

EM

# A modular system for fire and smoke doors setting new standards for hold-open magnets

dormakaba's new range of EM hold-open magnets provides the perfect complement to a technically and aesthetically advanced range of fire and smoke door products. These new market-orientated developments are characterised by their ease of fixing and functional elegance.

And thanks to comprehensive quality assurance, they also offer maximum reliability and service life.

Certified to ISO 9001

## Benefits

### For the trade

- Cost-effective modular system offering the advantages of maximum flexibility with minimal stocking levels.
- A further component in the dormakaba range for single-source supply.

### For the installer

- Quick and easy to fix.
- Sophisticated accessories suitable for a wide range of applications.

### For the architect/specifier

- Uniform appearance common to all models.
- Modular system for application flexibility.

### For the user

- Unobtrusive.
- Concealed cable run.
- Optimum holding force with minimum power consumption.

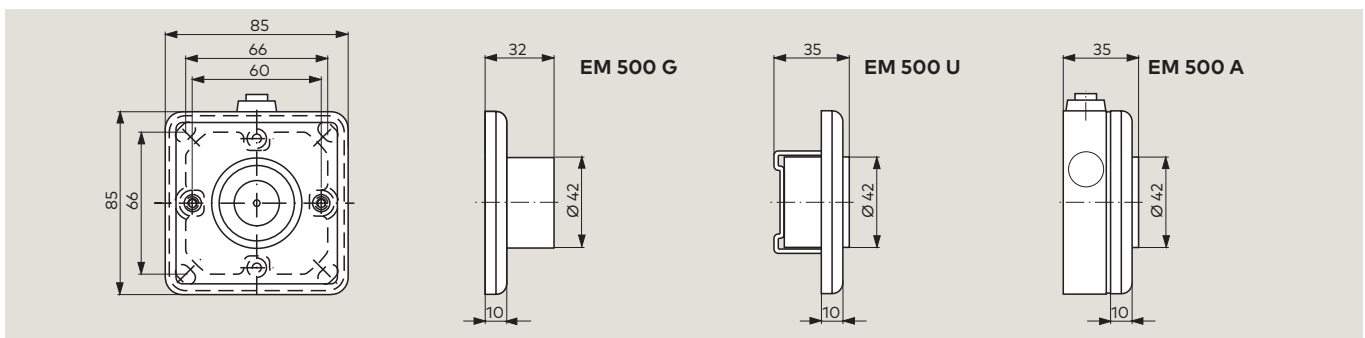
Data and features		500 G	500 U	500 A
Fixing	Surface-mounted	●	–	●
	Flush-mounted	–	●	–
	Floor-mounted <sup>1)</sup>	●	–	●
Holding force	400 N	●	●	●
Anti-remance pin		●	●	●
Test pushbutton		–	–	●
Polarity reversal protection		●	●	●
Operating voltage 24 V AC/DC		●	●	●
Power consumption max. in W			1,5	
On-load factor in %			100	
			(rated for continuous service)	
Class of protection			IP 40 <sup>2)</sup>	
Ambient temperature in °C			0 – 50	
Weight in kg		0,41	0,42	0,46
Dimensions in mm	Width	85	85	85
	Length	85	85	85
	Depth	32	35	35
Hold-open devices tested to EN1155			●	
CE mark for building products			●	

● yes – no

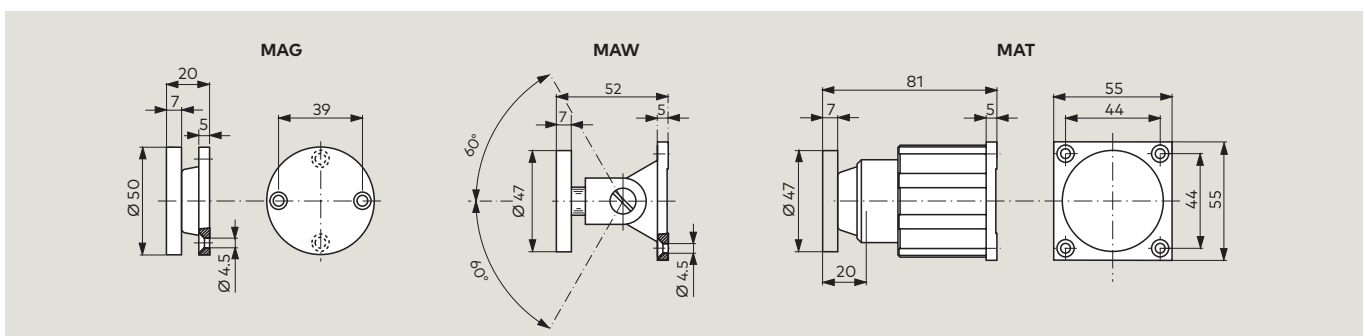
<sup>1)</sup> Floor angle bracket required (accessory)

