



Ceiling and  
frame-mounted  
smoke detectors

# DORMA RMZ RM

## The ideal solution for hold-open systems in any application

The DORMA RMZ and RM frame and ceiling-mounted smoke detectors, supplemented where necessary by the RZ 01 power supply unit, provide the perfect complement to the very practical, thoroughly service-proven DORMA TS 93 system for preventive fire protection. They have been

designed in accordance with the guidelines issued by the German Institute for Building Technology (DIBt), Berlin, and ensure optimum interaction between the various devices used for holding open fire and smoke check doors in all the different conditions which can apply.

The innovative, compact design of these units eliminates the likelihood of positioning problems, while the attractive Softline styling harmonises with any architectural environment.



Quality assured manufacture to DIN ISO 9001, EN 29001, BS 5750. Certified and verified by BSI Quality Assurance Reg. No. Q 6423, FM 10756

Plus points		Data and features	RMZ-K	RMZ-S	RMZ 2	RM	RM-S	RZ 01
<b>For the trade</b>								
<ul style="list-style-type: none"> <li>System-compatible components to complement the product range.</li> <li>Minimum stocking requirements – units mix and match perfectly to suit virtually any application.</li> </ul>		Functions    Smoke detector Release device Power supply unit	● ● ●	● ● ●	● ● ●	● ● –	● ● –	– – ●
<b>For the installer</b>								
<ul style="list-style-type: none"> <li>Simple and easy to fix.</li> <li>Low costs with units combining according to requirements.</li> <li>Optimum adaptability to local conditions and door designs.</li> </ul>		Smoke detection    Scattered light principle (optical sensor) Fixing                Frame mounted Ceiling mounted	● –	● –	● –	● ●	● ●	– –
<b>For the specifier/architect</b>								
<ul style="list-style-type: none"> <li>Technically and economically convincing solutions based on a clear design concept.</li> <li>Wide range of application possibilities.</li> <li>Standard connections for other detectors, alarm devices and remote control systems.</li> </ul>		Connection of other detectors    Two-wire system Smoke switches	● ●	● –	● ●	● ●	● –	– –
<b>For the user</b>								
<ul style="list-style-type: none"> <li>Attractive products which offer an optimum range of functions.</li> <li>VdS (German Association of Property Insurers) approved for maximum user confidence.</li> <li>Easy functional check based on LED display.</li> <li>Can be integrated in building control and monitoring systems.</li> </ul>		Total installed load (max.) for hold-open devices and other detectors/alarm devices in W Power consumption of internal detectors in W Indicators            Alarm – red LED Armed – green LED	4.4 0.5	4.4 0.5	7.7 0.6	Depends on power supply unit 0.6	– 0.5	8.5 –
		Input voltage Output voltage Detector operating voltage Input current (max.) with external power supply unit, in A Current consumption (max.) in mA	230 V AC ± 10 %	230 V AC ± 10 %	230 V AC ± 10 %	24 V DC +15%, -10%	20–30 V DC	230 V AC ± 10 %
		Floating change-over contact Reset Test port for functional check Connection terminals for external manual release Degree of protection Ambient temperature range in °C Weight in kg	24 V DC	24 V DC	24 V DC	24 V DC	–	24 V DC
		Switching voltage (max.) Switched current (max.) Switching capacity (max.) Automatic Switch for manual reset enabling <sup>1)</sup>	60 V DC/ 25 V AC 2 A 60 W	–	60 V DC/ 25 V AC 2 A 60 W	60 V DC/ 25 V AC 2 A 60 W	–	–
		Dimensions in mm Length Overall depth Height	111	91	75	25	22,5	85
			–	–	–	2	–	–
			60 V DC/ 25 V AC 2 A 60 W	–	60 V DC/ 25 V AC 2 A 60 W	60 V DC/ 25 V AC 2 A 60 W	–	–
			–	–	●	●	–	–
			●	●	●	●	–	–
			●	–	●	●	–	–
			IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
			–15, +60	–15, +60	–20, +50	–20, +50	–20, +70	–20, +50
			0.60	0.60	0.80	0.40	0.15	0.85
			336	336	325	195	∅ 80	160
			50	50	53	53	73	80
			30	30	52	52		60

