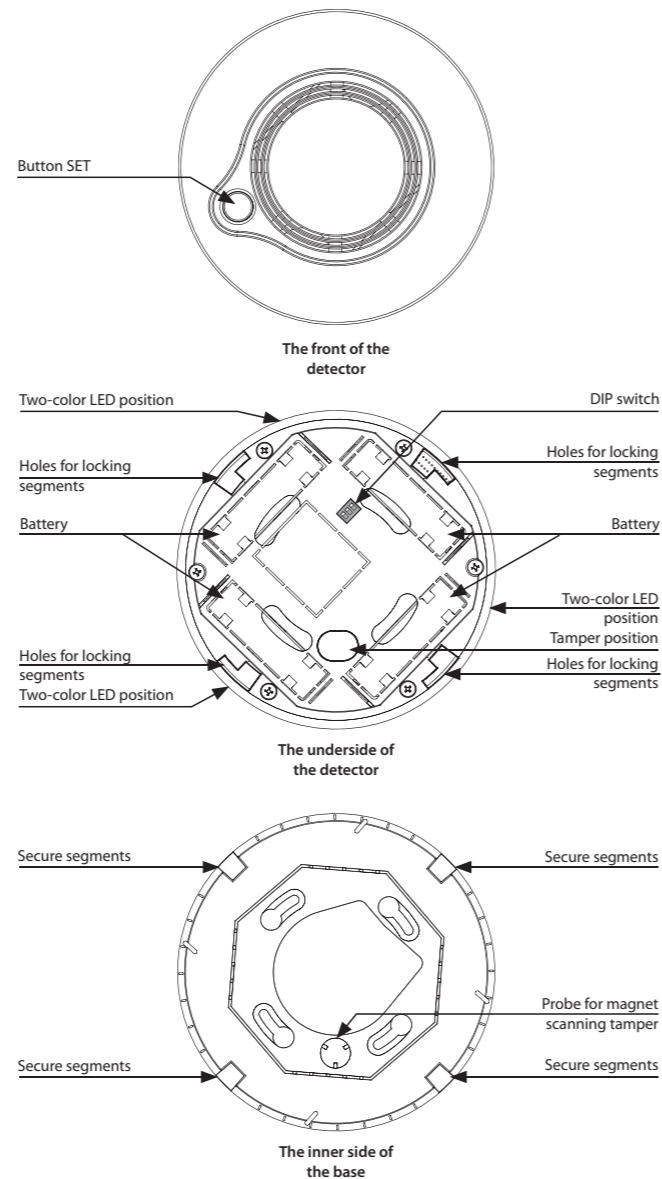




- The smoke detector is used for the early warning of an emerging fire in residential and commercial buildings and also measures the actual temperature, humidity and light intensity in the room.
- The detector utilises a scanning method using an optical chamber, which has enhanced smoke detection responses.
- Self-test function highlights the failure of the detector, eliminating the malfunction in the event of a fire.
- Anti-sabotage: If access to the device is unauthorized, a message is immediately sent to the server.
- Thanks to the wireless solution and Sigfox / LoRa / NB-IoT communication, it can communicate instantly to your chosen location and be operated immediately.
- Data is sent to the server from which it can be subsequently displayed as a smartphone, application, or Cloud notification.
- Battery power can be sent to the server when it is powered by a battery.
- Power supply: battery 4 x 1.5 V AA.

Device description



* Values are calculated under ideal conditions and may vary according to alarm frequency
 ** Multiple frequency bands of B1 / B3 / B5 / B8 / B20 / B28
 *** Depending on network coverage

Technical parameters	AirSD-100S	AirSD-100L	AirSD-100NB
Power supply			
Battery power:	battery 4x 1.5 V AA		
Battery life by frequency*:			
1x 10 minutes	2.5 years		
1x 60 minutes	3.5 years		
1x 12 hours	3.5 years		
1x 24 hours	3.5 years		
Input			
Smoke Detection:	built-in sensor		
Detection:	smoke from burning		
Detection principle:	optical-smoke scanning technology		
Response Time:	a few seconds after contact with the smoke		
Temperature measuring:	built-in sensor		
Range:	-25 .. 70 °C		
Accuracy:	± 3 °C		
Humidity measuring:	built-in sensor		
Sensitivity:	0 .. 90 % RH		
Accuracy:	± 4 %		
Light intensity measurement:	built-in sensor		
Range:	0.045 - 188 000 Lx		
Setting			
Alarm Detection:	message to the server, indication LED, audible alarm		
Battery status view:	message to the server, indication LED		
Button SET:	Test / setting / signalling		
DIP switch:	Position 1 - Turn off scanning signaling		
Control			
Detection area:	max. 40 m ³		
Recommended installation height:	max. 4 m		
Acoustic signal:	greater than 85 dB at 3 meters		
Test button SET:	yes		
Communication			
Protocol:	Sigfox	LoRa	NB-IoT
Transmitter frequency:	RCZ1 868 MHz	868 MHz	LTE Cat NB1**
Range in open space:	Approx. 50 km***	Approx. 10 km***	Approx. 30 km***
Transmission power (max.):	25 mW / 14 dBm	25 mW / 14 dBm	200 mW / 23 dBm
Other parameters			
Humidity:	up to 92% relative humidity (RH) / 10% to 85% RH, no condensation or frost		
Working temperature:	0...+40°C (Pay attention to the operating temperature of batteries)		
Storage temperature:	-30...+70°C		
Operation position:	Horizontal (ceiling) / Vertical (Wall)		
Mounting:	screws		
Protection degree:	IP20		
Color:	white		
Dimension:	Ø 120 x 36 mm		
Weight:	176 g (without battery)		

