



The new TS 98 XEA door closer generation

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Product overview

Door control

Top-mounted door closer with slide channel							
Applications and functions Standard doors and width	ITS 96 system ¹	ITS 96 FL system ¹	NEW TS 98 XEA system	TS 93 Contur system ¹	TS 99 Contur system ¹	NEW TS 92 XEA	TS 97 ¹ Contur
≤ 950 mm							
≤ 1100 mm	●					●	●
≤ 1250 mm				●	●		
≤ 1400 mm	●	●	●				
≤ 1600 mm				●			
Swinging doors							
Exterior doors, opening outwards			●	●			
Fire and smoke doors							
Fail-safe from > 0°		●			●		
Single-leaf	●	●	●	●	●	●	●
Single-leaf with electromechanical hold-open unit	●		●	●			
Double-leaf	●	●	●	●	●		
Double-leaf with electromechanical hold-open unit	●		●	●			
Functions							
Closing force in line with DIN EN 1154	2-4, 3-6	3-6	1-6	2-5, 5-7	2-5	1-4	2-4
Continuously adjustable closing force	●	●	●	●	●	●	●
Continuously adjustable closing time	●	●	●	●	●	●	●
Continuously adjustable latching action	●	●	●	●	●		●
2. Closing range SoftFlow between 15° and 0°			●			●	
Same design for left- and right-handed	●	●	●	●	●	●	●
Hold-open system (not for fire or smoke doors)	○	○	○	○	○	○	○
Delayed closing			●	●			
Backcheck			●	●			
Mounting plate with universal hole pattern			●	●	●	●	
Mechanical cushioned limit stay	●	●	○	○	○	○	●
DIN EN 1154	●	●	●	●	●	●	●
DIN EN 1155	●	●	●	●	●		
CE-Identification for construction products	●	●	●	●	●	●	●
Decreasing opening force as per German Industrial Standard (DIN) SPEC 1104; CEN/TR 15894	●	●	●	●		●	●
Compliance with the max. opening force as per German Industrial Standard (DIN) 18040 up to a door width of	1100 mm 1250 mm	1400 mm*	1250 mm	1250 mm	1250 mm*	1100 mm	1100 mm

● As standard ○ Optional *Because is free-swing door closer. **Because is hold-open system.

¹ You will find these products in the Architectural hardware catalogue – Opening, closing and securing.

Top-mounted door closer with standard arm			Floor spring	
TS 83 ¹	TS 73 V ¹	TS 73 EMF ¹	BTS 80 system ¹	BTS 75 V ¹
	●	●	●	●
		●	●	
●		●	●	
●				
			●	●
●			●	
●	●		●	●
		●	●	
●	●		●	
		●	●	
3-6, 7	2-4	4, 5, 6	4, 5, 6	1-4
3-6	●			●
●	●	●	●	●
●	●	●		
●	●	●	●	
○	○			
○			●	
●	●		●	
○	○	○	●	●
●	●	●	●	●
●	●	●	●	●
1100 mm	1000 mm	1400 mm**	1100 mm	1100 mm

XEA

Ten elements of aesthetics

What we mean by XEA

The XEA design language is based on a comprehensive, standardised position, consistently taking into account our own requirement for compatibility, high quality, innovation, perfection and aesthetics as stipulated in ten points. This all aims to unite basic designs, colours and surface finishes in a single, standardised appearance: XEA combines dormakaba's product and corporate worlds to form a universal design that speaks a recognisable language in terms of content and visual presence.



1. Identifiable brand products

Each XEA product can be clearly identified as a dormakaba product by features such as our logo on the front of the product.



2. Intuitive symbols

All symbols used are reduced to their most essential elements, are self-explanatory and have a high recognition factor.



3. Standard surface finishes

XEA unifies four standard basic colours, which can be easily combined for all products. The XEA colour numbering system allows different components to be brought together worldwide.



4. Clear design language

The XEA design language is based on monolithic structures which are defined by flat, two-dimensional surfaces. Radii and sharp edges are contrasted.

XEA's history

Basic shapes, colours and surface finishes unified in a standardised appearance.

When **Bernhard Heitz**, the person responsible for product design at dormakaba, was assigned the task of developing an overall design concept, one thing was clear: the



5. Intuitive user interfaces

All user interfaces feature a reduced, standardised design, have a high recognition factor and are operated intuitively.



6. Contrasting surface finishes

XEA products stand out thanks to the contrast between light and dark and between matt and glossy surface finishes. This makes the individual functional sections easily identifiable on our products.



7. Casing

Many dormakaba products are fitted with a surrounding housing frame, which also provides protection against external influences.



8. Multi-layered compositions

XEA products stand out due to a visible, multi-layered structure. The decorative screens, for example, feature strong materiality due to a visible edge.



9. LED indicator

XEA products feature LED light strips which signal access, guide people or indicate status. Thanks to standardised form and function, the different applications are quickly learned in all products.



10. Customised design

Selected and specially complied materials and colours offer a wide scope of solutions, which either blend in with the architecture or add individual style to their surroundings.

design aesthetic needed to open up a whole new dimension of product uniformity for people and companies.

"The new design concept is a fusion between the different aesthetic styles of the Bauhaus philosophy with its interplay between craft and fine arts or an interaction between architecture and design if you will. The result is a clear product language and subtle originality that can be harmoniously integrated into an object to form a unified whole."

lity that can be harmoniously integrated into an object to form a unified whole."

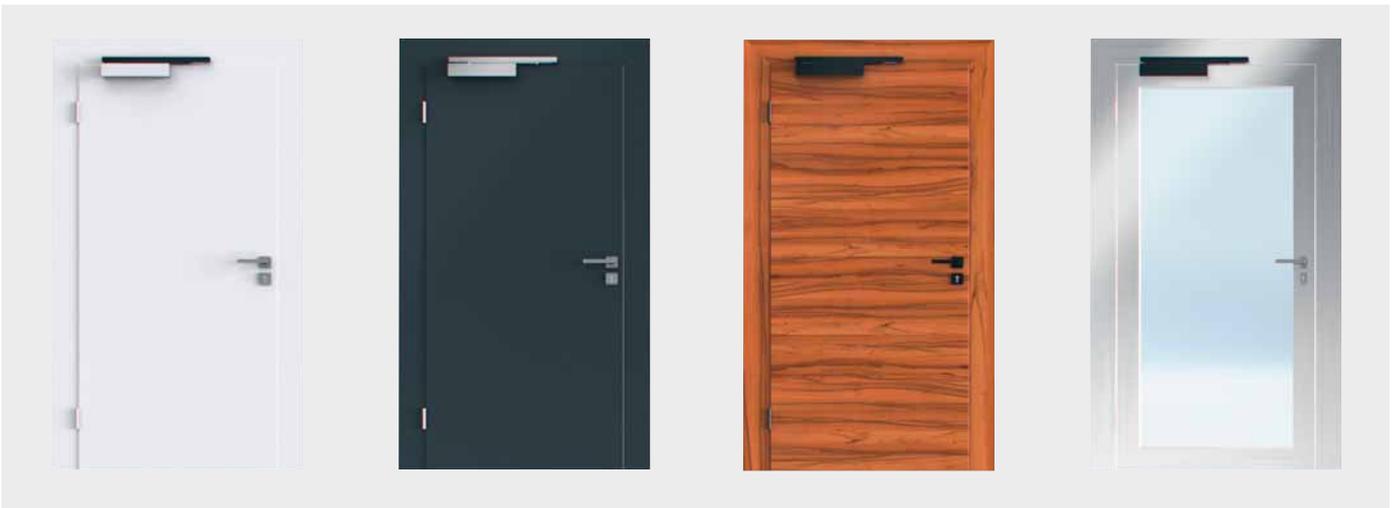
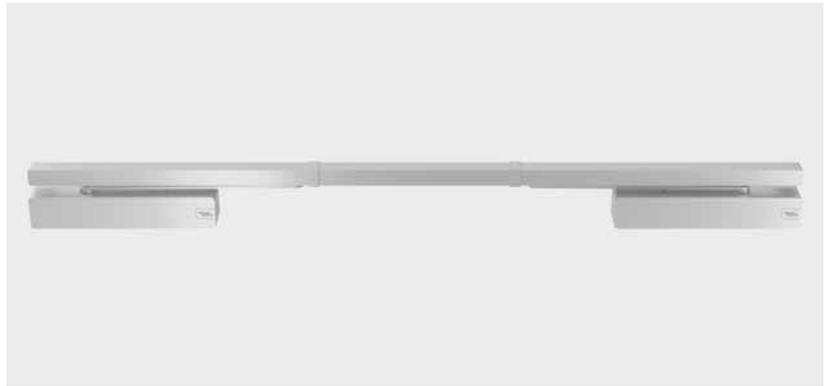
Bernhard Heitz
(Strategic Product Design)

Surface finishes and colour variants

TS 98 XEA

dormakaba collections offer a wide, individual scope for design. Attractive collections are available to choose from. They take inspiration from architectural surfaces and colours with the material given prominence.

A selected, graduated array ranges from light to dark, from matt or structured through to high-gloss and from integrating to accentual. The colours can be custom-selected for casings and decorative panelling as desired.



TS 98 XEA



G-N XEA black (P 190)
TS 98 XEA white (P 100)



TS 98 XEA silver (P 600)



G-N XEA black (P 190)
TS 98 XEA silver (P 600)



TS 98 XEA gold (P 750)



G-N XEA silver (P 600)
TS 98 XEA black (P 190)



TS 98 XEA black (P 190)



New functions

The attractive all-rounder

TS 98 XEA

In an attractive, premium design, the TS 98 XEA slide channel door closer is versatile and easy to install. With an installation height of just 60 millimetres, the closer body can be mounted in all 4 ways. The hydraulic functions and the closing force EN 1–6 can be conveniently adjusted from the front. The selected closing force can be seen on a visual indicator.

Expertise at a glance

Designation	Special features (selection)
Easy mounting	<ul style="list-style-type: none"> • The TS 98 XEA can be fitted using all 4 installation types • Closing force adjustment at front using a cordless screwdriver • With visual closing force indicator
Compliance with statutory requirements	<ul style="list-style-type: none"> • Barrier-free as per German Industrial Standard (DIN) 18040 up to 1250 mm • Time-tested EASY OPEN technology as per German Industrial Standard (DIN) SPEC 1104 provides a rapidly decreasing opening force for easy door opening
Complies with fire protection requirements	<ul style="list-style-type: none"> • Self-closing from 180° (hinge side/pull side) • Reliable self-closing also at –40 °C • 3 closing ranges 180°–15°, 15°–0°, 7°–0°
Cross-product design	<ul style="list-style-type: none"> • Other products compatible with the TS 98 XEA are available in the XEA design

Subject to technical modifications. Date 01/2017.

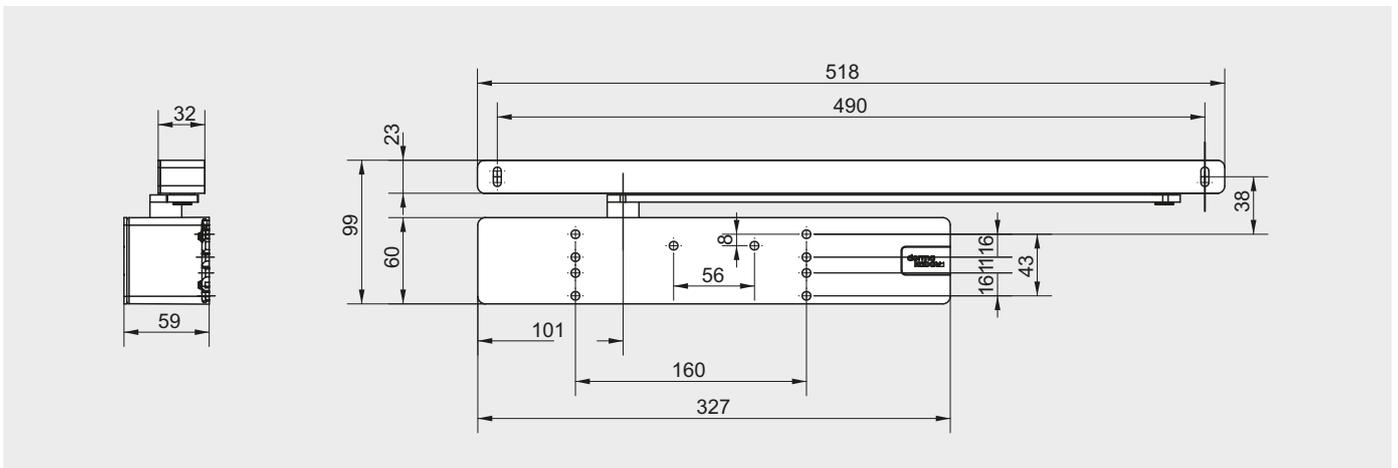


Advantages at a glance

- Broad closing force range for door widths up to 1400 mm
- SoftFlow: whisper-quiet door closing thanks to additional closing range
- Barrier-free design requirements as per German Industrial Standard (DIN) SPEC 1104 and DIN 18040 are met thanks to EASY OPEN technology
- Reduced complexity and number of variants
- Backcheck and delayed closing in all 4 installation types
- 1 door closer for all 4 installation types
- In XEA design
- Wide variety of mounting and adjustment options

Combining the best characteristics

The slide channel door closer TS 98 XEA offers a high-quality solution for almost all project requirements and can be opened very easily thanks to its heart-shaped cam.



01

TS 98 XEA GSR

For double-leaf doors with door coordinator



02

TS 98 XEA

1 door closer for all 4 installation types

Firmly focused on the future

BIM

BIM (Building Information Modelling) refers to a working method that integrates the planning, design, construction and operation of a building. BIM allows all the parties involved in a construction project to maintain an overview of the current and relevant information relating to the project at all times.

Usage

Until now, various software solutions, such as ArchiCAD or Autodesk Revit have been used to access dormakaba products such as horizontal sliding walls, revolving doors, automatic sliding door systems, sensor airlocks, swing doors, swing door operators, overhead door closers, floor springs and glass sliding door fittings. The complexity of the application varies, depending on the object. Each specific BIM object has been adapted to the respective areas of use and planning phases. The focus has been placed on the simple, uncomplicated application and the low weight of objects.

