

Live colors even at night



Smart City
Smart Parking
Urban Security

TARGA 950

- **Dual Lane**
- OCR Plates
- OCR Kemler
- Colours (17)
- Day & Night
- Make (400)
- Model (9000)
- Class (31)
- Direction
- Broken down
- Wrong way
- Fire/smoke



Video surveillance camera with automatic license plate reading (OCR) and integrated video analysis. Suitable for road and urban safety without compromise.

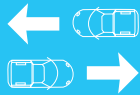
9000
the models of
approved vehicles

31
the types of vehicles
capable of classifying

17
the shades of colour
that can discern

20
23

TARGA 950



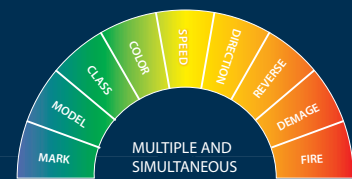
DUAL LANE

License plate reading and video analysis synchronized on two lanes



DUAL CAMERA

OCR sensor + built-in *Night Vision* colour context sensor for video surveillance



DEEP LEARNING

Camera with integrated **10 video analyzes** operating on two lanes



BRIGHT AND SHARP IMAGES EVEN AT NIGHT

Thanks to Selea's special *Night Vision* colour sensor, the images of moving objects become incredibly sharp, to the point that the vehicle's licence plate number can be read with the naked eye, thus eliminating the typical night-time trailing effect of surveillance cameras.



CERTIFICATIONS & SECURITY

Both the software and the camera are ISDP10003 certified - *Privacy by design and Privacy by default*, which guarantees the attention that has been placed on GDPR regulations and data protection of the complete license plate reading system (software + hardware).



FOG-FIGHTER NIGHT & DAY

Selea cameras are equipped with the special *FogFighter* function to read and recognize licence plates when there is dense fog, both day and night.



OUTSTANDING PERFORMANCE

Incorrect data always causes a considerable waste of time and risky misunderstandings in investigations. Data **accuracy** is the **true value** of a video surveillance solution. Selea products are recognized for their high performance and reliability.

HARDWARE FEATURES OF THE CAMERA

Sensor

OCR sensor	5 Megapixel, Global Shutter, CMOS B/N, frame rate of 60 Fps
Context sensor	<ul style="list-style-type: none"> • built-in -> 2 Megapixel Night Vision, with high sensitivity CMOS Rolling Shutter • <i>optional</i> -> 8 Megapixel (4K) CMOS Rolling Shutter

Lens

OCR lens	12 ~ 40 mm varifocal lens with F1.4 and C/CS mount.
Context lens	12mm fixed lens with IR filter for panoramic view.

Illuminator

Pulsed light IR Illuminator	n.12 high power 820 nm/47° IR LEDs (940 nm on request) that are compliant with the EN62471:2008 standard on photobiological safety.
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Internal memory

Typology and expandability	<ul style="list-style-type: none"> • built-in -> 16 GB High Endurance (-40° ~ + 85°C) industrial microSD SLC memory card (expandable on request up to 256 GB of MLC type). • The memory can be expanded using the USB interface provided to connect storage disks of high capacity currently available on the market (≤ 1TB - optional)
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Input/Output

Input	<ul style="list-style-type: none"> • n.2 digital inputs • interface for PM2,5/10 Air Quality sensors (model AVPM10/25 or similar) <p><i>Image acquisition and processing can also be activated by a digital command or through a network connection.</i></p>
Output	<ul style="list-style-type: none"> • n.1 RS232 - RS485 interface • n.1 10mA 5-12Vdc optoisolated output • n.1 10A - 250 Vac, 30 Vdc volt-free contact relays

Ports

USB	n.2 USB 3.1 ports
Ethernet	10/100/1000 Mbps LAN

Power supply

Power supplies	<ul style="list-style-type: none"> • 230 Vac power supply • 24 Vdc on request or POE+ (option T)
Absorbed power	18 Watt max