Function

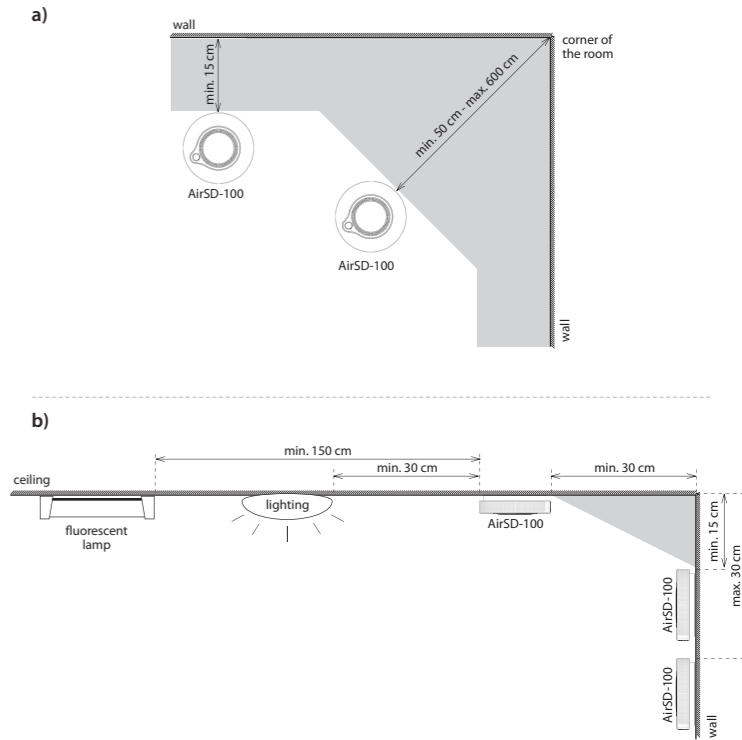
An internal, battery-powered smoke detector combines the timely detection of smouldering and open fires from which smoke escapes. It is equipped with an optical smoke detector for smoke detection. An example of a smouldering fire is a burning cigarette on a couch or bedding, which is a common cause of fires.

Indicators and detector states

After inserting the batteries, the detector sends an introductory message containing the measured temperature, humidity, light intensity, optical-smoke sensor status, and firmware version of the device.

- The detector scans for smoke every 10 seconds, the green LED blinks at the same time (the LED signalling can be switched off by the DIP switch). Every 10 minutes the detector senses temperature, humidity and light intensity. Displays the measured data report at six hourly intervals. In the case of smoke detection or rapid temperature change it is displayed immediately.
- Alarm - the sensor detects smoke, the red LED blinks within 1 second, the detector emits a loud, intermittent „beep“. Terminate the alarm by scattering the smoke. The audible alarm can be switched off by the test button, in the case of positive smoke detection; the audible alarm is restored after 5 minutes.
- Dead battery:
 - sending a message to the server
 - every 5 s 3 times the red LED lights up on the detector.
- Detector failure:
 - sending a message to the server
 - Indication of the red LED on the detector and one short beep every 40 seconds.
- Removed from base:
 - sending a message to the server
 - every 3 seconds the red LED lights up on the detector.

Location



Appropriate location

- In new buildings, install smoke detectors according to the project.
- Smoke and other combustion products rise to the ceiling and expand horizontally. In residential buildings we recommend installing smoke detectors in the middle of the ceiling.
 - Detector area is 40 m³. Make sure that the smoke detector is located at least 15 cm from the side wall and 50 cm from each corner of the room (fig. A). Max. The recommended installation height is 4 m.
 - In the rooms with a sloping, pointed or saddle roof (e.g. attics) the smoke detectors are mounted on the ceiling at a distance of 90 cm from the highest point.
 - When installing on a wall, place the detector 15 -30 cm below the ceiling (Figure b). The bottom of the detector should be located above the top edge of all doors, windows and other openings.
 - Although it is most appropriate to install a fire detector, it is recommended to place it in a connection room such as a staircase or hallway. The triggering of the alarm is delayed, but it will limit the number of the false alarms from the smoke of burnt pans or smoke from the fireplace.
 - To increase security, detectors should be installed in each room of the building.