

RCKD

Duct detector



FIRE SAFETY



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Quick facts

- Smoke detector for installation in ventilation ducts
- Optical detector head
- Indication of a dirty detector head
- 0,6 m aluminium venturi pipe included

Use

Indication of smoke in ventilation ducts.

Design

Detector for installation in ventilation ducts, with optical detector head, encapsulation and venturi pipe. RCKD gives indication of a dirty detector head. Power supply is from the control panel or control unit.

Material

Detector, white PVC with metal netting. Adapter housing with lid for single tube detector, made of clear ABS. Aluminum venturi tube.

Function description

The smoke detector has an optical detector head.

It also has an LED with two functions:

- red light indicates a tripped detector (detector, encapsulation)
- dirty detector is indicated with a green light (detector) or yellow light (encapsulation)

The detectors must be under continuous observation and must be cleaned at regular intervals to avoid false alarms. The detector head is easy to change thanks to its bayonet fastening to the base. For detection in ventilation ducts,

the detector head is mounted in an adaptor. One venturi pipe is then installed between the adaptor and the duct to lead ventilation air into the detector head. In this way, the requirements for good fire protection can be complied with air speeds of 0.2 to 20 m/s. At lower air speeds, an auxiliary fan must be used. A metal reed/plastic strip is fitted for visual indication of flow through a duct detector.

Installation and location

Detectors are sensitive instruments, so care should be taken with their location. They should not be located close to sources of interference. The distance to the source of interference should be not less than 3 hydraulic diameters upstream or 5 hydraulic diameters downstream from the source of interference. These distances are difficult to maintain, so 2 and 3 hydraulic diameters can be accepted in exceptional cases.

Duct detector RCKD is delivered with a 0,6 m venturi pipe that can easily be shortened. When the duct is wider than 0,6 m the venturi pipe should go through the whole duct in accordance to our mounting instructions. This requires a longer venturi pipe, RBVR.

RBMD installation shelf is used for circular ducts and for intact insulation of duct.

For location outdoors, in cold attics etc, the duct detector should be insulated. If the detector is concealed, light box RBLD should be installed.

Accessories

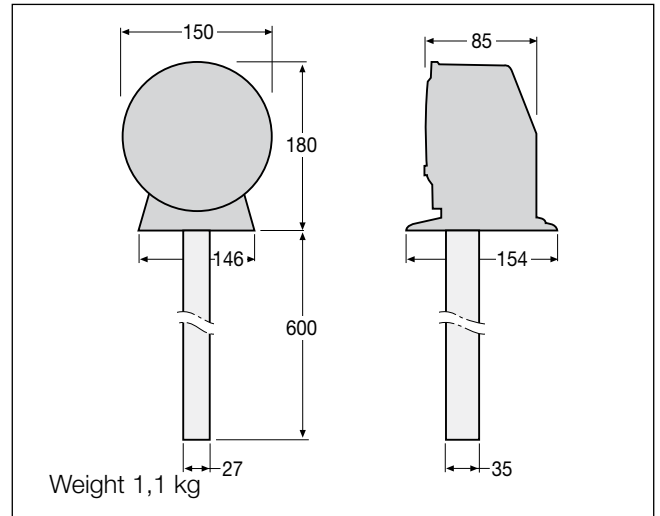
| | |
|--------------------------------------|-------------|
| Installation shelf for duct detector | RBMD |
| Venturi pipe for duct detector | RBVR |
| Light box | RBLD |



Specification

| | |
|--|---------------------|
| Duct detector | RCKD - 0 |
| <i>NOTE! 0,6 m venturi pipe included</i> | |
| ACCESSORIES, Duct detector | |
| Installation shelf RBMD | |
| Venturi pipe | RBVR - 1 - 0 |
| Length | |
| 0,6 m | = 1 |
| ST-EXTEND 1,06 m | = 4 |
| Without auxiliary fan | = 0 |
| With auxiliary fan | = 1 |
| Light box RBLD | |

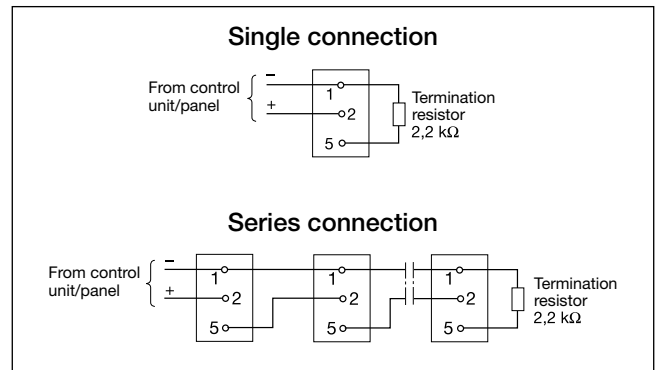
Dimensions and weight



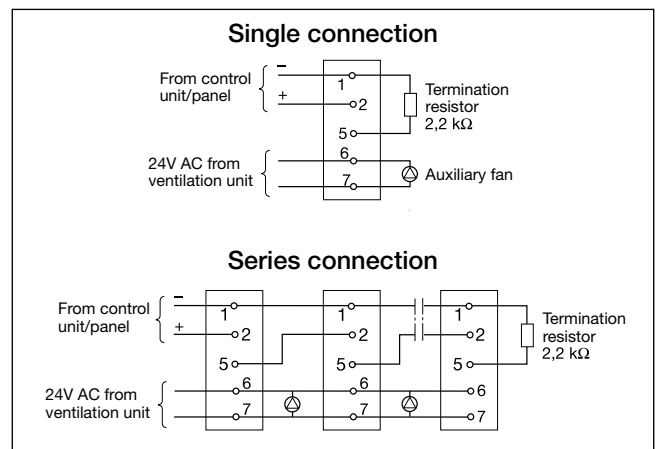
Technical data

| | |
|-----------------------|---|
| System voltage | |
| - optical | 16-30V DC |
| - auxiliary fan | 24V AC, 75 mA |
| Operation current | 0,04 mA |
| Alarm current | 40 mA |
| Service alarm current | 10 mA |
| Ambient temperature | -10 to +55°C |
| Permitted humidity | 99% rF |
| Max. air speed | 20 m/s |
| Service alarm | Indicated by: green LED (detector) yellow LED (encapsulation) |
| Smoke gas alarm | Indicated by: red LED (detector, encapsulation) |
| Encapsulation class | IP54 |

Wiring diagram without auxiliary fan



Wiring diagram with auxiliary fan



Note.
Light box RBLD, if installed, is connected as follows:
- RCKD = between base terminals 3 and 4