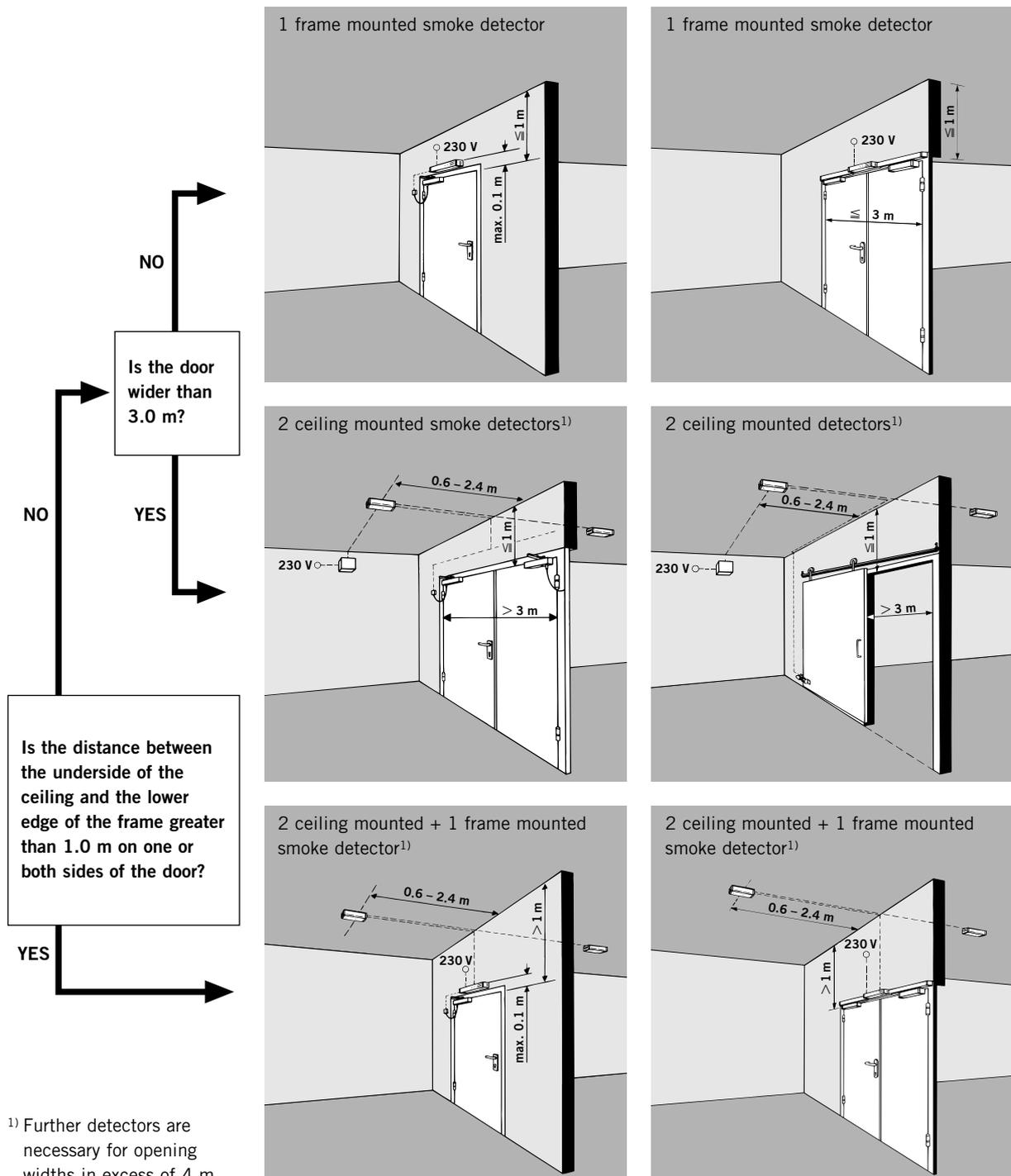
● yes – no

<sup>1)</sup> Necessary when used in hold-open systems in conjunction with automatic operators (e.g. DORMA ED 200)

## Determining the number of smoke detectors and their arrangement

Whether the ceiling is high or low, and whether the door is wide or narrow, DORMA ceiling and frame mounted smoke detectors can be arranged to provide the optimum solution to virtually any application.

At the same time, this modular concept also offers the ideal answer in terms of equipment cost and ease of installation. And if you should have any problems, your DORMA technical advisor will be glad to assist in finding the best configuration.

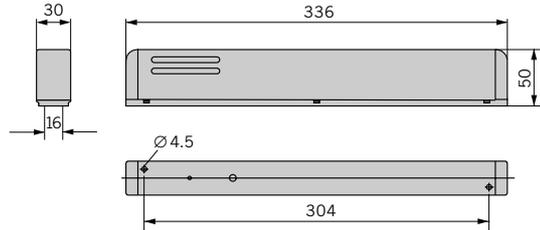


<sup>1)</sup> Further detectors are necessary for opening widths in excess of 4 m

## DORMA RMZ-K frame mounted smoke detector

The DORMA RMZ-K frame mounted smoke detector with its stabilised power supply unit supplies all the hold-open devices connected to it with 24 vDC, and in the case of an alarm or power failure, de-energises them to initiate their release (fail-

secure function). Resetting is performed automatically. Facilities for connecting other detectors (e.g. the DORMA RM) and also an external manual release device, are also available, as is a floating (no-volt) change-over contact.



### F Approval certification

The RMZ-K frame mounted smoke detector has been approved by the German Institute for Building Technology (DIBt), Berlin (general building approval).

### Specification text

Frame mounted smoke detector with integral power supply unit and optical smoke sensor for frame fixing. For control of DORMA hold-open devices. Equipped for the connection of further smoke detectors. Floating (no-volt) change-over contact and connection terminals for

external manual release device.  
Power supply data: 230 vAC; Operating voltage: 24 vDC. Approved by the German Institute for Building Technology (DIBt), Berlin (general building approval) as a hold-open device; acceptance inspection necessary.

### Finishes

- silver  dark brown
- white similar to RAL  9010  9016
- stainless steel finish
- polished brass finish
- special colour \_\_\_\_ (similar to RAL\_\_\_\_)

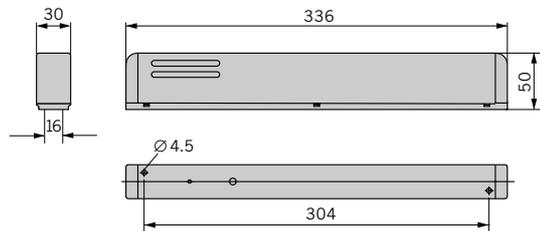
**Make:** DORMA RMZ-K



## DORMA RMZ-S frame mounted smoke detector

The DORMA RMZ-S frame mounted smoke detector with its stabilised power supply unit supplies all the connected hold-open devices with 24 vDC, and in the case of an alarm or power failure, de-energises them to initiate their release

(fail-secure function). Resetting is performed automatically. The DORMA RM-S line-type detector can also be connected to the DORMA RMZ-S frame mounted smoke detector.



### F Approval certification

The RMZ-S frame mounted smoke detector has been approved by the German Institute for Building Technology (DIBt), Berlin (general building approval).

### Specification text

Frame mounted smoke detector with integral power supply unit and optical smoke sensor for frame fixing. For control of DORMA hold-open devices. Equipped for the connection of further smoke detectors.

Power supply data: 230 vAC; Operating voltage: 24 vDC. Approved by the German Institute for Building Technology (DIBt), Berlin (general building approval) as a hold-open device; acceptance inspection necessary.