<sup>2)</sup> EM 500 A in conjunction with floor angle bracket: Class of protection IP 43

## Hold-open magnets



## Armature plates



## Electro-magnets for hold-open systems

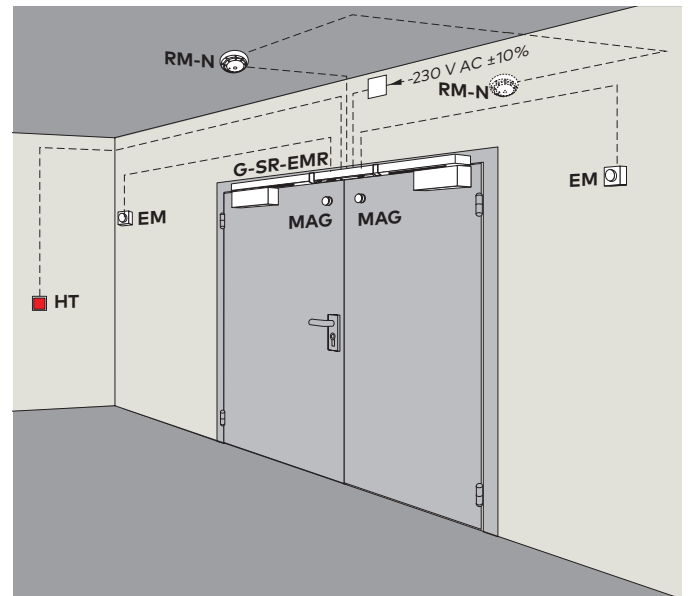
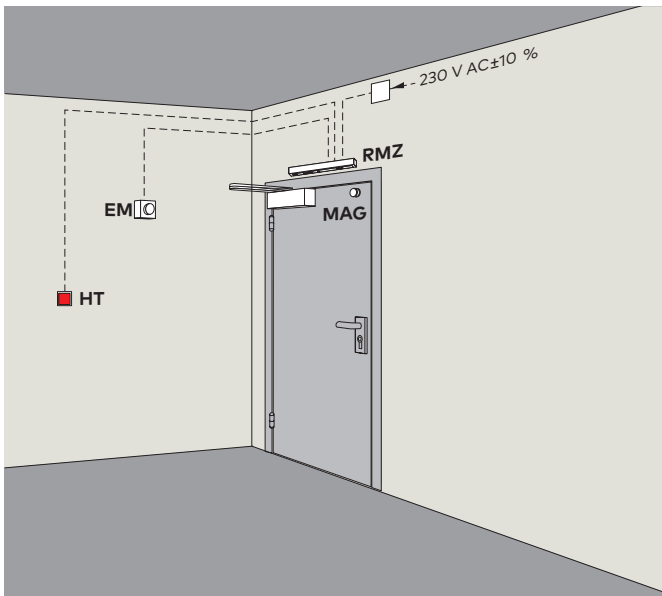
The statutory regulations which apply in many countries allow fire and smoke doors to be held open for a limited period of time by electro-magnetic hold-open devices which, in the event of a fire, are de-energised to release the door so as to enable automatic closing.

Such systems consist of a hold-open device, fire/smoke detection and alarm system, power supply and release device, and generally have to be approved by an accredited institute or building authority.

Electro-magnets are devices which hold open fire and smoke doors.

