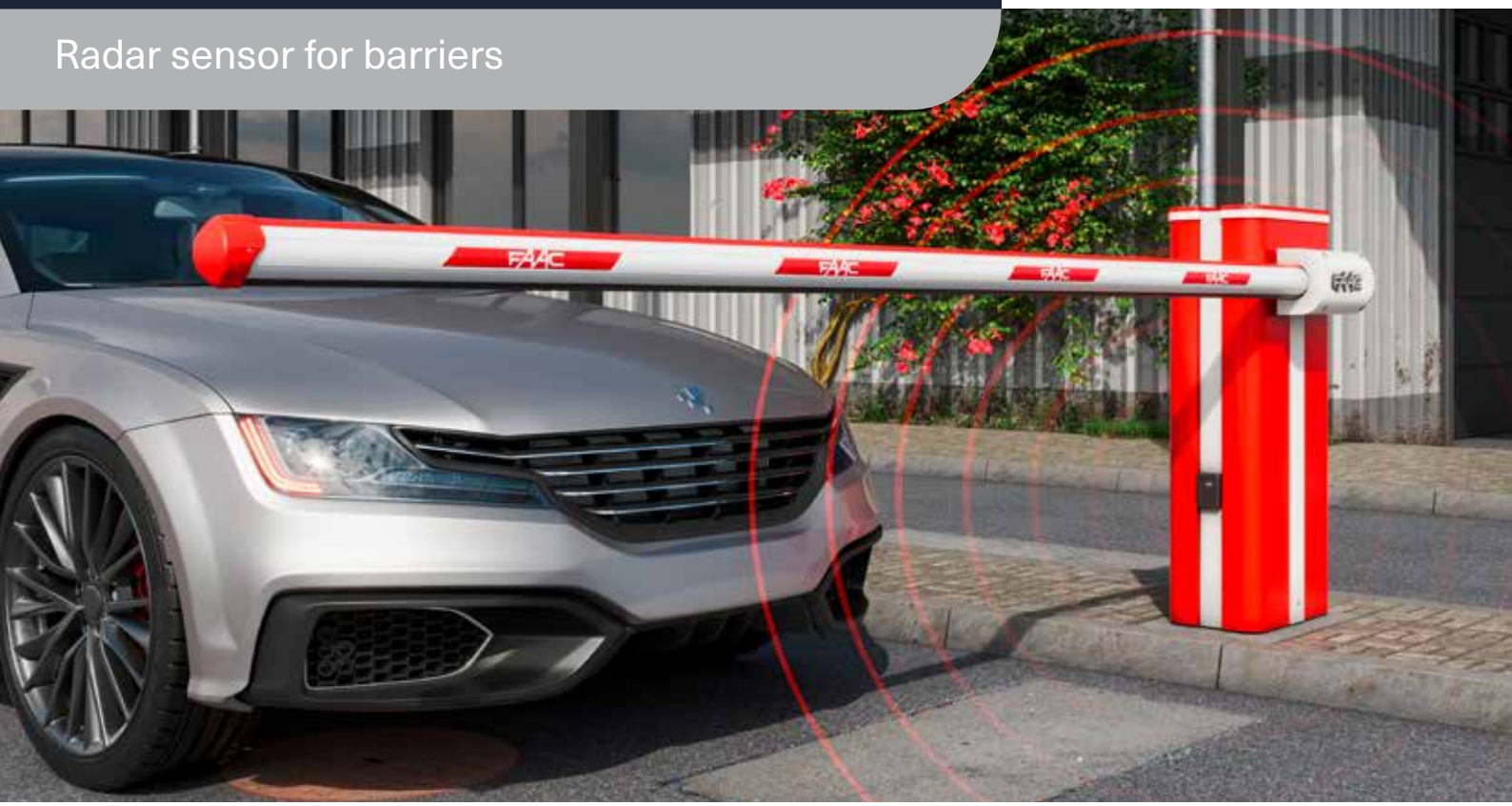
R-LOOP

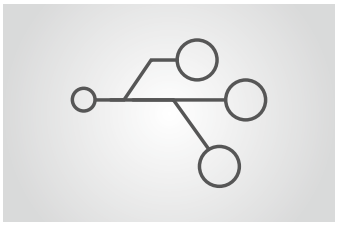
Radar sensor for barriers



The Alternative to Induction Loops and Photocells

The R-LOOP radar sensor from Feig Electronic GmbH is an intelligent detection device for identifying static and dynamic objects at barrier installations. Based on millimeter-wave technology, it detects pedestrians (Protection Level D according to EN12453) as well as vehicles within predefined zones to ensure reliable barrier operation.
Through cross traffic suppression and motion direction recognition, targeted passage is guaranteed. The system also differentiates between pedestrians and vehicles, allowing access only to authorized objects.

The powerful radar technology and specialized detection algorithms ensure robustness against various weather conditions such as rain, snow, and fog.
Optical feedback is provided by colored LEDs directly on the unit, allowing immediate status and diagnostic information at the barrier.
A secure, access restricted Bluetooth interface enables easy commissioning, configuration of detection zones, and further data communication with the service app.

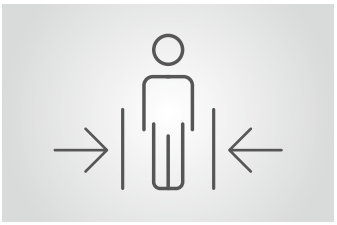


Intuitive Configuration

Commissioning, definition of detection zones, and data communication via access restricted Bluetooth service app

In any weather, at any time

The virtual loops are reliable and resistant in all environments and conditions, including challenging weather like fog, heavy rain, frost or snow.



Alternative to photocells

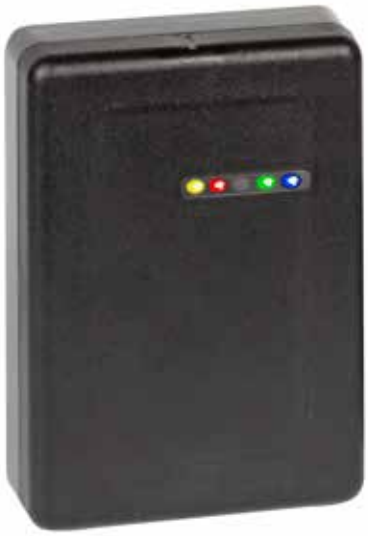