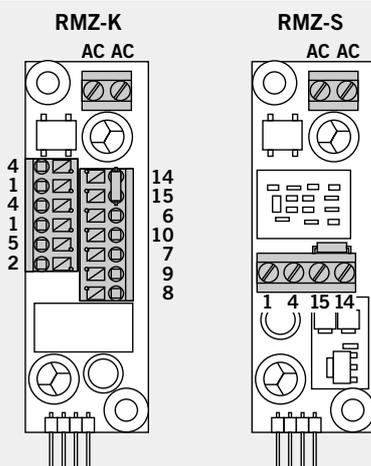
### Finishes

- silver  dark brown
- white similar to RAL  9010  9016
- stainless steel finish
- polished brass finish
- special colour \_\_\_\_ (similar to RAL\_\_\_\_)

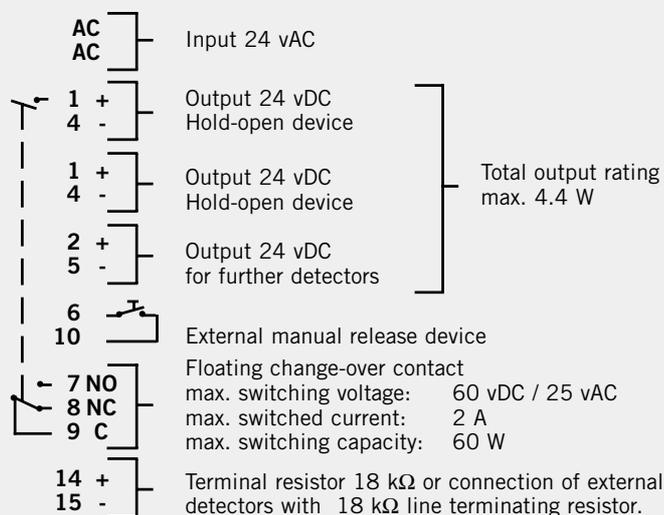
**Make:** DORMA RMZ-S



### Terminal assignment, RMZ-K/RMZ-S



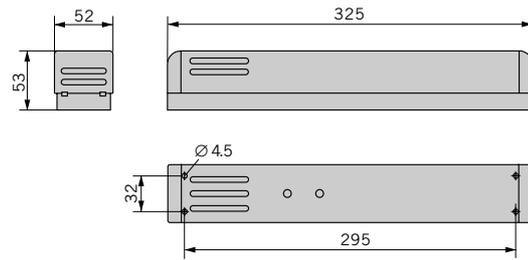
Power supply to RMZ-K/S:  
230 vAC ± 10 %



## DORMA RMZ 2 frame mounted smoke detector

The DORMA RMZ 2 frame mounted smoke detector with its stabilised power supply unit supplies all the hold-open devices connected to it with 24 vDC, and in the case of an alarm or power failure, de-energises them to initiate their release (fail-secure function). Resetting is performed automatically; however, a selector

switch is provided to activate the manual reset mode (required when used in conjunction with the ED 200 swing door operator). Facilities for connecting other detectors (e.g. the DORMA RM) and also an external manual release device, are also available, as is a floating (no-volt) change-over contact.



### F Approval certification

The RMZ 2 frame mounted smoke detector has been approved by the German Institute for Building Technology (DIBt), Berlin (general building approval).

### Specification text

Frame mounted smoke detector with integral power supply unit and optical smoke sensor for frame fixing. For control of DORMA hold-open devices. Equipped for the connection of further smoke detectors. Floating (no-volt) change-over contact and connection terminals for external manual release

device. Manual reset mode switch-selected. Power supply data: 230 vAC; Operating voltage: 24 vDC. Approved by the German Institute for Building Technology (DIBt), Berlin (general building approval) as a hold-open device; acceptance inspection necessary.

### Finishes

- silver  dark brown white similar to RAL  9010  9016
- stainless steel finish
- polished brass finish
- special colour \_\_\_ (similar to RAL\_\_\_)

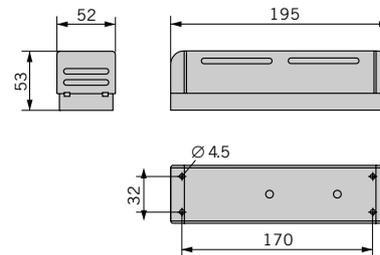
**Make:** DORMA RMZ 2



## DORMA RM frame and ceiling mounted smoke detector

The DORMA RM smoke detector is designed as a smoke switch and, in the event of an alarm or power failure, switches a floating (no-volt) change-over contact. Suitable as an additional detector to complement the

DORMA TS 93 EMR-K, RMZ-K, RMZ 2 and TS 73 EMR. Connections for further detectors, and for an external manual release device, and also a floating (no-volt) change-over contact are integrated as standard.



### F Approval certification

The DORMA RM smoke detector is approved by the German Institute for Building Technology (DIBt), Berlin (general building approval) and by the VdS, Cologne (German Association of Property Insurers) in accordance with EN 54 Part 7.

### Specification text

Non-directional, universal optical smoke detector, 24 vDC, for ceiling and frame fixing. Can be employed as a smoke switch and monitoring device for hold-open devices. With floating (no-volt) change-over contact and terminals for external manual release.

Approved by the German Institute for Building Technology (DIBt), Berlin (general building approval) as a hold-open device, and by the VdS, Cologne, to EN 54 Part 7; acceptance inspection necessary.

