

Wireless Smoke Detector WLSD3000



- **Battery power supply**
- **Button for self-check**
- **Easy connection to the unit**
- **Local optical and acoustical alarm**
- **Battery monitoring**

In the event of smoke caused by a fire, the Wireless Smoke Detector issues a local, high-volume intermittent tone. At the same time, it signals the danger by sending a wireless transmission to the Carephone which then triggers an alarm via the telephone network.

System overview

The Wireless Smoke Detector is operated in combination with Bosch Carephones 10, 12, 52+ and 62. It consists of three parts:

1. Smoke sensor
2. Radio transmitter module
3. Joint power supply

The Wireless Smoke Detector is particularly suitable for early fire detection when smoke develops. It detects visible, light-colored smoke which frequently occurs before flames develop or temperature rises.

When it detects a fire, the smoke sensor emits a loud, penetrating, acoustic alarm into the surroundings until the fire is discovered and as long as the smoke detector can function. At the same time, the radio transmitter module sends an alarm to the Carephone.

This means that specific action to fight the fire is already possible at an early stage. Furthermore, endangered persons can be brought to safety in time.

Smoke detectors have their technical limitations and do not necessarily react to all situations: gas, flames, heat and when hemmed in by dense black smoke.

Functions

The radio transmitter module is accommodated in the base of the Wireless Smoke Detector. Both modules are powered from a shared battery.

The optical smoke sensor uses the scattered light principle. A light transmitter and photo diode are housed in a measuring chamber in such a way that no light is able to fall on the photo diode. Scattered light is only produced if smoke

particles penetrate this chamber. The light beam is reflected by the smoke particles and recorded by the photo diode. The evaluation electronics will generate an alarm if the recorded levels exceed a specific threshold. A test button located on the detector can be used to trigger an alarm. This can be used to check that the local alarm and alarm signaling via the Carephone are functioning correctly. The test button is also used to register the Wireless Smoke Detector with a Carephone.

The use of radio technology eliminates the need to lay cables. Installation is restricted to securing a mounting plate with two screws.

Certifications and approvals

R&TTE 1999/5/EC

LVD 2006/95/EC

EMC 2004/108/EC

EN 50371

EN 55022

EN 60950-1

EN 300 220-2 V2.1.2

EN 301 489-1 V1.8.1

EN 301 489-3 V1.4.1

EN 50130-4

VdS certification : G202055, according to EN 14604, additional test for (higher) temperature change resistance.

Smoke Detector

Installation/Configuration Notes

Recommended installation

Ceiling-mounted can be done at a maximum height of 6 m. A minimum distance between walls/furniture and detector should be of minimum 50 cm. Avoid disturbances such as dust, soot, steam, water condensation.

Installation

The Wireless Smoke Detector is only suitable for residential rooms. The installation location must lie within reception range of the Carephone and radio signal must be securely received. The Wireless Smoke Detector is generally installed on the ceiling. Installation height is approximately of 2 to 4 m.

Programming

The Wireless Smoke Detector has individual coding, which must be registered with the Carephone.

Parts included

Quantity	Component
1	Wireless Smoke Detector
2	Flat-head screws
2	Screw anchors
1	User manual

Technical specifications

Wireless Smoke Detector WLSD	
Power supply	9V alkaline battery block IEC 6LR61 type, or 9V ABC lithium battery block CR 9V/P type (SL model).
Battery life	with radio module: approximately 1 year with alkaline batteries
Operating temperature	-10°C to +60°C
Storage temperature	-20°C to +60°C
Relative humidity	max. 95%
Acoustical indications	siren, typ. 85 dB (1m distance)
Optical indications	LED
Supervised area	60 m ²
Dimensions (H x Ø)	51 x 100 mm
Weight	Approx. 120 g
Material and color	White plastic

Smoke sensor	
Detection principle	scattered light principle
Alarm duration	Local alarm: until alarm criterion (smoke) no longer exists. One wireless signal per fire event.
Functional test	alarm triggering by test button
Optical display	Red LED flash (if without sound, indicates the unit is operational).
Sound display	Loud pulsing alarm sound, approx. 85 dB(A)
Radio transmitter module	
Transmission frequency	869.2125 MHz
Bandwidth	25 kHz
Modulation type	FSK (frequency shift keying)
Modulation hub of the transmitter	± 3 kHz
Transmission power	5 mW
Range in free field	approx. 200 m
Code signaling to the Carephone	TA protocol

TeleAlarm SA
Rue du Pont 23
2300 La Chaux-de-Fonds
Switzerland
info@telealarm.com
www.telealarm.com

TeleAlarm Europe GmbH
Hertzstraße 2
04329 Leipzig
Germany
info-uk@telealarm.com
www.telealarm.com