# SELEA
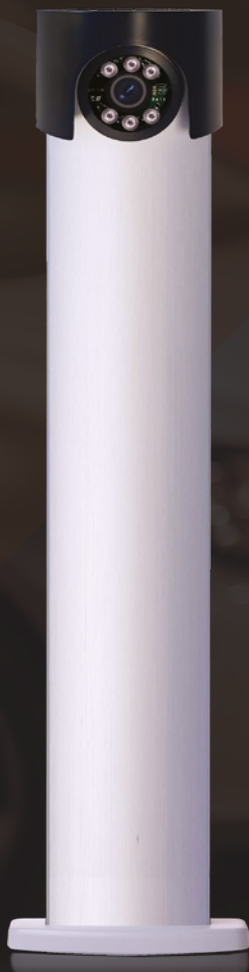
www.selea.com

Smart City
Smart Parking
Access Control

# iZero

OCR camera for automatic reading of license plates, available in column or box version, for vehicle access control. Ideal for hotels, residential complexes, campsites, automatic parking, shopping centres, airports, trade fairs and company entrances.

**20 22**

# iZero

HUB    FAAC    Honeywell    SIEMENS    SKIDATA

## PAM Software solution

### ACCESS    CONTROL

A software solution for those who need a valid tool to manage their customers' parking spaces, such as hotels, campsites, residences, car parks and also private homes, with management functions including:
- permits,
- schedules,
- special types of customers (VIP),
- calculating stay costs,
- entrance of vehicles of a family group, in order to manage the limited availability of parking spaces in residential complexes or campsites. Upon reaching the maximum number of places available, PAM inhibits entry to additional vehicles of the family group, enabling entry only when the assigned place has been freed.

PAM is capable of handling special categories of vehicles (ambulances, Law Enforcement, suppliers or special customers, which can automatically enter, regardless of the set time conditions. PAM is an access control and parking management module and can also be used as a video recording and surveillance system.

### 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.

**HIGH PRECISION**
Camera with high reading accuracy even in the most unfavourable conditions

**ELEGANCE**
Elegant column that lends itself to all applications where aesthetics are required

**LOW SIZE**
A small camera that makes it visually discreet

# iZero

SELEA

## HARDWARE FEATURES OF THE CAMERA

| Sensor | |
|---|---|
| OCR Sensor | 2 Megapixel, Global Shutter, CMOS B/N, frame rate of 54 Fps |
| **Lens COLUMN version** | |
| COLUMN lens, M12 mount | • 3,6 mm fixed lens for reading distances between 1,2 and 3,5 mt,  or<br>• an 8 mm fixed lens for reading distances between 1,5 and 4 mt |
| **Lens BOX version** | |
| BOX lens, M12 mount | 12 mm fixed lens for reading distances between 2,5 and 6 mt |
| **IR Illuminator** | |
| Pulsed light IR Illuminator | n.6 high power 820 nm/47° IR LEDs that are compliant with the EN62471:2008 standard on photobiological safety |
| **Internal memory** | |
| **Available only in the FULL versions** | 8 GB High Endurance (-40° ~ + 85°C) industrial microSD SLC memory card, useful for storing White/Black lists and the captured images.<br>**The Entry  versions aren't fitted with internal memory.** |
| **Accuracy** | |
| OCR accuracy | Up to 99,9% |
| **Input/Output** | |
| Input | • n.1 digital input<br>• n.1 volt-free contact input |
| Output | • n.1 digital output<br>• n.1 0.3 A 125 Vac or 1A 30 Vdc volt-free contact relay for opening barriers/gates automatically |
| **Ports and Interfaces** | |
| Ports | • 10/100 Mbps Ethernet LAN<br>• n.1 USB port (only on the COLUMN -> FULL version) |
| **Power supply** | |
| Power supplies | • 12 Vdc power supply on all camera versions<br>• POE 802.3at power supply (only on the FULL versions)<br>• 230 Vac power supply (optional on the COLUMN versions) |
| Absored power | 8 W max |
| **Inbuilt protection** | |
| The camera is protected against: | • reverse polarity<br>• voltage fluctuations greater than 30 Vdc<br>• overloads with thermal protection<br>• overvoltages (TVS) on USB and Ethernet ports |

# iZero

## HARDWARE FEATURES OF THE CAMERA

| Standards | |
|---|---|
| Respected standards | • EN62471<br>• EN55032<br>• EN55035<br>• EN61000<br>• EN62368-1<br>• EN60529<br>• EN60068<br>• EN60721<br>• European standard RoHS2 - 2011/65/UE |
| **General** | |
| Material | The camera is made of die-cast aluminium with an ABS weather-shield. |
| Operating temperature | From -25°C to +45 °C without the need of fans or heaters. |
| Protection rating | IP66 |
| Dimension  (mm) | • COLUMN version: L=83 : H=500; D=88<br>• BOX version: L=83 : H=125; D=88 |
| Weight | • COLUMN version: 1,8 Kg<br>• BOX version: 0,9 Kg |