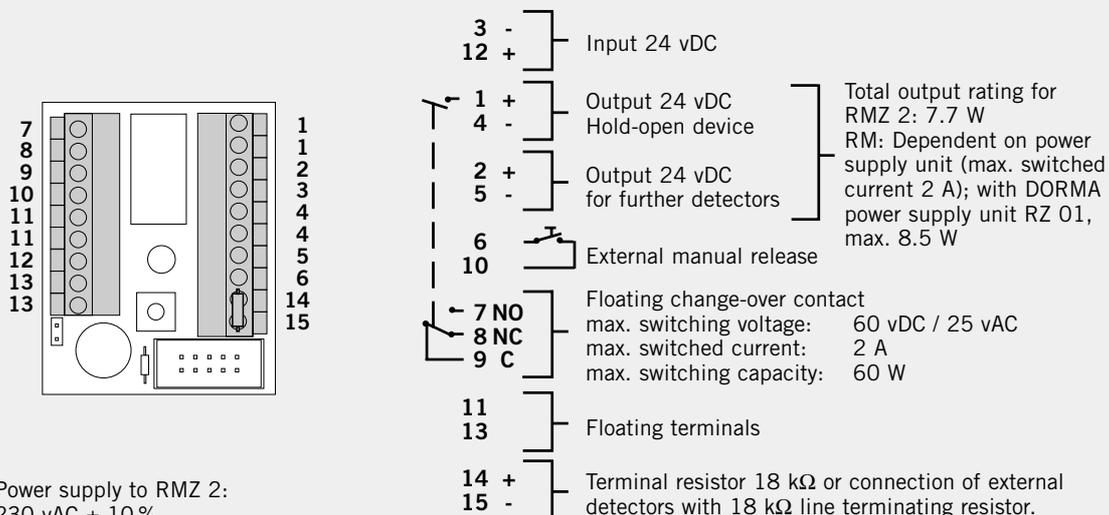
### Finishes

- silver  dark brown white similar to RAL  9010  9016
- stainless steel finish
- polished brass finish
- special colour \_\_\_ (similar to RAL\_\_\_)

**Make:** DORMA RM



### Terminal assignment – RMZ 2/RM

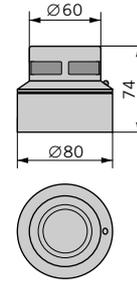


## DORMA RM-S smoke detector

The DORMA RM-S line-type smoke detector provides for early detection of both smouldering fires and also smoking open fires, and can be connected to all DORMA hold-open devices.

### F Approval certification

The DORMA RM-S smoke detector is approved by the German Institute for Building Technology (DIBt), Berlin (general building approval) and by the VdS, Cologne (German Association of Property Insurers) in accordance with EN 54 Part 7.



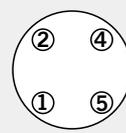
### Specification text

Ceiling mounted line-type detector for connection as a second or third detector to DORMA hold-open devices. Operating voltage 24 vDC. Tested and approved by the VdS, Cologne (German Association of Property Insurers) to EN 54, Part 7.

**Make:** DORMA RM-S



### Terminal assignment – RM-S

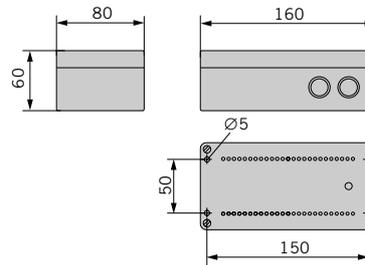


1 +  
2 - } Input 24 vDC

4 -  
5 + } Terminal resistor 18 kΩ  
or connection of external  
detectors with 18 kΩ  
line terminating resistor.

## DORMA RZ 01 power supply unit

With a stabilised power pack, this unit reliably and safely satisfies all the requirements applied to power supply units for hold-open devices.



### Specification text

Power supply unit with stabilised power pack for connection of DORMA RM smoke detectors and DORMA hold-open devices. With operating status indicator.

Input voltage: 230 vAC, 50 Hz

Output voltage: 24 vDC

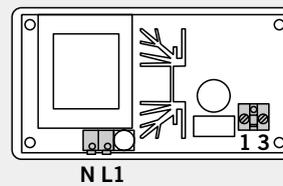
Installed load: 8.5 W

Approved by the German Institute for Building Technology (DIBt), Berlin; acceptance inspection necessary.

**Make:** DORMA RZ 01



### Terminal assignment – RZ 01

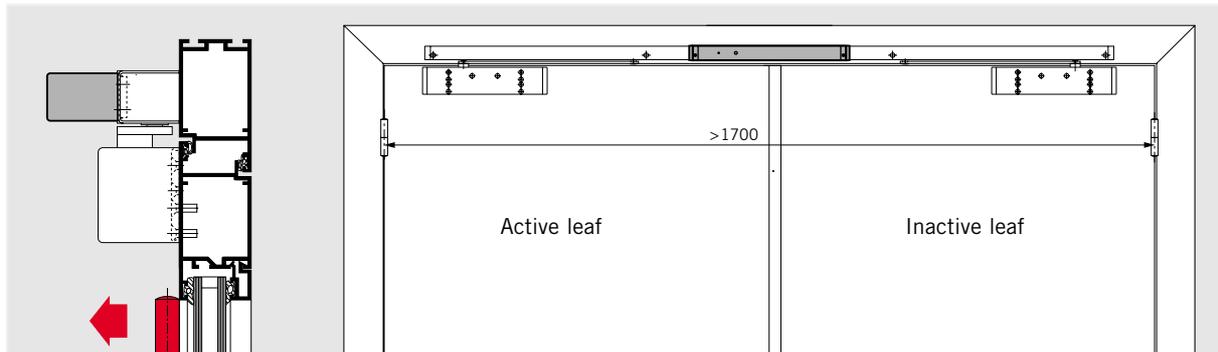
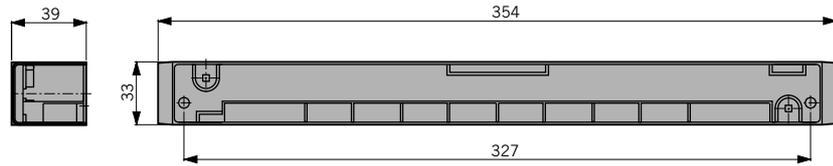