In the event of a fire, the hold-open magnet is de-energised by the release device responding to a signal from the fire detector.

The automatic closing action is provided by door closers which must be third party tested to BS EN 1154 and be CE Marked. It may also be necessary to manually release the hold-open device. A manual release pushbutton is available when employing electro-magnets in such applications. The pushbutton employed must be red, carry the wording "Close door", be located in the immediate vicinity of the door, and must not be hidden when the door is in its hold-open position.



EM	Electro-magnet
HT	Manual release pushbutton
MAG	Armature plate
RM-N	Smoke detector (ceiling-mounted)
RMZ	Smoke detector (lintel-mounted)
G-SR-EMR	Door co-ordinator with integral smoke detector

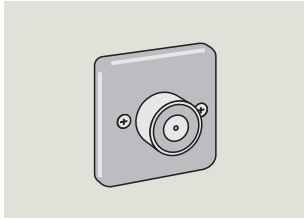
### **F** Approval certification

Electro-magnets of the series EM 500 for 24V AC/DC are tested and third-party verified by the Verband der Sachversicherer (VdS) e.V., Cologne (Association of Property Insurers), and have been approved by the German Institute for Building Technology (DIBt), Berlin, for use in combination with the dormakaba RMZ smoke detector and other reputable smoke detector systems, (e.g. with dormakaba RMZ: approval certificate No. Z-6,5-1890).

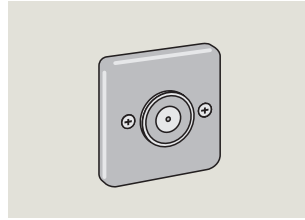
In Germany, inspection and approval of the holdopen system is additionally required.

## Modular system overview

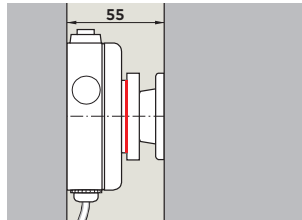
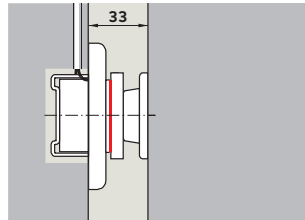
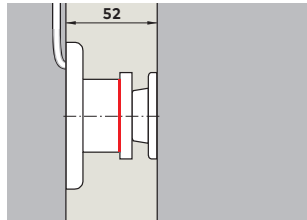
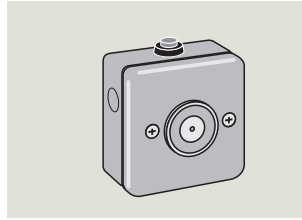
EM 500 G



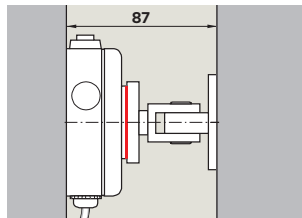
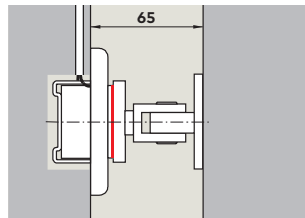
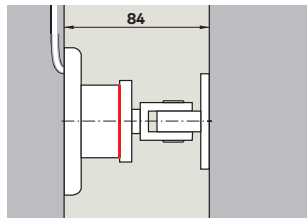
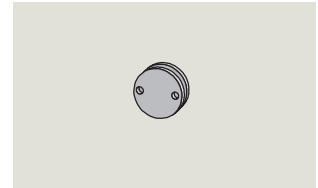
EM 500 U



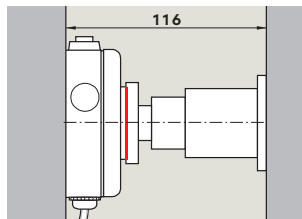
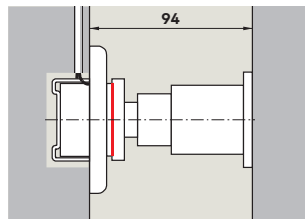
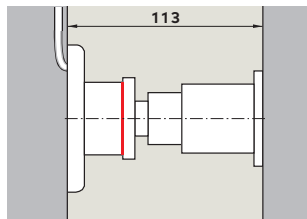
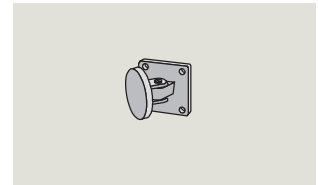
EM 500 A



