

Overview

JBE-2111 is an addressable optical smoke detector designed to operate on a loop of intelligent fire detection and alarm devices with the JBE loop protocol. This smoke detector sends fire alarm signals to the fire panel when the detected smoke value reaches the preset alarm thresholds defined in the European norm EN 54-7.

This detector responds to varied kinds of smoke from the early stages of fire while featuring advanced algorithms to prevent false alarms. It also incorporates a pollution compensation feature which extends its service life, while preventing false alarms resulting from dust accumulation.

The JBE-2111 can also report to the fire panel the smoke curve which can be checked on the fire control panel to assess the impact of site-specific processes near it (i.e., steam release, opening ovens, etc.).

Sensitivity levels

The detector will always report alarm levels 1, 2 and 3 to the fire panel without any need of pre-configuration. Select in the fire panel the detection profile(s) most appropriate for your application. The programming of the fire panel allows the change of the profile automatically at different times of the day or the week.

Profile 1	EN 54-7, earliest detection
Profile 2	EN 54-7, standard sensitivity
Profile 3	EN 54-7, strong false alarm rejection

The three profiles are compliant to EN 54-7 requirements.

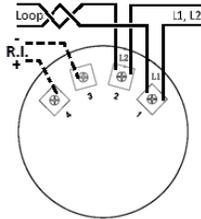
Technical data

Category	EN 54-7 optical smoke detector
Working voltage	DC 16 - 30 V (JBE protocol pulse amplitude)
Connection	2-wire JBE communication bus, no polarity
Wiring	Twisted pair, max. wiring gauge 2.5 mm ²
Quiescent current	≤0.3mA @24V
Activation current	≤1mA @24 V (plus <8 mA to remote indicator)
Working temp.	-10°C ~ +60°C
Storage temp.	-20°C ~ +60°C
Environment	≤ 95% RH (40±2°C) (no condensation nor icing)
Addressing method	Soft addressing with tool JBE-AT1, non-volatile
Address range	1-200
Protection area	60~80m ² (subject to local codes)
Red LED indication	<u>Standby</u> : Flashing when polled <u>Alarm</u> : Steady on when in alarm
Dimensions	Ø100 mm × 46 mm
Weight	0.1 kg
IP rating	IP40
Compatible bases	JBE-2160 for installation without remote indicator JBE-2165 for installation with remote indicator
Remote indicator	LED with or without series resistor (Rs <4 kOhm)

Installation

Always observe local fire and electric installation regulations.

1. Secure the base to the ceiling. The nominal spacing of drills is 60 mm
2. Connect the wiring to the base as per the following diagram:



Terminals	Connection
1 & 2	Signal loop L1, L2 (no polarity)
3	Remote indicator negative (optional)
4	Remote indicator positive (optional)

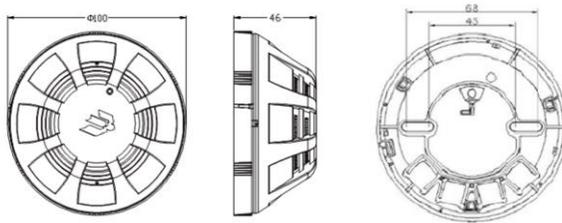
3. Program an unused loop address (1 to 200) to the detector head using the JBE-AT1 tool.
4. Mount the detector onto its base and turn it clockwise to secure.
5. Register the detector into the fire panel's configuration. Select the sensitivity profile most appropriate for your application.
6. Test each detector and wiring integrity after installation and periodically according to local fire regulation.

Maintenance

Alarm test should be conducted regularly, recommending every 6 months.

The dust cover can protect the detector from noxious dust accumulation during construction works, but the detector will not be able to detect smoke while the dust cover is on!

Mechanical dimensions



all dimensions in mm

Regulatory information

CE

0370

Jade Bird Fire Alarm International (Europe), S.L.
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JBE-2111

Addressable optical smoke detector with selectable sensitivity levels, intended for use in fire detection and fire alarm systems installed in and around buildings.

Technical file: see TF-JBE-2111-10 held by the manufacturer.

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