

Targa 750V

DUAL LANE
**Dual
Benefit**

Double lane,
Dual advantages.

Reading plates in double lane



DOUBLE
EYE



DOUBLE
LANE



MULTI
EXP.

TO 150 RE

RA KC 8136



Up to

98%

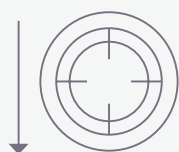
precision

Up to



1TB

of memory



**DUAL
LANE**
ANPR CAMERA



Wi-Fi



Double Eye

ANPR + PANORAMIC SENSOR



TARGA 750V

A unique, integrated solution developed for:

- Reduce installation costs, using a single camera to read plates in both directions of travel *(even on high-flow roads and carriageways).
- Guarantee control of the territory and road safety even in locations where there is no connection to an operations centre: thanks to a plate reading camera, the stations are truly autonomous, capable of recording all transits for long periods.
- Guarantee a data back-up even inside the camera, in addition to that performed on the central server.
- Resolve the architectural impact and economic problems when it is necessary to construct new infrastructure for data connection. The camera can be equipped with a 1 TB super memory that allows saving and recovering the images and transits of many months of activity. The entire record database can be easily downloaded from under the camera pole using local Wi-Fi to transfer all of the data in the camera memory to your portable PC.

What is the future for plate reading? Maximum precision.

A picture is worth a thousand words.

These are not world-shaking technical data; rather, they are the small field demonstrations that allow our customers to discover the products they can rely on. The images shown are the demonstration of the precision, efficiency and quality of our products under adverse weather conditions and with critical subjects. The photographs are the originals, taken by our plate reading camera on the road. For privacy reasons, some characters have been blackened on purpose.

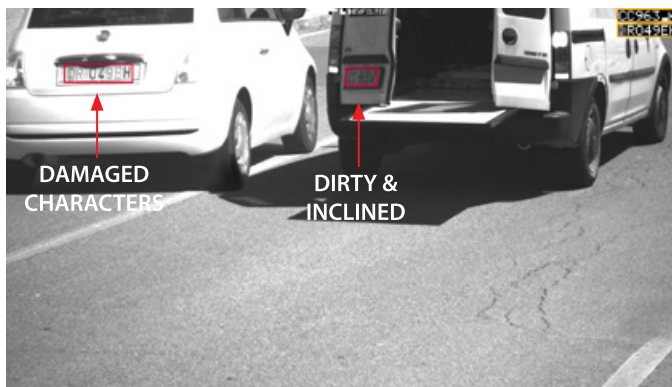


PLATE 750_v

Reading plates in double lane



Description	Characteristic	Technical Data Sheet
PLATE READING SENSOR		
Sensor	1/8" Progressive scan - Global Shutter CMOS - high speed - B/W	
Resolution	3.2 Megapixel	
Frame rate	60 Fps	
CONTEXT SENSOR (Optional)		
Digital context sensor (optional)	Colour sensor CMOS 1/4"- Rolling Shutter WVGA 752x480 with fixed IR filter	
Video Format	The camera is capable of sending a video at 15 fps in MPEG4 of vehicle passage even during OCR reading, without interruptions.	
PIP function (Picture in Picture)	Sends a screenshot of the plate + context image in a single JPEG image for greater band savings (GPRS/UMTS) and filing space (cloud).	
LENSES		
OCR lens for plate reading	IR varifocal adjustable from 12 to 40 mm with F1.8 aperture suitable for high-resolution sensors with C/CS interchangeable connection.	
Context lens	Manual with fixed focus focal length 12 mm and M12 connection	
ORC - CHARACTER RECOGNITION		
OCR	Integrated right on the camera with triple OCR for reading license plates and hazardous materials plates (only for single lane configuration).	
Intellectual property of the OCR algorithm.	Proprietary algorithm, fully developed by Selea	
Recognition of characters in pixels	OCR optimized to guarantee, with high precision, character recognition of the plates and Kemler-UN codes with resolution below 20 pixel under all weather conditions, on the road, with dirty plates, etc.	
Reading timing	Automatic (free flow) without the aid of equipment or timing.	
Syntax	The camera can operate both with the syntax entered and without using syntax, with no loss in precision in one mode or in the other. In syntax free mode , the camera offers the advantage of not having any limits to nationality, with the exception of the set of national characters that the OCR knows how to recognize. No library constraint.	
Recognition of nationality and character set.	Recognition of the nationality of the 28 Member States of the European Community , specifically: <i>Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK</i> ; as well as nationalities from outside the EU such as Albania, Azerbaijan, Belorussia, Bosnia, Florida, Georgia, Herzegovina, Iceland, Kazakhstan, Kosovo, Macedonia, Moldavia, Monaco, Montenegro, Nigeria, Norway, San Marino, Serbia, Switzerland, Turkey Ukraine and Vatican City. In addition to country character sets like Canada, Iran, South Africa, and other, for more than 50 recognized nations .	
Plate reading syntax filter	It is possible to choose, without losing precision in reading, between syntax mode - useful when there are well defined syntax (like Italy) - and syntax free, like most European countries.	
Types of vehicles recognized	Optimized OCR for reading repeating plates on trucks, cars, heavy goods vehicles, Law Enforcement vehicles, Ambulances and military vehicles, motorcycles, and motorbikes.	
Type of plates read	Front and rear plate reading, indifferently.	
Type of ADR plates read	Reading front ADR plates, only if using the single lane camera.	