Inbuilt protection

The camera is protected against:	<ul style="list-style-type: none"> • reverse polarity. • voltage fluctuations greater than 30 Vdc. • overloads with thermal protection. • overvoltages (TVS) on USB and Ethernet ports.
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HARDWARE FEATURES OF THE CAMERA

Certifications

OCR	<ul style="list-style-type: none"> • 100% accuracy according to UNI 10772:2016 class A parameters for rear, two-line, motorcycle and moped number plates.
Data security	<ul style="list-style-type: none"> • ISDP10003:2018 - <i>Privacy by Default & Privacy by Design</i>

Standards

Respected standards	<ul style="list-style-type: none"> • EN62471 • EN55032 • EN55035 • EN61000 • EN62368-1 • EN60529 • EN60068 • EN60721 • European standard RoHS2 - 2011/65/UE
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General

Operating temperature	From -40°C to +65 °C without the need of fans or heaters.
Protection rating	Standard IP66 (on request IP67 and IK10)
Dimension (mm)	L=165 : H=122; D=470
Weight	3 Kg

SOFTWARE FEATURES OF THE CAMERA

Embedded algorithms

Standard built-in functions	<ul style="list-style-type: none"> • License plate reading (OCR) - reading characters of over 50 countries • ADR dangerous goods tables reading (Kemler/ONU) • Fog-Fighter (reading license plates in the fog) • Make (400) • Model (+9000) • Colour (17 classes) • Class (31 classes) • Speed estimation • Direction of travel • Nationality (+ 50 Countries) • Lane detection • Reverse traffic vehicle detection • Smoke detection • Queue detection • Stationary vehicle detection • Prohibited transits of mopeds / motorcycles
Accuracy	Class, colour, make and model recognition accuracy is affected by installation and outdoor light conditions, and can reach up to 95% of accuracy if manufacturer guidelines are strictly followed.

Data communications

Integrated webservice	<ul style="list-style-type: none"> • Onvif communication protocol. • Save data directly to local server or remote NAS. • Integration with third party VMS software solutions. • Synchronized recording of metadata, number plate/Kemler table and context image. • Context images synchronised with number plate/Kemler table. • Dynamic creation and updating of multiple lists (black/white). • Integration and HTTP storage of JPEG snapshot images of external TCP/IP context cameras of any make or model. • Multiple action alarm management. • Differentiated alarms for each type of infringement. • Alarm-triggered transmission of the image associated with the captured number plate to remote devices (such as MOTOROLA and HYTERA mobile radio communication equipment, Tablet etc.) with vocal reception of the number plate. • Double (triple on request) FTP and/or TCP/IP server.
Protocols	TCP/IP, UDP, HTTP, HTTPS, FTP, FTPS, RTP/RTSP, DHCP.
Other integrated protocols	MODBUS

Data security

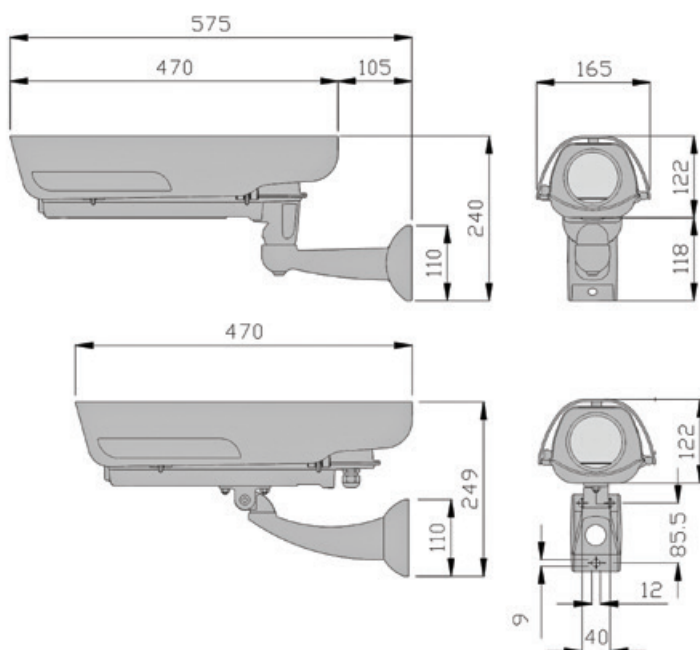
Data protection	<ul style="list-style-type: none"> • HTTPS encryption. • FTPS (FTP over TLS/SSL) encryption. • Micro SD memory encryption. • Automatic deletion of data and images after specified period of time (privacy management). • AES256 Advanced Encryption Standard. • SHA2 Secure Hash Algorithm 2.
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SOFTWARE FEATURES OF THE CAMERA