N +  
L1 - } Mains connection  
230 vAC ± 10 %

1 +  
3 - } Output 24 vDC  
max. 600 mA

**Base unit for RMZ-K/RMZ-S**

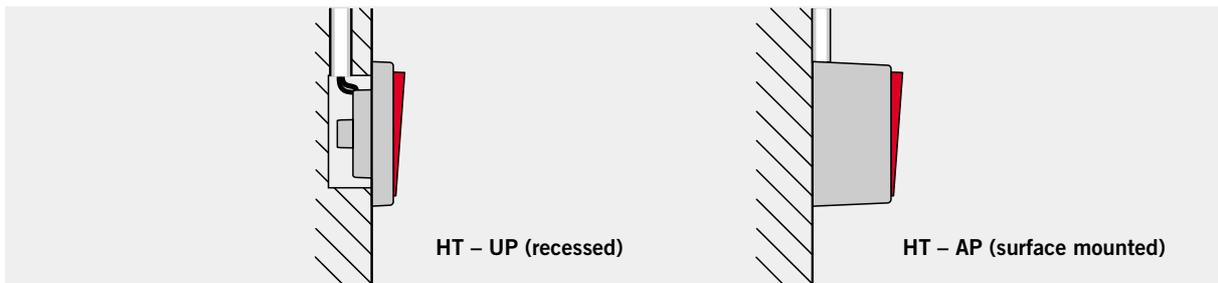
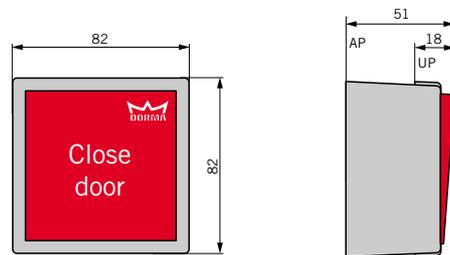
For installation of DORMA RMZ-K/RMZ-S frame mounted smoke detectors on the pull side in conjunction with the DORMA G 93 GSR/EMF



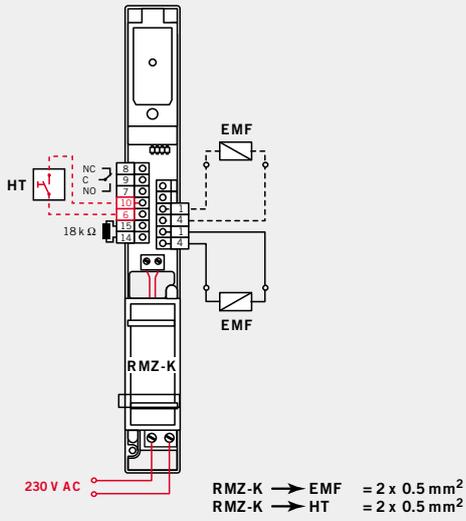
**DORMA HT manual release switch**

For releasing hold-open devices by hand. When using electro-magnets or free-swing door closers in hold-open systems for fire and smoke check doors, a manual release switch must be installed according to the code of practice issued by

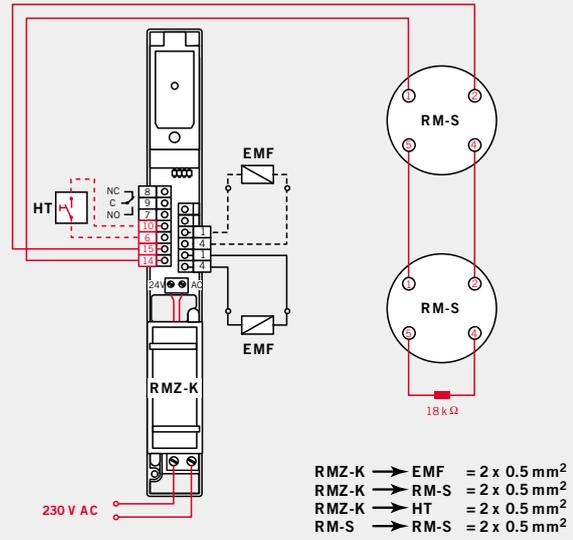
the German Institute for Building Technology (DIBt), Berlin.



