

SDD-OE65 (-RAC)

Single tube smoke detector for duct mounting



The SDD-range of smoke detectors are duct mounted and for use in ventilation systems. They are constructed to meet the high demands of a modern fire installation.

- ✓ Optical
- ✓ Multiple detectors can be connected to a single control unit (does not apply to SDD-OE65-RAC)
- ✓ Service alarm signal available, with ABV unit
- ✓ The detector is bayonet mounted to simplify service and maintenance
- ✓ Compact design
- ✓ RFI-protected (radio interferences)

Function

The detector comes in two types, with or without relay.

SDD-OE65 are intended for use together with Regin's ABV... series of control units.

SDD-OE65-RAC have a relay and are not to be connected to Regin's control units ABV... The built-in relay makes it possible for the unit to independently give an alarm without connection to a control unit.

A 540 mm aluminium venturi tube is delivered with the detector. The tube can be shortened to fit more duct sizes. A longer venturi tube is also available to order from Regin.

The detector housing has a window giving a clear view of the flow indicator and the alarm LED.

The detectors are approved according to EN54 and have been tested and approved by SBSC.

The detectors used with the ABV units have a built-in service alarm function for sensing the dust and dirt accumulation which inevitably occurs over time. When the degree of dirt has reached the level at which there is the risk of false alarms, a service alarm is given in the ABV-unit indicating that cleaning is required.

The detectors should be tested and cleaned yearly to ensure proper function. The function of the detectors can be tested by using test smoke (available to order from Regin). The cover can be cleaned with a vacuum cleaner.

SDD-OE65...

The optical detector reacts to visible smoke particles (residues from combustion).

It works according to the reflection principle and consists of a measuring chamber that has air-inlets via a labyrinth which keeps out ambient light.

An infrared LED and a photo transistor are placed in the measuring chamber. They are located so the light from the LED doesn't shine on the light sensitive transistor.

If smoke particles enter the measuring chamber some of the light from the LED will be reflected by the particles and hit the photo transistor which activates the alarm.

Features

Alarm indication

The detector has a red LED, clearly visible through the window on the housing. The LED is normally off and lights up when there is a fire alarm.

Service alarm signal (not -RAC model)

A red LED lights up on the detector and a yellow LED on the connected control unit ABV... when the detector is so contaminated that the service alarm is triggered. The detector must then be cleaned. The service alarm is reset when the detector is cleaned and re-installed.

Flow indication

The detector has a built-in flow indicator with a red signal flag which is located on the air inlet. During normal operation, it will be lifted by the flow of air, indicating air flow through the detector.

Installation

The detector should be mounted at least three duct widths away from duct bends and fresh air inlets. The holder is designed so that it will also fit directly onto round ducts.

The detector is connected to the control unit with a two wire loop. Multiple detectors can be connected to the same control unit. An end resistor should be connected to the last detector to end the loop.

The venturi tube is mounted in the ventilation duct through a Ø 30 mm hole. The venturi tube can be shortened for smaller ducts. For larger ventilation ducts, a longer venturi tube can be ordered.

When the detector has to be mounted at a distance from the duct (such as, when insulation material is used) the mounting plate TDS should be used. A distance bushing for mounting on the venturi tube is delivered with TDS.

Technical data

Supply voltage	9...33 V DC (via ABV control unit)
Current consumption, normal	10 mA
Current consumption during alarm	50 mA
Current consumption during service alarm	20 mA
Temperature range	-20...+60 °C
Ambient humidity	Max. 95% RH
Wind speed	Up to 20 m/s
Mounting	Duct
Protection class	IP54
Smoke alarm	Red LED
Service alarm	Red LED on detector. Yellow LED on control unit.

RAC model

Supply voltage, RAC model	24 V AC \pm 15 %
Power consumption, RAC model	5 VA
Relay, RAC model	Max 24 V AC / 2A or 24 V DC / 1A (Resistive load)



This product carries the CE-mark. More information is available at www.regincontrols.com.

