

## Approval for Smoke Detectors RM 2000, RM 3000+ and Signal Control S400

**Deutsches Institut für Bautechnik DIBt**

**Bescheid**

über die Änderung und Verlängerung der Geltungsdauer der allgemeinen bauaufsichtlichen Zulassung vom 12. November 2010

Zulassungszentrale für Bauprodukte und Bauarten  
Deutsches Institut für Bautechnik  
Eine vom Bund und den Ländern  
gemeinsam getragene Anstalt des öffentlichen Rechts  
Mitglied der EDTA, der UKAe und der WFTAG

Datum: 20.11.2011  
Geschäftszeichen: III 33-1.6.5-25/11

Zulassungsnummer:  
Z-6.5-1903

Geltungsdauer  
vom: 1. Dezember 2011  
bis: 1. Dezember 2016

Antragsteller:  
Dictator Technik GmbH  
Gutenbergstraße 9  
86356 Neusäß

Zulassungsgegenstand:  
Feststellanlage "Dictator RM II" für Feuerschutzabschlüsse

Dieser Bescheid ändert die allgemeine bauaufsichtliche Zulassung und verlängert die Geltungsdauer der allgemeinen bauaufsichtlichen Zulassung Nr. Z-6.5-1903 vom 12. November 2010. Dieser Bescheid umfasst zwei Seiten. Er gilt nur in Verbindung mit der oben genannten allgemeinen bauaufsichtlichen Zulassung und darf nur zusammen mit dieser verwendet werden.

**DIBt**

DIBt | Katowestrasse 30 8 | D-10829 Berlin | Tel.: +49 30 78730-0 | Fax: +49 30 78730-330 | E-Mail: dibt@dibt.de | www.dibt.de

### 3.8 Electrical Installation of the Hold Open System

#### Excerpt from the General Approval of the Building Authorities (from November 2010)

To prevent any disturbances by short circuit (unintended conductive connection) of the release contacts, there is required a separate wiring to the following devices (system components):

- fire detectors
- hand release switches
- supervising devices which can prevent the release.

In case the trouble-shooting or release of these devices (system components) is realized by lines (e.g. current change, data frames) or the devices (system components) are combined or contained in one casing, or the wiring of these devices is completely conducted in a cable protection tube or cable canal, a separate wiring is not required.

## 4. Mounting

### 4.1 Installing Smoke Detectors

#### 4.1.1 Wall Openings

#### Excerpt from the Directions for Hold-Open Devices

The smoke detector must be installed on the ceiling, above the wall opening. It must be at least 0.5 m horizontally from the wall, and must be no higher than 2.5 m.

The smoke detector should be installed in the area of the ceiling where the highest concentration of smoke would first be expected in the event of fire. Fire protection ceilings are so thick that smoke spreads quickly over the surface, whereas decorative ceilings are generally permeable (see diagram 1).

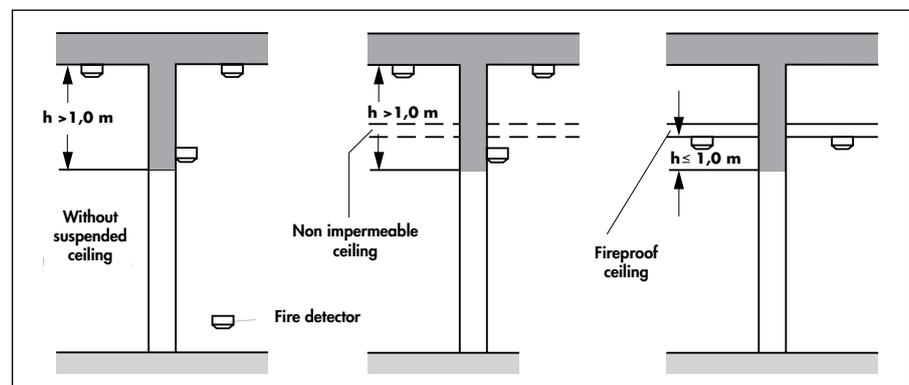


Diagram 1: Heights of lintel

The quantity and model of detectors, as well as the measurements between the ceiling and lintel, depend on the height of the ceiling at the points where the detectors are installed. If a lintel detector is required, it should be installed on the wall above the wall opening, maximum 0.1 m above the lintel.