Description	Characteristic	Technical Data Sheet
PLATE PRECISION		
GENERAL		
Precision	up to 98% of transits	
OCR precision according to standard UNI10772:1998 - accreditation in Class A	100% precision with angles up to 60°. 94% precision with a reading angle of 70° <i>(Data from the Selea OCR test report according to UNI10772:98 certified by the INRiM, accredited by the Ministry of Transportation).</i>	
ON ROAD - WITH DATA CORRELATION		
Precision transit readings on the road under all weather conditions (sun, snow, rain, etc.), day and night, in any season (summer, winter, etc.) with correlation of the main data	• precision > 95% of transits • at speeds up to 140 km/h • for standard installation: PAN=30°; TILT=25°; H= 4 m	
METHOD		
Method used for calculating the plate reading precision	The data for the precision is based on vehicles that transited under the camera (read and unread rows) visually inspecting a sample (random) of more than 3000 images captured on the road over a time period of 12 months , in all seasons (summer, winter, etc.) with dirty, deformed, poorly reflective, etc. plates in order to guarantee the effective field precision.	
PRECISION KEMLER-UN		
GENERAL		
Precision	up to 97% of transits	
ON ROAD - WITH DATA CORRELATION		
Precision transit readings on the road under all weather conditions (sun, snow, rain, etc.), day and night, in any season (summer, winter, etc.) with correlation of the main data	• precision > 94% of transits • at speeds up to 100 km/h • for standard installation: PAN=30°; TILT=25°; H= 4 m; front plate reading	
METHOD		
Method used for calculating the ADR plate reading precision	The data for the precision is based on vehicles that transited under the camera (read and unread tables) visually inspecting a sample (random) of more than 1000 images captured on the road over a time period of 12 months , in all seasons (summer, winter, etc.) with dirty, deformed, poorly reflective, etc. plates in order to guarantee the effective field precision.	
MEMORY		
Memory type	• Solid state, 16 MB series • expandable up to 1 TB	
Use of memory	If disconnected, the camera automatically saves all transits. When the connection is reset later, the camera automatically updates the database of the operations centre in the time intervals when there is no transit.	
Memory management	Automatic: automatic deleting of the images (FIFO method).	
READING LAYOUTS		
HAZARDOUS GOODS (single lane)		
The camera reads the license and ADR plates on the front of the vehicle, only if using the camera in the single lane mode. In this case the camera does not function in double lane, but presents an image with better resolution.		