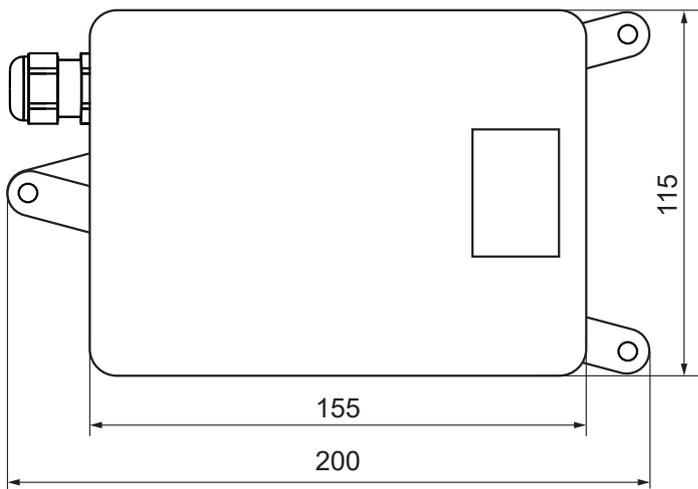
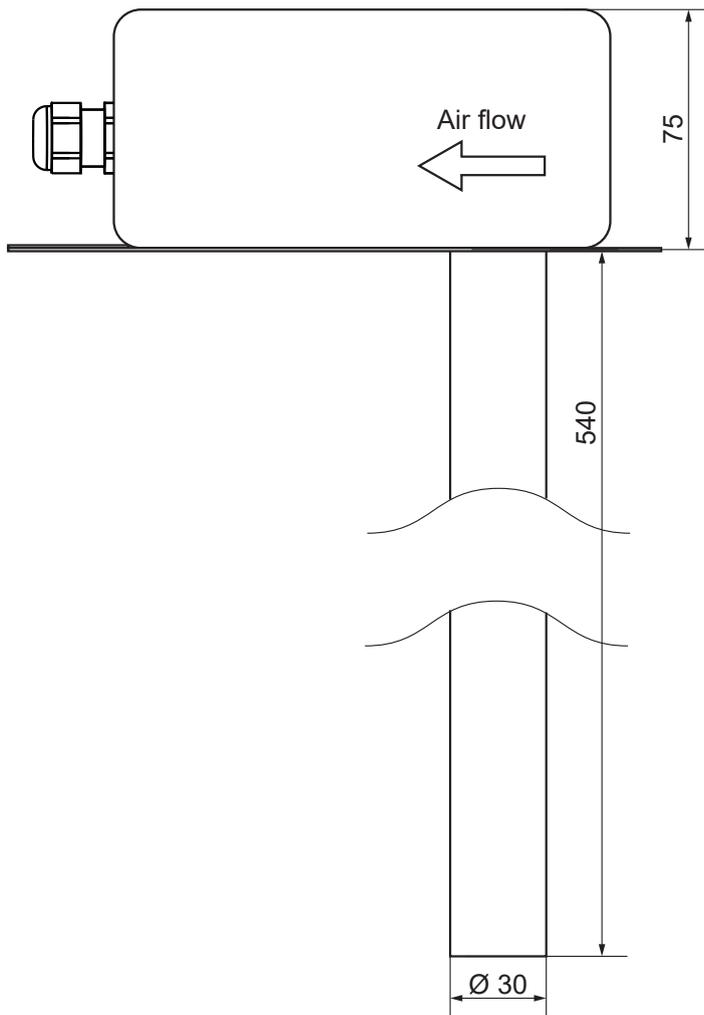
Models

Article	Description
SDD-OE65	Optical detector for loop mounting with control unit
SDD-OE65-RAC	Optical detector with relay output

Accessories

Article	Description
TDS	Mounting plate for insulated ducts
VR600	Venturi tube, 540 mm
VR2000	Venturi tube, 1940 mm

Dimensions



[mm]

Wiring

SDD-OE65

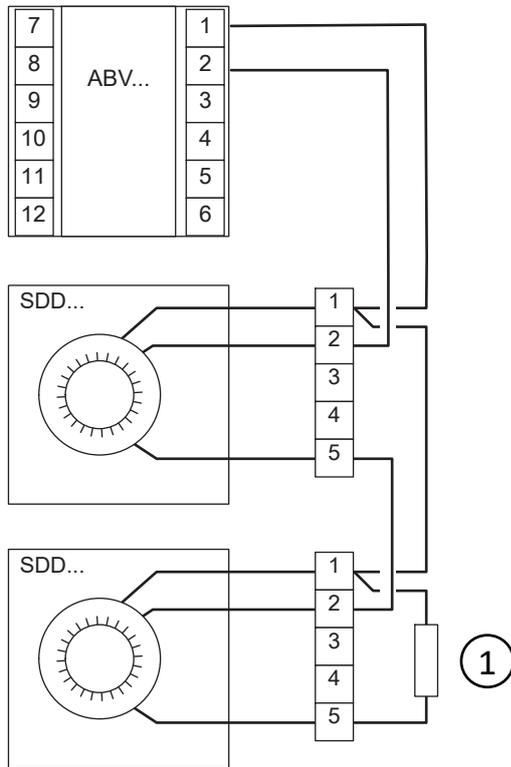


Fig. 1 Wiring SDD-S65-OE to ABV... Note: -RAC models should not be mounted in loop or to a control unit

① End resistor 2.2 kΩ (delivered with ABV...)

SDD-OE65-RAC

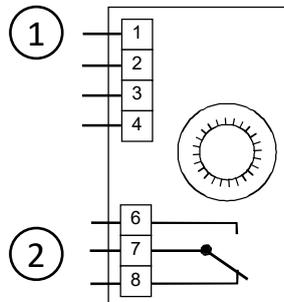


Fig. 2 Wiring.

① 24 VAC ± 15 %

② Relay shown in alarm position

Documentation

All documentation can be downloaded from www.regincontrols.com.