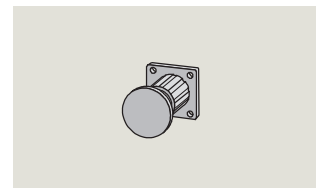
MAG



MAW



MAT



## Specification text

### EM 500 G

Hold-open magnet with pole reversal protection for wall or floor mounting\*.

Holding force 400 N

24v AC/DC

CE Marked to BS EN11 55

Requisite accessories:  
Armature plate

### Make

dormakaba EM 500 G

### M 500 U

Hold-open magnet with pole reversal protection for flush fixing.

Holding force 400 N

24v AC/DC

CE Marked to BS EN11 55

Requisite accessories:  
Armature plate

### Make

dormakaba EM 500 U

### EM 500 A

Hold-open magnet with pole reversal protection and integral test pushbutton, for wall or floor mounting\*.

Holding force 400 N

24v AC/DC

CE Marked to BS EN11 55

Requisite accessories:  
Armature plate

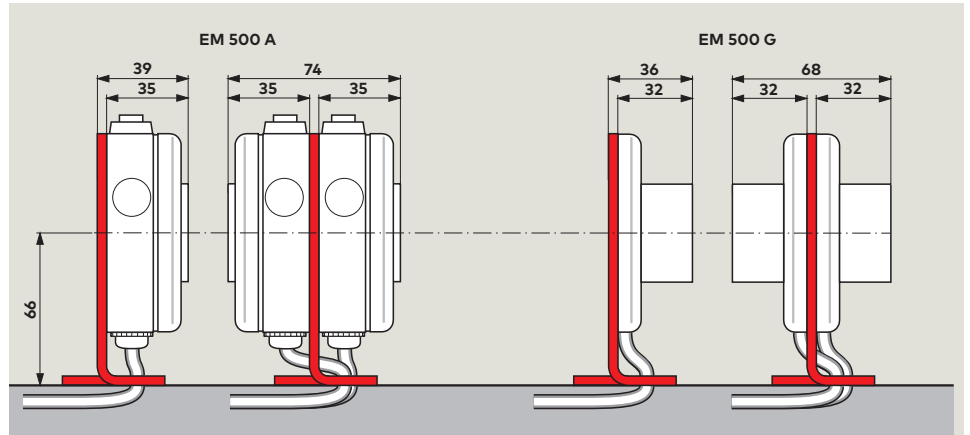
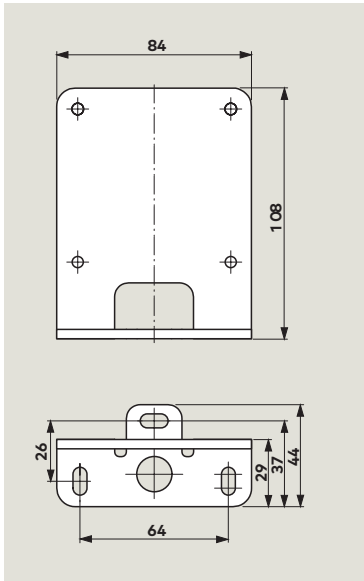
### Make

