SELEA
SMART CITY

IT

URBAN SECURITY

TARGA 950

LPR camera
DUAL- LANE

CERTIFIED
Privacy by Design
and Privacy by Default
ISDP 10003

NDAA
compliant

99,8%
the number plate reading accuracy

14
algorithms that can be integrated on board camera

2
the built-in sensors OCR+ context

Dual lane, high performance and resolution video surveillance camera with automatic license plate reading (OCR) and integrated video analysis. Suitable for road and urban safety.

TARGA 950

HIGH RESOLUTION IMAGES
The high resolution sensors (5 Mpx for the OCR sensor and 8 Mpx for the context sensor) allow you to notice, with the naked eye, elements that may become significant while carrying out investigations.cameras.

14 BUILT-IN INTELLIGENT FUNCTIONS
This camera is equipped with 14 deep learning neural networks (algorithms) that enable it to capture and send countless data related to traffic and security.

TRAFFIC ANALYSIS
Thanks to the large number of algorithms built into the camera, it is possible to perform accurate statistical analysis of traffic, pollution and travel times.

DOUBLE LENS: DOUBLE PERFORMANCE
A single sensor – capable of reading number plates and context - saves money. However, when using two separate and specialized sensors, the performance in reading accuracy and video analysis for vehicle recognition doubles both in terms of quality and quantity.

DATA ACCURACY
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.

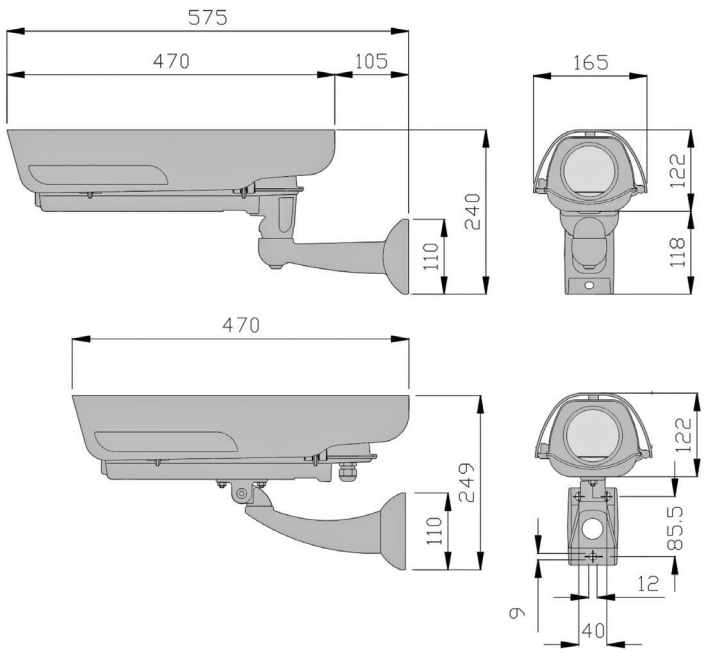
CERTIFICATIONS & SECURITY
Both the software and the camera are ISDP10003 certified - Privacy by design and Privacy by default, which guarantees the attention that has been placed on GDPR regulations and data protection. The cameras are also NDAA compliant - Cyber Security.

