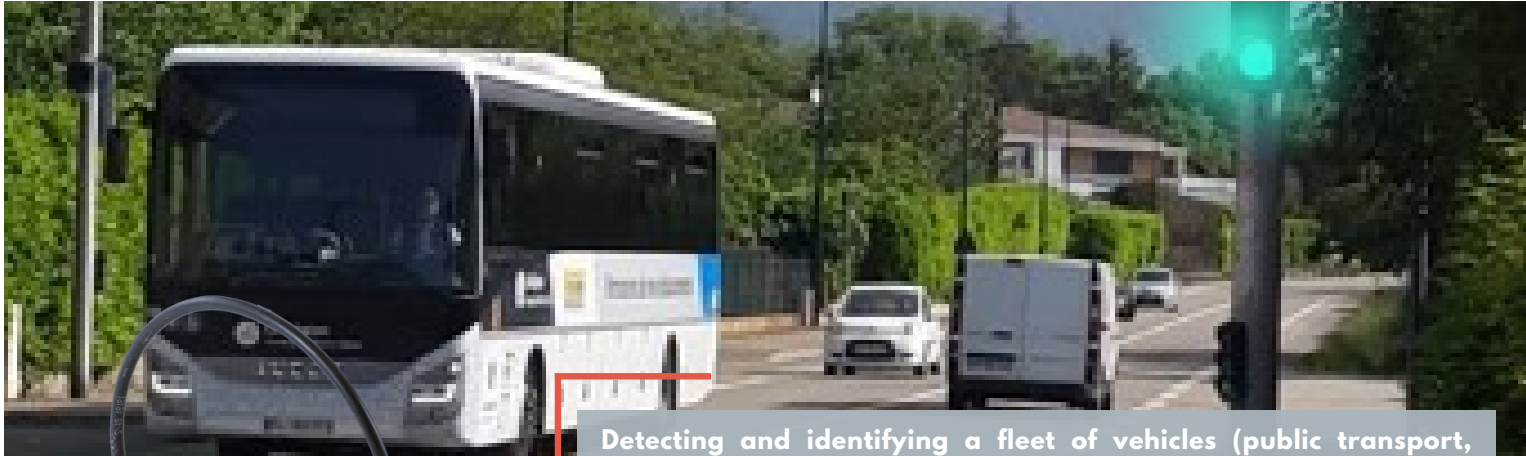


VEHICLE DETECTION AND IDENTIFICATION SYSTEM PRIORITY AT TRAFFIC LIGHT SYSTEMS



Detecting and identifying a fleet of vehicles (public transport, emergency vehicles, etc.) through a selective identification system helps make their journeys more efficient and smoother in often congested urban traffic.

The IV system provides unique vehicle identification, enabling traffic light priority for fire trucks, ambulances, and public transport vehicles.



APPLICATIONS

- Traffic Signal Priority Control for public transport and emergency vehicles (fire brigade, ambulances, etc.)

PRODUCT STRENGTH

- Traffic signal priority control for public transport and emergency vehicles (fire brigade, ambulances, etc.)
- High reliability and precise vehicle localization
- Fast vehicle identification
- Data security
- Real-time transmission
- Simple system for securing access points (entry/exit)
- Robust and field-proven products

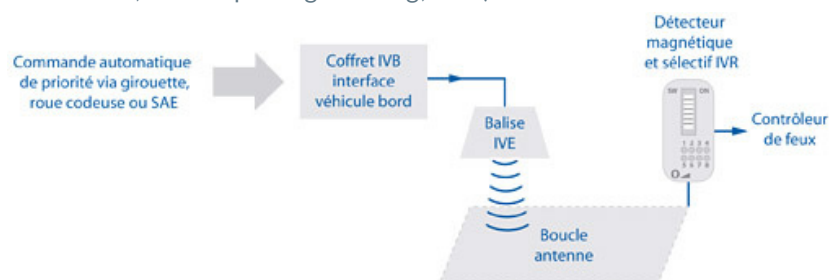
OPERATING PRINCIPLE

This IVP selective vehicle identification system consists of an onboard transmitting beacon (IVE) installed on the vehicle and a fixed receiver (IVR), associated with an upstream inductive loop and connected downstream to the traffic light controller.

