

Smoke Detector

BSG-SMO

CARLO GAVAZZI



Smoke detector using Tyndall effect

Detection of smouldering fires and flaming fires with smoke development

Without radioactive sources

Detection of up to 60 m²

Transmission of alarms and Alive signal via smart-house

Operating voltage supplied by smart-house bus

Optional use of the smoke detector as alarm device for other detectors such as gas, water and burglary via smart-house

Battery backup if the smart-house connection is interrupted

Acoustic alarm > 85 dB

Constant monitoring of sensor sensitivity via smart-house

Delivered with a pre-programmed address on I/O 1

GENERAL SPECIFICATIONS

Channel programming cable: GAP-TPH-CAB	By BGP-COD-BAT and special
Channel assignment I/O number 1	Alarm signal. Choose between active high or active low sensor. See data-sheet for BGP-COD-BAT about how to use this option. Pre-programmed to address N1
I/O number 2	Monitoring of sensor (tamper/presence). The signal is always active if OK, otherwise inactive. Not programmed
I/O number 3	Monitoring of battery voltage. The signal is active if the voltage is low. Not programmed
I/O number 4	Monitoring of sensor sensitivity. The signal is active if the sensor becomes dirty. Not programmed
I/O number 5	Forced alarm. The smoke sensor can be used as an alarm device for e.g. water, gas and burglar alarms. Not programmed

Fail-Safe mode
If the smart-house connection is interrupted, the smoke sensor will still work, but as a normal individual smoke detector.

Indication
Red LED (short flash once every 42 sec. (alive signal): The smoke detector is OK.

Short flash every 0.5 sec.: Alarm.

Red flash (42 sec.) and simultaneous beep = Low battery voltage.

Red flash (42 sec.) and asynchronous beep = Dirty

Environment
Degree of protection IP 43
Operating temperature 0° to +50°C (+32° to +122°F)
Storage temperature -5° to +85°C (-23° to +185°F)

Meets the requirements of ISO 12239

Connection
Screw terminals
Wire diameter 0.4 - 1.5 mm
See wiring diagram

Housing
For installation on ceilings.
Dimensions Ø 100 x 54 mm
Material ABS
Colour White

Sound level > 85 dB(A) / 3 m (10 ft)

Battery IEC 6LR 61

Average life, battery 2 years

Alarm signalling Acoustic and optical

Vds approval G202055

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Current consumption typ.	2.5 mA
Battery current consumption	20 µA
Supply voltage	9 VDC
Current consumption When alarm is active	10 mA

INPUT SPECIFICATIONS

Detector	Optical (Tyndall effect)
Response level	According to EN 12239 (95)

TYPE SELECTION

Ordering no. BSG-SMO



NOTES ON APPLICATION

To achieve minimum protection, one BSG-SMO should be installed in front of each sleeping area or each floor. Higher protection will be achieved if one smoke detector is present in every room (except for the kitchen and the bath - here, false alarms may occur due to steam development).

When using the BSG-SMO, the following issues must be observed:

- Rooms may have a floor area of up to 60 m² and a height of up to 6 m
- Hallways and narrow corridors may have a width of up to 3 m (10 ft) and a length of up to 15 m (50 ft)
- The mounting location must be as close as possible to the centre of the room
- A minimum distance of 0.5 m (1,5 ft) must be maintained from walls and furniture

The BSG-SMO must NOT be mounted in the following locations:

- Near ventilation ducts or strong draughts

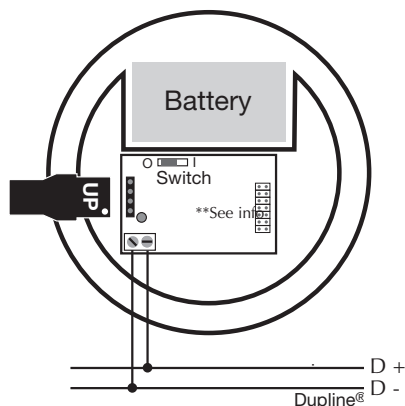
- Directly in the apex of pitched roofs (a minimum distance of 30 cm (1 ft) from the apex must be maintained)
- In rooms which are usually very steam-, dust- or smoke-filled (for example in workshops, bathrooms and laundry rooms)

Connection of multiple smoke alarms

It is possible to interconnect several smoke alarms so that the alarm signal from one alarm is transmitted to all other connected alarms. The smoke alarms are connected in parallel using a 2-wire cable.

Note: Make sure that the total power consumption does not exceed the smart-house Controller's output when interconnecting the smoke alarms. Use a back-up battery to avoid voltage drop in the smart-house Bus when using interconnection.

WIRING LAYOUT AND DESCRIPTION



Switch = 0

Normal position.

If the battery is removed, the smoke alarm indicates – Low bat.

Switch = 1

Bypass of “Low bat” indication.

The smoke signal device does not indicate “Low bat” alarm if the battery is removed.

Programming

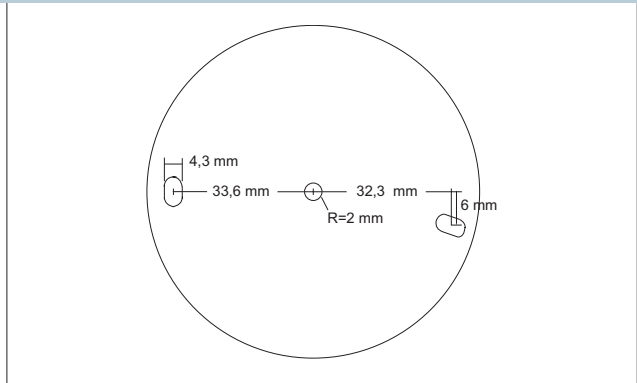
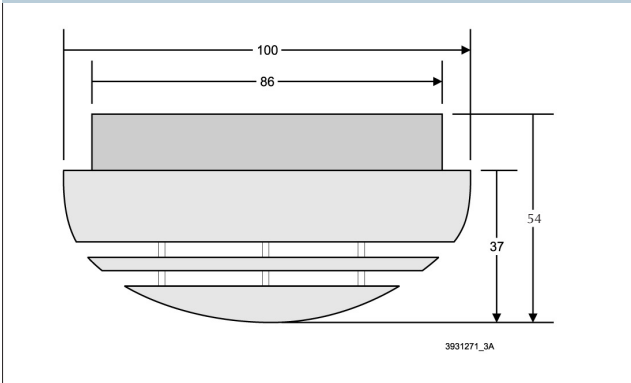
The I/O addresses and the passive/active alarm may be programmed by means of BGP-COD-BAT, using the GAP-THP-CAB cable.

If the smart-house signal fails, the output will go to the predefined fault polarity.

Info: Please, when installing the smoke alarm (changing the battery), pay attention to the following:

- Make sure that the PCB is connected correctly to the multiple plug and that the two pole connector** is connected to the PCB.
- Test the smoke alarm (by pushing the test button) when it has been placed in its retaining ring on the ceiling.

DIMENSIONS



ACCESSORIES

Programming cable to BGP-COD-BAT GAP-TPH-CAB