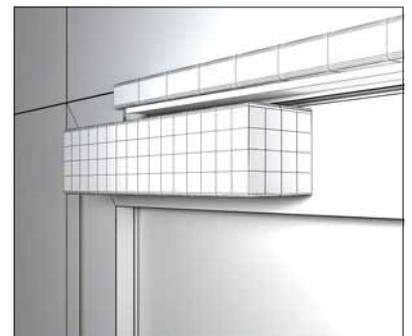
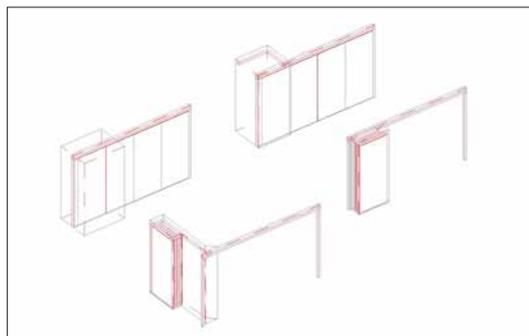
With BIM from dormakaba, we offer much more than mere downloading of 3D objects. The product data are up to date at all times, incorporate all project stages (planning, installation, management) and deliver information on possible solutions and services.

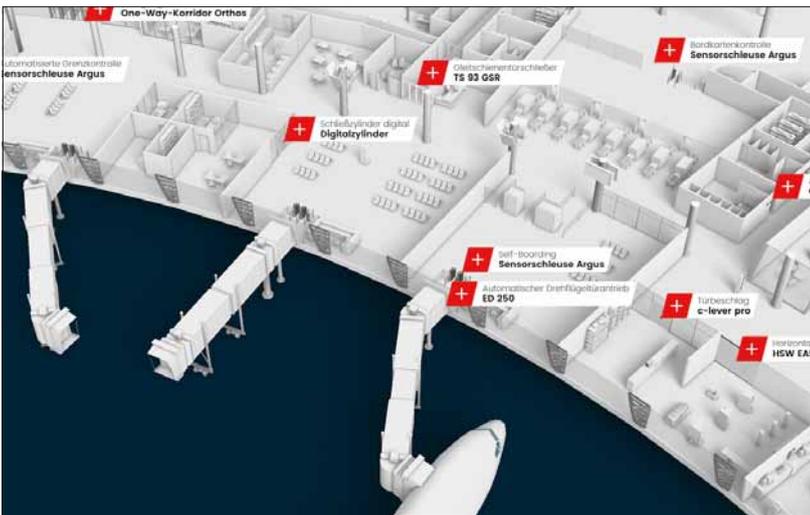
Benefit

- The quality of the data is always assured
- All data is consistently up-to-date at all times and compatible with different professional design systems
- All parties involved have access to all data from anywhere at all times
- The flow of information and communication is greatly simplified
- Designs and ideas are visualised more effectively
- BIM provides convenient costing and quantity surveys
- BIM also takes into account maintenance costs once the building is put into use
- BIM ensures lasting improvements to all planning with regard to deadlines, costs, quality and productivity

Where can I get BIM?

Register at www.bimobject.com





180° is not enough

The dormakaba 360° City app

180° is not enough: the dormakaba 360° City app

Immerse yourself in a virtual city with dormakaba! Our multi-award-winning 360° City app lets you experience dormakaba solutions in a 3D environment. Products can be explored in their intended environment and detailed information about product benefits, exploded views, configuration options and much more explored. VR glasses can also be worn to enhance the app. Products can thus be seen through the user's eyes as you navigate through the industrial complex, airport and private residence segments.

Benefit:

- Playful way to get to know products, their functions and areas of use
- The whole portfolio is always ready at hand

The app is free to download from the App Store and Google Play.

www.dormakaba.com/360-city



The new slide channel door closer system

TS 98 XEA system, TS 92 XEA

The new TS 98 XEA system impresses with a new design and new functions. It offers perfect user convenience for single- and double-leaf doors. A greater area of application provides the additional closing

force EN 1–6. SoftFlow: whisper-quiet closing is provided by an additional closing range. The system also impresses during installation: just one closer body is required for all installation types.



TS 98 XEA/ TS 98 XEA EMF

- Single-leaf doors
- Electromechanical hold-open unit



TS 98 XEA EMR

- Single-leaf doors
- Electromechanical hold-open unit with integrated smoke detector and power pack



TS 98 XEA GSR/ TS 98 XEA GSR-EMF

- Double-leaf doors with door coordinator
- Electromechanical hold-open unit



TS 98 XEA GSR-EMR/ TS 98 XEA GSR-EMR without EMF

- Double-leaf doors with door coordinator
- Electromechanical hold-open unit with integrated smoke detector and power pack



TS 92 XEA

- Single-leaf doors
- Fitted on full glass doors



Overview of functions TS 98 XEA system



TS 98 XEA system

- Just 1 closer body for all installation types
- Door closer system for interior and exterior applications
- Single- and double-leaf doors, fire and smoke doors

- Example of use: Interior doors, public buildings, office buildings
- Barrier-free user convenience as per DIN 18040
- Security and convenience for fire doors



		Mounted on hinge side/pull side		Mounted on opposite hinge side/push side	
		Door-leaf mounting	Lintel mounting	Door-leaf mounting	Lintel mounting
Single-leaf	TS 98 XEA Standard version				
	TS 98 XEA EMF Electromechanical hold-open unit (EMF)				
	TS 98 XEA EMR Electromechanical hold-open unit (EMF), smoke detector with integrated power pack (RMZ)				



	Mounted on hinge side/pull side	Mounted on opposite hinge side/push side
<p>Double-leaf TS 98 XEA GSR Standard version, door coordinator in single-piece slide channel</p>	<p>Door-leaf mounting</p> 	<p>Door-leaf mounting</p> 
<p>TS 98 XEA GSR-EMF 1 Door coordinator, electromechanical hold-open unit in the passive door leaf</p>		
<p>TS 98 XEA GSR-EMF 2 Door coordinator, electromechanical hold-open unit in both door leaves</p>		
<p>TS 98 XEA GSR-EMF 1G Door coordinator, electromechanical hold-open unit in the active door leaf</p>		
<p>With integrated smoke detector and power pack (RMZ) TS 98 XEA GSR-EMR 1 Door coordinator, electromechanical hold-open unit in the passive door leaf, integrated smoke detector and power pack</p>		
<p>TS 98 XEA GSR-EMR 2 Door coordinator, electromechanical hold-open unit in both door leaves, integrated smoke detector and power pack</p>		
<p>TS 98 XEA GSR-EMR 1G door coordinator, electromechanical hold-open unit in the active door leaf, integrated smoke detector and power pack</p>		

Slide channel door closer for single-leaf doors

TS 98 XEA/TS 98 XEA EMF

NEW

The TS 98 XEA system impresses due to its even greater versatility and convenience while retaining established advantages. While EASY OPEN technology makes it easy to open doors, the new closing range between 15° and 0° also ensures whisper-quiet closing of doors.

Applications

- Door closer system for interior and exterior applications
- Single-leaf doors, fire and smoke doors
- For all 4 installation types
- Example of use: Interior doors, public buildings, office buildings

Benefit

- Barrier-free user convenience with door width up to 1250 mm
- Reduced complexity and number of variants
- Security and convenience for fire doors
- SoftFlow: whisper-quiet door closing
- Multi-award-winning design

Standards

- DIN EN 1154
- German Industrial Standard (DIN) 18040
- German Industrial Standard (DIN) SPEC 1104



- For door widths up to 1400 mm
- Opening angle up to 180°
- Just 1 closer body for all 4 installation types
- Closing force continuously adjustable, using cordless screwdriver possible
- Delayed closing and backcheck in all installation types

Approval certification

The dormakaba TS 98 XEA has been tested and certified as per DIN EN 1154 by the MPA NRW testing centre in Dortmund. Certifi-

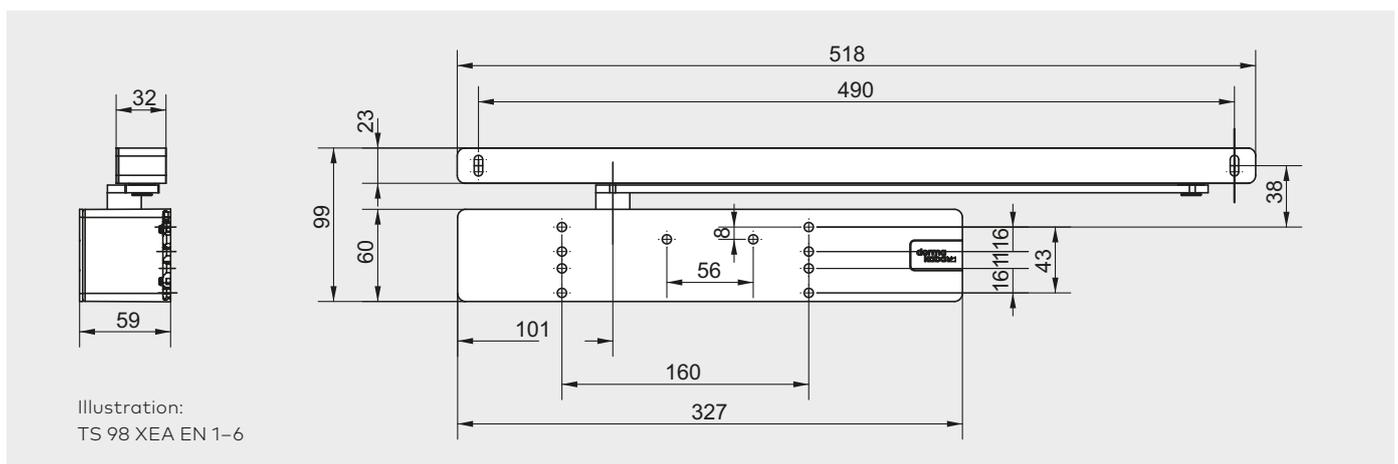
cates of suitability are required for the fire and smoke door concerned when dormakaba TS 98 XEA is installed on the lintel and on the door leaf and transom.

Data and features	EN 1-6
Standard doors, fire and smoke doors*	≤ 1400 mm ●
Exterior doors, opening outwards*	≤ 1400 mm ●
Same design for left- and right-handed doors	●
Closing force continuously adjustable on front using a cordless screwdriver	●
Closing time continuously adjustable using valve	●
Additional closing range SoftFlow for whisper-quiet closing	15°-0°
Latching action continuously adjustable using valve	●
Backcheck (BC/ÖD) adjustable using valve	●
Delayed closing (DC/SV) continuously adjustable using valve	●
Hold-open system (not for fire or smoke doors)	○
Dimensions in mm	Length 327 Depth 64.5 Height 60
Easy door opening as per German Industrial Standard (DIN) SPEC 1104; CEN/TR 15894	●
Compliance with the max. opening force as per German Industrial Standard (DIN) 18040 up to a door width of	1250 mm

As standard = ● Optional = ○

*The next door closer size should be selected or a greater closing force set for very high and heavy doors and those which need to close against strong wind pressure.

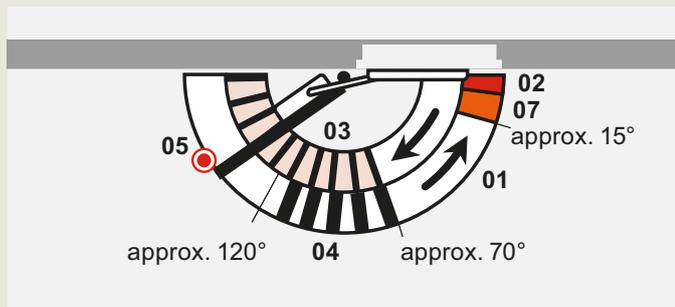
Dimensions



Detailed drawing TS 98 XEA



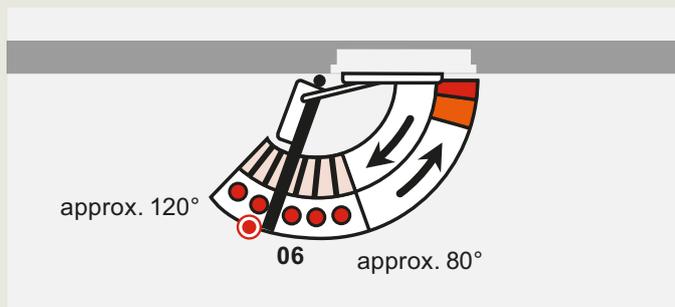
Functions



TS 98 XEA

- Continuously adjustable closing time
- Continuously adjustable latching action 7°–0°
- Backcheck adjustable
- Delayed closing adjustable
- TZ 5000 door stop
- Closing range SoftFlow 15°–0°

01
02
03
04
05
07

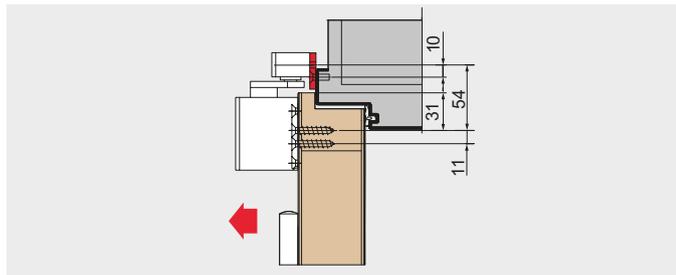


- RF ratchet type hold-open system; can be switched on and off; optional (not approved for fire and smoke doors)

06

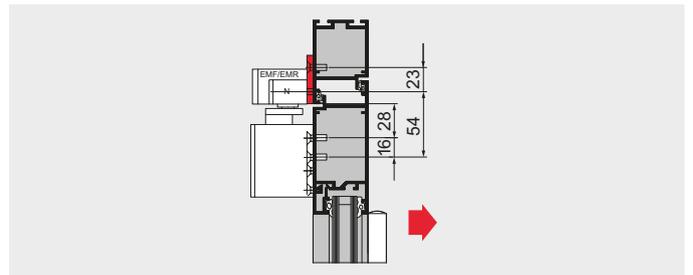
⊙ Door stop, e.g. TZ 5000 ● Hold-open range

Mounting plate 30 mm for G-N XEA



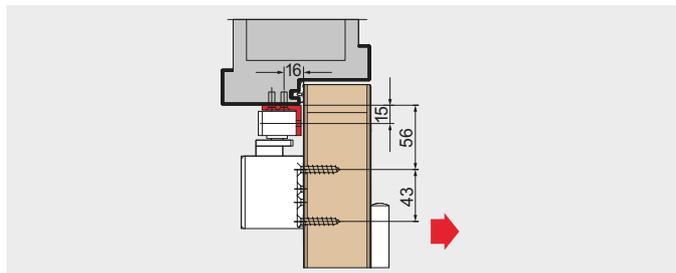
Slide channel on door frame

Mounting plate 40 mm for G-N XEA, G-EMF XEA, G-EMR XEA



Slide channel on door frame

Angle bracket for G-N XEA



Slide channel on door frame with a deep reveal on the opposite hinge side/push side