dormakaba EM 500 A

\* in conjunction with floor angle bracket, see Page 5

# Accessories

## Floor angle bracket

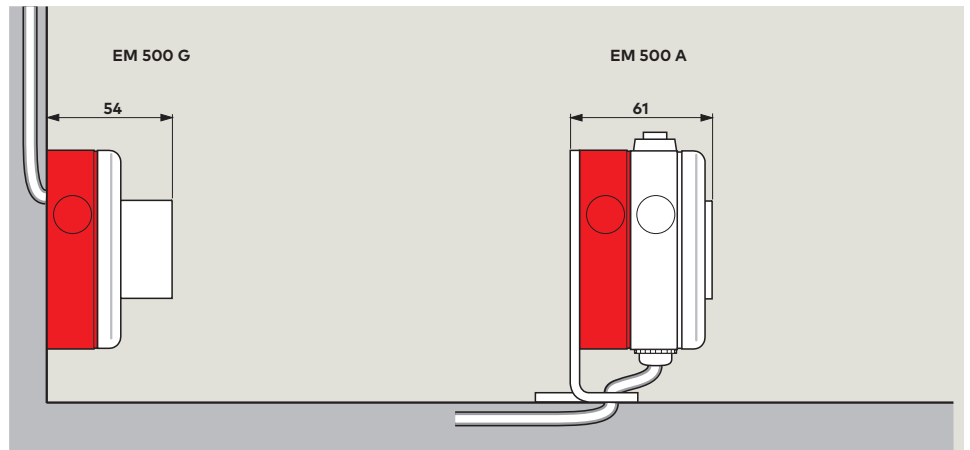
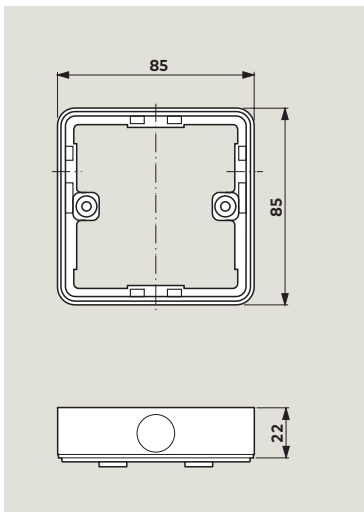


For installation of hold-open magnets EM 500 G and EM 500 A as floor-mounted units.

A dormakaba EM 500 B hold-open magnet for floor mounting comprises an EM 500 G or EM 500 A hold-open magnet and an associated floor angle bracket.

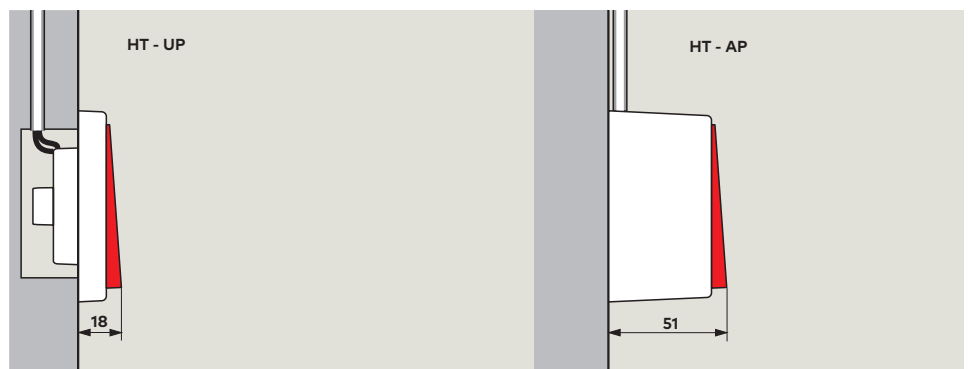
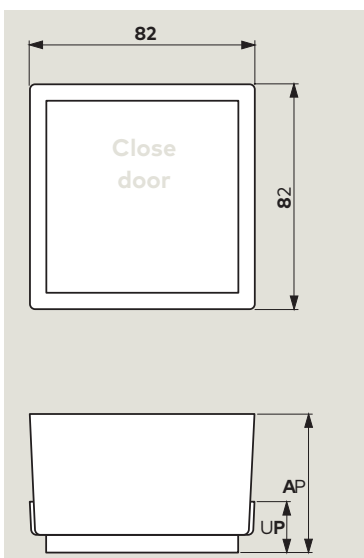
Specification text see Page 4

## Adapter frame



The frame can be combined with the individual hold-open magnets of the series EM 500 G/U/A.

