Data Sheet: OPTICAL SMOKE ALARM Model No. 300 - RE


Detection part


Socket

Description

The ICAS Model 300-RE is an external powered smoke alarm operating on the scattered light principle with relay output. It is intended for household or similar residential applications as system detector in combine with suitable central unit.

This model can be powered from an external voltage source (central unit) 9V DC or from an external source (central unit) with output voltage in the range from 12V DC to 24V DC. It is activated relay in alarm, sound output and red LED is flashing, It is possible to use both NO or NC potential less contacts for a communication with central unit.

Model 300-RE contents as an special option a buzzer with a high sound level like self-contained smoke alarm.

It is best for slow smouldering fires with large smoke particles.

Model 300-RE is non-latching – the buzzer will sound output for an alarm and relay will be activated only when smoke particles are present in the smoke chamber .

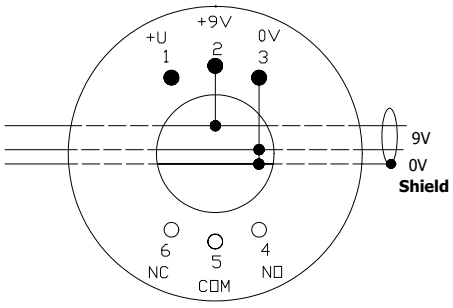
There is one combined push-buttons / LED indicator light projection lens and sound outlet on top of the smoke alarm. There are six contacts on the bottom side of the detection part for a possibility to contact the socket part.

The smoke alarm consist of a full covered detection part with optical chamber, sounder and all electronics components and of the socked with 6 terminals. The terminals are numbered.

Terminal description:

1	+U DC	(for using of the power supply voltage from 12V to 24V DC)
2	+9V DC	(for using of the power supply voltage 9V DC)
3	0V	
4	NO	relay contact – normal open
5	COM	common relay contact
6	NC	relay contact – normal connect

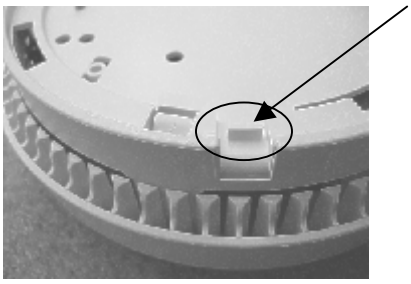
Example of the connection to the 9V



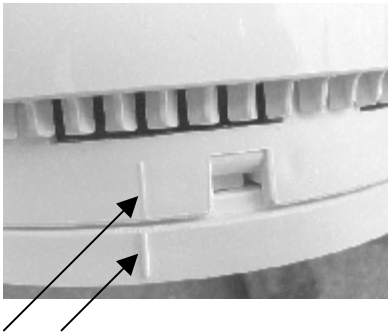
Installation

1. Locate smoke alarm it in the middle of the ceiling in living and dining rooms, halls and landings, max. 1.5m from the door in bedrooms and at least 1.5m from wall and at least 1m from lighting fixture or any other electrical household equipment.
2. Fix socket to the ceiling by two screws and connect correspondent wires from the central unit. The using of shielded cables (AF CEI 20-22 IEC 332) and connection of the shield to 0V on each position of smoke alarms is recommended.

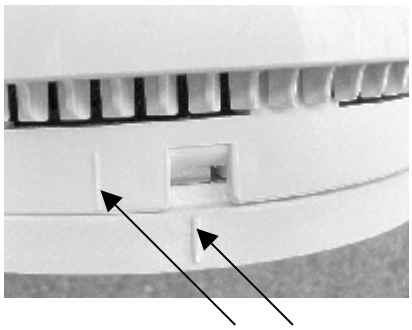
3. Consider the locking mechanism before installation. To lock break out the “lock protector”



Place the detection part into the socket to be the mark on socket and on the detection part in line and than turn the detection part clockwise cca 15° to fix.



Position of marks for insert of the detection part into the socked



Position of the marks after fix

4. Repeat points 1 – 4 for all smoke detectors in the system.
5. Switch on the power supply of the the system.
6. Press pushbutton ‘TEST MONTHLY’ of each installed smoke detector to TEST

Technical specification:

Type:	300-RE	
Compliance:	EN 54 -7	
Detection:	Optical chamber operating on the scattered light principle	
Power supply:	External in the range from 12V DC to 24V DC or External 9V DC	
Quiescent current:	<6mA (if terminal no 1 (+U) is used for power supply) <12 uA – mean value - (if terminal no 2 (+9V) is used for power supply)	
Alarm current:	<20 mA	
Sounder:	85 dB(A) / 3m	
Testing	Press push button (TEST MONTHLY)	
Indication:	Normal condition	Blinking red LED every 50 s, contacts of the relay are in the rest position
	Low Voltage warning	Audible fault signal with red LED (every 40s)
	ALARM	Audible alarm sounds and red LED blinks with per. (1s) Relay is activated - contact NO is connected to COM - contact NC is disconnected from COM
	CHAMBER ERROR	Audible fault signal without red LED (every 40s)
Temperature:	-10°C to +55°C	
Humidity:	95% RH	
Dimensions:	D= 118 mm, H = 42mm	