

SMOKE ALARM WIRELESS

Read and retain this user manual



Type 400001
ART. NR. 7800400001
3V DC 85 dB

1. DESCRIPTION

The VAERK smoke alarm wireless is a low-power, photoelectric smoke detector. Built-in, precise, analogue and digital circuits make the smoke detector reliable, and wireless interconnection allows monitoring and alerts in large floor areas. The smoke detector is compact and has a built-in battery with a service life of up to 10 years.

2. PRODUCT SPECIFICATIONS

- Photoelectric smoke detection
- Reliable performance and few alarm disturbances
- Precise, analogue and digital circuits
- Low battery consumption
- Compact size
- Wireless range > 100 m (open field)
- Up to 10 years of battery life

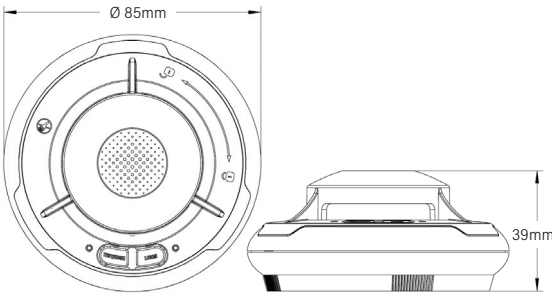
3. TECHNICAL SPECIFICATIONS

VAERK smoke alarm wireless Art. no. 7800400001		
Power supply	Built-in lithium battery (not replaceable)	
Low-voltage inspection	2.2 V	
Power consumption	Alarm consumption: ≤120mA	Standby consumption: ≤2µA
State indications	Normal operation	The LED (green) lights up briefly at the first activation. The LED (red) flashes approx. every 344 seconds, no acoustic indication.
	Smoke is detected or registered through testing	The LED (red) flashes, uninterrupted acoustic alarm
	Low sensitivity (Silent)	The LED (red) flashes every 10 seconds, no acoustic indication, automatic cancellation of low sensitivity after about 9 minutes
	Alarm memory	The LED (green) flashes 3 times every 45 seconds and stops after 24 hours. The first time the TEST/HUSH button is pressed after an alarm, the alarm will indicate so with a special alarm.

State indications	Battery life	Battery life is up to 10 years from initial commissioning. The service life depends on the environment, temperature etc. Indication for used battery: three beeps every 45 seconds.
	Battery monitoring	The LED (red) flashes approx. every 344 seconds. In case of low battery, a brief, acoustic beep sounds every 45 seconds.
Alarm sound pressure	≥85dB/3m	
	Frequency	868MHz
Wireless connection	Wireless range	≥100m (open field)
	Inter-connection/ loading	A constant, red LED means that the smoke detectors are not connected. A flashing, red LED means that a signal is transmitted. A constant, green LED means that the smoke detector is ready to send an identification code. A flashing, green LED means that the smoke detector has received a wireless signal.
Operating temperature	-10 °C - +40 °C	
Ambient air humidity	≤95 %RH (no condensation)	

4. APPEARANCE AND DIMENSIONS (mm)

FIGURE 1



5. INSTALLATION

5.1 Functional diagram

FIGURE 2 Front view of the detector head

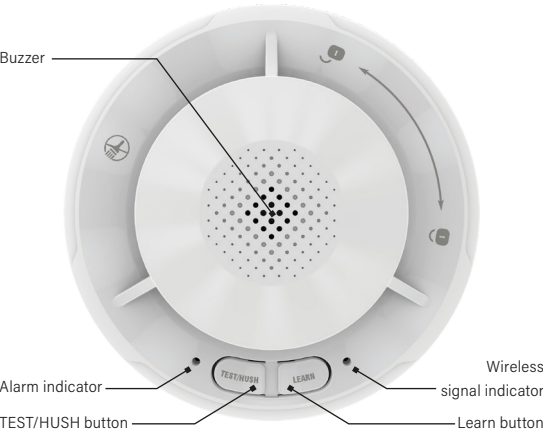
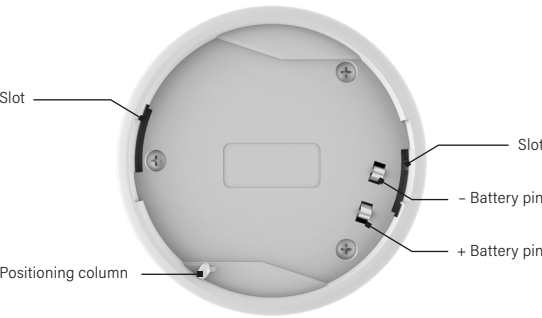
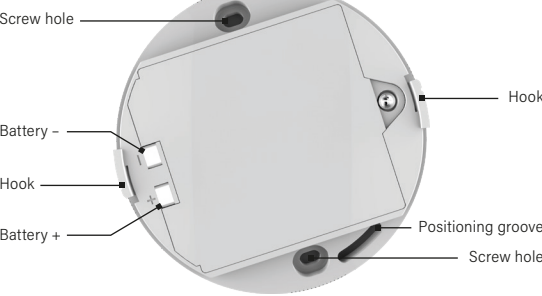


