BS-657/A
Optical smoke and rate-of-rise heat detector

CE 1293

EN 54-5:2017,
EN 54-7:2018
DoP: 921657002_59_001

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EGINIO
PIERIAS
60300
GREECE

Warranty

Olympia Electronics guarantees the quality, condition and operation of the goods. The period of warranty is specified in the official catalogue of Olympia Electronics and also in the technical leaflet, which accompanies each product. This warranty ceases to exist if the buyer does not follow the technical instructions included in official documents given by Olympia Electronics or if the buyer modifies the goods provided or has any repairs or re-setting done by a third party, unless Olympia Electronics has fully agreed to them in writing. Products that have been damaged can be returned to the premises of our company for repair or replacement, as long as the warranty period is valid.
Olympia Electronics reserves the right to repair or to replace the returned goods and to or not charge the buyer depending on the reason of defection. Olympia Electronics reserves the right to charge or not the buyer the transportation cost.

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European manufacturer

BS- 657/A Optical smoke and rate-of-rise heat detector

CE 21 1293

TECHNICAL CHARACTERISTICS	
OPERATION VOLTAGE	17-30V DC
START UP POWER CONSUMPTION	1mA for 2 sec
STANDBY CONSUMPTION	90μA
ALARM CONSUMPTION	12mA (with activated onboard LED)
SMOKE CONCENTRATION SENSITIVITY	0.107 dB/m
TEMPERATURE SENSITIVITY	57°C
INDICATORS	Alarm LED
CLASS	A1R
OUTPUT	To panel / to external LED driver (BS-572)
DEGREES OF COVER PROTECTION	IP42
PRODUCED IN ACCORDANCE WITH	EN 54-5,EN 54-7
OPERATING TEMPERATURE RANGE	-40 to 70 °C
RELATIVE HUMIDITY	Up to 95%
CONSTRUCTION MATERIALS	ABS/PC
EXTERNAL DIMENSIONS	103 (d) x 55 (h) mm
TYPICAL WEIGHT	158 gr.
GUARANTEE	2 years

Thank you for your trust in our products
Olympia Electronics - European manufacturer

GENERAL

The user have to read carefully the following instructions, in order to be properly informed and keep them for future use.

The BS-657/A is a conventional smoke detector which integrates functions of optical smoke and heat detection. It can detect smoke and heat. The detector transitions to alarm state when the concentration of smoke reaches 0.107dB/m or when the temperature reaches 57°C. Also, the detector transitions to alarm state when the temperature rises suddenly by 32°C regardless of the initial temperature at the beginning of the sudden rise event.
They are composed by two parts. A plastic base which is placed on the ceiling and the main body of the detector which fits on the plastic base with a simple rotation to the right. The detectors have a 360° visible led and a remote led driver which are light up constantly in case of detection of fire, till cancelled from the panel. They are turned off only when a reset command is given from the panel. The indicator led blinks every 6 sec indicating the normal function.

INSTALLATION

The detectors should be placed in the ceiling in visible points without side obstacles, away from places that are barely ventilated or with strong air currents and water vapor. Each detector covers an area of 50 m^2 while the distance between two detectors should not be more than 15m. Also, they must be placed at least 50 cm away from fluorescent lamps. Cable diameter should be from **0.5 to 2.5mm**.

MAINTENANCE & FUNCTIONAL TESTING

The detector has fault diagnosis and dust compensation functions, which automatically informs you through the onboard LED when replacement or cleaning actions are required. The indication LED blinks every 7 seconds. In normal operation it blinks 1 time, if cleaning action is required it blinks 2 times and if there is a failure it blinks 3 times. These functions combined with periodic manual testing ensure maximum security level. The manual testing procedure is carried out by spraying a small amount of smoke into the detector with an A-752 spray or a counterpart product. It is suggested to carry out a test every 6 months or after a change in the position of the sensor. A key element of its proper function is the air to be able to freely circulate inside it. So be careful not to block the openings of the outer cover. Before the manual testing it is suggested to enable the special “walk in test” mode from the panel.

CAUTION !!

After installation the device must not be covered with dust or be painted or anything else happen that will block the smoke to get to the sensor. Special attention must be given during the installation and the use of the device, since the user assumes full responsibility for proper operation afterwards.

Also, during site works place the plastic cover to the detector as shown in the picture below to protect the device from dust.

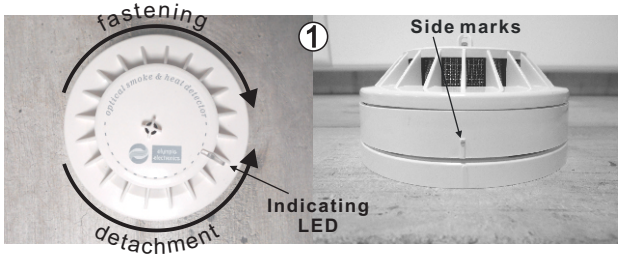
Additional features of the device :

- ***Integration of dynamic algorithms for noise and false alarm rejection.***
- ***Dust compensation and automatic indication when cleaning is required. Stable level of detection regardless of detector’s working hours.***
- ***Compensation of smoke measurements based on ambient temperature which ensures high precision measurements even under extreme environmental conditions.***
- ***Automatic fault diagnosis.***
- **360° optically visible LED.**

UID:

In every device there is a double sticker with the UID (Unique Identifier) number. This number is unique for each device.

Installation process



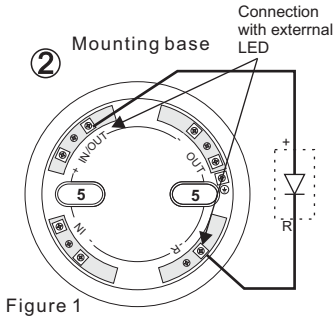


Figure 1

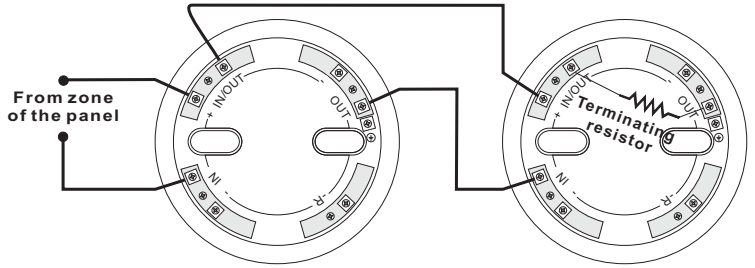


Figure 2

Connection

If the power of the detectors is turned off, wait for 3-5 seconds before you turn the power on again.

1. Remove the detector from its base rotating to the left till the side marks are aligned.
2. Fasten the base with the supplied mounting materials (point 5).
3. Connect the power cables (minding the correct polarity) according to the requirements of the installation (Figure 1, 2).
4. Place the detector carefully so that the side marks are on the same position and rotate the detector clockwise until it locks. Power the device and after 3-5 seconds it is ready for operation.

CONNECTION

1. **+ IN/OUT :** It is connected to the zone of the panel or to the (**+ IN/OUT**) contact of the previous detector.
2. **- IN :** It is connected to the zone of the panel or to the (**- OUT**) contact of the previous detector.
3. **- OUT :** It is connected to the next detector (**- IN**) or if it is the last one to the terminal resistor.
4. **- R :** It is connected with BS-572.
5. ⏚ **:** Connected to the cable’s shield (when shield is used).