# iZero

**SELEA**
Datasheet

| SOFTWARE FEATURES OF THE CAMERA |
|---|

| **Embedded Algorithms** | |
|---|---|
| Standard built-in functions | • License plate reading (OCR) - reading characters of over 50 countries<br>• Fog-Fighter (reading license plates in the fog)<br>• Dirt elimination<br>• Predictive character analysis<br>• Angle compensation<br>• Magic spot |
| **Data communications** | |
| Integrated webserver | • Onvif communication protocol<br>• Save data directly to local server or remote NAS.<br>• Integration with third party VMS software solutions.<br>• Synchronized recording of metadata and captured number plate image.<br>• Dynamic creation and updating of multiple lists (black/white): only for the FULL version.<br>• Integration and saving in memory of Jpg snapshot images in Http.<br>• Privacy management with automatic deletion of image data after a specified period of time.<br>• Internal memory management. When the memory is full, the cameras automatically delete the oldest files to make room for the new ones (Fi.Fo method).<br>• Multiple action alarm management. |
| Protocols | TCP/IP, UDP, HTTP, HTTPS, FTP, FTPS, RTP/RTSP, DHCP. |
| Other integrated protocols | Wiegand, OSDP, MODBUS (optional) |
| **Data security** | |
| Data protection | • HTTPS encryption.<br>• FTPS (FTP over TLS/SSL) encryption.<br>• Micro SD memory encryption.<br>• Automatic deletion of data and images after specified period of time (privacy management).<br>• AES256 Advanced Encryption Standard.<br>• SHA2 Secure Hash Algorithm 2. |
| **Video output** | |
| OCR sensor | 2 Megapixel Jpeg images and video stream in RTP/RTSP with MPEG4 e H264 encoding. |

## SOFTWARE FEATURES OF THE CAMERA

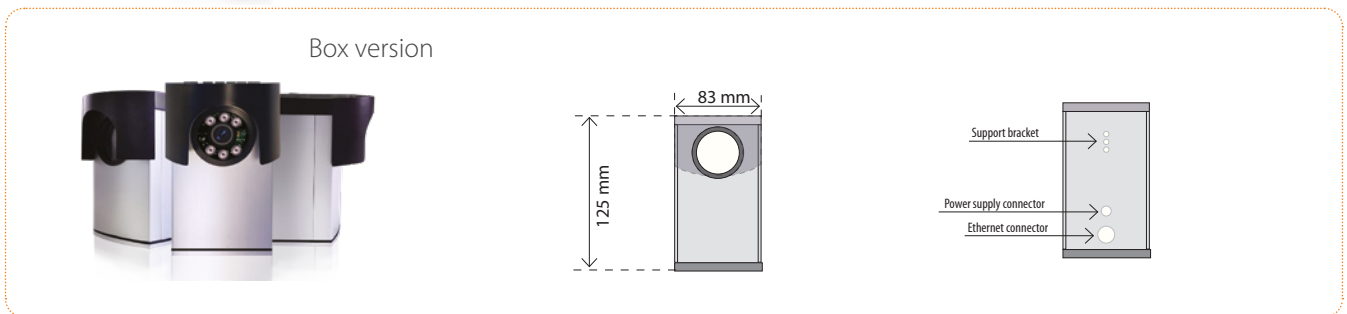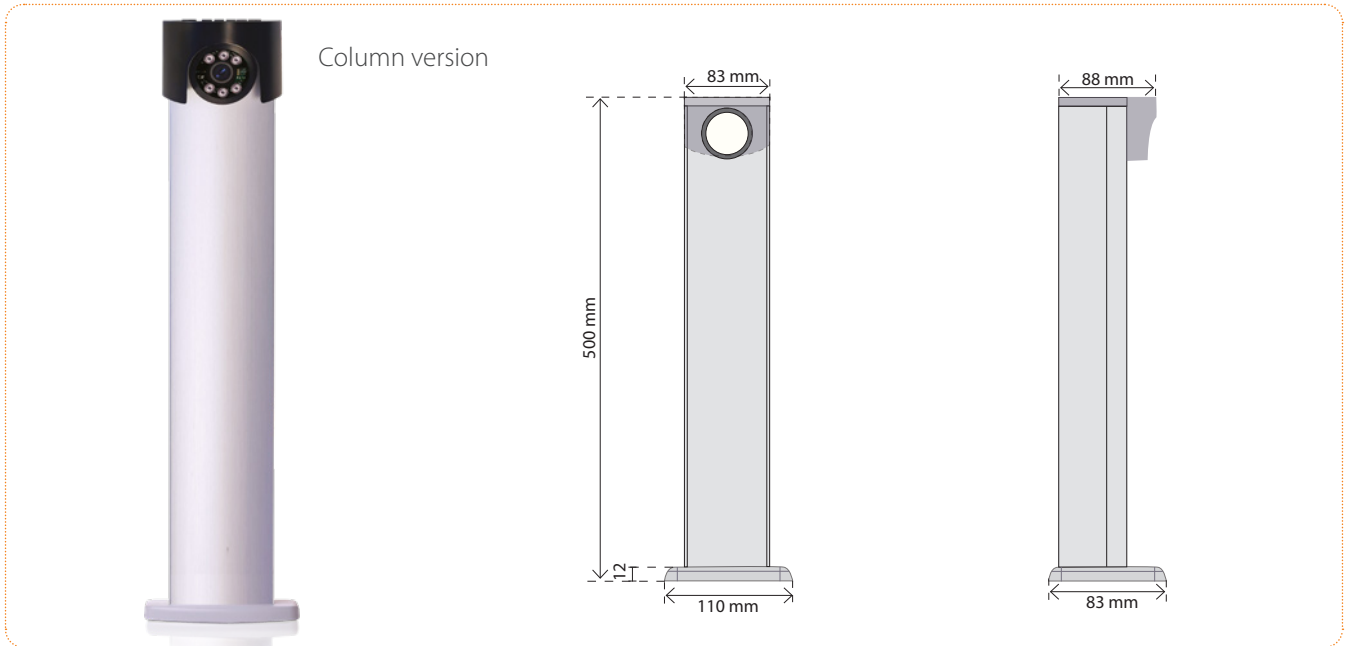| Functionality | |
|---|---|
| Operating system | • Linux Embedded |
| Standard built-in functions | • Embedded FPGA video signal processing.<br>• Double FTP server and double IP notification server.<br>• Dynamic FTP notification forwarding customization.<br>• IP notification customization.<br>• Multiple user management using HTTPS protocol protected access credentials for accessing the camera.<br>• List management (white/black list, no list) with independent actions for each list: function available only for the FULL version.<br>• Synchronized recording of metadata and captured code/number plate image.<br>• Privacy management with automatic deletion of image data after a specified period of time.<br>• Integration with third party VMS video surveillance software solutions.<br>• Save data on a local server or remote NAS.<br>• HTTPS security management.<br>• FTPS (FTP over TLS/SSL) security management.<br>• E-mail forwarding security using TLS/SSL protocol.<br>• Multiple action alarm management.<br>• Live and check control function for checking the operation of the entire system.<br>• Synchronization of date and time via NTP, IEEE1588 protocol.<br>• Possibility of updating firmware from the web page. |