NEU G-N XEA for direct transom mounting

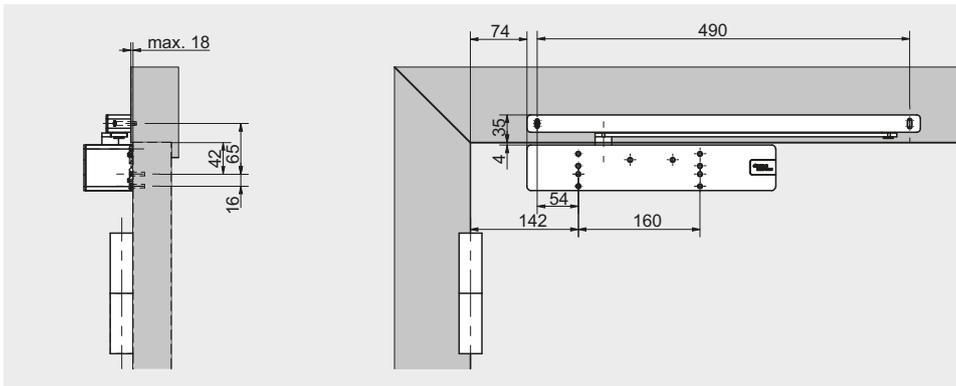


The variant for G-N XEA as a hinge mounting is also available

Slide channel on door frame with a deep reveal on the opposite hinge side/push side

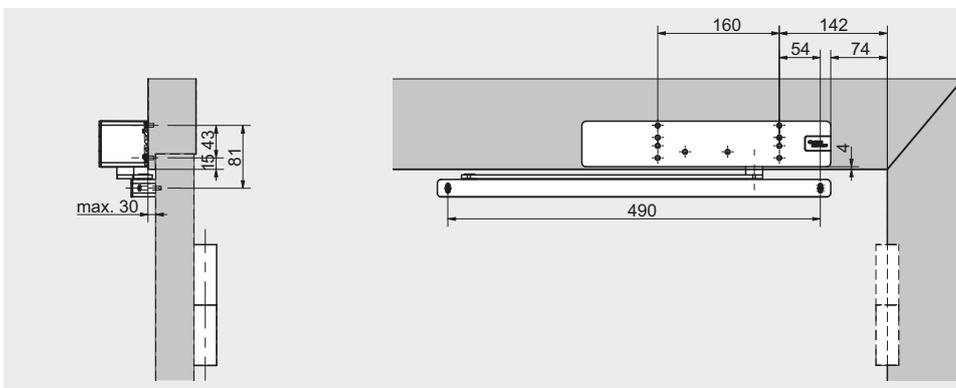
All installations with a door closer

Door-leaf mounting on hinge side/pull side



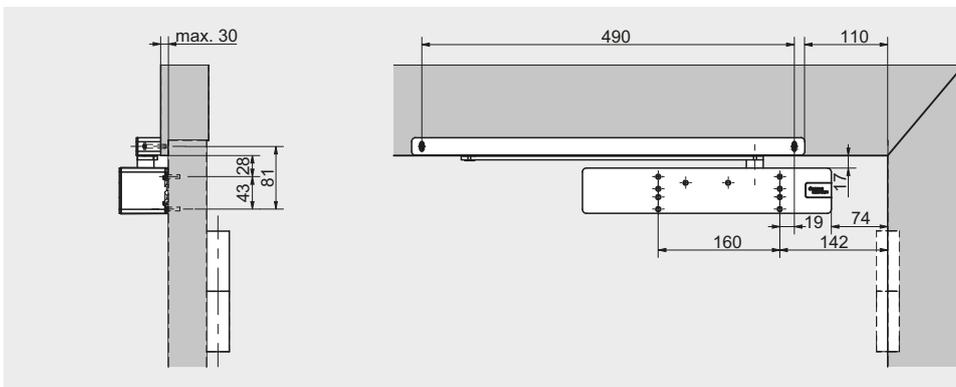
- Opening angle of 180° is possible

Transom mounting on opposite hinge side/push side



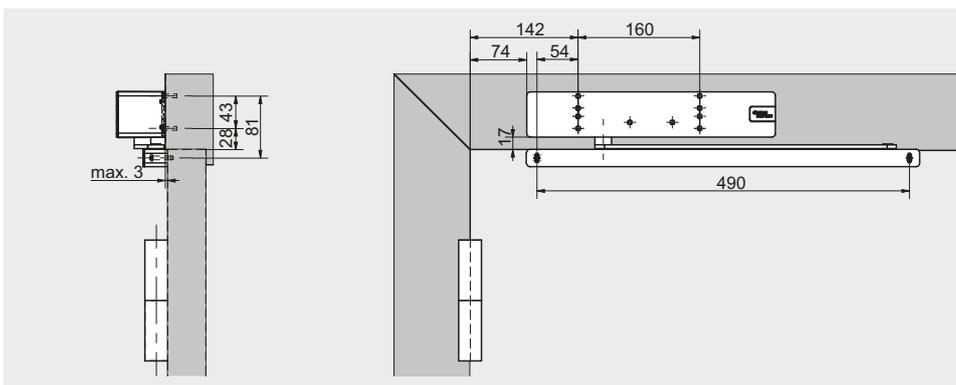
- Opening angle about 120°–145°

Door-leaf mounting opposite hinge side/push side



- Opening angle about 120°–145°
- A door stop must be fitted in the case of fire and smoke doors

Transom mounting on hinge side/pull side



- Opening angle of 180° is possible

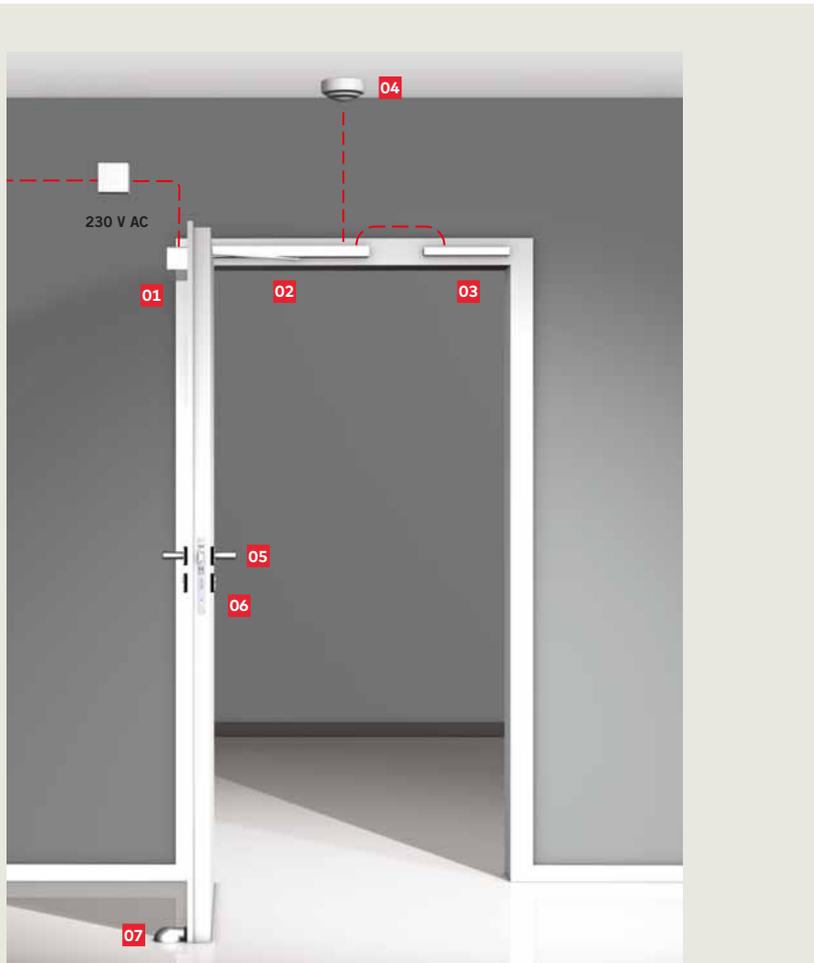
All drawings are left-handed (right-handed: reverse image)

Detailed drawing

TS 98 XEA EMF



Application example

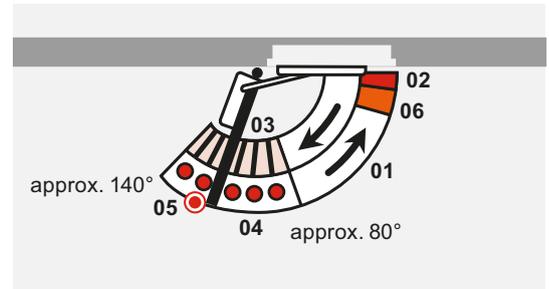


Hold-open system on a fire and smoke door, consisting of: TS 98 XEA door closer **01**, EMF slide channel **02**, RMZ XEA smoke detector with integrated power pack **03** as transom-mounted detector and 1 RM-N smoke detector **04** as a ceiling-mounted detector on each side of the door, OGRO 8100 lever handle **05**, OGRO rose in the XEA Design **06**, TZ 5000 door stop **07**

Technical data

Operating voltage	24 V DC, ± 15%
Power consumption	1.4 W
On-load factor	100%
Release force	adjustable

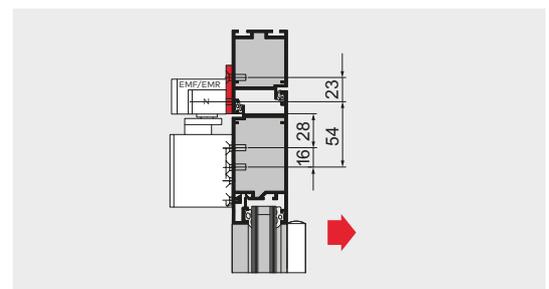
Functions



TS 98 XEA EMF

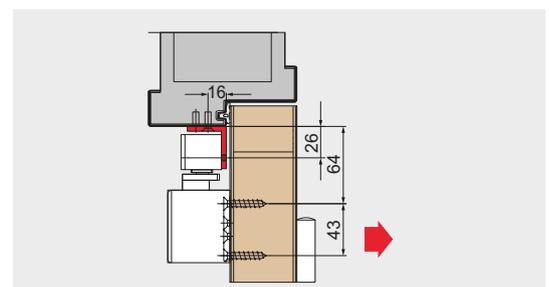
- Continuously adjustable closing time **01**
- Continuously adjustable latching action 7°–0° **02**
- Backcheck adjustable **03**
- Electromechanical hold-open unit, adjustable release force **04**
- TZ 5000 door stop **05**
- Closing range SoftFlow 15°–0° **06**

Mounting plate 40 mm for G-N XEA, G-EMF XEA, G-EMR XEA



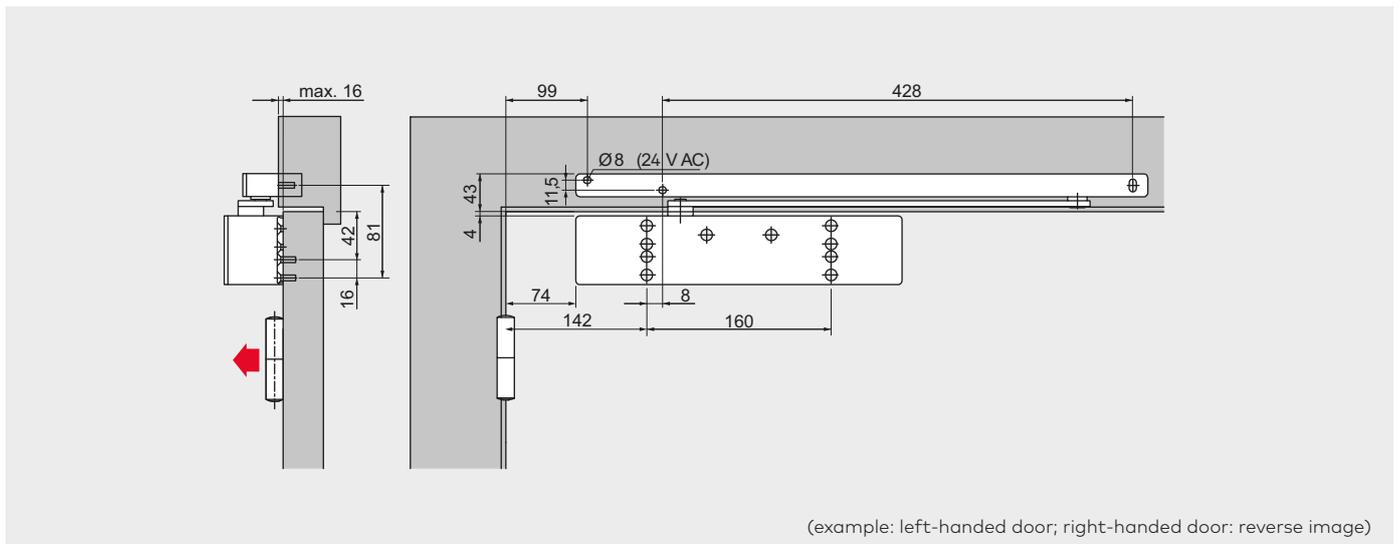
Slide channel on door frame

Angle bracket for G-EMF XEA

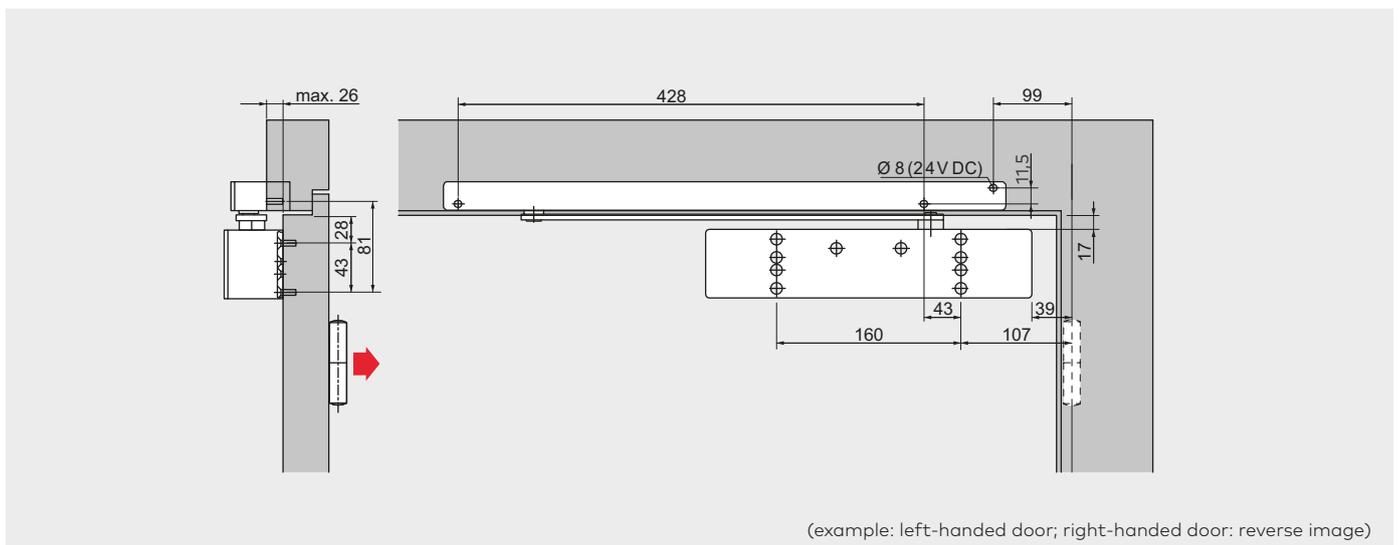


Slide channel on door frame with a deep reveal on the opposite hinge side/push side