FIGURE 3 Rear view of the detector head



Battery socket



5.2 Installation instructions

5.2.1 Mounting the battery socket

Hold the battery socket against the ceiling. Mark screw holes. Fit the socket with suitable screws and plugs, if necessary (figure 4).

5.2.2 Mounting the detector head

Insert the guide pin on the back of the detector head into the battery socket position slot. Turn the detector head clockwise until it clicks into place.

FIGURE 4

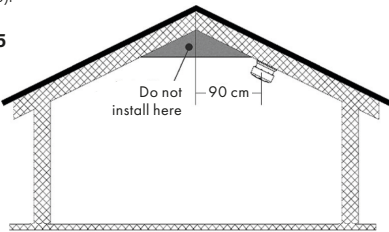


5.3 Recommendations

5.3.1 Recommended locations

- Install at least one smoke detector in all bedrooms
- If a smoke detector is installed in a hallway that is less than 3 m wide, the detector must be placed in the central axis and must be centred in the room. A smoke detector must be installed every 12 m
- Keep a minimum distance of 1.5 m from fluorescent lamps to avoid electrical interference
- Keep a minimum distance of 3 m from bathrooms
- Keep a minimum distance of 6 m away from kitchens and cookers
- Keep a minimum distance of 30 cm from lamps
- Mount the smoke detector in the centre of the room. If that is not possible, mount the alarm at least 1 meter from the wall
- If the smoke detector is mounted on a sloping ceiling or on a ceiling with a ridge, keep a minimum distance of 90 cm to the highest point (figure 5).

FIGURE 5



5.3.2 Locations to avoid

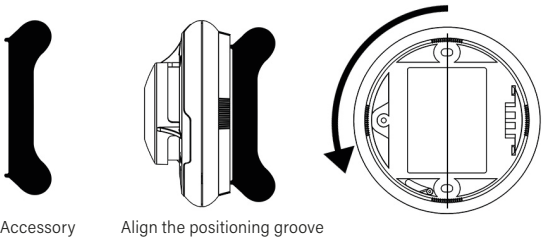
- In garages
- Near wood-burning stoves and open fireplaces.
- Near vent holes, air shafts, fans, air conditioning and the like. Airflows from ventilation may prevent the smoke detector from detecting smoke generation.
- In dusty environments. Dust particles may cause false alarms or may cause the smoke detector to malfunction.
- NB: The insect grid on the smoke detector does not protect against dust.
- In areas where building components may prevent the spread of wireless frequencies. For example in connection with X-ray rooms at dental clinics and the like.
- In areas where the temperature may drop below -10 °C or rise to above 40 °C.
- In areas where air humidity may be high. E.g. in bathrooms or kitchens.

