BSR-6155
Analogue addressable optical smoke detector with integrated isolator
CE 1293

EN 54-7, EN 54-17 20
DoP: 921615500_59_001

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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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TECHNICAL CHARACTERISTICS	
COMMUNICATION PROTOCOL	Olympia A Protocol
MAIN VOLTAGE	12-30V DC
STANDBY CONSUMPTION	195μA
ALARM CONSUMPTION	2.5mA (with activated LED)
SMOKE CONCENTRATION SENSITIVITY	Adjustable from 0.107 to 0.300 in 0.010 dB/m steps
INDICATORS	Alarm LED
OUTPUT	Remote LED driver
MAXIMUM LOOP CURRENT (Ic max, -L in/out)	1A
MAXIMUM SWITCH CURRENT (Is max, -L in/out)	5A
MAXIMUM SERIES RESISTANCE (Zc max, -L in-out)	300mΩ
MAXIMUM LEAKAGE CURRENT IN ISOLATION MODE (I_L max, -L in/out)	25mA pulses (6ms duration every 2sec)
ISOLATION VOLTAGE (Vso min-max)	8.8 - 11
RECONNECT VOLTAGE (Vsc min-max)	10.2 - 13
DEGREES OF COVER PROTECTION	IP42
PRODUCED IN ACCORDANCE WITH	EN 54-7, EN 54-17
OPERATING TEMPERATURE RANGE	-40 to 70 °C
RELATIVE HUMIDITY	Up to 95%
CONSTRUCTION MATERIALS	ABS/PC
EXTERNAL DIMENSIONS	103 (d) x 48 (h) mm
TYPICAL WEIGHT	160 gr.
GUARANTEE	2 years

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GENERAL

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

The BSR-6155 is an analogue addressable smoke detector which integrates the function of optical smoke detection and it can work with any fire panel supports Olympia A Protocol. It can be adjusted to detect multiple levels of smoke offering flexibility and rich functionality. Also, it integrates a short circuit isolation circuit which is automatically activated and disconnects the defective node from the remaining loop, allowing it to be located by the panel.
The detector sends to the main panel an analogue value which depends on the concentration of smoke. The value is 100 in concentration of 0.107dB/m (small amount of smoke) and increases proportionally to 120 in concentration of 0.300dB/m.
By default the panel is set to sound an alarm when the concentration of smoke is 0.107dB/m. The user can change this setting from the panel for each detector and define any level of smoke concentration between the lower and the upper limits, specifying the sensitivity of the system depending on the requirements of each site.
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. Also, they are staying lit even if the sirens are silenced from the panel, so the detector which detected the alarm is visible. They are turned off only when a reset command is given from the panel. The indicator led blinks every 10 sec indicating the connection status with the main panel.

SETTING THE ADDRESS
Each detector must have a unique address, with which it is recognised from the panel. It is forbidden for two devices in the same loop to have the same address. To set it up you can use the function of changing address point as described in the user manual of the panel.

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**.

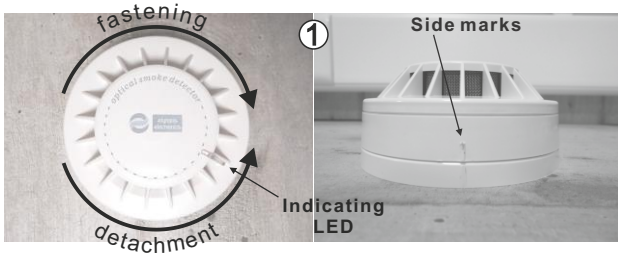
MAINTENANCE & FUNCTIONAL TESTING
The detector has fault diagnosis and dust compensation functions, which automatically informs you when replacement or cleaning actions are required. These functions combined with periodic manual testing ensure maximum security level. The manual testing procedure is carried 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 generation of cleaning notifications. 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.***
- ***Adjustable smoke alarm level for maximum flexibility.***
- **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



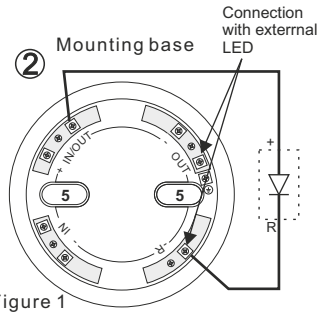


Figure 1

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: Connect to (+L) of the loop.
2. - IN: Connect to (-L) of the loop.
3. - OUT: Connect to (-L) of the loop.
4. -R : External LED connection.
5. ⏚ : Connected to the cable's shield (when shield is used).

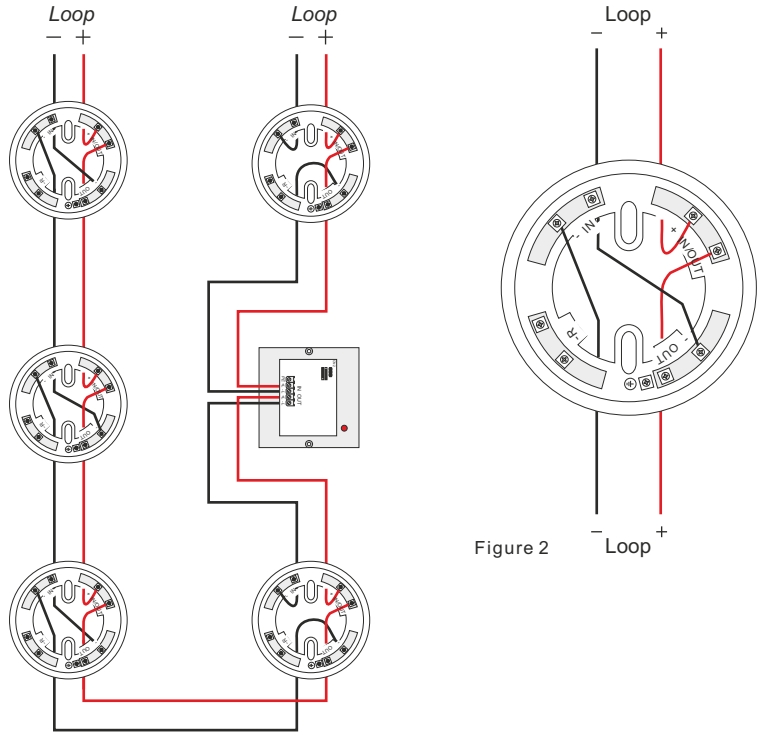


Figure 2