HARDWARE FEATURES OF THE CAMERA

Sensor	
OCR sensor	5 Megapixel, Global Shutter 2/3", CMOS B/N, frame rate of 60 Fps
Context sensor	8 Megapixel (4K) color Night Vision CMOS
Lens	
OCR lens	12 ~ 40 mm varifocal lens with F1.4 and C/CS mount.
Context lens	12 mm fixed lens with IR filter for panoramic view.
IR 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.
Internal memory	
Typology and expandability	• ***built-in*** -> 16 GB High Endurance (transfer rate: 80 MB/s) (-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)
Input/Output	
Input	• n.2 digital inputs • interface for PM2,5/10 Air Quality sensors (model AVPM10/25 or similar) *Image acquisition and processing can also be activated by a digital command or through a network connection.*
Output	• n.1 RS232 - RS485 interface • n.1 10mA 5-12 Vdc opto-isolated output • n.1 0.3A - 125 Vac, 1A 30 Vdc volt-free contact relays
Ports	
USB	n.2 USB 3.1 ports
Ethernet	10/100/1000 Mbps LAN
Power supply	
Power supplies	• 230 Vac power supply • 24 Vdc on request or POE+ (option T)
Absorbed power	18 Watt max
Inbuilt protection	
The camera is protected against:	• reverse polarity. • voltage fluctuations greater than 30 Vdc. • overloads with thermal protection. • overvoltages (TVS) on USB and Ethernet ports.

HARDWARE FEATURES OF THE CAMERA

Certifications	
OCR	• ***100% accuracy*** according to UNI 10772:2016 class A parameters for rear, two-line, motorcycle and moped number plates.
Data security	• ISDP10003:2018 - *Privacy by Default & Privacy by Design*
Standards	
Respected standards	• EN62471 • EN55032 • EN55035 • EN61000 • EN62368-1 • EN60529 • EN60068 • EN60721 • European standard RoHS2 - 2011/65/UE
General	
Operating temperature	From -40°C to +65 °C without the need of fans or heaters.
Protection rating	Standard 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	• 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) • Speed estimation • Direction of travel • Nationality (**+ 50 Countries**) • Make (**400**) - *accuracy > 95%* • Model (**+9000**) - *accuracy > 95%* • Colour (**16 classes**) - *accuracy > 95%* • Class (**35 classes**) - *accuracy > 95%* • Wrong way transit detection - *accuracy > 95%* • Smoke/fire detection - *accuracy > 90%* • Stationary vehicle detection - *accuracy > 95%* • Helmet presence detection on moped/motorcycle drivers - *accuracy > 95%*
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 webserver	• 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 FTP and/or TCP/IP server.
Protocols	TCP/IP, UDP, HTTP, HTTPS, FTP, FTPS, RTP/RTSP, DHCP, SNMP.
Other integrated protocols	MODBUS
Data security	
Data protection	• 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.

SOFTWARE FEATURES OF THE CAMERA

Functionality	
Operating system	• Linux Embedded
Standard built-in functions	• Embedded FPGA video signal processing. • Mode of operation: free-run, weighted, redundant, external trigger. • 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.
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.
Context frame rate	15 fps with 8 Mpx Night Vision context sensor
Accuracy	
OCR accuracy	• Up to 99,8% of transits. • 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. • 250 Km/h maximum capture speed
Installation	
Geometry	• Dual lane detection • Gate width: up to 8 m • Reading distance: up to 30 m • Mounting height: up to 6 m

ACCESSORIES

F	12-40mm varifocal motorized license plate reader lens with remote control of zoom, aperture, focus adjustment, and infrared filter removal
B	Power converter (10 to 32 Vcc)
T	POE+ power supply including high power injector

Software solution for the management of license plate reading cameras.

CPS 6.5

Software for ANPR cameras

CERTIFIED

Privacy by Design and Privacy by Default

ISDP 10003

Software solution for management and storage of data coming from **the most popular ANPR-OCR cameras** on the market. A solution **without subscriptions** which allows to save money and makes the work of the **Police** more efficient, in the context of city and road safety.

The solution is equipped **with advanced algorithms** for traffic analysis which help to detect violations, tracing the route on graphic maps, while transmitting all the information on mobile devices.

Ideal solution for **road safety** and for those who want a truly complete and high-performance solution in the **field of investigations** and combating crime: a field in which the CPS software excels, being equipped with the most advanced methods of analysis and extrapolation of information. Functions that allow it to carry out quick searches and detect vehicles of a specific ***colour, make, model, type, nationality, speed, direction, crime accomplices, stolen cars*** and much more.

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.

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