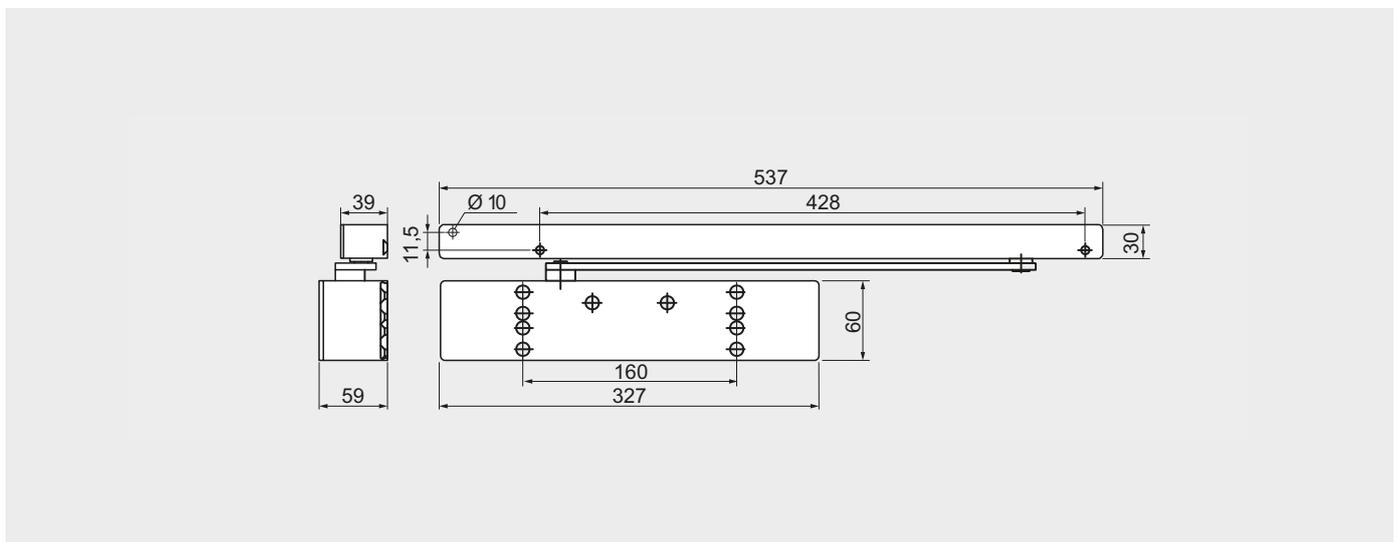
Door-leaf mounting hinge side/pull side with G-EMF XEA slide channel



Door-leaf mounting opposite hinge side/push side with G-EMF XEA slide channel



Dimensions



All drawings are left-handed (right-handed: reverse image)

Slide channel door closer with integrated smoke detector and power pack

TS 98 XEA EMR

NEW

The G-EMR XEA slide channel assembly enables fire and smoke doors to be held open securely at precisely the angle required, and monitored and controlled completely independently of other systems. The hold-open point can be adjusted to opening angles between approx. 80° and 140°.

Applications

- Controlled hold-open of single-leaf fire doors
- Door closer system for single-leaf doors
- Door-leaf mounting
- Example of use: Interior doors, public buildings, office buildings

Benefit

- Barrier-free user convenience
- Award-winning design
- Smoke detector with integrated power pack with convenient service and maintenance indicator

Standards

- DIN EN 1154
- DIN EN 1155
- German Industrial Standard (DIN) 18040
- German Industrial Standard (DIN) SPEC 1104



reddot design award
winner 2016



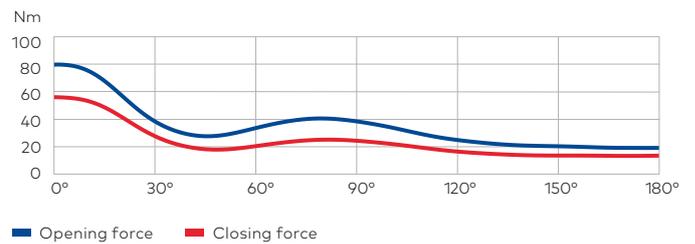
- Hold-open angle 80°–140°
- Slide channel 30 mm
- For door widths up to 1250 mm
- In combination with TS 98 XEA

Approval certification

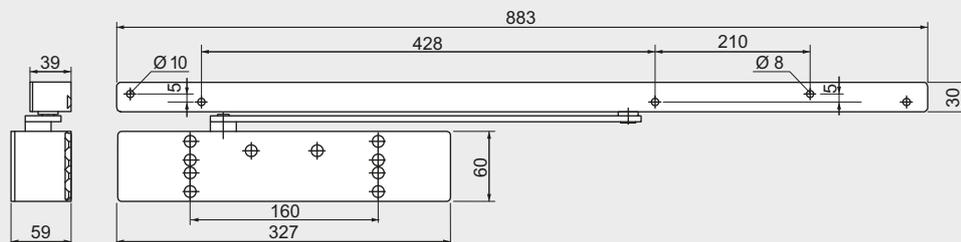
The TS 98 XEA EMR has been tested and approved as a hold-open system by DIBt (German Centre of Competence for Construction), Berlin; an

acceptance inspection is mandatory. An additional certificate of suitability is also required for the fire or smoke door concerned if fitted on the opposite hinge side/push side.

Torque characteristics, closing force adjustment EN 6



Dimensions

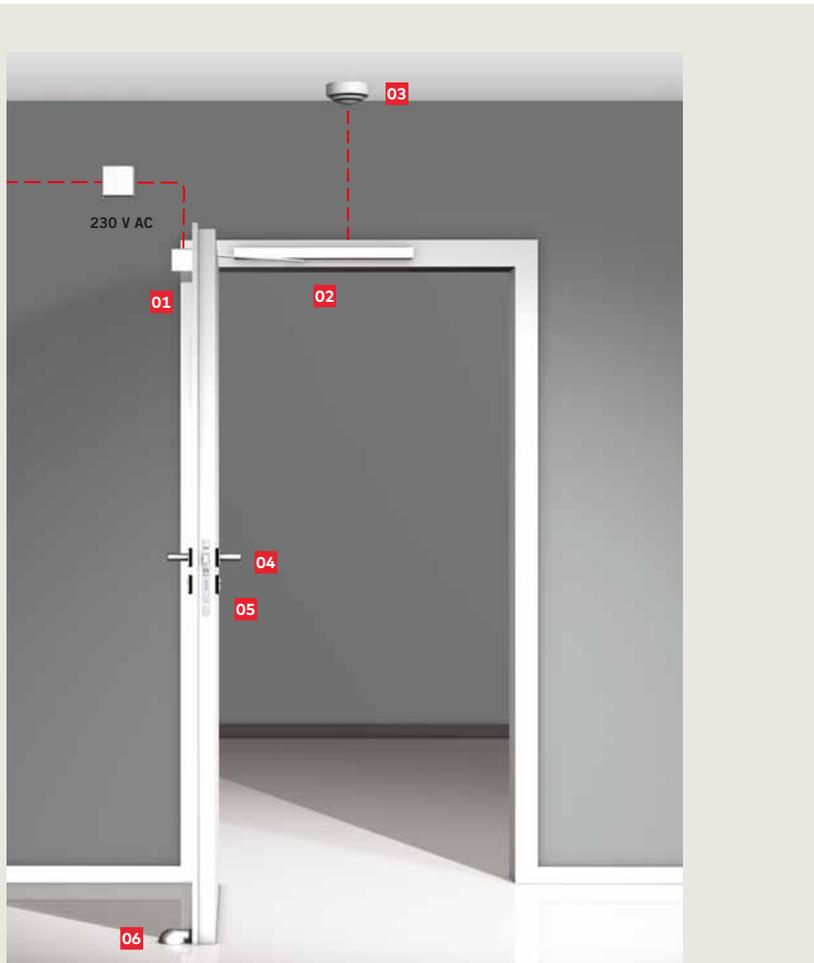


Detailed drawing

TS 98 XEA EMR



Application example

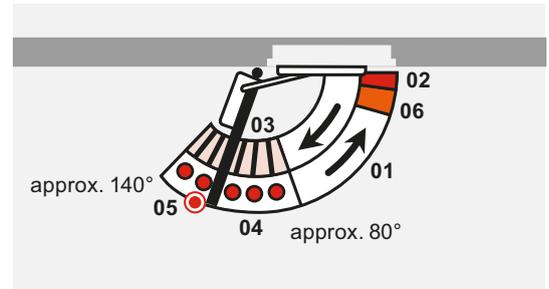


Hold-open system on a fire and smoke door, consisting of: TS 98 XEA EMR door closer **01**, G-EMR **02** slide channel with integrated power supply unit, smoke detector and 1 RM-N **03** smoke detector as a ceiling-mounted detector on each side of the door, OGRO 8100 lever handle **04**, OGRO rose in the XEA Design **05**, TZ 5000 door stop **06**

Technical data

Supply voltage	230 V AC/ ± 10%
Operating voltage	24 V DC
Max. rated output current	9.8 W
Power consumption	1.4 W
On-load factor	100%
Release force	adjustable

Functions

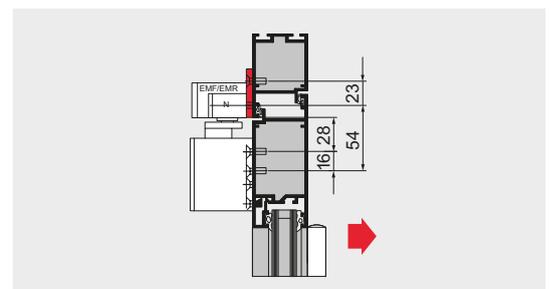


TS 98 XEA EMR

Same design for left- and right-handed doors, continuously adjustable closing force (EN 2-5, 5-7)

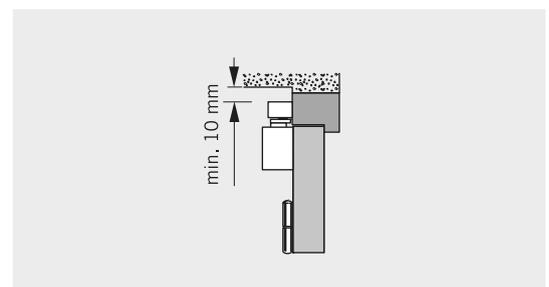
- Continuously adjustable closing time **01**
- Continuously adjustable latching action **02**
- Backcheck adjustable **03**
- Electromechanical hold-open unit, adjustable release force **04**
- TZ 5000 door stop **05**
- Closing range SoftFlow 15°-0° **06**

Mounting plate 40 mm for G-N XEA, G-EMR XEA



Slide channel on door frame

Min. gap of 10 mm



Gap between upper edge of lintel smoke detector and ceiling

Slide channel door closer with door coordinator



TS 98 XEA GSR/TS 98 XEA GSR-EMF

The system ensures that double-leaf doors are closed in the right order: first the passive door leaf, then the active one. If necessary, an EMF electromechanical hold-open unit can ensure that fire and smoke doors are held open exactly as required.

Applications

- Door closer system for interior/exterior applications
- Double-leaf doors, fire and smoke doors
- Door-leaf mounting
- Example of use: Interior/exterior doors, public buildings, office buildings

Benefit

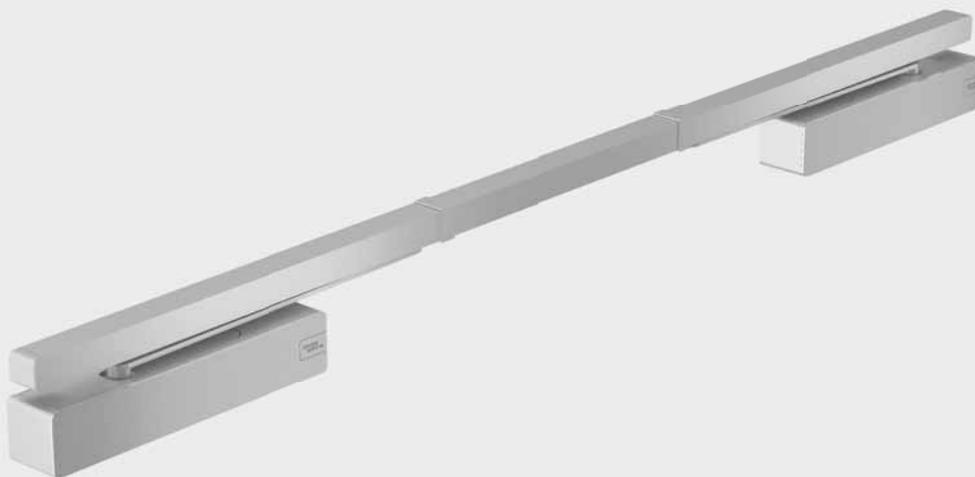
- Barrier-free user convenience
- Rapidly decreasing opening force
- Award-winning design
- Virtually maintenance-free door coordinator with an installation height of just 30 mm

Standards

- DIN EN 1154
- DIN EN 1155/1158
- German Industrial Standard (DIN) 18040
- German Industrial Standard (DIN) SPEC 1104



reddot design award
winner 2016



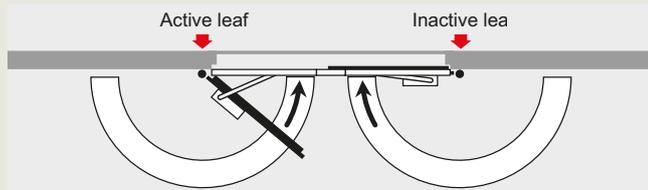
- Leaf width: ≤ 1400 mm
- Slide channel height: 30 mm
- EMF: electromechanical hold-open unit
- Integrated door coordinator



