

TARGA 704ILB

ACCR camera

Automatic Container Codes Recognition

CONTAINER READER



TCP/IP **megapixel** camera for recognizing codes on the back of containers (ILU-BIC), with high reading precision even in extremely difficult conditions.

Suitable for checking the transit of goods at ports, airports and in general for controlling the logistic access of containers.



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- **CAMERA**

Camera with B/W Global Shutter CMOS OCR sensor for container plate reading, **2 megapixels**, 60 FPS frame rate fitted with a 5 - 55 mm varifocal lens with F1.4 aperture and C/CS mount.

- **CONTAINER CODE READING**

OCR algorithm embedded directly into the camera that can read the ILU-BIC codes of containers automatically (free flow) without the need for external synchronization devices. It should be remembered that unlike other systems, this character reading cameras **are not based on** imprecise motion detection systems. The container code can also be read even when the vehicle is stationary (0 Km / h = no motion detection).

- **EMBEDDED ALGORITHMS**

In addition to the OCR plate recognition algorithms, other algorithms are installed on the camera that have been developed to make character reading as reliable and as error-free as possible. In addition to the algorithms embedded in the camera, these include:

- ▶ *Dirt elimination*, to eliminate issues associated with dust
- ▶ *Angle compensation*, to allow readings to be taken even at difficult angles
- ▶ *Symbol elimination*, such as labels, badges, symbols or advertising
- ▶ *Predictive character analysis*, probability based, to improve reading accuracy
- ▶ *Magic spot*, which makes the code visible even if the image is dark.

- **SECURITY AND PRIVACY**

Stored data can be encrypted for transmission. Data and image security are ensured by:

- ▶ 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).

- **STANDARD BUILT-IN FUNCTIONS**

The camera has the following built-in functions:

- ▶ Embedded Linux Operating System
- ▶ 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 list ...) with independent actions for each list.
- ▶ Synchronized recording of metadata and captured code image.
- ▶ Integration and saving of context camera images
- ▶ 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.
- ▶ Possibility of updating the firmware from a web page

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- **ACCURACY**

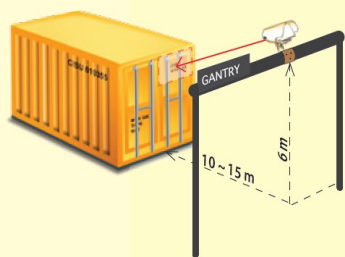
For containers, the greatest accuracy is obtained when the vehicle is stationary. In the field, the camera ensures an accuracy of up to 99% of all readings, in all conditions, with the vehicle stationary.

- **INSTALLATION**

Rear container plate reading on a single lane: the system will work best when the camera is installed as follows:

- ▶ **At the side:** recommended reading distance = 10~15 m; Mounting height = 4 m; Lane width = 5 m
- ▶ **Centrally:** recommended reading distance = 10~15 m; Mounting height = 6 m; Lane width = 5 m
- ▶ Reading the code **from above:** Height from container = 8 m

Installation at the centre of the lane



Installation at the side of the lane

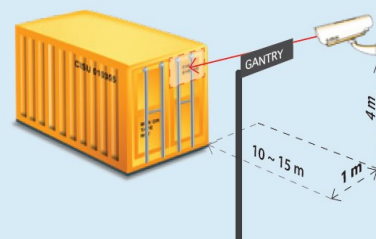





Image showing the position of cameras at the entrance to a port



 R= reading from rear
 T= reading from above
 L= reading from side



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- **INTERNAL MEMORY**

The camera is fitted with an internal 8 GB *High Endurance* (-40°C ~ +85°C) industrial microSD SLC memory card as standard which is used for storing the readings of the recognized containers and the relative image if there is a temporary data communication fault. When the memory is full, the camera will automatically delete the oldest files to free up space for new ones (Fi.Fo method). The memory can be expanded using the USB interface provided to connect storage disks of the capacity currently available on the market (> 1TB - optional).

- **INTEGRATION**

The camera is compatible with the most widely used container code reading platforms, as the data is output in the standard international XLM format.

- **VIDEO OUTPUT**

The camera is able to transfer the captured container images in JPEG format.