## Separate manual release switch

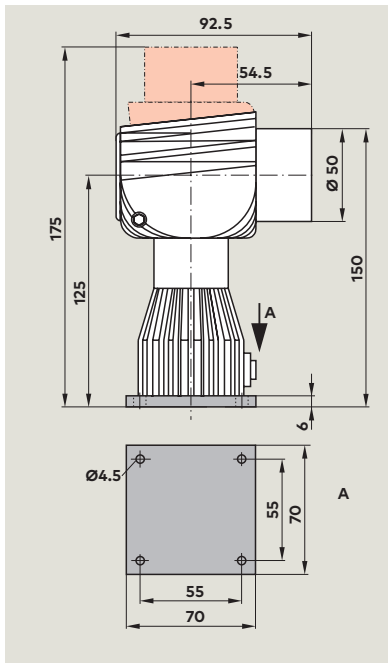


For releasing the hold-open device by hand.

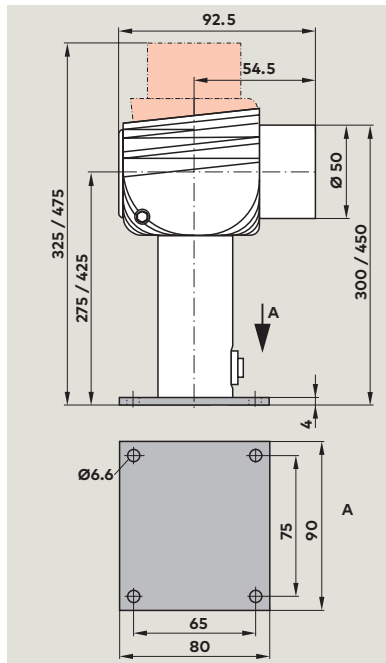
When employing electro-magnets in hold-open systems for fire and smoke doors, a manual switch may have to be provided in accordance with local or national regulations (e.g. the guidelines of the German Institute for Building Technology (DIBt), Berlin, for German applications).

# Special models EM 500 H for floor, ceiling and wall mounting, with integral test pushbutton

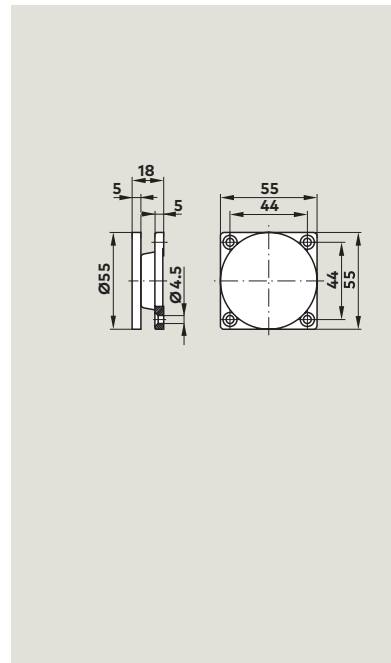
EM 500 H 150/175 mm



EM 500 H 300/325 mm  
EM 500 H 450/475 mm



MAG1



## Specification text

24 V DC hold-open magnet with pole reversal protection and integral test pushbutton for floor, ceiling and wall mounting.

Holding force 490 N.

Generally approved by the DIBt-Berlin for use in hold-open systems (in Germany). (System acceptance inspection may be necessary.)

