

Access Control

CAR PLATE READING

iZero

Ref. PRK520 - PRK 520-WG

the smallest car plate recognition camera in the world



6,5 cm

10 cm



3,5 cm

impact **Zero**

Zero errors

Zero surprises

Zero problems



OCR Column

Accuracy

99,8%



nestor
company

Technical Characteristics

- Megapixel OCR camera
- MicroSD memory slot
- Reading range from 1,5 to 4 m
- Standard relay
- POE standard 802.3af
- USB interface for Wi-Fi 802.11af,
- Storage can be expanded up to 1TB
- Wiegand interfaces/RS232/RS485/OSDP



MODEL	Ref. PRK520	Ref. PRK520-WG
	ENTRY	FULL
2 opto-isolated inputs	•	•
1 opto-isolated output	•	•
1 relay output	•	•
Power Over Ethernet standard 802.3af		•
RS232 interface		•
WIEGAND interface		•
RS485 half duplex interface		•
Internal memory 16 GB		•
USB connector for WIFI dongle or storage up to 1 TB		•



Hotels, Resorts, Residential complexes, Campings, Self-service parkings, Shopping malls, Airports, Exhibition centers and many more



iZero

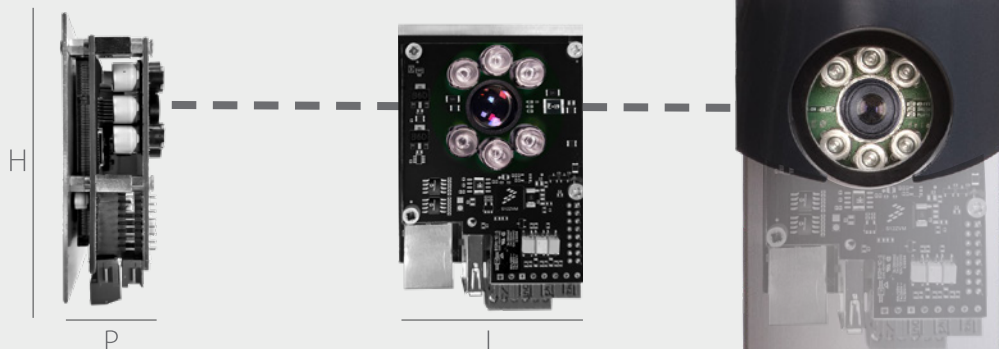
Ref. PRK520 - PRK 520-WG

Small size

H = 10 cm

L = 6,5 cm

P = 3,5 cm



iZero has small dimensions but a big heart, which makes it as one of the top performing ANPR cameras, offering unparalleled reading accuracy. A vehicle access control product, at low speed, that can be installed without any effort.

ANPR-OCR



IN-OUT

TOP ACCURACY

99,8%

INTERFACES:

Rs232-485

OSDP

Wiegand

USB CONNECTOR:



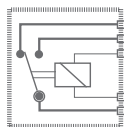
Wifi Dongle

STORAGE



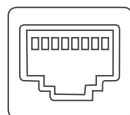
UP TO

1TB



RELAY

1A - 30 VDC



POE

802.3AF



COLUMN

Ref. PRK520

Ref. PRK520-WG

Description	ENTRY version	FULL version
OCR CAMERA		
Sensor	Global Shutter CMOS - 54 Fps - high speed - B/N	
Resolution	2 Megapixel	
Plate reading lens	Fixed focal 3.6 mm with M12 coupling	
PLATE READING		
Plate reading OCR	Integrated on board	
Reading timing	Automatic (free flow) without the aid of equipment or trigger	
Character sets	Latin alphabet: plates from Europe, Canada, Turkey, Nigeria, South Africa and many more	
Syntax and nationalities (syntax free mode)	No syntax and nationality limits, with the exception of the set of national characters that the OCR knows how to recognize (the OCR can be instructed on other character sets). No library constraint.	
Recognition of nationality	the camera can identify the vehicle nationality and creates black/white lists for both italian and foreign vehicles, from specific Countries.	
Syntax filter	The camera can operate both with the syntax entered and without using syntax (syntax free).	
Type 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 readed	Both front and rear vehicle plates	
Type of ADR readed	Both front and rear plates, front ones suggested.	
Precision	Up to 99,8% with the vehicle stationary	
Field depth	From 1,5 to 4 m	
Gate width	3,5 m (single lane)	
Speed of plate reading (free flow)	vehicle stationary	
IR BEACON		
IR leds	N.6 IR leds - High power	
Type of beacon	Pulsed illuminator able to adapt power to the conditions of reflectance and lighting in the environment.	
Exposure mode	Multi-exposure	
Optimal beacon distance	2 ~ 3 m	
Max beacon distance	5 m	
INTEGRATED ALGORITHMS		
MAGIC SPOT®: this algorithm makes the plate area visible even when the photographic image is illegible to the human eye.		
Dirt cleanup effect: to avoid reading issues caused by external elements as snow, dirt, dust, bugs...		
Video analysis: permits selecting the best image among those took by the multiple exposures.		
Perspective compensation: allowing readings on very angulated images		
Symbols removal effect: any symbol, patch, ads, label or tag		
Predictive character analysis algorithm, probabilistic-based, to improve the reading accuracy.		