Detailed drawing

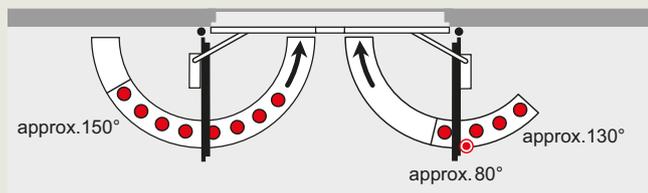
TS 98 XEA GSR/TS 98 XEA GSR-EMF

Functions



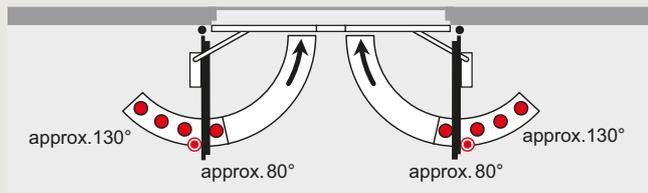
TS 98 XEA GSR

- Door leafs closed in the right order



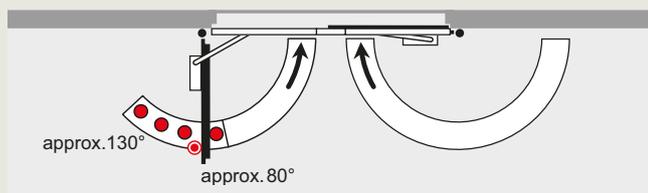
TS 98 XEA GSR-EMF 1

- Combined door leaf hold-open (the passive door leaf's hold-open point fixes active door leaf)
- The door coordinator closes the doors in the correct order in the event of an alarm/power failure



TS 98 XEA GSR-EMF 2

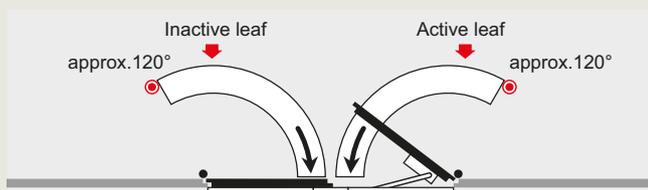
- Each door leaf is held in position separately (passive door leaf closed/active door leaf open)
- Hold-open angle 80°-130°
- The door coordinator closes the doors in the correct order in the event of an alarm/power failure



TS 98 XEA GSR-EMF 1G

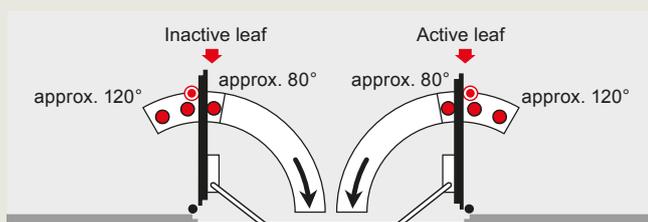
- Active door leaf held open (e.g. doors with fixed side leaves)
- Door coordinator closes door in correct order

Functions push side



TS 98 XEA GSR/BG

- Door coordinator closes door in correct order



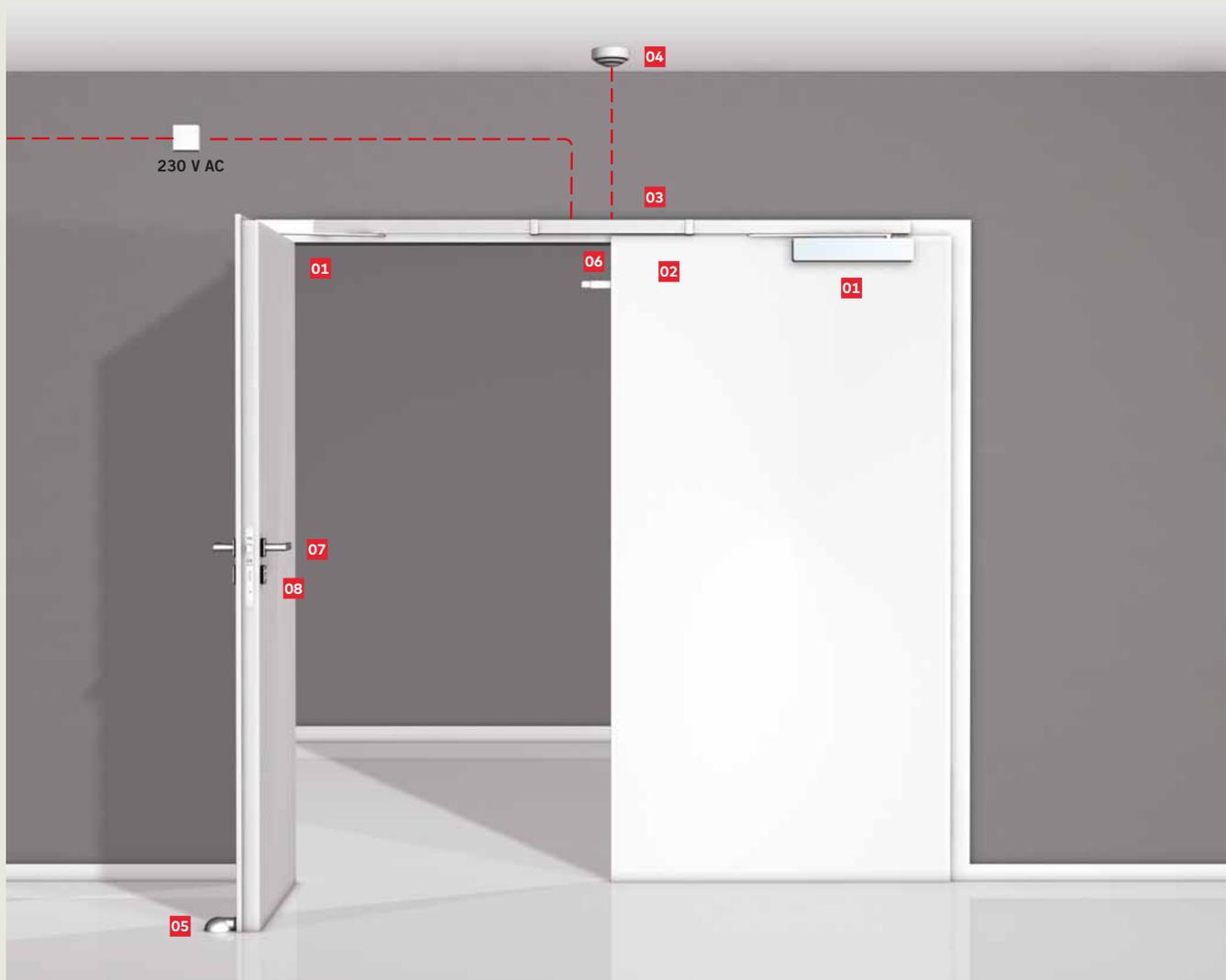
TS 98 XEA GSR-EMF 2/BG

- Each door leaf is held in position separately (passive door leaf closed/active door leaf open)
- Hold-open angle 80°-130°

Detailed drawing

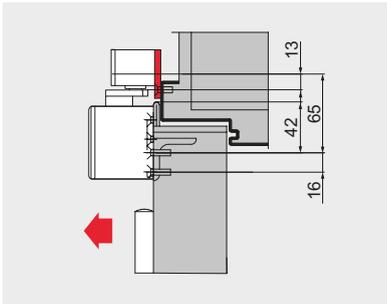
TS 98 XEA GSR/TS 98 XEA GSR-EMF

Application example



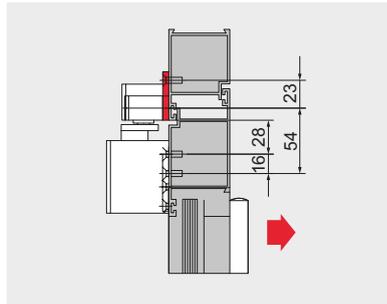
Hold-open system on a double-leaf door, consisting of 2 TS 98 XEA door closers **01**, GSR-EMF XEA active and passive door leaf slide channel **02** with drive rod clamp system and smoke detector with integrated power pack and **03** 1 RM-N smoke detector **04** as ceiling-mounted detector on each side of the door, 2 TZ 5000 door stops **05**, MK 396 carry bar **06**, OGRO 8100 level handle **07**, OGRO roses in the XEA Design **08**

**Mounting plate 40 mm
for GSR XEA**



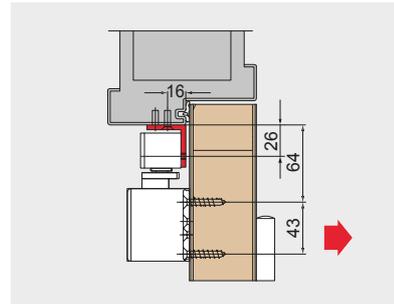
Slide channel on door frame

**Mounting plate 40 mm
for GSR XEA/BG**



Slide channels on door frame

**Angle bracket
for GSR XEA/BG**



Slide channels on door frame
with a deep reveal on the
opposite hinge side/push side

Slide channel door closer with door coordinator, hold-open unit and smoke detector with integrated power pack

TS 98 XEA GSR-EMR/ TS 98 XEA GSR-EMR without EMF

NEW

Slide channel door closer system with door coordinator, electromechanical hold-open unit, integrated smoke detector and power pack. The hold-open mode is eliminated and the door closer shuts the door in the event of an alarm or power failure.

Applications

- Door closer system for interior/exterior applications
- Double-leaf doors, fire and smoke doors
- Door-leaf mounting
- Example of use: Interior/exterior doors, public buildings, office buildings

Benefit

- Barrier-free user convenience
- Award-winning design
- Installation height of just 30 mm
- Smoke detector with integrated power pack with convenient service and maintenance indicator

Standards

- DIN EN 1154
- DIN EN 1155/1158
- German Industrial Standard (DIN) 18040
- German Industrial Standard (DIN) SPEC 1104



reddot design award
winner 2016



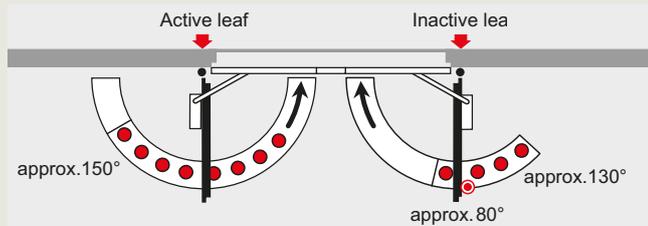
- Leaf width: ≤ 1400 mm
- Opening angle: 150°
- Slide channel height: 30 mm
- EMF: electromechanical hold-open unit
- Integrated door coordinator
- Smoke detector/ smoke detector with integrated power pack

Detailed drawing

TS 98 XEA GSR-EMR/

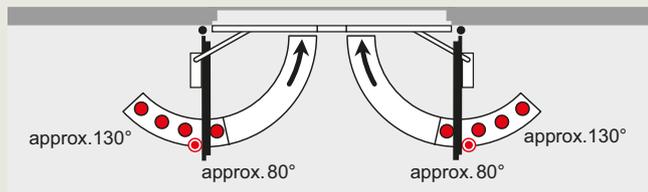
TS 98 XEA GSR-EMR without EMF

Functions



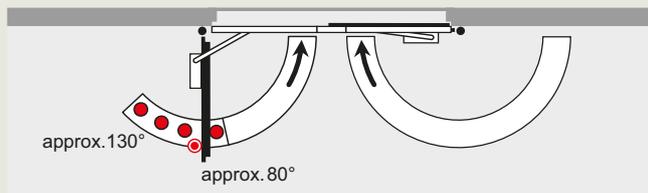
TS 98 XEA GSR-EMR 1*

- Allows both door leaves to be held open with a hold-open unit (passive door leaf)
- Passive door leaf can be held open between about 80° and 130°
- Integrated smoke detector with integrated power pack
- Active door leaf can be held open at any angle up to 150°



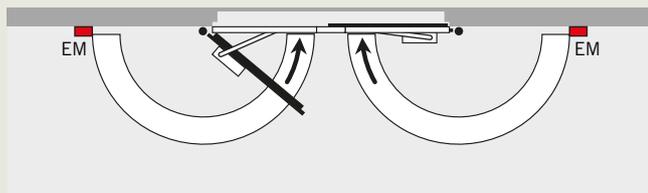
TS 98 XEA GSR-EMR 2*, **

- Active door leaf can be held open separately from the passive door leaf
- Hold-open points between 80° and 130°
- Integrated smoke detector with integrated power pack



TS 98 XEA GSR-EMR 1G*, **

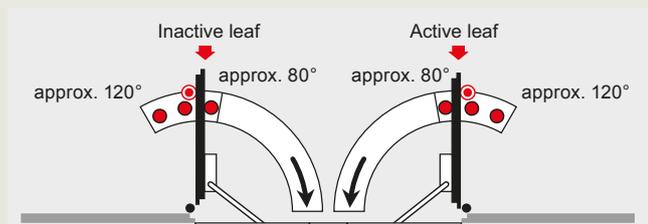
- Active door leaf can be held open alone in special door structures, such as those with a fixed side leaf or asymmetric doors
- Hold-open point between 80° and 130°
- Integrated smoke detector with integrated power pack



TS 98 XEA GSR-EMR without EMF**

- For special door structures in conjunction with external hold-open magnets, such as EM 500.
- Hold-open points up to 180°, depending on the structural conditions
- Integrated smoke detector with integrated power pack

Functions push side



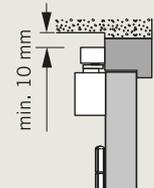
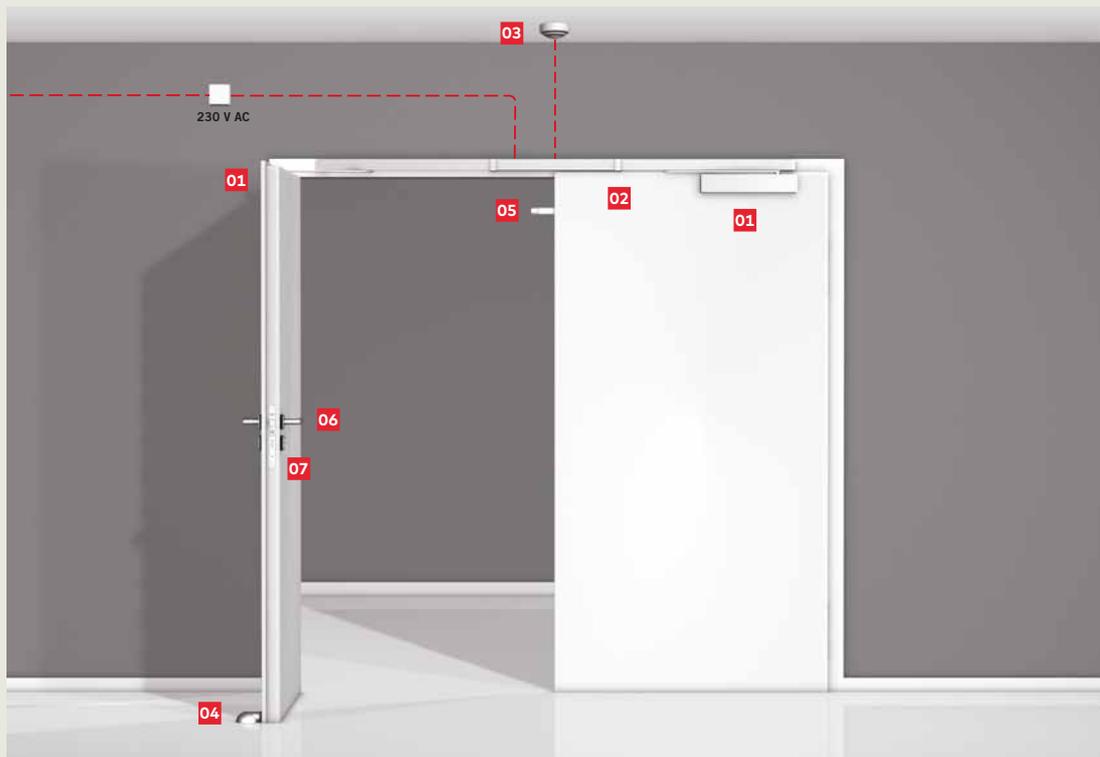
TS 98 XEA GSR-EMR 2/BG*

- Integrated smoke detector with integrated power pack
- Can be installed in a full panic application design in façade doors

*Connections possible for additional detectors, external manual release device and potential-free alarm contacts.

