

RFPV RADARS

Presence detection of vehicles at the stop-line



Cap'Mobile
BY CAPSYS

The RFPV radar in the R-Flex range detects approaching vehicles and their presence at the stop-line. It replaces magnetic loops and requires no civil engineering or maintenance work. The RFPV is fully configurable via the Cap'Mobile app, like the all range of radars.

APPLICATIONS

- Presence detection of vehicles at the stop-line.
- Extension of the green phase
- Green request

CUSTOMER BENEFITS

- No civil work and maintenance
- No maintenance
- Limitation of equipment and installation costs
- Replacing the approach loop and the presence loop at the stop line

PRODUCT STRENGTHS

- Simple & quick installation
- Intuitive configuration with Cap'Mobile
- Mounting any type of support
- Compact size



OPERATING PRINCIPLES

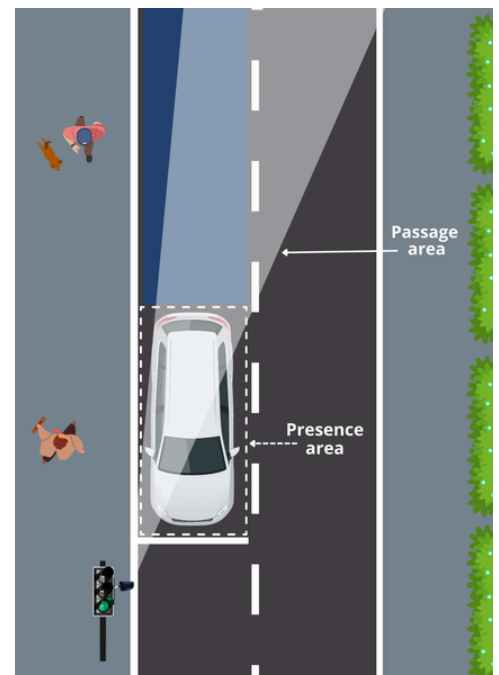
The RFPV radar of the R-FLEX range uses 24 GHz Frequency Modulated Continuous Wave (FMCW) technology to detect approaching all types of vehicles on a roadway, operating on dedicated or mixed tracks.

Vehicle detection within the presence zone activates an output, which remains active until the vehicle exits the detection area.

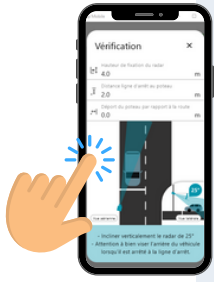
If the vehicle is stationary, the presence detection function remains active until the vehicle leaves the zone.

Two independent functions are activated by default:

- **Presence function:** detects vehicles at the stop line
- **Passage function :** detects moving vehicles in all its detection zone

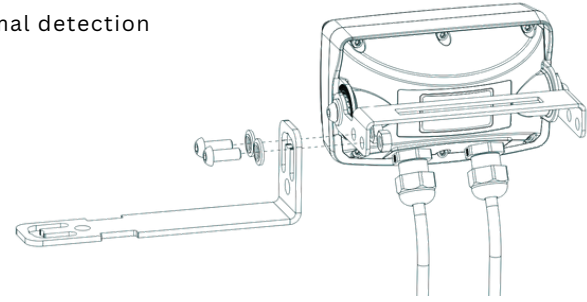


- Multi-position mounting on any type of support
- Lateral position with extension offset bracket for an optimal detection



Installation support with Cap'Mobile

- Verification of compliance of the installation site without radar pairing
- Real-time visualization of vehicle detection and touch control of the presence zone
- All their parameters are available and configurable in real time
- Configurable outputs



The radar is equipped with **2 default TOR outputs**:
Output 1 : Presence function
Output 2 : Passage function

According to the use case, outputs can be enabled/disabled.

Three functions can be associated with TOR outputs: presence, passage and technical fault

Technical specifications

| | |
|------------------------------|--|
| Technology | Radar 24GHz FMCW |
| Frequency | K Band: 24.05GHz - 24.25GHz/ Power < 10mW |
| Direction detection | Arriving |
| Output type | 2 optocoupler outputs fully adjustable Max : 50mA / 30VAC / 40VDC |
| Outputs configuration | Activation or deactivation of the output, sensitivity setting, range, reactivity, hold time (from 0s to 1h) and presence time (between 0 and 80min)... |
| Range | 40m |
| Connection | Connector IP68 + 30cm cable Gland connector + 5m cable |
| Supply voltage | 12-24V AC/DC (1 output cable) 230VAC (2 output cables) |
| Consumption | 2W - 20mA @ 230VAC / 1W - 100mA @ 24VAC 600mW - 60mA @ 12VDC |
| Temperature range | Operating : -40°C to +70°C Storage : -40°C to +85°C |
| IP | IP 65 - UV resistant |
| Dimension | 132 x 78 x 70mm |
| Weight | 500g (230VAC version with connector + 30cm cable, with adjusting and mounting brackets) |
| Interface | Setting: Cap'Mobile application - bluetooth connexion Affichage : Display: Front LED (can be deactivated) |
| Standards | European Directive 2014/53/EU 2012/19/EU (WEEE) |



Accessories

- WAB-0-073 : Offset bracket, R-Flex radars
- WAB-100-059 : R-Flex radar wiring kit 230VAC- 2 5m cables with IP 68 connectors
- WAB-100-060 : R-Flex 12-24VAC/DC radar wiring kit - 1 cable with IP68 connector
- WAB-100-061 : IP68 female connector - 5 points
- WAB-100-062 : 2 and 5 point female connectors IP68