

TrafiCam

COLLECT-R

DATA COLLECTION SENSOR



Collect-R combines traffic flow monitoring, traffic data collection, loop emulation and simulation in one single sensor.

Collect-R is a cost-effective solution to **collect traffic data**, monitor traffic flow and emulate or simulate loops on highways and inter-urban roads. It can be used for temporary or permanent applications. Plus, its low power consumption is suitable for a stand-alone solar powered installation.

Collect-R **integrates both CMOS sensor and detector** in a compact, stylish housing.

The design of this sensor ensures fast and easy **above-ground installation** without the need for intrusive adjustments.

User-friendly configuration software guarantees quick configuration.

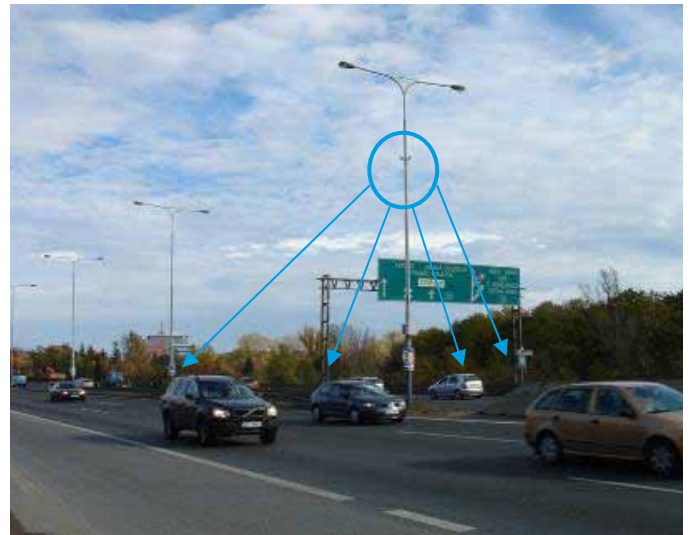
Collect-R is based on **field-proven** video detection technology and is part of the Traficon product range. **Traficon** is worldwide recognized as the market leader in traffic video detection.

KEY FUNCTIONALITIES

- » DATA COLLECTION
- » FLOW MONITORING
- » LOOP SIMULATION/EMULATION

KEY BENEFITS

- » ALL-IN-ONE SENSOR (CAMERA + DETECTOR)
- » ABOVE-GROUND SENSOR
- » MULTI-LANE DETECTION COVERAGE
- » EASY INSTALLATION & QUICK CONFIGURATION
- » OVERHEAD/ SIDE-FIRED MOUNTING
- » DIRECT VISUAL FEEDBACK
- » LOCAL/REMOTE DATA RETRIEVAL
- » RELIABLE DETECTION 24/7
- » 25 YEARS OF EXPERIENCE IN TRAFFIC VIDEO DETECTION



Collect-R is an above-ground sensor providing a wide range of traffic data on up to four lanes.

TRAFFIC DATA COLLECTION

Collect-R provides all relevant traffic data such as **volume**, **speed**, **occupancy** and **classification** on multiple lanes, day and night and in all weather conditions.

Depending on sensor positioning (overhead/side-fired) Collect-R can cover **up to four lanes**. Data is provided for each lane and each vehicle class.

Integrated data is stored in the sensor and can easily be transferred via an open protocol SDK (Traficon Management System) or an off-line download tool. Downloading this data to a PC can be done locally or remotely. This transmission of data can be done at predefined times or on command of the operator.



Collect-R installed on existing structures (e.g. VMS panels).

FLOW MONITORING

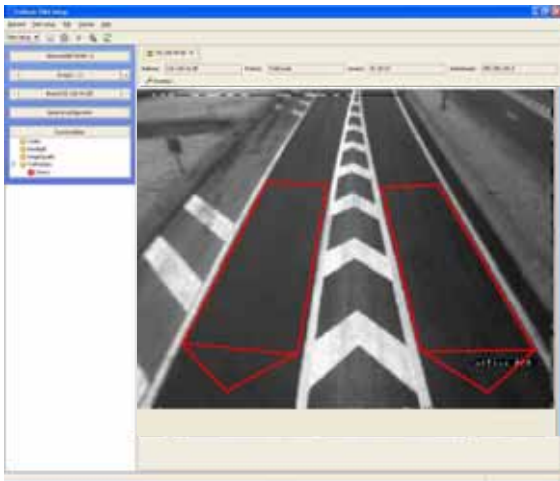
Collect-R monitors **traffic flow**. Via the flow speed and the zone occupancy, the sensor automatically distinguishes between **5 levels of service**: normal, dense, delayed, congested and stop-and-go.