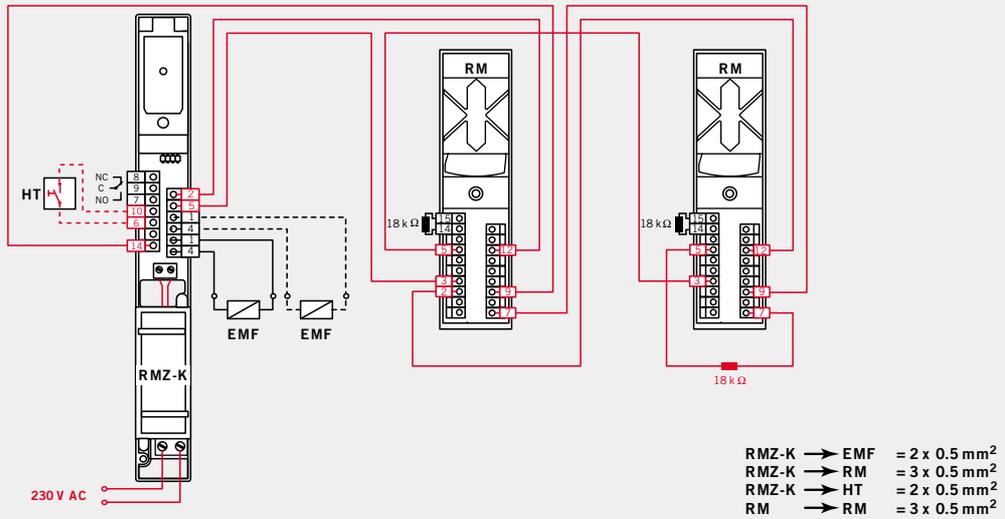
**RMZ-K**



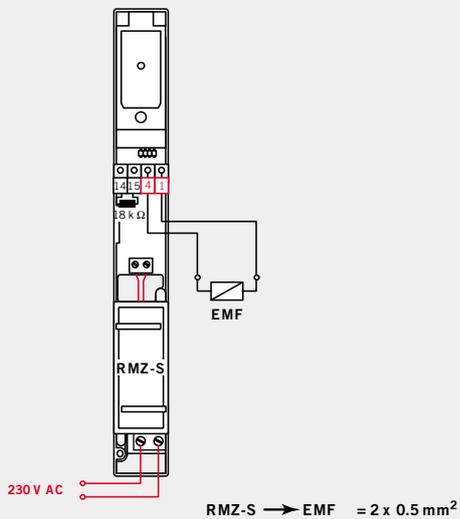
**RMZ-K + 2xRM-S**



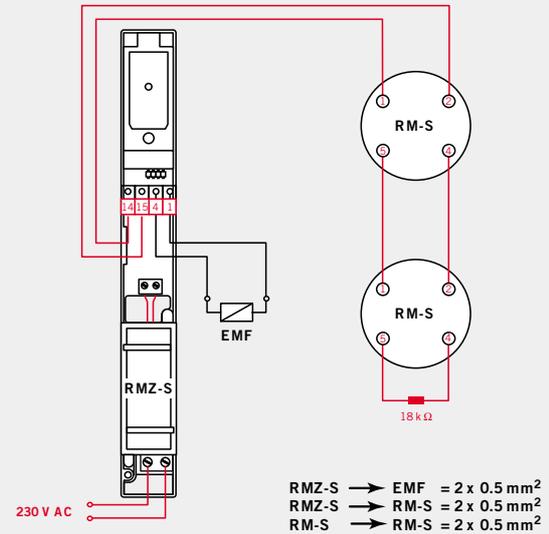
**RMZ-K + 2x RM**

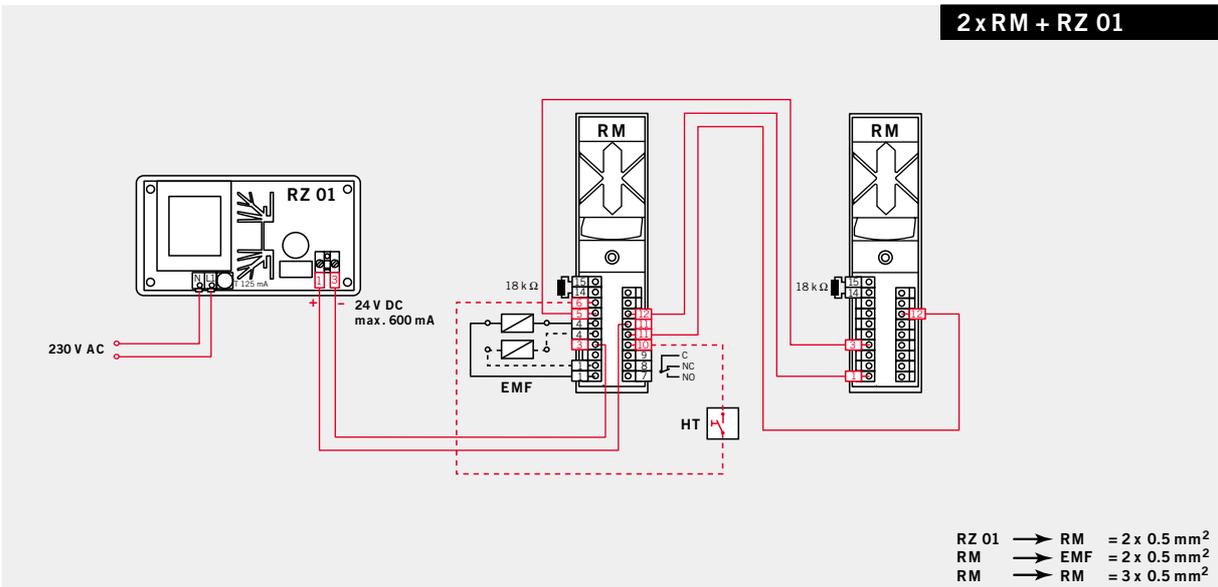
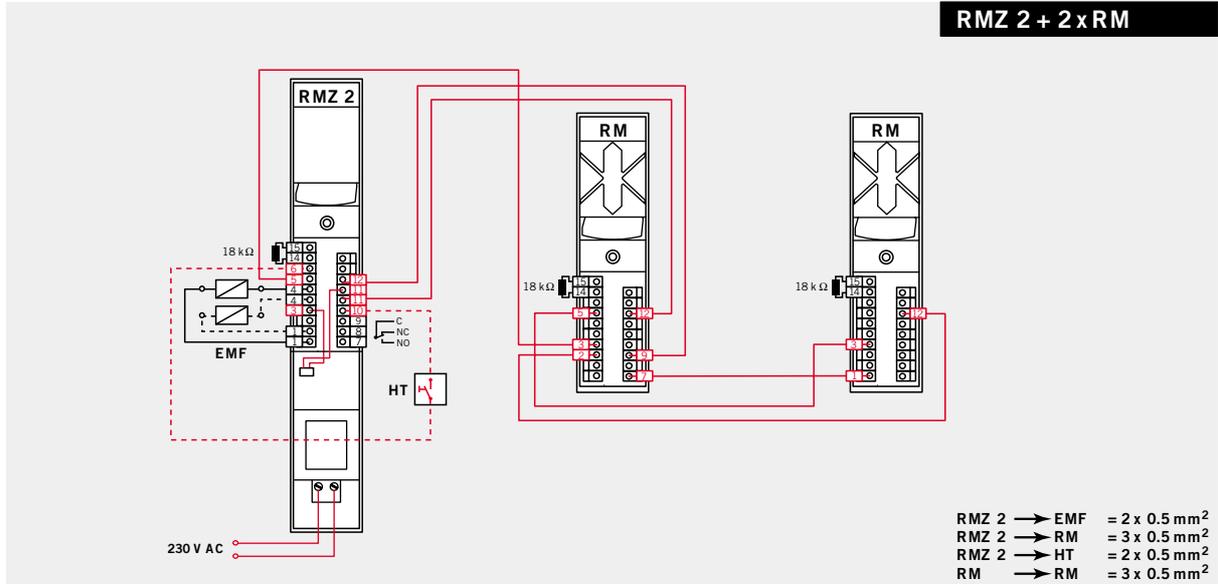
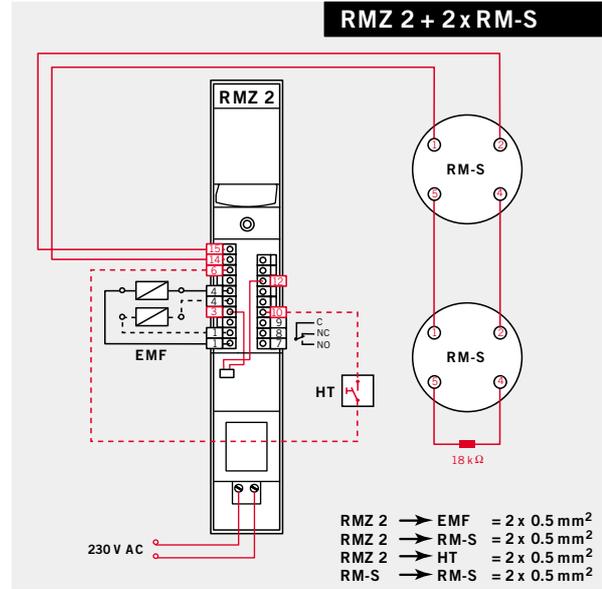
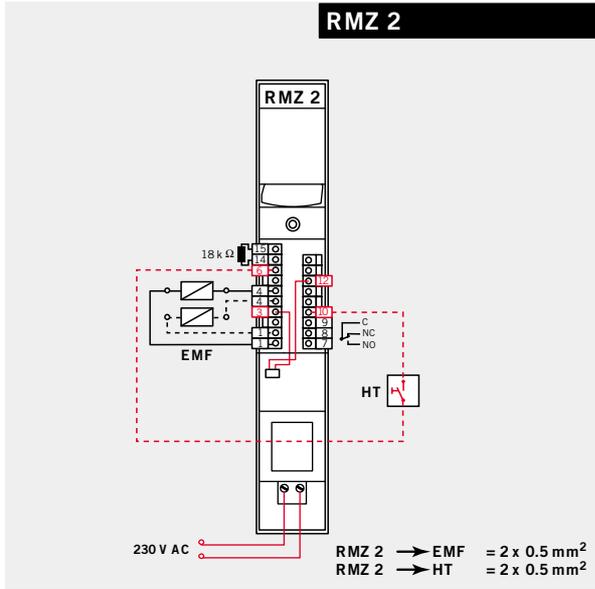


