JBE-2111

Addressable Optical Smoke Detector

Key Features

- Low Profile design
- Remote indicator output (requires JBE-2165 base)
- Three certified Smoke sensivities (including alarm rejection)
- Programmable soft address by means of JBE-AT1 tool
- EN 54-7 certificate

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 various types 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-2106 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

TECHNICAL DATA

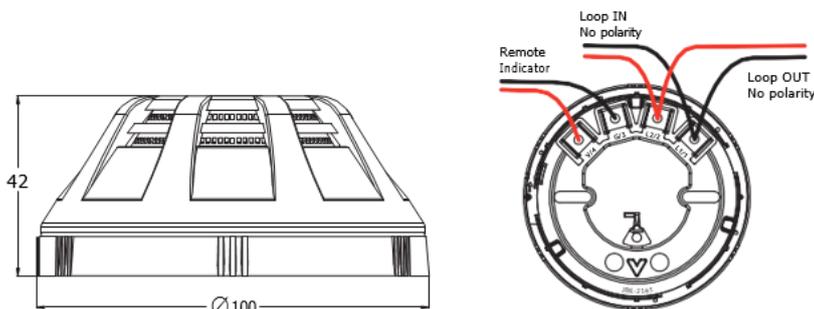|	
Category	Optical Smoke Detector EN 54-7
Working voltage	16 - 30 VDC (JBE protocol pulse amplitude)
Connection	2-wire JBE communication bus, no polarity
Wiring	Twisted pair, max. wiring gauge 2.5 mm^2
Quiescent current	≤0.3 mA @24 V
Activation current	≤1 mA @24 V (plus <8 mA to remote indicator)
Working temp.	-10 ~ +60°C
Storage temp.	-20 ~ +60°C
Environment humidity	≤ 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 ~ 80 m^2 (subject to local codes)
Red LED indication	Flashes when polling
	Steady on when in alarm
Dimension (ØxH)	100 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
Standards	EN 54-7:2018
Declaration of Perf.	DoP-0370-CPR-3808-1

Maintenance

Alarm test should be conducted regularly, recommending every 6 months (check local regulations).
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.

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 diagram below.
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.
6. Select the sensitivity profile most appropriate for your application.
7. Test each detector and wiring integrity after installation and periodically according to local fire regulations.

Mechanical dimensions (all dimensions in mm) and connection diagram:

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