**Note: Hold-open point is equal to the maximum door opening angle.

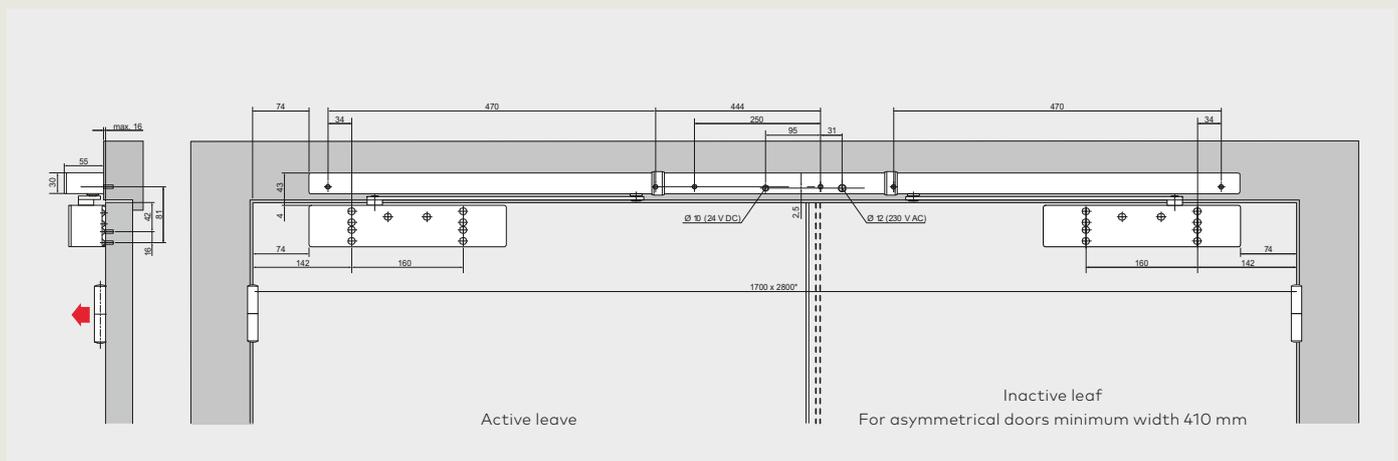
Application example



Gap > 10 mm
Gap between upper edge of lintel smoke detector and ceiling

Hold-open system on a double-leaf door, consisting of 2 TS 98 XEA door closers **01**, GSR-EMR XEA active and passive door leaf slide channel **02** with drive rod clamp system and incorporated smoke detector with integrated power pack and 1 RM-N smoke detector **03** as ceiling-mounted detector on each side of the door, 2 TZ 5000 door stops **04**, MK 396 carry bar **05**, OGRO 8100 lever handle **06**, OGRO roses in the XEA Design **07**

Hold-open system – lintel mounting on hinge side/pull side



*We recommend using EM hold-open magnets instead of the electromechanical hold-open unit on very large and heavy doors (over 2500 mm).

Slide channel door closer for easy opening action for interior doors

TS 92 XEA



Specially developed for interior doors, the TS 92 XEA offers perfect user convenience thanks to low resistance on opening.

Applications

- Door closer systems for interior applications
- Single-leaf doors, fire and smoke doors
- Door leaf/transom mounting
- Example of use: Interior doors

Benefit

- Barrier-free access
- Award-winning design
- Very good price-performance ratio

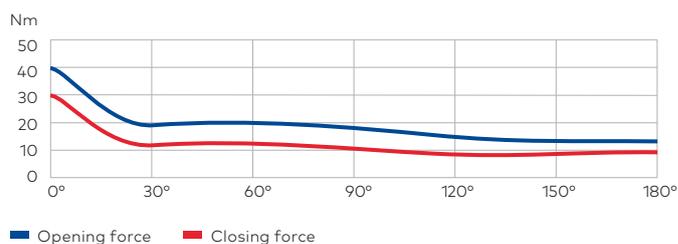
Standards

- DIN EN 1154
- German Industrial Standard (DIN) 18040
- German Industrial Standard (DIN) SPEC 1104
- CEN/TR 15894



- Leaf width: ≤ 1100 mm
- Opening angle: 180°
- Continuously adjustable closing force and time
- EASY OPEN technology
- XEA design

Torque characteristics, closing force adjustment EN 4

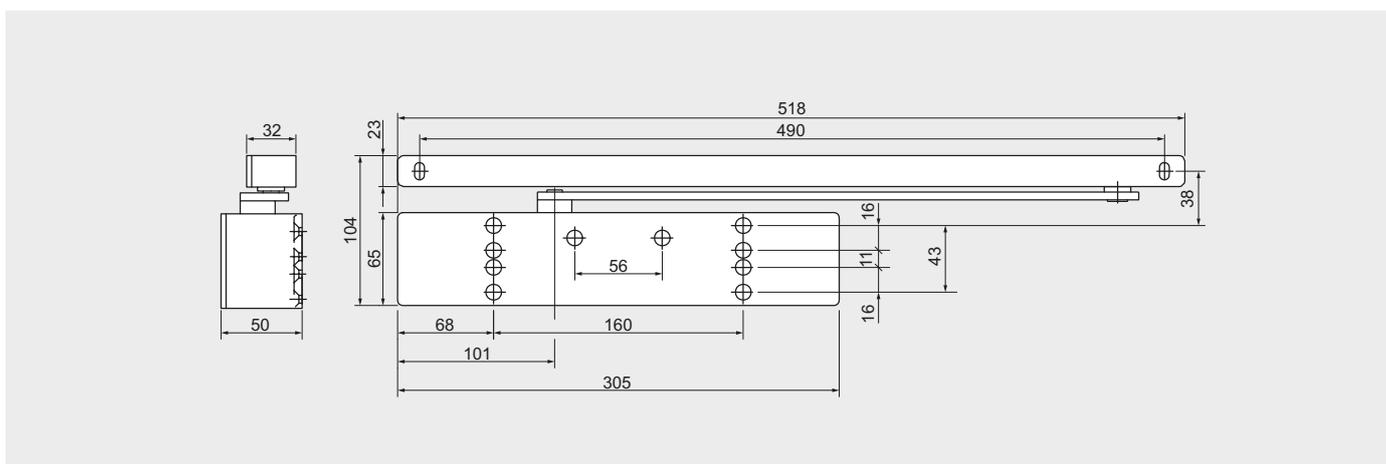


Data and features	EN 1-4
Standard doors ≤ 1100 mm	●
Exterior doors, opening outwards*	●
Fire and smoke doors	●
Same design for left- and right-handed doors	●
Closing time continuously adjustable using 2 valves separate from one another	●
	180°-15° 15°-0°
Mechanical cushioned limit stay	○
Hold-open system (not for fire or smoke doors)	○
Easy door opening as per German Industrial Standard (DIN) SPEC 1104; CEN/TR 15894	●
Compliance with the max. opening force as per German Industrial Standard (DIN) 18040 up to a door width of	1100 mm

As standard = ● Optional = ○

* We recommend TS 98 XEA for exceptionally heavy doors and doors which need to close against wind pressure

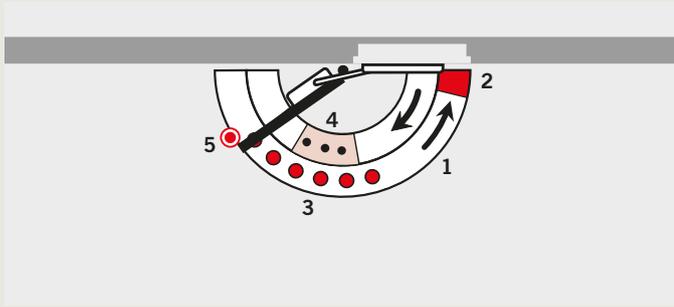
Dimensions



Detailed drawing TS 92 XEA



Functions



TS 92 XEA

- Closing time continuously adjustable between 180°-15°
- Closing time continuously adjustable between 15°-0°
- RF hold-open system, switchable, optional
- Mechanical cushioned limit stay, optional
- TZ 5000 door stop

01

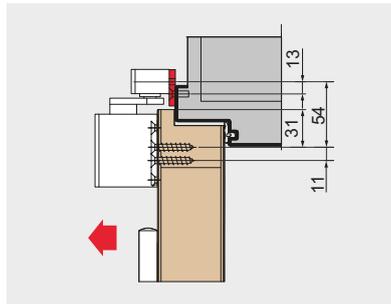
02

03

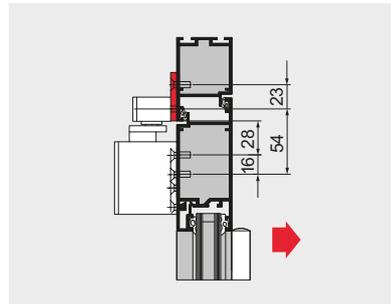
04

05

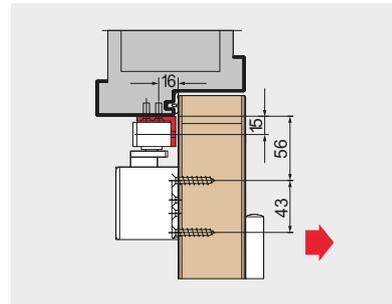
**Mounting plate 30 mm
for G-N XEA**



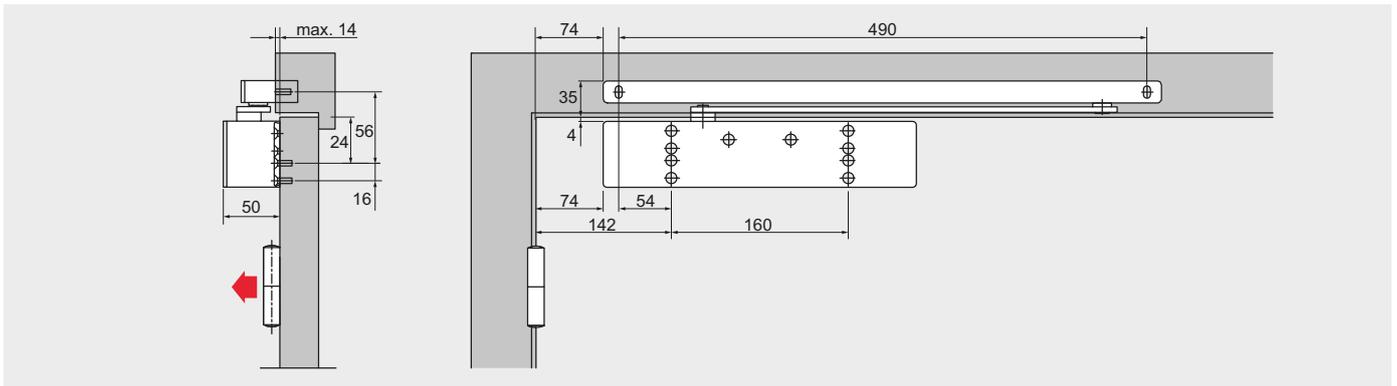
**Mounting plate 40 mm
for G-N XEA**



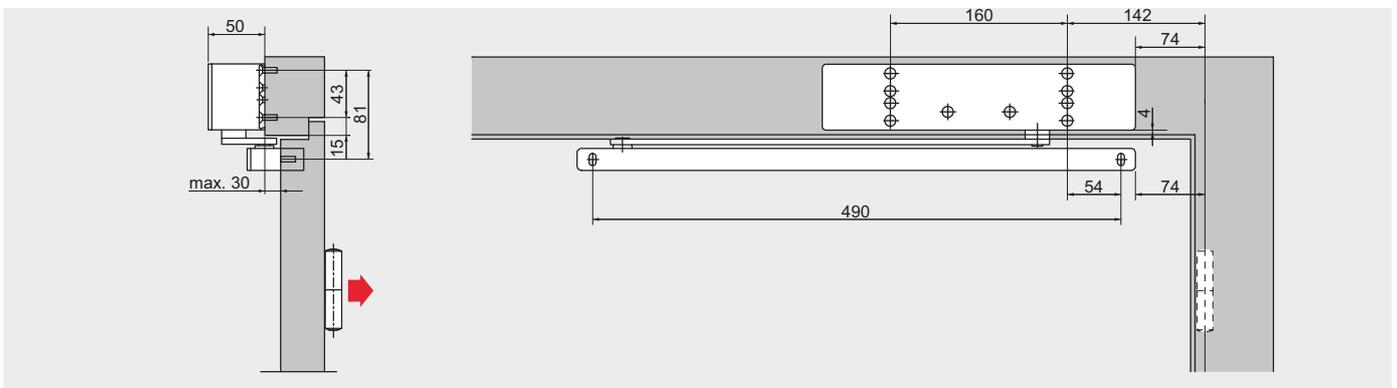
**Angle bracket
for G-N XEA**



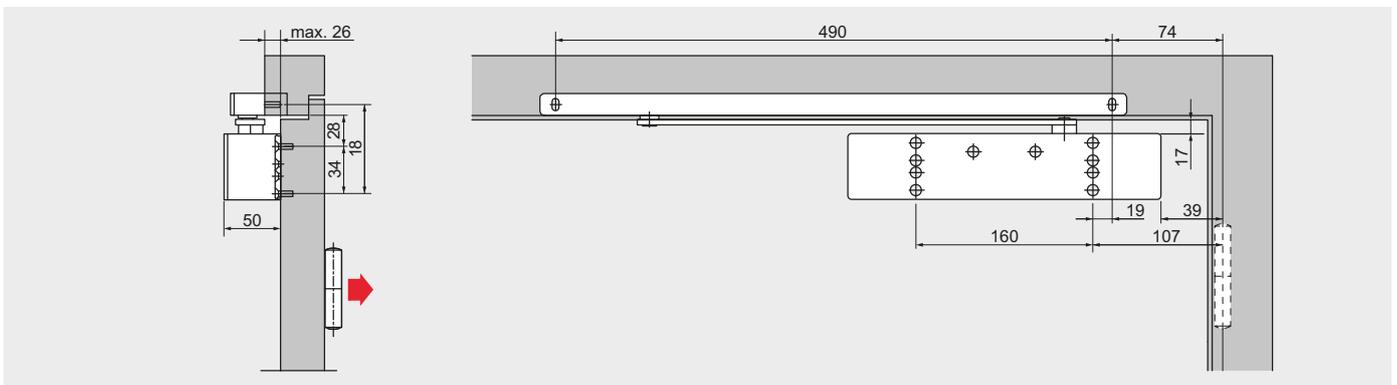
Door-leaf mounting on hinge side/pull side