Alarms can be generated on the outputs for each of these service levels, or can be transmitted to the Traffic Management System. Together with the traffic alarm an image can be sent for **visual verification**.

Collect-R can also be used to trigger third party systems such as flashing lights, barriers, CCD cameras and VMS panels when traffic flow exceeds a certain predefined level.

LOOP SIMULATION & LOOP EMULATION

Collect-R is also used to **simulate or emulate single or double loops**. Physical inductive loops are simply replaced by 'virtual loops'. Vehicles are detected by the sensor when crossing these virtual loops. The outputs of the Collect-R can be connected to a controller board to ensure predefined actions, similar to the single and/or double loops.



Quick and easy configuration via user-friendly software.

QUICK & EASY CONFIGURATION

Collect-R is an out-of-the-box product: install it, configure it and start analyzing traffic.

Configuration of the sensor happens via a portable computer or via a modem and a remote PC. It is quick and easy ('**click and drag**') and can be done on-site or remotely.

An **image** allows accurate positioning of the data zones ('virtual loops') as well as visual verification of the system outputs communicating to the traffic counter/controller.

RELIABLE DETECTION 24/7

Collect-R uses a state-of-the-art CMOS camera and has an intelligent day and night detection algorithm on board for accurate and relevant data collection around the clock. **Advanced filters** suppress unwanted detection that may be caused by changing light conditions or the effects of extreme weather conditions.

TECHNICAL SPECIFICATIONS COLLECT-R

HARDWARE

- **General Hardware description:**

- Camera and detector board are integrated in a compact and esthetical round housing.



- Material:

- Housing:

- Front Shell (detection part): painted semi sphere of Polycarbonate
- Mid Section: Central piece of Fibre reinforced Polyamide
- Back Shell (connection part): painted semisphere of Polycarbonate

- Mounting bracket:

- Mounting device: 18cm long U-profile of Fibre reinforced Polyamide
- Clamps for Collect-R: 2 tube clamps of Fiber Reinforced Polyamide
- Clamps for U profile: 2 tube clamps of Fiber Reinforced Polyamide
- Connection Collect-R / Mounting device: 25cm long Aluminium tube with diameter 13mm

- Weight: Approximately 600g (Sensor: approx 300g / Mounting bracket: approx 300gr)
- Dimensions, inclusive mounting bracket (Height x Width x Depth):
 - Mounted vertically: approx. 45cm x 16cm x 10cm
 - Mounted horizontally: approx. 41cm x 18cm x 10cm
- Diameter housing: approx. 10cm

- **Camera details:**

- Camera type:
 - Black and white CMOS Camera
 - Sensor size = 1/3 "
 - Camera resolution: 640 x 480 pixels
- Lens type:
 - Wide angle lens
 - Focal distance = 3,0 mm
 - Viewing angles:
 - Horizontal: 95°
 - Vertical: 85°
 - Corner to corner: 103°

- **Power Requirements:**

- Input power: 12-26V AC/DC
 - Maximum power consumption: 1,2 W
 - 85mA @ 12V DC – 50mA @ 24V DC

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TECHNICAL DATA SHEET

- **Outputs:**
 - o 4 Opto-isolated MOSFET outputs
 - Pmax = 300mW
 - Imax = 50mA
 - Umax = 48V DC
- **Communication:**
 - o RS485 connection for configuration and output of collected data
 - o Optional: converter RS485 / USB

REGULATORY ISSUES

- **Shock and Vibration:** Compliant with
 - o NEMA II specifications
- **EMC / EMI:** Compliant with
 - o CE directive 85/336/EEC ; product standard EN55022 Class A
 - o FCC part 15 Class A
- **Water resistance:** Compliant with
 - o Housing sensor: IP67
 - o Other materials: Waterproof (UV-resistance)
- **Temperature and humidity:**
 - o Temperature range: -34C to +80C @ 95% non-condensing

SOFTWARE

- **Configuration and Data download via software on portable PC**
 - o Detection zones:
 - Up to 4 data zones per Collect-R
 - Simulate virtual loops and emulate virtual loops (loop emulator interface required)
 - Generate Traffic Flow levels
 - o Output assignment
 - 4 outputs per Collect-R

CONNECTIONS COLLECT-R:

- **Max 9 wires + shielding (2 x power, 2 x communication, 5 x outputs)**
- **Minimum wire diameter:** 0,3 mm
- **Maximum wire diameter:** 2,0 mm
- **Minimum cable diameter:** 5,0 mm
- **Maximum cable diameter:** 9,2 mm (determined by available free space to pull the cable into the Collect-R connection part)
- **Maximum cable length:** 300m (highly depends on cable quality and presence of interference)

Data subject to alternation without notice or obligation

YOUR CONTACT

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