Heat detector JBE-2106

JBE-2106 is an addressable heat detector designed to operate on a loop of intelligent fire detection and alarm devices with the JBE loop protocol. This heat detector sends fire alarm signals to the fire panel when the air temperature (or its rate of rise) reaches the alarm thresholds defined in the European norm EN 54-5.

The detector features three (3) sensitivity profiles: A2R, A2 and A2S. The Draco fire panel allows selecting which threshold to apply to the detector. The day/night programming of the fire panel allows changing the profile automatically at different times of the day or the week.

The JBE-2106 can also report to the fire panel the temperature 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.). Heat detectors are often used to detect fire in places where steam or dust can be present or where non-smoke fires might occur.

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 configuration, the profile(s) most appropriate for your application:

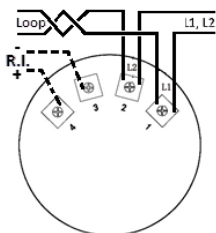| Profile 1 (Highest sensitivity)	EN 54-5 category A2R (Rate of rise)
Profile 2 (Medium sensitivity)	EN 54-5 category A2
Profile 3 (Lowest sensitivity)	EN 54-5 category A2S (Static)

Technical characteristics

Category	EN 54-5 Point heat detectors for use in fire detection and fire alarm systems installed in and around buildings.
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	≤0.3 mA @24 V
Activation current	≤1 mA @24 V (plus up to 8 mA to remote indicator)
Working temp.	-10℃ ~ +50℃
Storage temp.	-30℃ ~ +70℃
Humidity	≤ 95% RH (40±2℃) (no condensation nor icing)
Addressing method	Soft addressing with tool JBE-AT1, non-volatile
Address range	1-200
Protection area	20~30 m^2 (subject to local codes)
Red LED indication	Flashing when polled. Steady on when in alarm.
Dimension	Ø100 mm × 41 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.
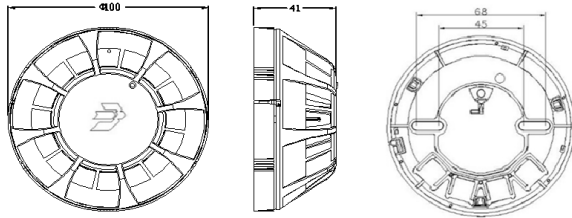
Maintenance

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

Mechanical dimensions

all dimensions in mm

Regulatory information

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EN 54-5:2017+A1:2018

JBE-2106

Addressable heat detector category with selectable categories A2, A2R and

A2S, intended for use in fire detection and fire alarm systems installed in

and around buildings

Technical file: see TF-JBE-2106-10 held by the manufacturer.

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