# 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** | By BGP-COD-BAT and special cable: GAP-TPH-CAB |
| **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 |
| **Avarage 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 |

# Smoke Detector

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## 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
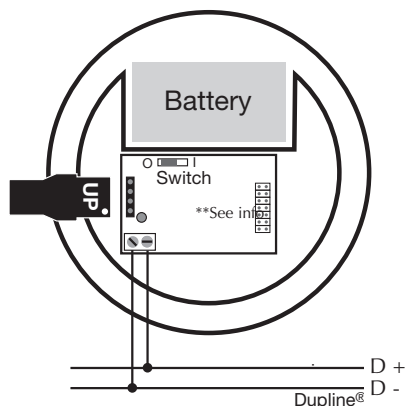


*Switch = 0*

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.
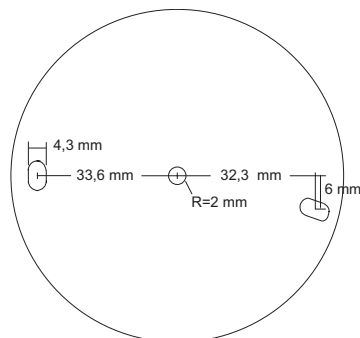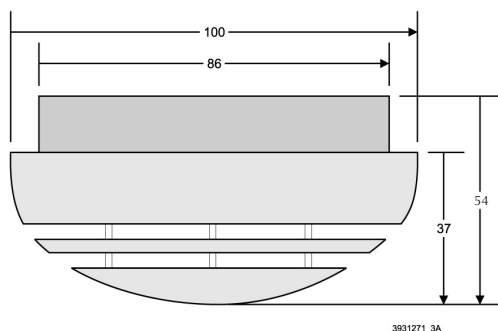
*Programming*

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

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