For the installation it is generally assumed that one detector can cover a range of 2 m to each side. If the opening width exceeds 4 m, additional detectors are required.

Usually one detector is placed on the ceiling in each of the adjoining rooms of the door and a third one directly on the lintel of the opening. However, if the ceiling in both rooms is no more than one metre above the opening, two detectors (one on each ceiling) are sufficient. A single detector on the lintel is sufficient on swing doors with an opening width up to 3 m.

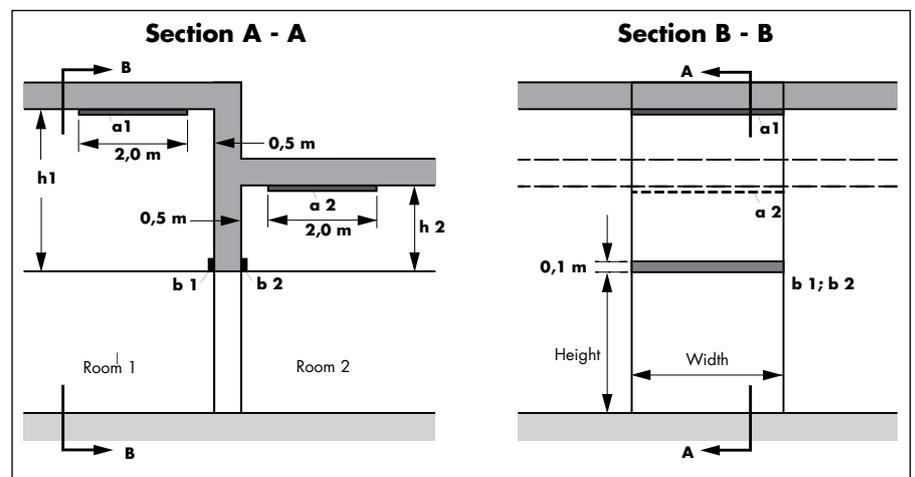


Diagram 2: Installation Instructions according to 4.1.1.

Line	Height of ceiling over opening lintel	Installation points (b = b1 or b2)	Min. number of detectors required*
1	h1 and/or h2 > 1.0 m	a1 + a2 + b	2 ceiling and 1 lintel detectors
2	h1 and h2 ≤ 1.0 m	a1 + a2	2 ceiling detectors
3	as line 2, but swing door with door width up to 3.0 m	b	1 lintel detector

\* Depending on the door width more detectors may be necessary in lines 1 and 2.

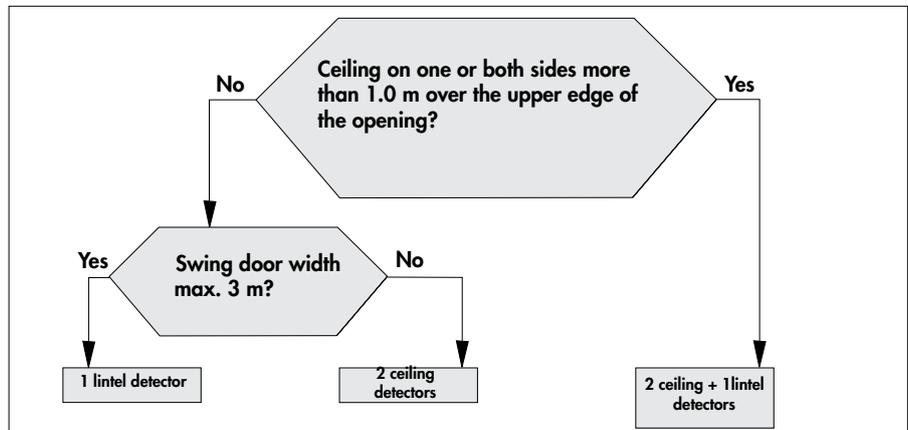


Diagram 3: Decision diagram for 4.1.1

### 4.1.1 Replacing Ceiling Detectors by Wall Detectors - cont.

According to regulations (10/1998) ceiling detectors may be replaced by wall detectors in exceptional cases.

