

MAG-FLEX - MFC MAGNETIC SENSORS

Sensors for Cycles



The new magnetic detector MFC of the Mag-Flex range, brings many solutions for a shared urban space, fluid and safe.

The cycles are more and more present either on mixed track or on dedicated track. Their presence requires adapting the environment to ensure their safe integration.

MFC detectors are specifically adapted to confirm the presence of cycles, their direction of circulation and can also allow counting.

APPLICATIONS

- Targeted detection on cycles and scooters
- Detection of presence & counting
- Cycle direction detection
- Priority at traffic light
- Green request

BENEFITS

- Accounting for cycles in traffic flow
- Securing urban areas mixing vehicles and bicycles

Operating principle

MFC detectors have a detection algorithm adapted to the detection of cycles. Combined with specific induction loops, they react to the magnetic imprint of a cycle or scooter. The sensors then transmit the information to the management system.

The reliability and stability of the detection depend on the configuration of the detector and the care taken in the realization and implantation of the loop.

The detectors are available in single or dual channel version according to applications.

Specifications

Simple and easy configuration with the Cap'Mobile application:

The Cap'Mobile application, once the detector is paired, allows:

- to adjust all the parameters (presence time, sensitivity, AAS, frequency shift, classic presence detection, timed, pulse,...) and to configure the 2 outputs (NO/ NF,...)time, sensitivity, AAS, frequency shift, classic presence detection, timed, impulsive,...)
- to help the installer: real-time display of the magnetic footprint of the cycle, the condition of the product, the inductance, the frequency...



PRODUCT ADVANTAGES

- New, compact design for better integration into the environment
- Sustainable and robust product
- High detection reliability and accuracy
- Easy to install & simple configuration
- Configuration via Cap'Mobile
- Automatic loop agreement and self-test



Adjustable presence time

All traffic sensors have a configurable presence time from 0 to 80mn with factory setting at 4m.

Ease of installation and resistance to vibrations

The new 11-pin connector (simple mounting on DIN RAIL) of the detector ensures excellent holding of the product and significant resistance to vibrations.

Technical alarm on all single-loop detectors

Accuracy and detection area

Thanks to the recommended magnetic loops* and its specific algorithm, the MFC detector ensures accurate and reliable detection and localization of cycles.

Exclusivity: the creation of a detection zone covering the entire width of a lane is made possible thanks to the combination of a detector and 2 to 3 ground loops installed according to the CAPSYS* recommendations (example: reserved cycle area in front of lights).

Self-test

When the power is turned on, the entire installation is checked automatically and then made permanent.

Technical characteristics

Technology	Magnetic detection by inductive loop
Sensitivity	Constant over the whole inductance range used
Loop inductance	Min = 20µH / max 1500µH
Response time	60ms
Power supply	230VAC or 10-24VAC/DC
Consumption	12 V : 500mW 24 V : 900 mW 230V : 8W
Dimensions	h82mm x l42mm x p47mm (without plug)
Weight	95g (version 230VAC) – 58g (version 02-24VACDC)
Outputs	2 configurables optocoupler outputs
Maximum load current	Max 80mA
AC blocking voltage	30Vac
DC blocking voltage	36Vdc
Connection	11-pin circular socket FINDER 90.83.3 recommended
IP	40
Temperature	-20°C à + 70°C -40°C à 80°C
• operation temperature	
• storage temperature	
MTBF	> 300 000 h
Interfaces	Setting: Cap'Mobile application by bluetooth Display: Cap'Mobile application and LED on the front panel
Compliance	European Directive RED 2014/53/EU Class 2/3 depending on version

*Recommendations document CE63000E : [Recommendations for installing cycle loops](#)