**RMZ-S**



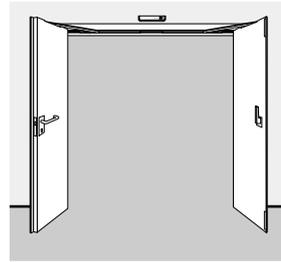
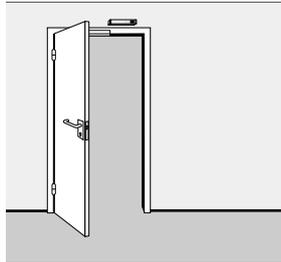
**RMZ-S + 2x RM-S**





**DORMA ITS 96 EMF**

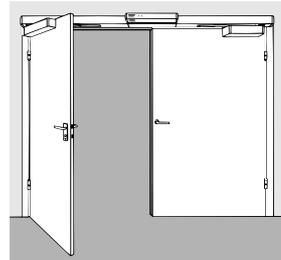
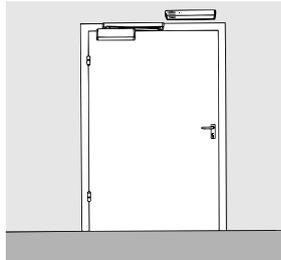
Concealed cam-action door closer with electro-mechanical hold-open; power consumption 1.4 W  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

**DORMA ITS 96 GSR-EMF**

Concealed slide-channel door co-ordinator for double doors, with electro-mechanical hold-open; power consumption 2.8 W  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

**DORMA TS 93 EMF**

Cam-action door closer with electro-mechanical hold-open; power consumption 1.4 W  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

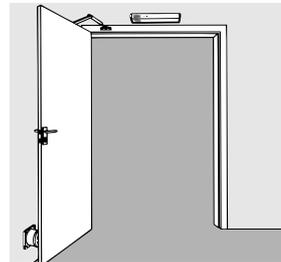
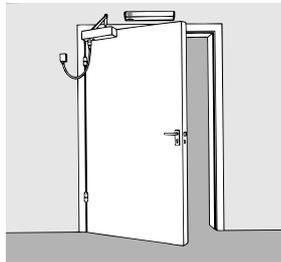
**DORMA TS 93 GSR-EMF**

Concealed slide-channel door co-ordinator for double doors, with electro-mechanical hold-open.