#### Exceptions:

- Distance between ceiling and lintel is more than 5 m.
- Wall detectors are installed at least 3.5 m above the lintel of the wall opening, with brackets at least 0.5 m long.

### 4.1.2 Ceiling Openings

If floors are joined through ceiling openings, these openings must have ceiling detectors. At least one ceiling detector must be installed on each floor, and they must be no further away from the edge of the ceiling opening than 0.5 m. If the ceiling above the opening is sealed, the detector must be installed vertically in the middle of the ceiling opening.

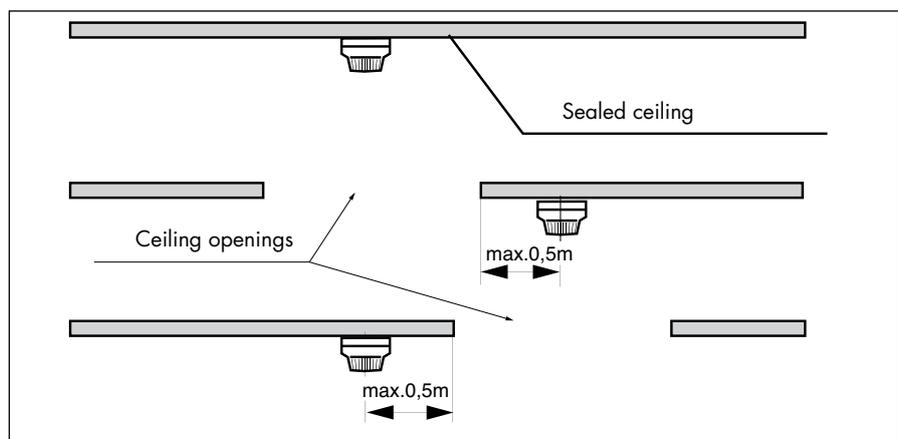


Diagram 4: Installation areas according 4.1.2

If the ceiling opening has a diameter of more than 4 m, additional detectors are required.

## **4.2 Hand Release**

A manual hand release must be provided for every hold-open device. The hand switch must be installed within the immediate vicinity of the door and not be hidden by the door. It must be marked with "close the door".

## **4.5 Mounting Devices**

Mounting devices used for hold-open systems must not interfere with the protection given by the door/gate.

You must not drill through fire protection doors/gates.

Counter plates for electromagnets should be mounted on swing doors in such a way that the screws are no more than 150 mm from the upper, lower, or vertical edge of the closing side. Rivet nuts with M5 oder M6 screws must be used on steel doors.

## **5. Final Inspection**

Once the hold-open system has been installed it is the operator's responsibility to ensure it is tested to make sure it functions correctly. This inspection must only be carried out by the manufacturer of releasing devices and hold-open systems or a specialist.

The inspection must include the following points:

1. The hold-open system equipment must be authorised.
2. The reference numbers on the equipment must be authorised numbers.
3. All equipment must operate safely, as stated in the regulations. It must be possible to release the system by hand, or by simulating the detectors according to the type of fire.
4. It must be checked whether the system still closes automatically should it not be operating (e.g through lack of power or missing detector).

Once the inspection has been successful a 105 mm x 52 mm sign available from the hold-open system manufacturer must be displayed on the wall within the immediate vicinity of the system, with the following inscription:

### **Hold-Open System**

Authorised by...

(Company, month and year of inspection)