		Ref. PRK520	Ref. PRK520-WG
Description	ENTRY version		FULL version
EMBEDDED FEATURES			
The camera embedded the following main features:			
◦ Double FTP server and dual TCP / IP server ◦ Dynamic customizing of FTP notifications ◦ Customizing TCP notification that allows to integrate the camera in all CPS servers ◦ Management of multiple users with access credentials and protected HTTP protocol to access the camera ◦ Management of lists (white / black, no list) with alarm functionality ◦ Synchronized saving of metadata, code/ number plate image and contextual images ◦ Integration and saving of context images from external IP cameras (<i>FULL version</i>) ◦ Privacy management with auto deletion of data and images after a certain time period ◦ Statistical analysis useful for security and traffic analysis ◦ Plate, date / time searches, even through the use of logical expressions for partial code / number plate search ◦ Notifications (codes / plate) and researches export in CSV format ◦ Integration with third-party VMS solutions ◦ Record on local or remote NAS server ◦ Security management via HTTPS standard ◦ FTP security management with FTPS over TLS / SSL protocol ◦ Protected email sending management over TLS / SSL protocol ◦ Alarm management with multiple actions ◦ Live and check control feature (Live, CPS, FTP, VPN) on system functioning ◦ Possibility of firmware updates via web page			
INTERNAL STORAGE			
Embedded Hard Disk	Not included	16 GB micro SD standard	
White/Black lists	can store an unlimited quantity of lists		
Storage management	Automatic: image auto-deleting (FIFO method).		
OUTPUT VIDEO			
Video format	Mpeg4, H264.		
Video conformity	RTP/RTSP Onvif S profile		
OCR reading image format	Jpeg		
DATA and I/O INTERFACE			
Data transmission interface	n.1 gate 10/ 100 Mbps Ethernet/IEEE standard 802.3		
Communication interface	Not included	RS232, RS485 half duplex, Wiegand, OSDP	
Camera access mode	The cameras have an integrated web-server. Allows for direct viewing of the images, memory access and configuration through the browser.		
Transmission mode (protocols)	TCP/IP, UDP, HTTP, HTTPs, FTP, FTPS, RTP/RTSP, DHCP		
Input	N.2 digital inputs		
Output	N.1 digital output N.1 clean contact - relay 1A - 30 Vdc		
PROTECTIONS			
Data ports	TVS protections on USB and Ethernet ports		
Power	Anti-inversion protection on the power supply Protection against overvoltage transient over 17V		
Temperature	Power switching with Thermal Shutdown Protection		
Consumptions	Power Save Mode		

Description	ENTRY version	FULL version
GENERAL		
Operating system	Linux embedded	
Updates and maintenance	assuring regular updates to the customers	
Integration	The device integrates with the most known video management and video surveillance management platforms, as Genetec, Milestone, Tyco...	
Operating temperature	From -25°C to +45°C	
Power supply	• 12 Volt dc $\pm 10\%$	• 12 Volt dc • P.O.E standard 802.3af
	230 Vac $\pm 10\%$ (optional power supply for both versions)	
Absorbed power	8 Watt max	
Column dimensions (in mm)	L=83 : H=500; P=88	
Weight	1,8 Kg	
Type of housing	Die-cast aluminium	
Protection rating	IP66	