Description	Characteristic	Technical Data Sheet
Optimum reading layouts	Distance = 27 m; Height = 4 m; Width = 4 m; PAN= 15°; TILT= 15°; front plate reading	
Field depth	Δ 20 m (with focal length at 20m - reading from 10 up to 30 m)	
Limit values (not correlated)	Capture speed: 130 km/h	
READING PLATES (double lane)		
Optimum reading layouts: below are the layouts for installation on L gates and for poles on the side of the road		
ONE-WAY lane	The best installation layout, for one-way dual lane reading is when the camera is installed on the portal and faces the on-coming front plates. Distance = 25 m; Height = 5.5 m; Width = 7 m PAN= 15°; TILT= 15°	
TWO-WAY lane	The best layout, for reading dual lanes with installation on a roadside pole, if obtained by reading the front plates of the approaching vehicles and consequently reading the rear plates of the vehicles travelling in the opposite lane. Distance = 27 m; Height = 4 m; Width = 7 m; PAN= 15°; TILT= 15°	
Field depth	Δ 20 m (with focal length at 20 m - reading from 10 up to 30 m)	
Limit values (not correlated)	Capture speed: 180 km/h	

SPECIAL INTEGRATED FUNCTIONALITIES

ALGORITHMS

MAGIC SPOT®: this algorithm makes the plate body visible even when the photographic image is illegible to the human eye.

TRIPLE OCR: for greater reading precision of the license plate and hazardous goods codes.

IMAGE ANALYSIS: algorithm that allows you to save the best image of those "snapped".

MULTIPLE EXPOSURE: algorithm to obtain the best image for difficult plates (due to shade, dirt, deformation, etc.)

COMMUNICATION

- Management of alarms with multiple actions
- Transmission, on alarm, of the images associated with the capture of the reported plate, to an unlimited number of remote devices, like MOTOROLA and HYTERA radio, PCs, Tablets. etc.) with voice receipt of the plate number.
- Double (triple on request) server both FTP and TCP/IP

SECURITY

- Security management with HTTPS standard
- FTP security management in FTPS on TLS/SSL protocol
- Privacy management using automatic deletion of the data and images after a specific time period.

MANAGEMENT

- Direct recording on local server or remote NAS
- Integration with third party VMS solutions
- Synchronised saving of metadata, code/plate captured image and context image.
- Context image synchronized with plate reading image.
- Dynamic creation and updating of multiple lists (black/white).
- Integration and saving of external TCP/IP context camera images of any brand and model

Description	Characteristic	Technical Data Sheet
IR BEACON		
LED IR	High power with 12 IR LEDs - 820 nm/47° (940 nm also available)	
Type of beacon	Respects standard EN62471:2008 for photobiological safety (eyes)	
Power adjustment	Automatic power adjustment with multi-exposure function. The beacon is sent an impulse and is able to adapt the power distributed to the reflectance and brightness in the area and on the plate body.	
Exposure mode	Multiple exposure: at each pass, the vehicle is subject to triple exposure.	
Optimum beacon distance	27 m (license plates) - 27 m (Kemler)	
Max beacon distance	32 m (license plates) - 32 m (Kemler)	
INPUT VIDEO		
PAL Analogue (standard)	IP video encoder for PAL/NTSC analogue external context camera. If you choose the digital context sensor integrated in the camera, you cannot use this input. Available while supplies last.	
Digital TCP/IP (option)	Digital Ethernet POE 802.3af input for external context camera. This input is supplied with the switch board supplied as an accessory	
DATA and I/O INTERFACE		
Data transmission interface	1 Ethernet port 10/100	
Communication interface	RS232-RS485 (standard); Wiegand, OSDP (optional)	
Camera access mode	The cameras have an integrated web-server. Allows for direct viewing of the images, memory access, and configuration through the browser.	
Image format	MPEG4 and/or JPEG	
Transmission mode (protocols)	TCP/IP, UDP, RTP/RTSP, DHCP, HTTP, HTTPS, FTP, and FTPS	
Input	2 clean contacts	
Output	1 relay, 30 A - 250 VAC	
GENERAL		
Maintenance and updates	Selea owns 100% of its knowledge and intellectual property for both the hardware product and the software component (firmware) including the OCR algorithms, guaranteeing modification, updating and maintenance. The product is completely designed and manufactured in Italy .	
Compatibility	The device can be integrated with the best known license plate reading platform and with the most popular video surveillance VMS software.	
Operating temperature	From -40 °C to +65 °C (without the use of heating and cooling fans)	
Power Supply	230 VAC or on request 24 VDC	
Absorbed power	18 Watt max	
Dimensions (in mm)	L=165; H=122; D=470	
Weight	3.2 kg	
Type of housing	In powder-coated die-cast aluminium	
Protection rating	◦ IP66 (standard) ◦ IP67 (on request) ◦ IK10 (on request)	

ACCESSORIES

To request on order

Composition of product code with ACCESSORIES

TARGA 750V D I B2 S F

D - Colour context camera



CMOS colour sensor, Rolling Shutter, WVGA resolution, equipped with 12 mm fixed focus lens with M12 connection. IR filter cannot be removed; we recommend using this sensor only with public lighting and daylight.