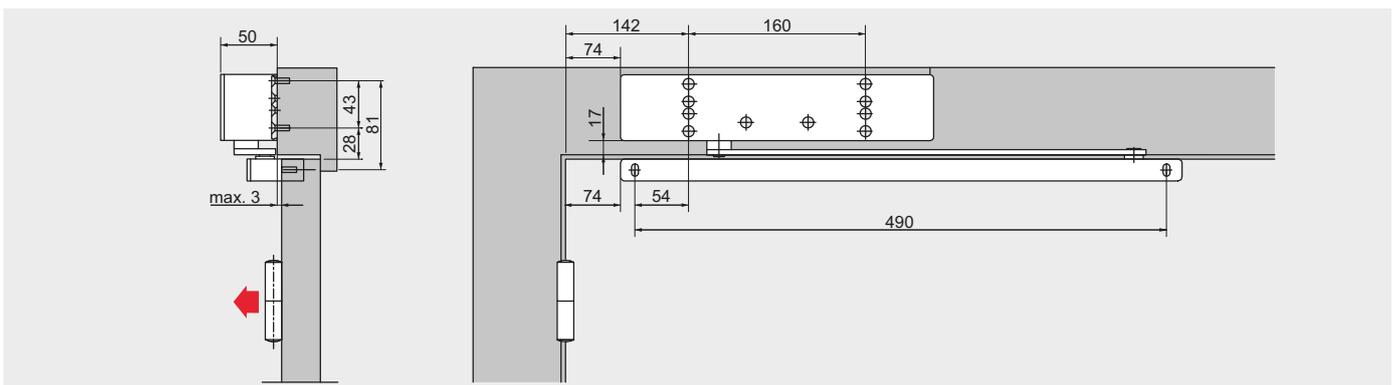
Transom mounting on opposite hinge side/push side



Door-leaf mounting opposite hinge side/push side



Transom mounting on hinge side/pull side



All drawings are left-handed (right-handed: reverse image)

Slide channel door closer for all-glass doors

TS 92 XEA all-glass doors

NEW

The TS 92 XEA slide channel door closer for all-glass doors unites aesthetics with sophisticated technology. It is suitable for hinges with an axial pivot point and for corner fittings.

Applications

- Door closer systems for interior applications
- Single-leaf doors
- Overpanel/frame installation
- Example of use: All-glass interior doors

Benefit

- Barrier-free access
- Award-winning design
- Very good price-performance ratio

Standards

- DIN EN 1154
- German Industrial Standard (DIN) 18040
- German Industrial Standard (DIN) SPEC 1104
- CEN/TR 15894



reddot design award
winner 2016



- Leaf width: ≤ 1100 mm
- Opening angle: 180°
- Continuously adjustable closing force and time
- EASY OPEN technology
- XEA design

Glass fitting	Glass preparation in combination with overpanel			Glass preparation in combination with frame			Glass door mounting plate		
	A	B	Opening angle	A	B	Opening angle	A	B	Opening angle
Junior/Studio	148	150	180°	148	132	180°	86	150	180°
EA	200	202	115°	200	182	115°	138	202	115°
MUNDUS	250	252	120°						
ARCOS Universal	265	267	112°						
MANET Revolving	200	202	150°						
Beyond	190	192	140°						

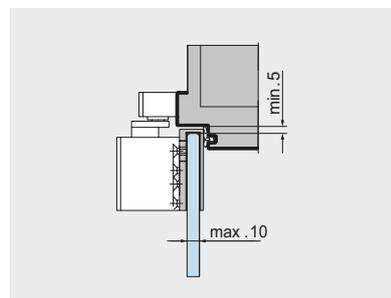
Mounting plate for glass overpanel door



Mounting plate for door in frame



Glass door saddle plate for glass door in frame



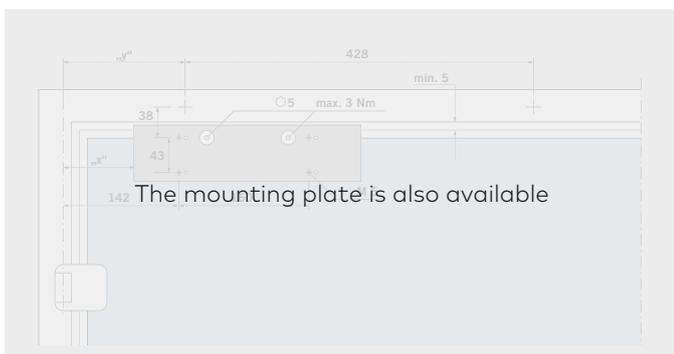
Glass machining for glass overpanel door



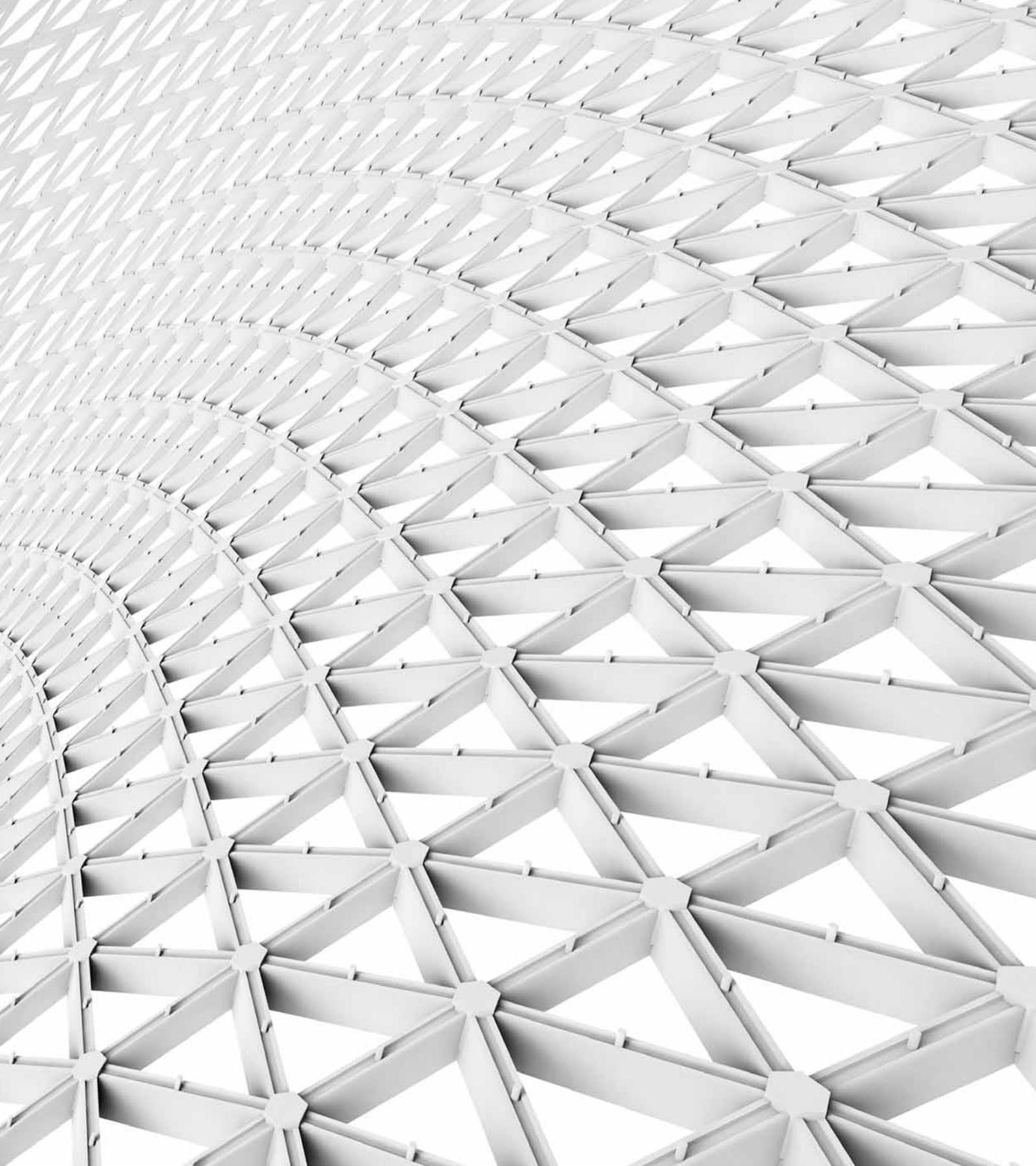
Glass machining for door in frame



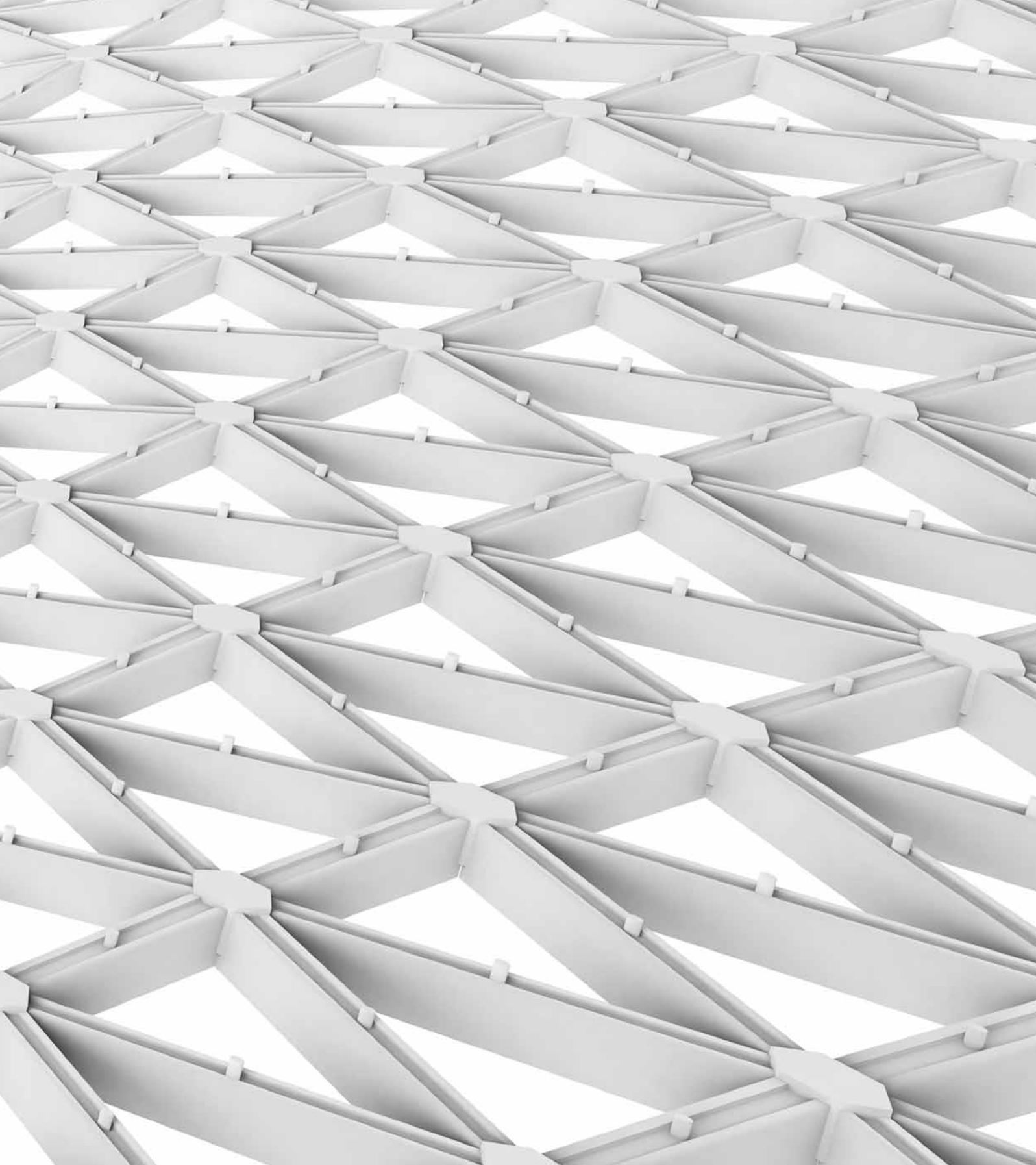
Glass door mounting plate for door in frame



All drawings are left-handed (right-handed: reverse image)



System components and accessories



- RMZ XEA smoke detector
- RM-N smoke detector
- EM electric hold-open magnets
- SR/MK door coordinator

Smoke detector with integrated power pack

RMZ XEA



The RMZ smoke detector with integrated power pack in a XEA design supplies connected hold-open systems with a 24 V direct current and switches them off from power in the event of an alarm (activation). Connection possible for other smoke detectors; an external manual release and a potential-free change-over contact are available.

Applications

- Door closer systems for interior applications
- For single- and double-leaf fire and smoke doors
- In conjunction with all dormakaba hold-open systems

Benefit

- With alarm threshold tracking
- Operating and maintenance indicator
- Connection possible for more smoke detectors and external manual release

Standards

- EN 54, part 7
- DIN EN 14637



reddot design award
winner 2016



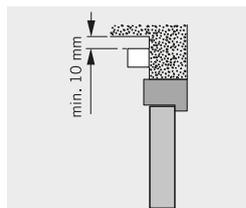
- Potential-free change-over contact
- Lintel mounting
- Input voltage 230 V AC +10%

F

Approval certification

The RMZ smoke detector with integrated power pack has general building approval

granted by DIBt (German Centre of Competence for Construction), Berlin; acceptance inspection mandatory.

