# RAVE-D with RADAR-RC Remote Control

## General Description

In addition to the adjustment options described in the brief instructions for the RAVE-D radar sensor with RMS remote control, you can also operate the radar sensor using the RADAR RC infrared remote control (from firmware version 2.0 onwards—see the label on the radar sensor). The RMS remote control features a display so you can clearly read set values from the sensor. The RADAR RC remote control also simplifies parameterization of the sensor.

The three available adjustment methods (RMS remote control, keys, RADAR-RC remote control) each change the same parameters on the device, so that the method used to change the respective parameter has no bearing on the behavior of the sensor. You can use both remote controls without a separate changeover. You cannot change the type of remote control while a remote control is connected to the sensor.

## Parameterization

In parameterization mode, the LED on the radar sensor flashes red at a frequency of 2 Hz.
Repeated steps for parameterization.

### Starting Parameterization Mode

**Press the key.**

| | |
|---|---|
| When entering the security code: | *The LED on the radar sensor flashes red at a frequency of approx. 5 Hz.* |
| | **Enter the four-digit security code using the numeric keypad.** |
| | *After entering the correct security code, the LED on the radar sensor flashes red at a frequency of 2 Hz. After entering an incorrect security code, the radar sensor exits parameterization mode and returns to its normal operating state. The LED on the radar sensor lights up green as long as no motion is detected.* |
| | *After a network reset, no security code is required to unlock for 30 minutes.* |
| Without entering the security code: | *The LED on the radar sensor flashes red at a frequency of approx. 2 Hz.* |

### Selecting Functions

See the reverse for an overview of the available functions.

**Press the required function key.**
*The LED on the radar sensor flashes red at a frequency of approx. 5 Hz, indicating that a numeric value is expected.*

**Enter a numeric value, query a value using "?" or change a value using the + or - keys (as long as each is supported).**
*The green LED flashes. The number of flashes corresponds to the current value set for the selected parameter.*

### Exiting parameterization mode...

| | |
|---|---|
| ...using the old security code: | **Press the key twice.** |
| | *The radar sensor exits parameterization mode and returns to its normal operating state. The LED on the radar sensor lights up green as long as no motion is detected.* |
| ...using a new security code: | **Press the key once.** |
| | *The LED on the radar sensor flashes red at a frequency of approx. 5 Hz, indicating that the radar sensor is ready for a new four-digit security code to be entered. Digits 1 - 4 are permitted.* |
| | **Enter a new four-digit security code using the numeric keypad within 60 seconds.** |
| ... and lock the IR interface | **Press the key once.** |
| | *The LED on the radar sensor flashes red at a frequency of approx. 5 Hz. Press key "9" to lock the sensor. A remote control can then only be used within the first 60 seconds after switching on the power supply.* |
| Note: | **Enter "0" to clear the security code or lock.** |
| | *The security code will be removed. In future, the parameterization mode can be accessed without entering a security code. To enable reciprocal use of the RMS remote control and the RADAR-RC remote control, the key must be pressed for 1, for 2, for 3, and for 4 for the security code on the RMS remote control.* |

## Functions

| Key | Description | Adjustment range | Factory setting |
|---|---|---|---|
| 🔓 | Start parameterization mode—unlock | | |
| 🔒 | Exit parameterization mode exit—lock | See the description on the front page | |
| SENS | Sensitivity—field size *) | 0 = minimum sensitivity<br>...<br>9 = maximum sensitivity | 5 |
| CAR | Vehicle detection *) | 1 = low<br>2 = medium<br>3 = high | 2 |
| PER | Human-presence detection *) | 1 = min.<br>...<br>7 = max. | 1 |
| OCAR | Vehicle-presence relay | 4 = Vehicle forward<br>5 = Vehicle backward<br>6 = Vehicle forward/backward<br>7 = Person/vehicle forward<br>8 = Person/vehicle backward<br>9 = Person/vehicle forward/backward | 4 |
| OPER | Human-presence relay | 1 = Person forward<br>2 = Person backward<br>3 = Person forward/backward<br>4 = Vehicle forward<br>5 = Vehicle backward<br>6 = Vehicle forward/backward | 1 |
| TIME | Hold time *) | 0 = 0.5 s<br>1 = 1.0 s<br>2 = 2.0 s<br>3 = 3.0 s<br>4 = 5.0 s<br>5 = 10 s<br>6 = 20 s<br>7 = 30 s<br>8 = 60 s<br>9 = 300 s | 1 |
| OUT | Switching output | 1 = relay n.o.<br>2 = relay n.c. | 1 |
| STEP | Responsiveness *) | 1 = fast<br>2 = normal<br>3 = slow | 2 |
| SET | Factory reset after pressing the key "9" | 9 | |
| F2 | Sensor operation (permanent relay circuit to support commissioning) | 1 = automatic<br>2 = vehicle and passenger relay permanently detected<br>3 = vehicle relay detected, person relay not detected<br>4 = vehicle relay not detected, person relay detected<br>5 = vehicle and person relay permanently not detected | 1 |
| 0 ... 9, +, - | Use depends on the selected function | | |
| ? | Query the value of the previously pressed key | | |
| F1 | SW revision query | Red LED flashes as per main version.<br>Green LED flashes as per sub-version. | |
| A, B, C, IMM, SUPP SDO, FSDO, SDC, FSDC | Not used | | |

*) Parameter can be increased or decreased by 1 using with the + and – keys.