The radar sensor can also be used as a replacement for photocells (EN 12453 protection level D). However, this is only possible in conjunction with barrier arms exerting a maximum impact force of 400 N (protection level C).

R-LOOP

Radar sensor for barriers

Technical Data	R-LOOP
Housing	Polycarbonate with die-cast aluminum
Dimensions (W × H × D)	63,6 x 93,6 x 21,7 mm
Weight	300 g
Connection	8-pin cable, 0.25 mm^2, 1.9 m long
Protection Rating	IP65
Supply Voltage	9 - 30 V DC
Mounting	4 × M5 fastening screws
Mounting Height	0.3 – 0.9 m; EN 12453 (level D): max. 0.7 m a) with 30° mounting wedge (accessoy) b) directly on barrier housing
Power Consumption	max. 1,8 W
Operating Temperature	-30° C to 55° C
Frequency Range	60 - 64 GHz
Technology	Millimeter-wave radar, FMCW
Signal Outputs	3 semiconductor relays (galvanically isolated, common COM)
Switching Voltage	max. 30 V AC/DC
Switching Current	max. 100 mA
Status Indicators	5 LEDs: yellow / red / yellow / blue / green
Communication Interface	Bluetooth BLE 5.0
Detection Range	max. 8,0 m x 8,0 m max 6,0 m at EN 12453 level D
Response Time	Object detection without limiting filters: 200 ms

Code	Description
1050147	Radar sensor by Feig Electronic GmbH
1050148	Mounting wedge



- Simple, user-friendly installation. No more dusty road works with noisy and heavy equipment
- Reliable object detection—whether moving or stationary—in both the detection and hazard zones of the barrier
- Secure discrimination between vehicles and pedestrians for barrier operation.
- Easy configuration and adjustment to barrier driveways and their detection areas via the mobile app.
- Reliable and resistant in all environments and conditions.