Access Control

Always know who opens the door.

Targa 512

Access Control

ANPR camera for reading plates with integrated OCR, **fixed lens**, ideal for low speed access control.

Targa 504

Access Control

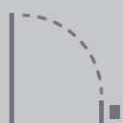ANPR camera for reading plates with integrated OCR, with **varifocal lens** for low speed access control.

- **Reliable**
  - **Precise**
    - **Integrated**

Up to
99.8%
precision

RELAY ON/OFF

WHITE LIST
1000
No. of plates in memory

3
MULTIPLE EXPOSURE

Double Eye
ANPR + PANORAMIC SENSOR

ANPR-OCR camera for reading plates that provides NO PROBLEM vehicle access control, that is with unsurpassed reliability and reading precision. Solution including multiple interfaces and multiple communication protocols for integration with the most common access control systems.

INGRESSO
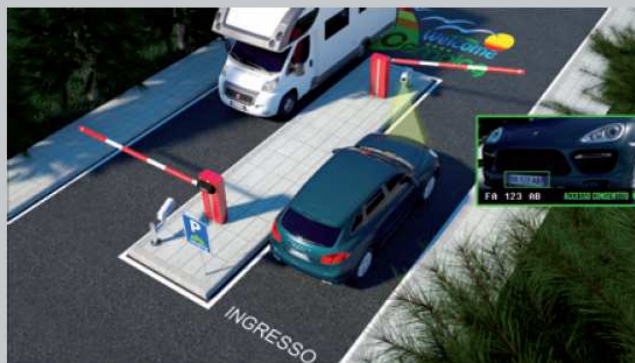
FAAC | **KABA** | **Honeywell** | **PARKEON** | **SIEMENS** | **SKIDATA**
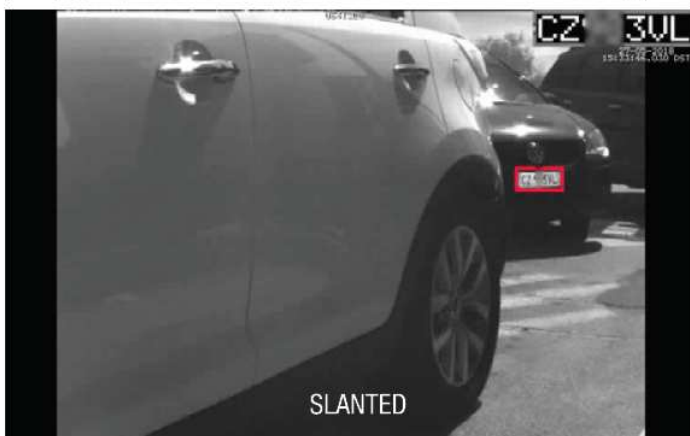
What is the future for plate reading? Maximum precision.

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.
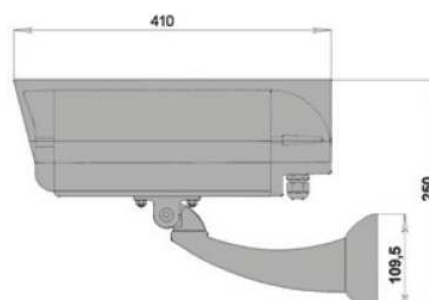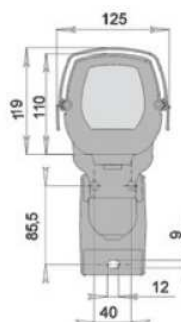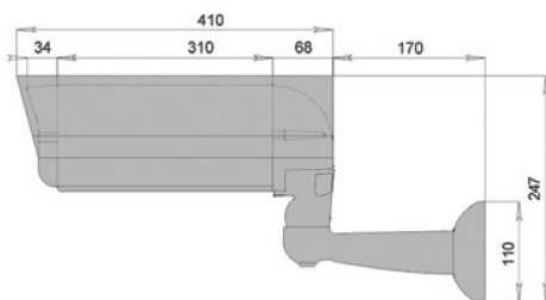

DIRTY AND DAMAGED

CHARACTERS DAMAGED

VERY DIRTY

DIRTY

SLANTED

DIRTY AND DAMAGED

TARGA **504** & **512**
Technical Data Sheet

Description	512	504
PLATE READING SENSOR		
Sensor	1/3" Progressive scan - **Global Shutter CMOS** - high speed - B/W	
Resolution	2 Megapixel	
Frame rate	60 Fps	
CONTEXT SENSOR (Optional)		
Digital context sensor (optional)	Colour sensor CMOS 1/4"- Rolling Shutter WVGA with fixed IR filter	
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		
Plate reading lens	IR fixed focal length with aperture F=1.2, C/CS connection and available focal lengths: **L8** = 8 mm for distances up to 4.5 m **L16** = 16 mm for distances up to 9 m	IR varifocal **adjustable from 5 to 55 mm** (zoom 10x) suitable for high-resolution sensors with F1.4 aperture C/CS interchangeable connection.
Context lens	Fixed focus 12 mm, M12 connection	
ORC - CHARACTER RECOGNITION		
OCR plate reading	Integrated directly on the camera.	
Intellectual property of the OCR algorithm.	Proprietary algorithm,	
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: *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*; 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 read plate reading	