### Size

- 150/175 mm
- 300/325 mm
- 450/475 mm

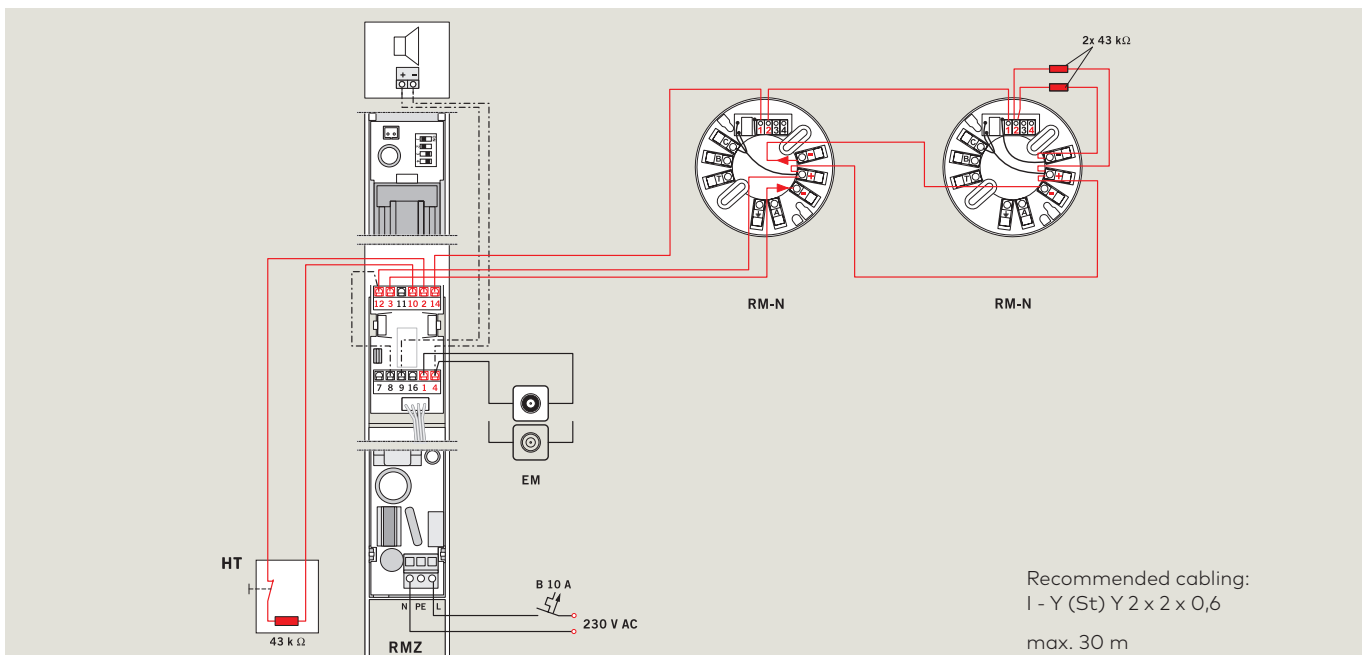
### Requisite accessories

- Anker MAG

### Make










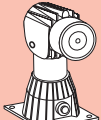
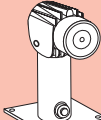


dormakaba EM 500 H

## EM + RMZ + 2x RM-N



Recommended cabling:  
1 - Y (St) Y 2 x 2 x 0,6  
max. 30 m

## Standard equipment and accessories

		MAG	MAW	MAT	MAG I	Floor angle bracket	Adapter frame
							
		□ 69020110	□ 69020111	□ 69020112	□ 69021113	69011540	690xx541
EM 500 G 	24 V AC/DC ■ 690xx511	■ □	■ □	■ □		△	△
EM 500 U 	24 V AC/DC ■ 690xx521	■ □	■ □	■ □			△
EM 500 A 	24 V AC/DC ■ 690xx531	■ □	■ □	■ □		△	△
EM 500 H 24 V DC 	150/175 mm ■ 69015005				■ □		
EM 500 H 24 V DC 	300/325 mm ■ 69015006				■ □		
	450/475 mm ■ 69015007				■ □		
<b>Separate manual release switch</b>						<b>xx Colour</b>	
HT-UP 	35901531						
HT-AP 	35901532						
						11	White (RAL 9016)
						12	Stainless steel finish
						■	Hold open magnet separate
						□	Armature plate separate
						△	Accessory

### Note

A hold-open magnet for floor mounting comprises an electro-magnet of the type EM 500 G or EM 500 A and the floor angle bracket.



www.dormakaba.co.uk

#### **dormakaba UK & Ireland**

E: [info.gb@dormakaba.com](mailto:info.gb@dormakaba.com)

Wilbury Way, Hitchin  
Hertfordshire  
SG4 0AB

T: +44(0)1462 477600  
F: +44(0)1462 477601

Lower Moor Way  
Tiverton, Devon  
EX16 6SS

T: +44(0)870 000 5625  
F: +44(0)870 000 5397

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