6. FUNCTION

6.1 How to connect smoke detectors

- Attach all detector heads in the system to their battery sockets by turning them clockwise to activate them. The LED lights up briefly in green.
- Any smoke detector can be made master or slave in the same system. Choose a smoke detector to be the master.
 - Preparing the master smoke detector: Press the LEARN button briefly on the selected master smoke detector. When the LED lights up in green (the signal indicator switches between red/green/no color), release the button, and the master is ready to be connected to the slave smoke detector.
- Preparing the slave smoke detector: Choose another smoke detector to be a slave smoke detector. Press the LEARN button briefly until the LED indicator lights up in red.
- Then press the TEST/HUSH button of the master smoke detector for 1-2 seconds. The LED indicator on the master smoke detector starts flashing red and then stops.
- The slave smoke detector will receive the signal from the master smoke detector, and both the red and the green LED indicators will start flashing and then stop. This means that the two smoke detectors are now connected.
- If multiple slave smoke detectors are to be included, repeat the procedure for all slave smoke detectors to be included in the system.
- All LED indicators are now turned off and the detectors are ready for use. If left unused more than 45 seconds the detector will automatically leave the programming mode.
- If the detector head cannot be rotated after the locking pins (see figure 3) have been attempted inserted into the locking sockets, see whether the guide pin has been correctly inserted in the position slot. If necessary, use the small auxiliary tool provided in the package (figure 6).

FIGURE 6



NB! You can save time by programming and testing your system before the final mounting on the ceiling. After mounting the entire system, check that connections between the units in the system work as desired.

6.2 How to test your system

Press the TEST/HUSH button on the master or slave smoke detector and hold it for approx. 10 seconds or more. The other slave smoke detectors will receive the signal and sound the alarm combined although with a minor time delay. The smoke detectors will sound for a few seconds after the TEST/HUSH button is released. The smoke detectors can be tested individually by briefly pressing (2 seconds) the TEST/HUSH button on the smoke detector to be tested. The smoke detector being tested will sound for 3 seconds after the TEST/HUSH button is released.

6.3 Reset the smoke detector

Constantly press (5 seconds) the LEARN button on the smoke detector. The LED indicator will first light up in red and then flash green. The LED will then turn off to indicate that the smoke detector has been reset and the previously programmed interconnection cancelled.

NB! The smoke detectors in a system can be connected within a distance of max. 100 meters in open field. Any building components will affect the wireless inter-communication between the smoke detectors. If there are problems with connections between units in the system, try changing their location or distance to the master smoke detector.

6.4 Function

- How to test the smoke detectors: Pressing the TEST button continuously causes the smoke detector to go into alarm mode, and after 10 seconds all connected detectors will follow. An acoustic alarm (> 85 dB) will sound, and the both LED indicators will flash red.
- Normal operation: The smoke detector will measure the air quality every 10 seconds. The LED will briefly flash red every 344 seconds to indicate that the smoke detector works. When the smoke detector detects smoke, the internal siren will start, and the red LED will flash until the air is free of smoke.
- Stop the sound signal (limited smoke detection): If you want to stop a current alarm, e.g. triggered by smoke from the kitchen or wood-burning stove, press the TEST/HUSH button. The acoustic alarm will then be interrupted. The LED will continue to flash every 9 seconds unless the smoke level increases. The alarm automatically returns to normal mode after 9 minutes. An interrupted alarm state is cancelled by pressing the TEST/HUSH button again.
- Low battery warning: When the battery is low, the smoke detector will emit a brief, weak beep to alert the user. It will continue until the battery voltage becomes too low after which the smoke detector will cease to function altogether. Therefore, replace the smoke detector as soon as the battery warning sounds. It is not possible to replace the smoke detector battery.
- Alarm history: If the LED flashes green 3 times every 45 seconds, smoke has been detected. Check for any signs of fire in the area monitored by the detector. This indication will be automatically reset after 24 hours.
- Contamination/soiling of the detection unit: Environmental influences will gradually cause contamination and degradation of the smoke detector chamber. When the alarm sounds 3 brief beeps every 45 seconds, it indicates that it is worn and needs to be replaced. Do not try to replace the alarm battery.

7. MAINTENANCE

- 7.1 Test the smoke detector each week by pressing the TEST/HUSH button.
- 7.2 Clean the alarm with a dry cloth. Never use water, detergents or solvents. That may damage the smoke detector. Prevent foreign matter from entering the smoke detector.
- 7.3 If the smoke detector does not work properly, do not attempt to disassemble it. The entire smoke detector must be replaced.

8. RECYCLING AND DISPOSAL

- 8.1 The packaging can be recycled, so send it in for recycling.
- 8.2 The alarm may not be disposed of as residual waste. It must be sorted according to rules for disposal of this type of electronics in force from time to time.

VAERK

Stationsalléen 40 · DK-2730 Herlev

