

RCDU2

Control unit
Monitoring system MRB



FIRE SAFETY



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Quick facts

- Up to 2 dampers and 2 smoke detectors
- Indicators for each individual damper
- Optional external incoming alarm
- Alternating relay contacts for both main alarm and dirty detector
- Integrated transformer from 230 V to 24 V for powering actuators

Function description

The RCDU2 is an encapsulated microprocessor-based, intelligent, self-monitoring control unit for connecting up to 2 dampers and 2 detectors.

The RCDU2 can act as an independent control unit and perform automatic function tests every 48 hours after power up/resetting. Function tests can also be initiated by an external switch. The RCDU2 has electronic circuits that automatically connect outputs with connected damper actuators.

The detector input features an electronic short circuit fuse. All connected dampers enter the alarm position in the event of a short circuit or a break in one of the detector loops. The RCDU2 can be set to alarm operation mode by an external incoming alarm.

Alarm functions

Operating parameters are easy to change as they are programmed in a so-called EEPROM. Control unit RCDU2 has an output relay main alarm (A alarm) and a service alarm (B alarm).

The main alarm is triggered in case of:

- Fault in detector loop
- Triggered detector
- Damper fault
- External incoming alarm
- Power failure
- System fault or communication fault

The service alarm is triggered in case of a dirty detector. Each alarm relay has an alternating potential free contact, 24 V AC, 3 A.

Operating indicators

10 LEDs are used to present the control unit's operating status with, among other features, individual indicators for each damper and function as follows:

OPERATION is indicated by a green LED as follows:

- Lit during normal operation when the RCDU2 is functioning independently and is not connected to a network
- Lit 2 s/off 0.5 s during normal operation when the RCDU2 is connected to a network
- Lit 0.1 s/off 0.1 s in case of network fault
- Off in case of power failure

FUNCTION TEST - yellow LED lit during internal function test.

- Lit 2 s/off 0.5 s during external function test

EXTERNAL ALARM - red LED lit in case of activated alarm input.



DAMPER POSITION - indicated by green LED as follows:

- Lit in open position
- Lit 2 s/off 0.5 s in closed position
- Lit 0.1 s/off 0.1 s in middle position
- Off when no damper is connected

DAMPER FAULT - indicated by red LED.

Function when LED for DAMPER POSITION is lit with indicator as above:

- Lit when damper will not open
- Lit 2 s/off 0.5 s when damper will not close
- Lit 0.1 s/off 0.1 s when damper will neither open nor close
- Lit 0.5 s/off 2 s when damper indicates open and closed simultaneously

Function when the LED for DAMPER POSITION is off:

- Lit 0.1 s/off 0.1 s in case of overload on one of outputs (both damper fault LEDs flash).
- Lit 2 s/off 0.5 s in case of motor failure

DETECTORS ALARM - red LED lit in case of break in detector loop.

- Lit 0.1 s/off 0.1 s in case of short circuit in detector loop

DETECTORS ALARM - red LED lit in case of triggered detector.

DETECTORS SERVICE - yellow LED lit in case of dirty detector.

Resetting

The RESET button resets all alarms. After activation the microprocessor performs a self-test, a memory test and an EEPROM test, all LEDs are lit for a visual test, output relays are activated and then connected dampers are function tested. After the tests the RCDU2 enters normal operation mode.

External incoming alarms can be reset remotely by activating the “External Function Test” input. Other alarms cannot be reset remotely. Not used with network connection.

Network connection

When the RCDU2 is connected in a network to a mini-master RCMM, the RCMM determines which functions the RCDU2 is to perform. In the case of a network fault during operation the RCDU2 will enter alarm mode and the main alarm will be triggered.

External alarm

There is an input for an external alarm. If the input is activated the entire control panel enters alarm operation mode.

Specification

Control unit RCDU2

ACCESSORIES:

RCKD/-RD - Smoke detectors

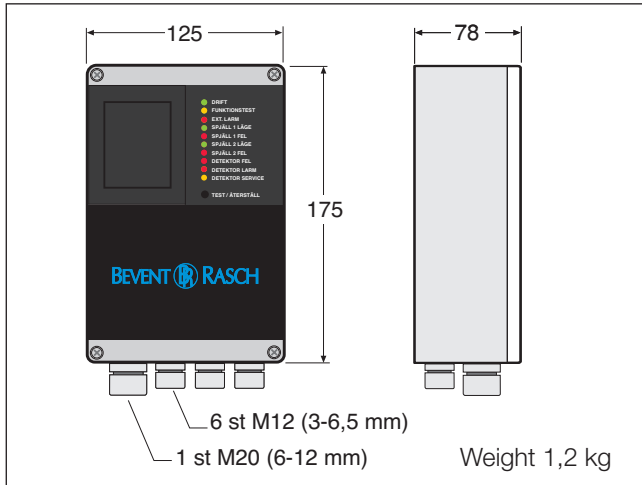
RCRL1 - Relay unit

Tekniska data

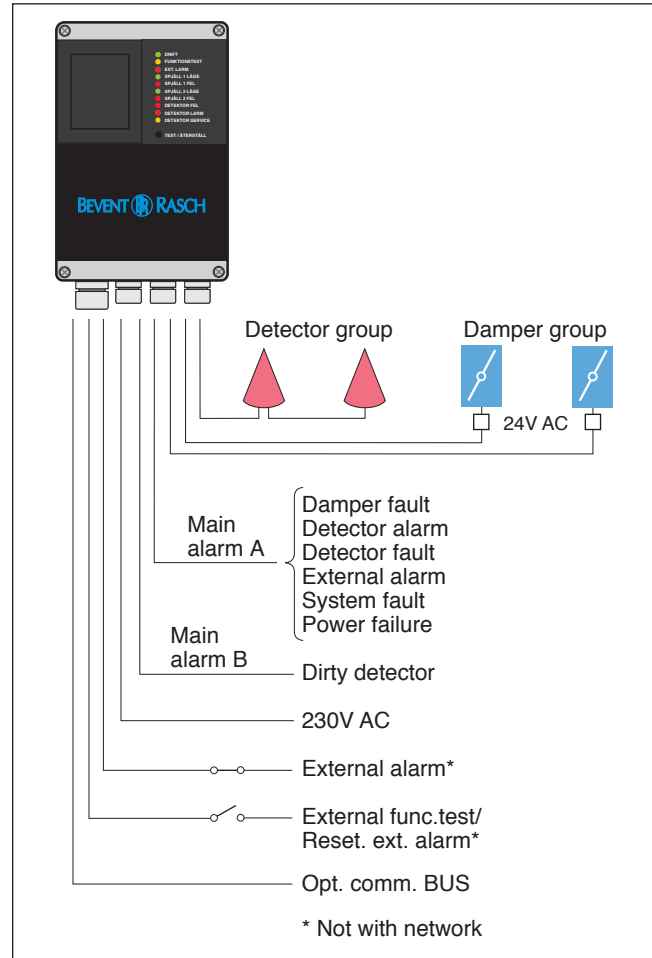
Supply voltage:	230 V AC +10% -15%, 50 Hz
Power rating:	30 VA
Encapsulation class:	IP 65
Ambient temp.:	0° – +50°C
Output relays:	Potential free, 24 V AC, 3 A, resistive load
Max. load per damper output:	10 VA, 24 V AC
Max. detectors:	2 units
Internal fuse:	150 mA tube fuse
EMC:	EN 61000-6-3 (2007) EN 61000-6-2 (2005)



Dimensions and weight



Block diagram RCDU2



Wiring diagram