I - Invisible beacon



Beacon invisible to the human eye with 940 nm IR LEDs: invisible frequency, suitable for all application where discretion and confidentiality are required.

B2 - adapter from 12 to 24 VDC



Setup for direct battery power supply with automatic shutdown and data protection with drained battery.

S - POE Switch

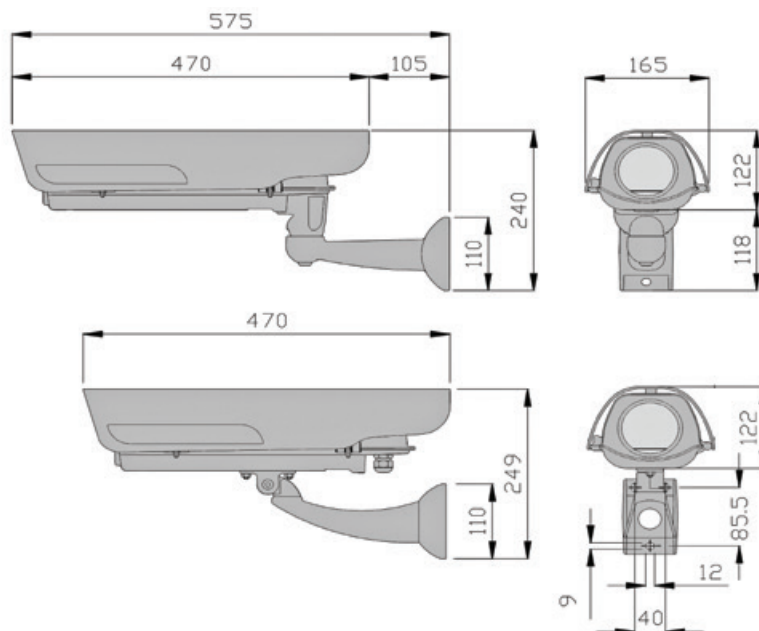


Industrial Ethernet switch developed by Selea for installation in the camera, equipped with three LAN ports, one of which has a POE output. 802.3af to power any type of external IP camera or any Wireless Wi-Fi or GPRS/UMTS device using only a network cable.

F = WF CARD



Wireless Wi-Fi transmission module, lower power (local). Useful tools like Client Wi-Fi (for Wi-Fi routers or 4G - UMTS/GPRS) or as Hot-Spots for downloading the memory contents using a portable PC when below the camera pole. This accessory must be requested when placing your order. The module cannot be installed at a later date.





Selea Software Solutions

Solutions fully developed by Selea for centralizing, saving and managing the license plate reading camera for:



- Investigations, search for accomplices, integrated urban security
- Check of inspections and verification of insurance fraud
- Report of black listed vehicles and stolen vehicles
- Multiple platform communication, including with mobile radio equipment
- Consultation of Italian ministerial and foreign databases
- Collection of statistical data and predictive analysis
- Operative flexibility, easy to use in the field

Selea software is a license plate reading operations centre designed for integrated territory control and urban safety that communicates with most existing video VMS platforms.



Control

- Insurance
- Revision
- Black list
- Theft and investigations



Analysis

- Classification
- Nationality
- Journeys
- Statistics



Management

- Investigations and databases
- Communication
- Warning
- Users



Integration

- Video surveillance
- Cloud systems
- Data bases
- Software

Integrated software solution with the most popular VMS





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WHERE TO BUY

We rely on local Distributors with which we establish project protection policies and direct support.



ASSISTANCE

IS active with technical support, both pre-sale and immediate after-sale service.