- **IR ILLUMINATOR**

The camera is fitted with an illuminator that is made up of 10 high power IR LEDs. The multiple exposure pulsed lamp is able to regulate the output power according to the available lighting and the reflectivity of the container. This avoids underexposed or overexposed images, which improves number plate reading and recognition accuracy. The recommended lighting distance for maximum reading accuracy is between 10 and 15 metres.

- **DATA INTERFACE**

The camera is a web-server device, i.e. a device that allows the images to be viewed, the memory to be accessed and the parameters to be configured via a browser. It is fitted with a 10/100 Mbps standard 802.3 Ethernet/IEEE port and uses well known standard communication protocols such as TCP/IP, UDP, HTTP, HTTPS, FTP, FTPS, RTP/ RTSP and DHCP. In addition to the LAN interface, the camera also has serial interfaces such as RS232, RS485 half duplex. An optional Wiegand and OSDP interface is also available.

- **I/O, INPUTS-OUTPUTS**

The camera is fitted with 10A - 250 Vac, 30 Vdc volt-free contact relays for opening the barrier/gate automatically. It also has 2 digital inputs for synchronization devices, if required.

- **INBUILT PROTECTION**

The camera is protected against:

- ▶ voltage fluctuations greater than 30 Vdc
- ▶ overloads with thermal protection
- ▶ overvoltages (TVS) on USB and Ethernet ports

- **POWER SUPPLY**

The camera is designed to operate using a 230 Vac power supply and a 24 Vdc on request. Absorbed power max. 15 W

- **GENERAL**

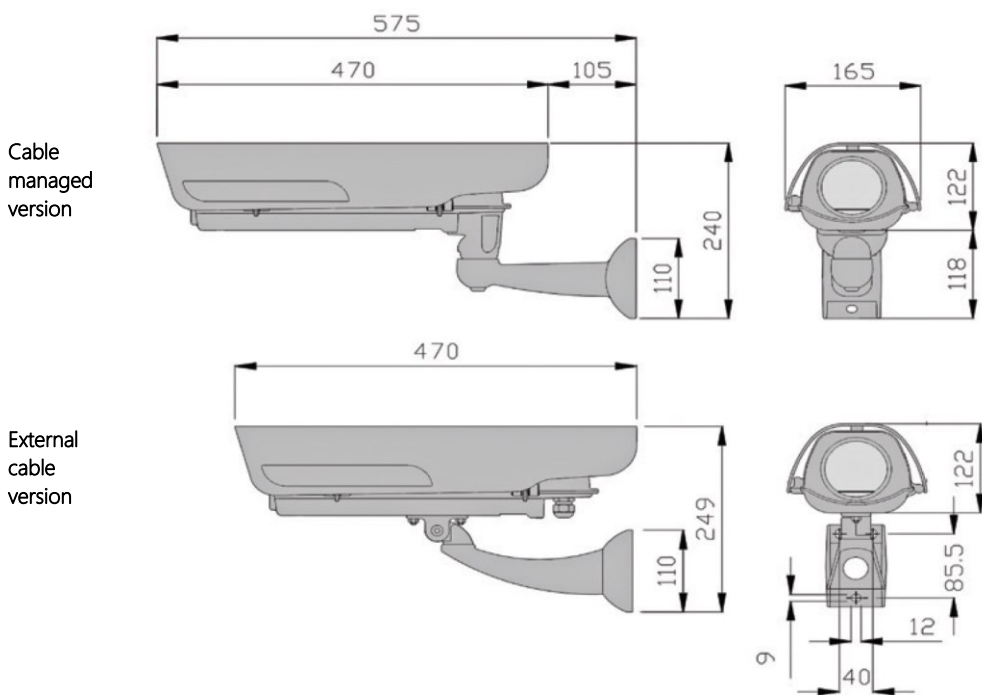
The camera is made of powder coated die-cast aluminium with an ABS weather-shield. It can operate in temperatures from -40°C to +65 °C without the need for fans or heaters. Protection rating IP66, IP67 and IK10 on request. Its dimensions are: L=165 H=122 D=470 mm It weighs 3 kg.

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ACCESSORIES

The camera is equipped with the following accessories:

- Industrial Ethernet Switch 10/100 developed to be installed inside the camera, with 3 LAN ports, one of which with PoE 802.3af to power any type of external IP camera or any type of Wireless Wi-Fi or GPRS/UMTS device with a single network cable.



all values are in millimeters