof, is supplied with the camera in order to manage the images of the captured license plates. It is, at the same time, an easy-to-use and a complete solution and it allows to:

- store the license plates images in a database;
- instant search through even a small part of the license plate or wildcard characters only;
- record images or movies both of the captured plates and of the auxiliary camera that is connected to GUARDIAN via its secondary analog input;
- display images;
- manage lists with permissions (white list);
- manage lists of stolen license plates (black list);
- activate alarm events or warning alerts.

More information are available in Multicam datasheet.