Video output	
OCR sensor	5 Megapixel Jpeg images and HD RTP/RTSP video stream with MPEG4, H264 and H265 encoding.
Context sensor	Images and RTP/RTSP or HTTP video stream with MPEG4, H264 and H265 encoding.
Functionality	
Operating system	<ul style="list-style-type: none"> Linux Embedded
Standard built-in functions	<ul style="list-style-type: none"> Embedded FPGA video signal processing. Double FTP server and double IP notification server. Dynamic FTP notification forwarding customization. IP notification customization. Multiple user management using HTTPS protocol protected access credentials for accessing the camera. List management (white/black, no list) with independent actions for each list. Synchronized recording of metadata and captured code/number plate image. Integration and saving of context camera images. Privacy management with automatic deletion of image data after a specified period of time. Integration with third party VMS video surveillance software solutions. Save data on a local server or remote NAS. HTTPS security management. FTPS (FTP over TLS/SSL) security management. E-mail forwarding security using TLS/SSL protocol. Multiple action alarm management. Live and check control function for checking the operation of the entire system. Synchronization of date and time via NTP, IEEE1588 protocol. Possibility of updating firmware from a web page.
Accuracy	
OCR accuracy	<ul style="list-style-type: none"> Up to 99,8% of transits. Maximum capture speed 250 km/h Up to 98% of oncoming ADR plate (Kemler-UN) reading transits, 100% accuracy according to UNI 10772:2016 class A parameters for rear, two-line, motorcycle and moped number plates.
Class, colour, make and model recognition	Up to 95%.

ACCESSORIES

K12	4K (8 Mpx resolution) colour sensor CMOS Rolling Shutter, fitted with a 12 mm fixed focus lens with an M12 mount.
B	Power supply from 10 to 32 Vdc.
T	PoE+ (Power Over Ethernet Plus) power supply including high power injector.
Z	Natural white light, replacing the standard IR illuminator, for reading car plates with red characters.





ACCESS CONTROL



URBAN SECURITY



SPECIAL PRODUCTS



SOFTWARE SOLUTIONS



TRAINING COURSES



ACCESSORIES SPARE PARTS

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WHERE TO BUY

Selea has a network of authorised Distributors throughout the country with whom it establishes design and market

SUPPORT

We provide both a pre-sales and an after-sales technical support service to customers.

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About us

SELEA is specialized in the manufacture of number plate reading solutions, both for vehicle **access control** and for territorial **security and traffic control**. All of our products are developed and manufactured entirely in Italy. This means that our customers benefit from continuous and comprehensive technical support.

The experience accumulated in over 10 years of collaboration with various law enforcement agencies on video surveillance and license plate reading systems, give us today the opportunity to offer solutions capable of guaranteeing excellent results, and advanced tools for the repression and prevention of crimes (*search for accomplices, stolen vehicles, vehicles without insurance/roadworthiness certificate, traffic analysis, and much more*). These products can be part of an integrated urban security system, allowing the sharing of information between law enforcement and smart cities.

- HARDWARE MANUFACTURING
- SOFTWARE DEVELOPMENT
- IN-HOUSE RESEARCH & DEVELOPMENT
- 100% MADE in ITALY by SELEA