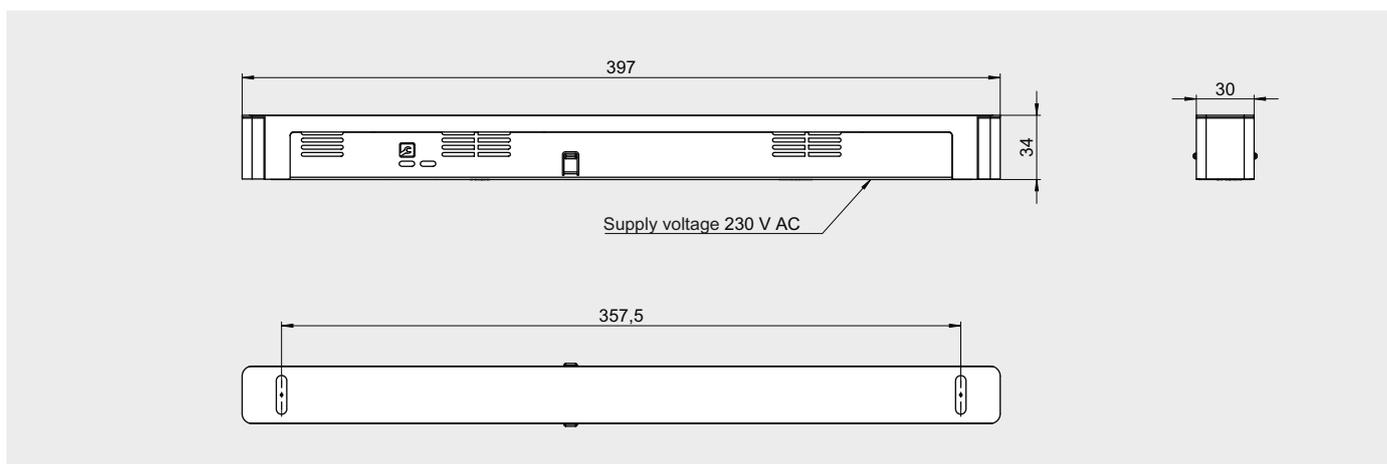


The gap between the upper edge of the lintel smoke detector and the ceiling must be at least 10 mm.

Data and features		RMZ
Functions	Smoke detector Trigger element Power supply	● ● ●
Smoke detection	Photoelectric (optical)	●
Mounting	Lintel mounting	●
Connection to other detectors	Smoke detector	●
LED indicators	Alarm Operation Maintenance Dirt	● ● ● ●
Restore	Can be switched automatically to manual reset	●
Function check	Exhaust gas	●
Connection terminals for external manual release		●
Ambient temperature in °C		-20, +40
Weight in kg		0.25
Dimensions in mm	Length Depth Height	379 34 30

As standard = ●

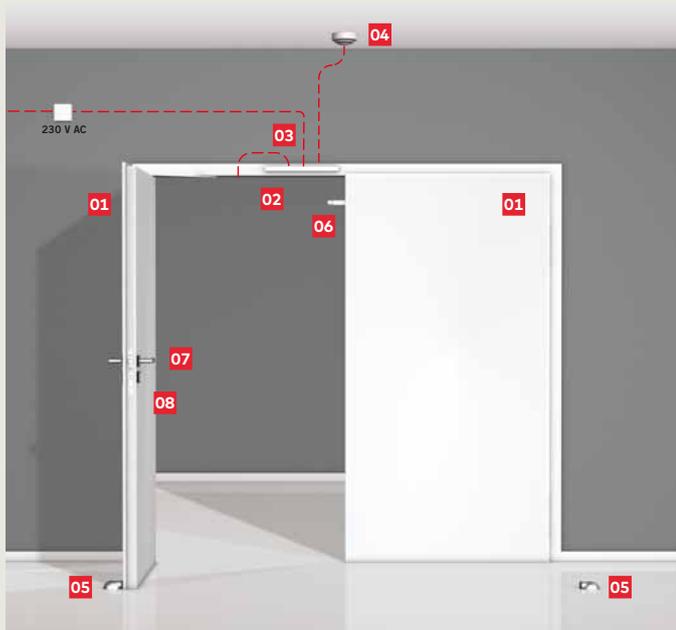
Dimensions



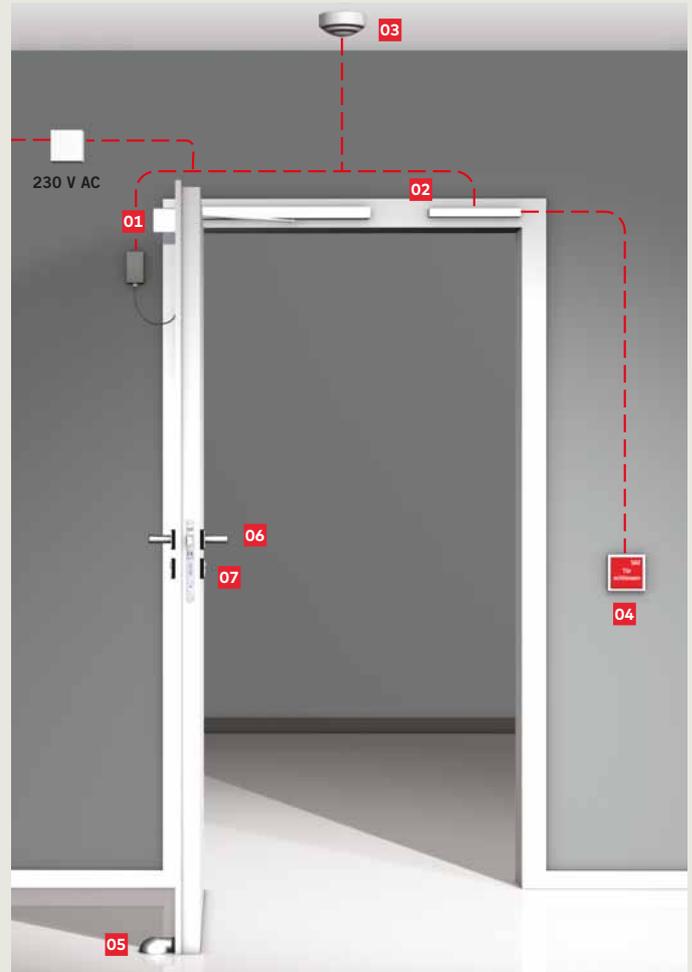
Detailed drawing

Application examples, technical data

Application example



Hold-open system on a double-leaf door, consisting of 2 ITS 96 door closers **01**, G 96 GSR-EMF active and passive door leaf slide channel **02** with drive rod clamp system and incorporated RMZ XEA smoke detector with integrated power pack **03** as intel-mounted detector and 1 RM-N smoke detector **04** as a ceiling-mounted detector on each side of the door, 2 TZ 5000 door stops **05**, MK 397 carry bar **06**, OGRO lever handle 8100 **07**, OGRO roses in the XEA design **08**



Hold-open system with fail-safe function on a fire and smoke door, comprising TS 99 FL door closer **01**, RMZ smoke detector with integrated power pack **02** as a transom mounted detector and 1 RM-N smoke detector **03** as ceiling-mounted detector on each side of the door, HT manual release pushbutton **04**, TZ 5000 door stop **05**, OGRO 8100 lever handle **06**, OGRO roses in the XEA Design **07**

Technical data

Total power input (max.) for hold-open systems and additional detectors in W	9.8
Power consumption for internal detectors in W	1.2
Input voltage	230 V AC/ ± 10%
Output voltage	24 V DC
Detector operating voltage	24 V DC +15/-10%
Power input (max.) in mA	75
Potential-free change-over contact, low voltage (SELV)	24 V AC
Class of protection	IP30



Smoke detector

RM-N

The RM-N line smoke detector detects both incipient fires and open fires with smoke emission; can be connected to all dormakaba hold-open systems as a second and third detector, e.g. RMZ in Contur design.

Standards

- EN 54, part 7



- Ceiling installation
- Possible to connect to all dormakaba hold-open systems
- Cost-effective double pack
- Low installation height (44 mm)

F

Approval certification

The dormakaba RM-N smoke detector has general building approval granted by DIBt (German Centre of

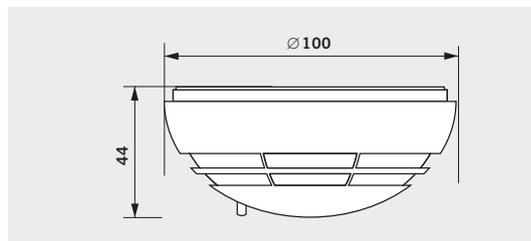
Competence for Construction), Berlin, and has been tested by VdS, Cologne, as per EN 54, part 7; acceptance inspection necessary.

Data and features		RM-N
Functions	Smoke detector Trigger element	● ●
Smoke detection	Photoelectric (optical)	●
Mounting	Ceiling installation	●
Connection to other detectors	2-wire technology	●
Power consumption for internal detectors in W		0.65
LED indicators	Alarm	●
Restore	Automatic	●
Function check	Exhaust gas	●
Ambient temperature in °C		-10, +60
Weight in kg		0.15
Dimensions in mm	Installation depth Height	∅ 100 44

As standard = ●

Technical data	
Input voltage	24 V DC +15/-10%
Detector operating voltage	24 V DC
Power input (max.) in mA	27
Class of protection	IP30

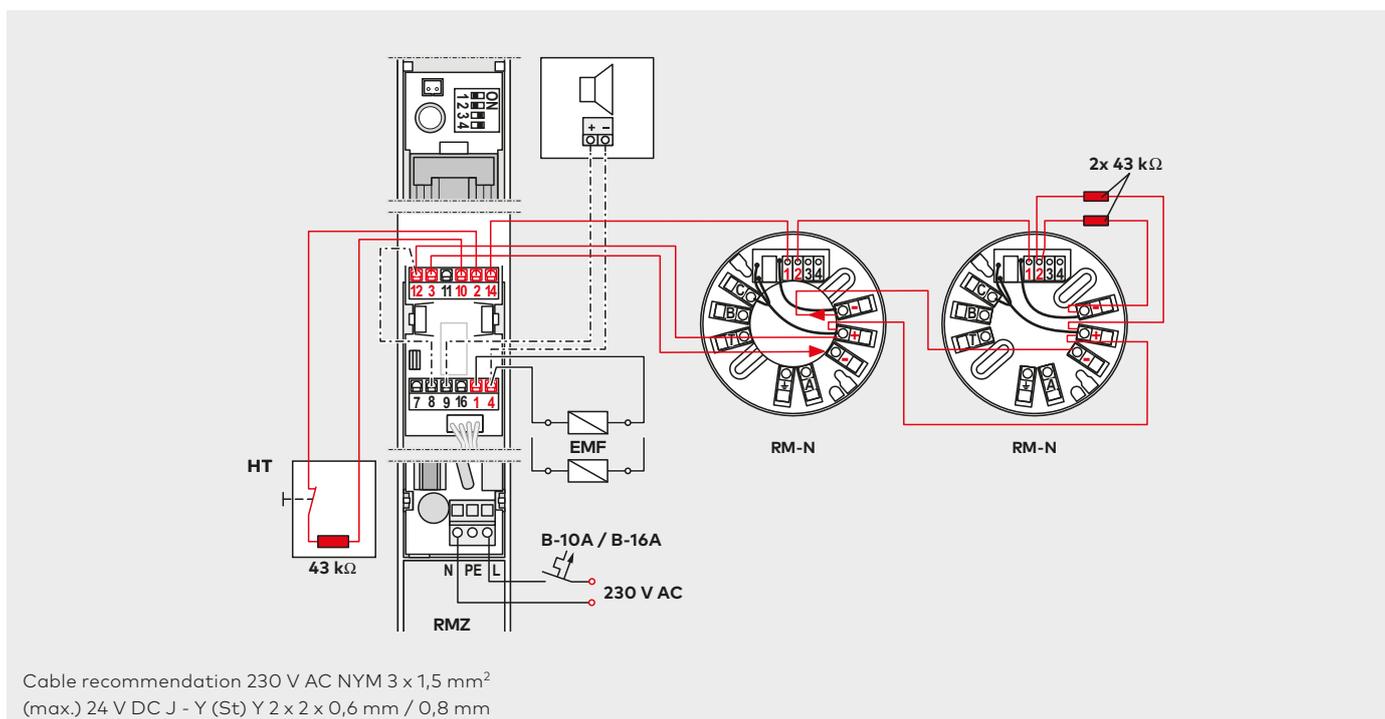
Dimensions



Application example



Connection diagram example



The modular hold-open magnet system to hold fire and smoke doors open

EM electric hold-open magnets

dormakaba completes its technically superior, aesthetically pleasing range for fire and smoke doors with EM models as a response to requirements. These models stand out due to their installation friendliness and functional elegance. The guaranteed quality ensures optimum reliability and a long service life.



- For surface, flush and floor mounting
- Modular system for flexible application
- Concealed cable entry
- High holding force with low power consumption

F

Approval certification

The dormakaba EM 500s for 24 V AC/DC have general building approval granted by the DIBt (German Centre of Compe-

tence for Construction), Berlin, for use in hold-open systems and are tested and certified by VdS, Cologne. Manual release button required for external

activation. Acceptance inspection required.

Data and features		500 G	500 U	500 A
Mounting	Surface-mounted	●	●	●
	Flush-mounted Floor ¹	●	●	●
Holding force	400 N	●	●	●
Anti-remance pin		●	●	●
Test pushbutton				●
Polarity reversal protection		●	●	●
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

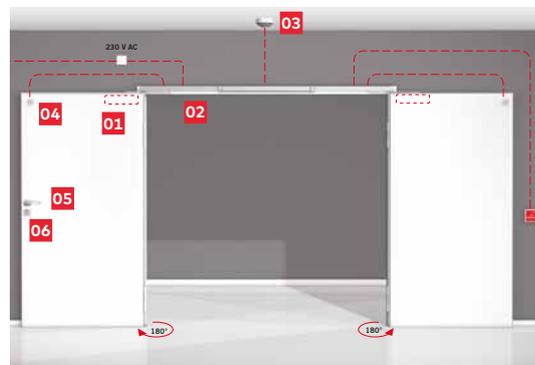
As standard = ●

¹ In conjunction with floor bracket (accessory).

Technical data		500 G	500 U	500 A
Operating voltage 24 V AC/DC		●	●	●
Max. power consumption in W			1.5	
On-load factor in %			100	
Class of protection			IP40 ²	

² EM 500 A in conjunction with floor bracket – class of protection IP43.

Application example



TS 98 XEA GSR-EMR (without hold-open unit) **01**, GSR-EMR slide channel without hold-open unit **02**, RM-N smoke detector **03**, hold-open magnets, e.g. 2 x EM 500 **04**, OGRO FS fitting **05**, FS lock **06**

Dimensions and functions

Electric magnets

Manual release pushbutton

Anchor