Power consumption:  
GSR-EMF1: 1.4 W  
GSR-EMF2: 2.8 W  
GSR-EMF1G: 1.4 W  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

**DORMA TS 73 EMF**

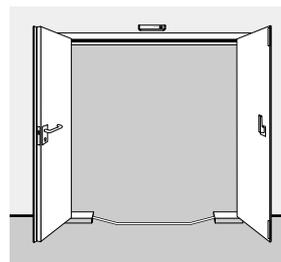
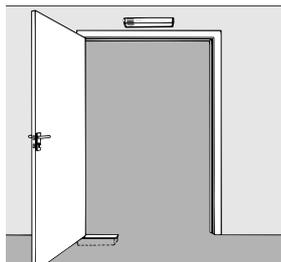
Door closer with electro-hydraulic hold-open, also available with free-swing arm assembly; power consumption 2 W  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

**DORMA EM**

Door hold-open magnets; power consumption 1.5 W. Suitable for combination with any DORMA door closer or floor spring suitable for use on fire doors:  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

**DORMA BTS 80 EMB**

Floor spring with electro-hydraulic hold-open, also available with free-swing action (FLB); power consumption 2.3 W  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

**DORMA BTS 80 BSR-EMB**

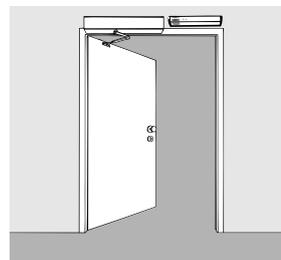
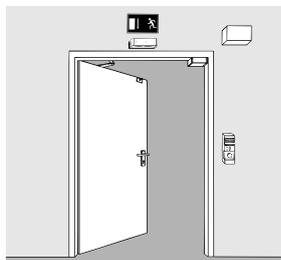
Floor spring with door co-ordinator and electro-hydraulic hold-open.

Power consumption:  
BSR-EMB1: 2.3 W  
BSR-EMB2: 4.6 W<sup>1)</sup>  
BSR-EMB1G: 2.3 W  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

<sup>1)</sup> only with RMZ 2

**DORMA SRT**

Smoke detector for disarming DORMA emergency exit security systems in the event of a fire; with integral power supply unit  
+ **DORMA RMZ-K / RMZ-S**  
or **DORMA RMZ 2**

**DORMA ED 200**

Automatic swing door operator for single and double doors; with integral power supply unit  
+ **DORMA RMZ 2**

The frame and ceiling mounted smoke detectors are designed for optimum combination with all DORMA products manufactured for preventive fire protection and emergency exit security systems.

In Germany, the use of hold-open devices is subject to approval and governed by various official regulations. These relate particularly to final acceptance, regular inspection and continual maintenance.

The following instructions and regulations have been provided as a summary of the official requirements for the purpose of informing all participants of the most important aspects which relate to the operation and maintenance of hold-open systems.

Further details can be found in the following documents:

- Richtlinien für Feststellanlagen des Deutschen Instituts für Bautechnik, Berlin [Guidelines for the use of hold-open devices issued by the German Institute for Building Technology (DIBt), Berlin]
- Approval certificate of the hold-open device concerned
- DIN EN 1155

### 1 General

**1.1** In the case of barriers (fire and smoke check doors) which are held open by hold-open devices, the area required for the closing operation (closing sweep) must be kept constantly clear. This area must be clearly marked by lettering, floor markings or similar. Where appropriate, constructional measures shall be introduced in order to ensure that cabling, stored items and building components (e.g. false ceilings or their components) are prevented from falling into the sweep area.

**1.2** Where possible, smoke detectors should be used in conjunction with hold-open devices. For hold-open devices for doors in emergency escape routes, the use of smoke detectors is compulsory.

**1.3** Each hold-open device must have a facility for performing a manual release function without the release device being functionally impaired by such operation. In the case of door closers with an electro-magnetic hold-open device, this may be released by applying a small degree of pressure on the door leaf in the closing direction. If hold-open electro-magnets or free-swing door closers are used, manual release shall be performed by means of a switch. The manual release device employed in such cases must be red and carry the inscription "Close door". The switch must be mounted in the immediate vicinity of the door and must not be concealed by the door in its hold-open position.

### 2 Acceptance testing

**2.1** Following installation of the hold-open device ready for operation at the place of use, it shall be subjected to an acceptance test in order to determine that it is functioning correctly and that it has been properly installed. The acceptance test may only be carried out by specialist personnel from manufacturers of release and/or hold-open devices, specialist inspectors authorised by said manufacturers, or specialist test engineers from a test and inspection agency accredited for this purpose.

**2.2** Following the successful completion of the acceptance test, an approval plate measuring 105 mm x 52 mm shall be fixed in the immediate vicinity of the barrier, bearing the inscription

Hold-open device  
Inspected by .....  
(company logo and also month and year of acceptance).

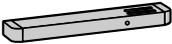
**2.3** The operator must be provided with a certificate confirming the successful completion of the acceptance test; this must be retained by the operator.

### 3 Periodic inspection

**3.1** The hold-open device must be constantly maintained in good working condition by the operator and checked at least once a month to ensure that it is functioning properly.

**3.2** In addition, the operator is obliged to instigate an inspection of all the equipment at least once a year to ensure that the devices are interacting correctly, and also to carry out maintenance, or have maintenance carried out, on all the equipment concerned. These checks and the maintenance work shall only be performed by an appropriately qualified specialist or a specialist agency.

**3.3** The scope, results and date of this periodic inspection shall be recorded. These records are to be retained by the operator.

		Power supply unit RZ 01  56030100	Base unit for fixing to GSR slide channel  180700xx	Manual release switch  HT-UP 35901531  HT-AP 35901532
For specification text/ product description, see page		6	7	7
<b>RMZ-K</b>  180619xx	4	-	#	#
<b>RMZ-S</b>  180618xx	4	-	#	-
<b>RMZ 2</b>  3570xx89	5	-	-	#
<b>RM</b>  3570xx88	5	#	-	#
<b>RM-S</b>  18080000 <sup>1)</sup>	6	-	-	-

# = Accessory

<sup>1)</sup> only in white (RAL 9010)

Colour	xx
silver	01
dark brown	03
white (RAL 9016)	11
white (RAL 9010)	10
special colour	09

Also available in metal  
finish:

stainless steel	04
polished brass	05

Subject to change without notice

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