Description	512	504
PRECISION	IN FIELD - WITH DATA CORRELATION	IN FIELD - WITH DATA CORRELATION
Precision transit readings in the field under all conditions (sun, snow, rain, etc.), day and night, in any season (summer, winter, etc.) **with correlation of the main data**	• precision > 98% of transits • at speeds up to 15 km/h • for standard installation: PAN=30°; TILT=25°; H= 1.5 m	• precision > 99.8% of transits • at speeds up to 40 km/h • for standard installation: PAN=30°; TILT=25°; H= 1 m
Precision at a speed of 60 km/h	> 96% at a speed of 40 km/h	> 98% at a speed of 60 km/h
METHOD Used to calculate the plate reading precision	The data for the precision is based on vehicles that transited under the camera (read and unread rows) manually inspecting a sample (random) of more than **3000 images** captured in the field 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.	
LAYOUTS		
Optimum reading layouts	• lens 16 mm, Distance = 9 m; • lens 8 mm, Distance = 4.5 m; Height = 1 m; Width = 4 m; PAN= 15°; TILT= 15°; front license plates	Distance = 10 m Height = 1 m; Width = 4 m; PAN= 15°; TILT= 15°; front license plate reading
Field depth	Δ 6 m (reading from 3 to 9 m) lens 16 mm Δ 3 m (reading from 1.5 to 4.5 m) lens 8 mm	Δ 7 m (with focal length at 8m - reading from 3 up to 10 m)
Limit values (not correlated)	Capture speed: 40 km/h	Capture speed: 60 km/h
Max reading distance	• lens 16 mm, D_{max}= 5 m; • lens 8 mm, D_{max}= 10 m;	D_{max}= 12 m
SPECIAL INTEGRATED ALGORITHMS		
MAGIC SPOT®: this algorithm makes the plate body visible even when the photographic image is illegible to the human eye.		
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.)		
PREDICTIVE ANALYSIS: Predictive character analysis algorithm, based on probability, to increase the reading precision.		
IR BEACON		
LED IR	6 IR LEDs - 820 nm /47° High power	
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	2 - 4 m	4 - 12 m
Max beacon distance	10 m	15 m
MEMORY		
Memory type	◉ Standard CF card 128 MB ◉ Expansion up to 32 GB	
Use of memory	Used to group lists of allowed users (white list). The camera operates even without any network connection or PC, using for its purpose the list of permissions entered in the memory and activating the relay upon recognition of the plate.	
Memory management	Automatic: automatic deleting of the images (FIFO method).	

Description	512	504
OUTPUT VIDEO		
Format of OCR captured image	JPEG - in addition to distributing the video, sending the snapshot.	
INPUT VIDEO		
PAL Analogue (standard)	IP video Encoder for PAL/NTSC analogue external context camera. If you choose the digital dual eye integrated in the camera, you are not interested in 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 of the parameters 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, 5A-250 VAC	
GENERAL		
Maintenance and updates	The **100% of knowledge and intellectual property** for both the **hardware** product and the **software** component (firmware) including the OCR algorithms, guarantee modification, updating and maintenance. The product is completely **designed and manufactured in Italy**.	
Compatibility	The device can be integrated with the best known access control platforms and with the most popular video surveillance VMS software.	
Operating temperature (*)	From -30°C to +55 °C	
Power Supply	12 VDC ± 20 % (power supply excluded) and POE+ 802.3at (optional)	230 VAC or on request 12 VDC and POE+ 802.3at (optional)
Absorbed power	8 Watt max	10 Watt max
Dimensions (in mm)	L=120: H=130; D=320	L=120: H=130; D=410
Weight	2.7 kg	3 kg
Type of housing	In powder-coated die-cast aluminium	
Protection rating	IP66	

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ACCESSORIES
To request on order

Composition of product code with optional
TARGA 5xx D O W P

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.

W = Wiegand

The camera can be equipped with Wiegand interface, useful for integration in many access control systems.

O = RS485 OSDP

The camera can be supplied with an RS485 interface with OSDP standard communication protocol, useful for integration in the world of access controls for distant connections.

P = POWER OVER ETHERNET

Module to power the camera in POE+ standard 802.3at

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Software solution

Park Access Module

PAM is the solution developed for access control and management of parking spaces for limited space parking lots. PAM is a useful solution for managing bays in private, paid, residential, municipal, hospital, resort, and hotel parking areas, for anyone who wants to create a vehicle access control, with permits, schedules, fleet management, and clients (VIP).

COMPANY

PARKING

CAMPING

RESIDENCE

HOTELS & TOURIST

VILLAGES

SHOPPING CENTRES

P

Cameras for managing private parking lots.

Whit

99,8%

precision in all weather conditions