### Compatibility and integration

The camera can be integrated into the access control systems of the most famous brands in the parking and access control market such as:

HUB    FAAC    Honeywell    SIEMENS    SKIDATA

## ACCESSORIES - "Available only for E-IZEROFUC and E-IZEROFUC8 models."

| | |
|---|---|
| **A** | 230 Vac built-in power supply. |
| **O** | **R**S485 interface with standard OSDP protocol for the integration with long distance access control solutions. Available only for E-IZEROFUC model. |

Column version



Box version



Support bracket
Power supply connector
Ethernet connector

## COMPARISON TABLE OF SELEA ANPR CAMERAS

| Legend<br>✔ = included (built-in)<br>■ = optional (on request)<br>*empty space* = unavailable | iZero | | | TARGA 512 | TARGA 504 |
|---|---|---|---|---|---|
| | **BOX**<br>**Full** | **COLUMN**<br>**Entry/8** | **COLUMN**<br>**Full/8** | | |
| Built-in OCR sensor | ✔ | ✔ | ✔ | ✔ | ✔ |
| Standard OCR lens<br>Focus *(FF=fixed focus; VF=varifocal)* - Mount type | *12 mm*<br>*FF-CS* | *3,6/8 mm*<br>*FF-CS* | *3,6/8 mm*<br>*FF-CS* | *8/16 mm*<br>*FF-CS* | *5~55 mm*<br>*VF-CS* |
| Average reading distance (*min - max*)<br>**NB**: distances vary considerably depending on both the size of the plates and the positioning of the camera (front or side) | 2,5~6mt | 1,2~3,5mt/<br>1,5~4mt | 1,2~3,5mt/<br>1,5~4mt | 1,5~4mt/<br>3~8mt | 3~10mt |
| Additional context sensor | | | | | ■ |
| MicroSD memory for backup and white list | ✔ | | ✔ | ✔ | ✔ |
| Memory expansion ports for up to 1 TB | | | | ✔ | ✔ |
| RS232-485 interface | ✔ | | ✔ | ✔ | ✔ |
| Wiegand interface | ✔ | | ✔ | ■ | ■ |
| OSDP interface (Siemens) | | | ■ | ■ | ■ |
| POE+ 802.3at power supply | ✔ | | ✔ | | ■ |
| 230 Vac power supply | | ■ | ■ | | ✔ |
| 12 Vdc power supply | ✔ | ✔ | ✔ | ✔ | |

## SELEA SRL

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## WHERE TO BUY

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

## SUPPORT

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

# 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