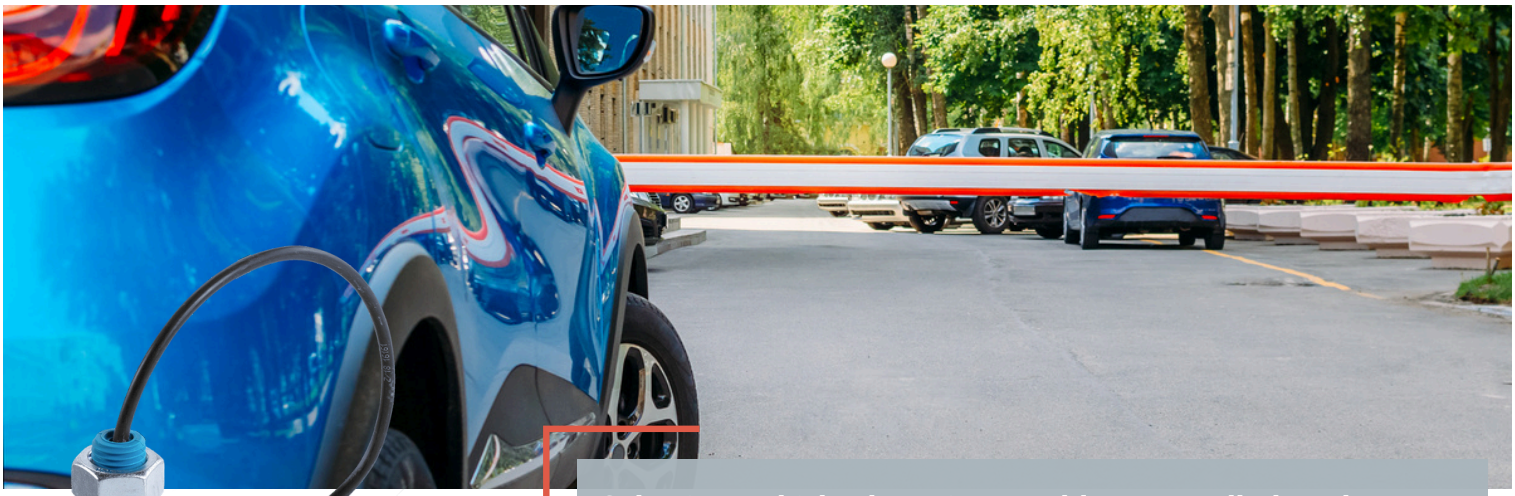
IV SYSTEM

VEHICLE DETECTION AND IDENTIFICATION SYSTEM
ACCESS CONTROL MANAGEMENT



Selective vehicle detection enables controlled and secure access to a site, private parking area, toll lane, or rising bollard system.

This system can, for instance, regulate vehicle circulation within a facility and manage access selectively, based on predefined authorization levels or identification criteria.

APPLICATIONS

- Fleet management for service vehicles
- Selective control of gates, barriers, tolls, or retractable bollards
- Industrial access control

PRODUCT ADVANTAGES

- High reliability & accurate vehicle localization
- Fast vehicle identification
- Data security
- Real-time transmission
- Simple and effective system for securing entry and exit points
- Robust and field-proven products

OPERATING PRINCIPLE

This selective vehicle identification system consists of an on-board transmitter beacon (IVE) installed on the vehicle, and a fixed receiver unit (IVR) connected to an inductive loop placed upstream and interfaced with the control unit (PLC).
The beacon, mounted under the vehicle chassis, transmits a specific identification code. This code can be programmed manually (via rotary switch or joystick) or automatically (via route display or AVL system).

When the vehicle passes over the inductive loop, the code is detected by the receiver (IVR) and transmitted to the control unit for processing.

The IV system can therefore be used to manage access for priority and service vehicles at hospital facilities.
Only vehicles equipped with a transmitter beacon are authorized to enter restricted areas.

Capsys
Parc technologique des Fontaines - F 38190 Bernin - FRANCE
Tél : +33 (0)4 76 08 90 75 - Fax : +33 (0)4 76 08 89 85 contact.capsys@capsys.eu - www.capsys.eu

IV ACCES- JULY 2025 IV64045A

CHARACTERISTICS

TRANSMITTER BEACON (IVE)

- The beacon is permanently fixed to the vehicle to prevent theft or loss of equipment.
- Compact IP66-rated transmitter installed under the vehicle and powered by the vehicle's battery (12 / 24 VDC).

RECEIVER (IVR)

- Compact and pluggable receiver unit, delivered with an 11-pin DIN rail base.
- Upstream connection (inductive loop): terminal block.
- Outputs: 4 relay outputs for received codes and/or serial output (RS232/RS485).
- Self-diagnostic functions via IVR with dedicated LEDs: loop fault, message transmission confirmation, signal strength, and technical alarm output.
- Power supply: 12 or 24 VDC, 24 or 230 VAC.

Robustness & Security

- Data security ensured by CRC encoding
- Excellent robustness with high EMC immunity
- Access and priority granted only to equipped vehicles

Simplicity

- Real-time transmission, approach management through loop association (call loop, acknowledgment loop, etc.)

System Flexibility

- The IVP system is available in 3 versions depending on the type of control system: manual, automatic, or manual and automatic, with code selection options (8, 16, or 32 possibilities)
- Adjustable sensitivity for selective and magnetic detection to ensure reliable operation in disturbed environments
- Configurable timeout (forgetting time) parameter
- Detection of loop fault types (number of turns, short circuit, or open circuit)

Reliability and High Precision of Information

- Precise vehicle localization with high immunity to environmental factors (EMC, wide operating temperature range).
- Status visualization (detection, signal strength, interfering RF presence level, relay output, etc.)

Compatibility

- Compatible with all types of loops, controllers, and control modes (manual or automatic operation).

Optional Accessories

- Under-chassis mounting kit (optional)
- "Data" option enabling precise identification (bus number, line, etc.)
- Magnetic presence output
- Selective hold via magnetic signal
- Technical alarm output
- Compatible with all types of route display systems or AVL (Automatic Vehicle Location)

Main Accessories

- *WAB-0-022: Mounting bracket*
- *WAB-100-003: 10 m extension cable with connector*

Capsys
Parc technologique des Fontaines - F 38190 Bernin - FRANCE
Tél : +33 (0)4 76 08 90 75 - Fax : +33 (0)4 76 08 89 85 contact.capsys@capsys.eu - www.capsys.eu

IV ACCES- JULY 2025 IV64045A