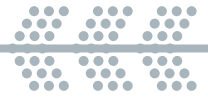
The IVE beacon, mounted under the vehicle chassis, transmits a specific code that can be programmed manually (coding wheel, joystick) or automatically (destination display system or AVL system).

This code is detected when the vehicle passes over the loop and is transmitted to the traffic controller via the IVR receiver.

For greater flexibility, an onboard IVB unit can also be integrated, allowing different codes to be sent depending on operating data (route code, door opening/closing, etc.).

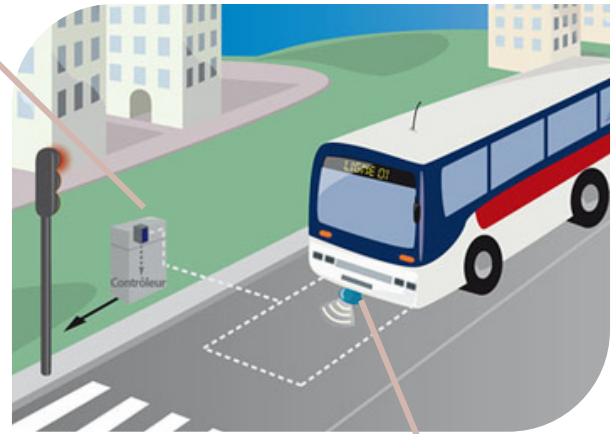


The IV system is therefore mainly used for managing identified bus fleets. Only vehicles equipped with a beacon are granted access to restricted areas.



Receiver (IVR)

- Compact, plug-in receiver unit, supplied with an 11-pin DIN rail base
- Upstream connection (loop): terminal block
- 4 relay outputs for received codes and/or serial output (RS232/RS485 type)
- Self-diagnostics via the IVR with dedicated LEDs:
- Loop fault
- Message transmission validation
- Signal strength
- Technical alarm output
- Power supply: 12 VDC or 24 VDC, 24 VAC or 230 VAC



Transmitting Beacon (IVE)

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

Robustness & Security

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

System Flexibility

- The IVP system is available in three versions depending on the control mode: manual, automatic, or combined manual/automatic, with selectable transmitted codes (8, 16, or 32 options)
- Adjustable sensitivity for both selective and magnetic detection, ensuring reliable operation in disturbed environments
- Adjustable reset (timeout) delay
- Loop fault detection (number of turns, short circuit, or open circuit)

Reliability & High Accuracy

- Precise vehicle localization with high immunity to environmental conditions (EMC, operating temperature range)
- Status monitoring: detection, signal strength, level of HF interference, relay outputs, etc.

Simplicity

Real-time transmission

Approach management through loop association (call loop, stop-line loop, acknowledgment loop)

Compatibility

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

Scalability

- System designed to adapt to future needs:
- Additional lines with intersections shared with existing ones
- Upgrade from manual to automatic control systems

ON REQUEST



- *Optional under-chassis mounting kit*
- *"Data" option enabling precise identification (bus number, route, etc.)*
- *Magnetic presence output*
- *Selective detection maintained via magnetic detection*
- *Technical alarm output*
- *IVB interface unit to be associated with the IVE for automatic, semi-automatic control, or system extension*
- *Compatible with all types of destination displays or AVL systems*
- *Easy installation with supplied connection kit*
- *IVE-IVB and IVB-destination display/AVL connections available*



IVB

Accessoires principaux



- WAB-0-022 : *Equerre de fixation*
- WAB-100-003 : *Rallonge de 10m avec connecteur*