

VDU (video detection unit)

ZYKLOP COUNTING SENSOR

Overview

Zyklop is an electronic device for monitoring the passage of people equipped with artificial intelligence.

The targets within the field of action, through tracking algorithms, are identified as vectors, these vectors contribute to the quantification of the total flow of people crossing the scene in both directions.

Zyklop is composed of two hardware parts, an **APC** (automatic passenger counting) processor unit, and a **VDU** (video detection unit). The system is also equipped with a software with a WiFi user interface through which it is possible to configure the device parameters and access the main information of the device.

Zyklop integrates perfectly within the on-board instrumentation of the means of transport from which it can receive and send specific commands and information and is proposed as a complete solution with high reliability thanks to the high quality of the components.



General Features

- > **Artificial Intelligence:** Using AI algorithms to count the people in the scene
- > **Algorithms of neural networks:** Training of neural networks carried out directly on the means of transport, thanks to the video recording of Zyklop
- > **Simple to configure:** Device configuration via WiFi through a normal web browser
- > **Easy to install:** Thanks to the small size of the **VDU**, mounted above the door, and an **APC**, which can be mounted up to 2 meters. away from the **VDU**
- > **Standard protocol:** This device, fully compatible with the most popular communication protocols, can be coupled with already installed passenger counter systems
- > **Intelligent accuracy:** With a statistical accuracy of 98%, thanks to the use of AI algorithms, it is possible to distinguish people from objects in the action area
- > **Video recording:** During the test phase, it is possible to record videos of steps to check their accuracy

APC (automatic passenger counting)

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Technical specification

- > 1 RS485 serial port
- > 1 WiFi module 802.11 a/b/g/n
- > Integrated web server (control/configuration)
- > Ethernet RJ45 90° or M12 D 90° connector
- > Micro USB (debug only use)
- > 1 digital input for door connection

Power supply

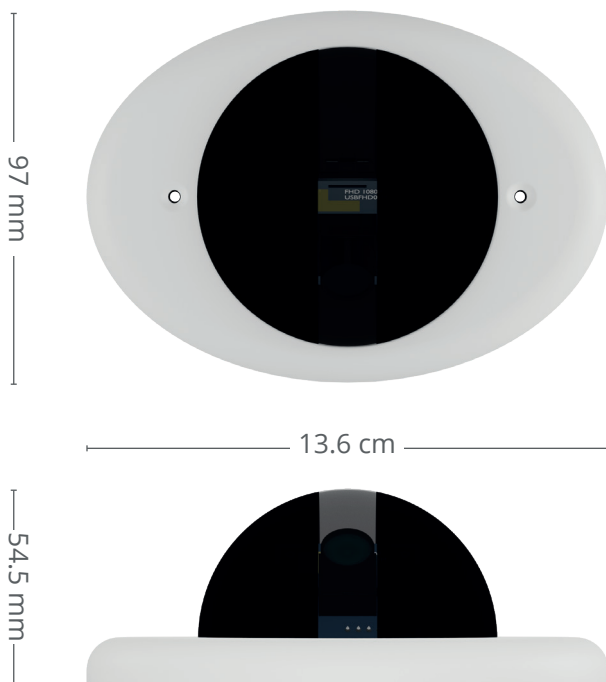
- > Power supply 9-36 VDC (12 or 24 nominal)
- > Consumption: 10W max

Physical characteristics

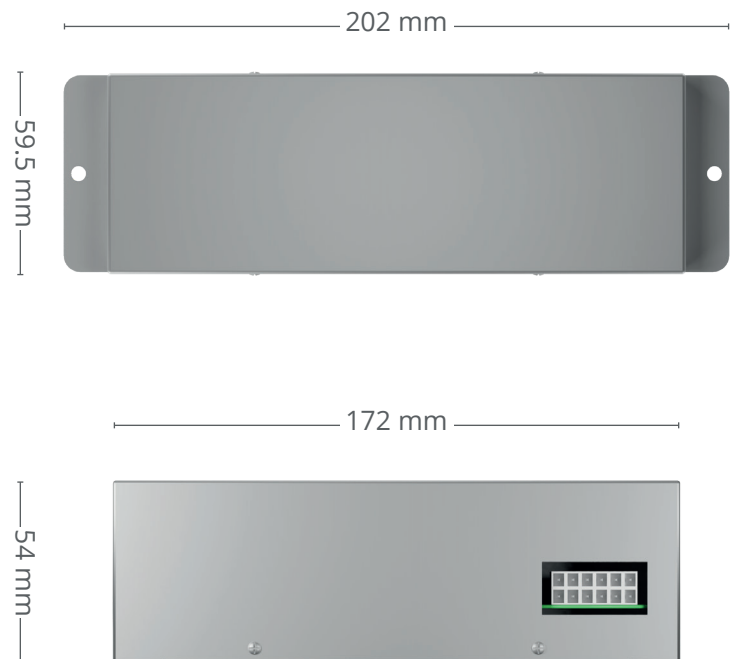
- > APC processor unit overall dimensions: 172x59.5x54 mm (WxLxH)
- > VDU overall dimension: 136x97x54.5 mm (WxLxH)

Mechanical dimensions

VDU (video detection unit)



APC (automatic passenger counting)



Environmental characteristics

- > Operating temperature range: -25 to +70°C
EN50155 class T3
- > Protection index: IP65 for VDU module (EN 60529)

Compliance

- > EN 50155 for Railway applications
- > EN 61373 Random Vibration & Shock Testing
- > EN 50121-3-2 Railway applications.
Electromagnetic compatibility
- > EN 45545-2 Fire and smoke

Order code

- > Zyklop APC processor unit, power 12-24VDC WiFi, RS485 version: ZK-1000-00
- > Zyklop APC processor unit, power 12-24VDC WiFi, Ethernet version: ZK-2000-00
- > Zyklop Video Detection Unit: ZK-VDU-00

