

SD1001

Datasheet



yobitq



Product overview

The YOBIIQ SD1001 is an optical smoke detector and audible smoke alarm with built-in LoRaWAN communication. Its optical sensor is designed to detect smoke from slow, smouldering fires, while LoRaWAN reports detector events to a monitoring application. The SD1001 was the first EN 14604-certified smoke detector with integrated LoRaWAN communication.

The smoke chamber, integrated insect screen and automatic dust compensation are designed to reduce nuisance alarms. Suitable locations may include living rooms, bedrooms, hallways, landings and dining rooms, subject to the approved installation instructions and local siting rules.

This datasheet covers the 230 VAC SD1001 with a built-in replaceable backup battery. The battery can power the detector for up to one year if mains power is disconnected, and the batteries stated lifetime is 10 years. Backup duration always depends on operating conditions.

The SD1001 is EN 14604 certified and compliant to the Grade D1 under BS 5839-6.

Why choose SD-1001?

Capability	Benefit
Optical smoke detection	Detect smoke from slow, smouldering fires in suitable residential locations.
Insect screen and dust compensation	Help reduce nuisance alarms caused by insects and dust accumulation.
LoRaWAN event reporting	Send recorded detector events and supported status information to a monitoring application.
Mains power with battery backup	Operate from 230 VAC with a replaceable battery for mains interruptions.
Test and hush button	Test locally, hush a smoke alarm for 10 minutes, or hush low-battery warning beeps for 10 minutes.
Wired interlink	Connect compatible YOBIIQ smoke alarms into a wired alarm group.
SD1001-RF wireless interlink	Group compatible YOBIIQ RF smoke alarms without a wired interlink.
SD1001-TH environmental sensing	Add temperature and humidity sensing with the SD1001-TH variant.
SD-REMOTE accessory	Test and configure compatible wireless alarms from floor level, reducing ladder use during setup.

Applications

Application	Example uses
Homes and apartments	Install in suitable living rooms, bedrooms, hallways, landings and dining rooms, following approved siting guidance.
Multi-apartment buildings	Interlink compatible detectors so alarms can be shared across a group.
Holiday and vacation homes	Monitor reported detector events remotely over LoRaWAN.
Residential property portfolios	Review detector events across apartments and managed homes where network coverage is available.
Installation and maintenance teams	Use local test and hush controls or SD-REMOTE to configure and test compatible RF detectors from floor level.

LoRaWAN reporting and remote testing complement, but do not replace, the local audible alarm, required inspections or maintenance. Check network coverage, interlink compatibility and local installation requirements for each property.

Electrical specifications

Parameter	Value
Primary supply	230 VAC
Backup supply	Replaceable lithium CR123A battery; up to 1 year operation after mains disconnection
Stated battery lifetime	10 years
Standby power consumption	Less than 0.2 W
Audible alarm	Minimum 85 dB(A) at 3 m
Local controls	Test button; smoke-alarm hush and low-battery warning hush, each for 10 minutes
Electrical connection	Terminal block, maximum conductor cross-section 2.5 mm ²

Communication and configuration

Parameter	Specification
LoRaWAN version	1.0.4
Device class	Class A
Activation	OTAA
Radio regions	EU868, IN865
Maximum transmit power	14 dBm at 868 MHz, 23 dBm at 865 MHz
LoRa antenna	Built-in; external SMA option
Local wireless interface	BLE with password authentication
Mobile configuration	Kibi Mobile App
Device-to-device communication	YOBIQ D2D
Automation	Onboard schedules, event-driven and threshold logic
Network security	LoRaWAN AES-128 encryption and OTAA activation

Integrate with ChirpStack, The Things Network, LORIoT or a private LoRaWAN network server. Match the radio region, device profile and RCM payload decoder to the installed unit.

Test / Hush Button

Parameter	Value
Event handling	Events are recorded in the detector and communicated over LoRaWAN
Testing and hush	Local test; smoke alarm hush and low-battery warning hush, each for 10 minutes

Mechanical and environmental specifications

Parameter	Value
Enclosure dimensions	120mm diameter
Enclosure material / colour	PC UL94-V0 / white
Enclosure protection	IP20
Approximate weight	102 g
Operating temperature	-30°C to +55°C
Storage temperature	-40°C to +85°C
Operating humidity	0-85% RH, non-condensing

Use the supplied installation instructions for siting, temperature limits and maintenance. Battery backup runtime and battery service life depend on the detector variant and operating conditions; verify them against the supplied product documentation.

Variants

Model	Description	SKU
SD1001	AC smoke detector	250100
SD1001-RF	AC smoke detector with radio interlink	250101
SD1001-TH	AC smoke detector with temperature and humidity sensor	250102
SD-REMOTE	Remote for configuring smoke detectors	250041

The SD1001-TH is a smoke detector, not a heat detector as defined under EN 54-5 or BS 5446-2. Its temperature and humidity sensor is for environmental monitoring only. Temperature does not trigger the smoke alarm.

Confirm the detector variant, radio region, interlink and sensor options when ordering. SD-REMOTE is an accessory, not a smoke detector variant.

Certifications & Compliance

Certification / Compliance	Details
Electromagnetic Compatibility	EMC 2014/30/EU (SS-EN 55032:2015, SS-EN IEC 61000-6-1, -2, -3, -4)
Electrical Safety	LVD 2014/35/EU (IEC 62368-1:2018)
Radio	RED 2014/53/EU (EN 300 220-1, EN 300 220-2, EN 301 489-1, EN 301 489-3)
Smoke alarm product standard	EN14604:2005/AC:2008
RoHS	RoHS 2002/95/EG
Domestic alarm-system grade	Grade D1 under BS 5836-6
HS Code	8531 10 30
Country of Origin	China

Confirm the applicable declaration and certificate for the supplied version. These references reproduce the AC source's compliance list and do not establish approval of every power or radio variant.

**YOBIIQ B.V.**

Sanderboutlaan 17
6181 DN Elsloo
The Netherlands

Phone +31 (0)46 808 05 05

YOBIIQ UNITED KINGDOM LTD.

128 City Road
EC1V 2NX London
United Kingdom

+44 (0)20 3376 6083

www.yobiiq.com

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