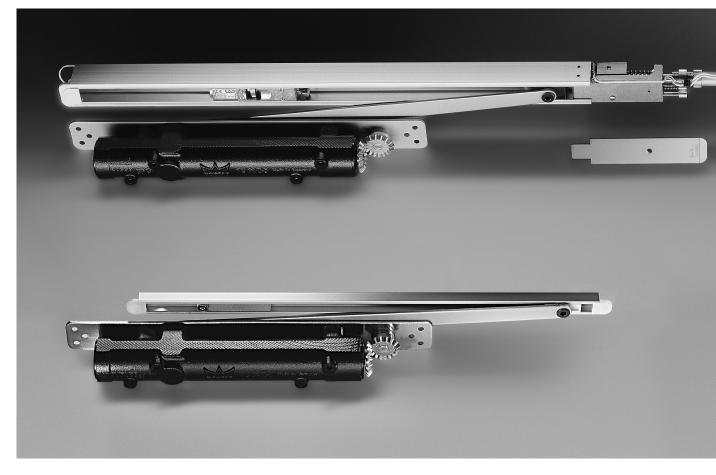




Concealed cam-action door closer system DORMA ITS 96

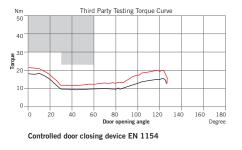


Flawless beauty

To ensure that prestigious doors retain all their inherent attraction, they can now be fitted with a concealed camaction door closer system the DORMA ITS 96. This is the first system of its kind, one which can be integrated in the door leaf and frame with the utmost elegance. Where the emphasis is on appearance, the disappearing DORMA System ITS 96 is the ideal solution for your doors: Advanced technology accommodated within the tightest of spaces, totally out of sight and featuring the proven heart-shaped cam which characterises all DORMA

slide channel door closers. The cam is literally at the heart of DORMA slide channel door closers - it guarantees secure closing while at the same time offering a rapidly decreasing opening force so that even children, the elderly and disabled people encounter only minimum resistance as they open the door. However, it is not only these categories of user who benefit. Thanks to the substantial reduction in effort required, this technology offers the ultimate in user convenience to all.

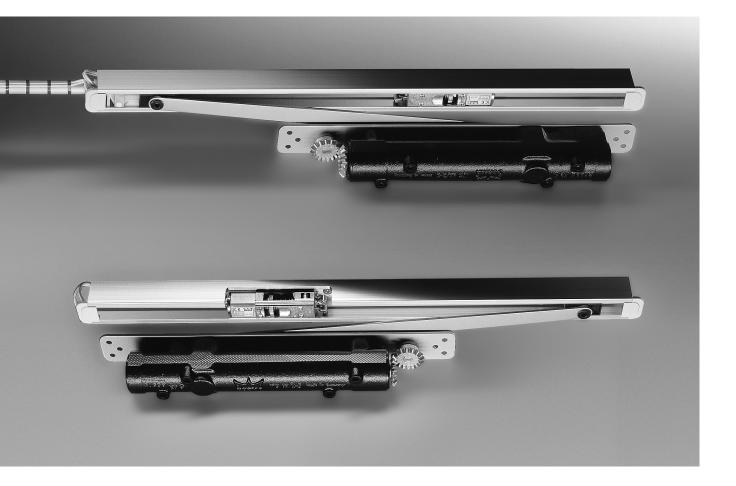




Force profile of an ITS 96 cam action door closer (Size EN 2 - 4, EN3 strength setting)

Opening forceClosing force





Contents	
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DORMA ITS 96	
Application and installation	6
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with electro-mechanical hold-open	13
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Uncompromising technical sophistication

The DORMA ITS 96 has ushered in a new era in door closer technology. The closer body and slide channel are so compact that they can be installed out of sight in doors and their frames. These devices offer the same high quality expected of DORMA door closers, as characterised by their ease of operation for the user, and wide range of functions.

Thanks to the exceptionally slender dimensions of the unit, the DORMA ITS 96 can be installed in virtually all doors with thicknesses of 40 mm or more, and offers all the advantages of quality assured manufacture with third-party auditing.

Certified to ISO 9001.

Plus points...

- ... for the trade
- Low inventory costs and reduced stocking requirements thanks to streamlined modular system and separate packaging of closer body and slide channel assemblies.
- Tailor-made applications with special accessories.
- ... for the installer
- Non-handed system.
- Can be incorporated within the door pre-fabrication process, allowing complete installation in the factory.
- Easy adjustment of the closing strength, closing speed and latch action after hanging of the doors.

ΕN Variable ΕN closing force Spring strength 2 - 43–6 up to 1100 mm Standard doors • • up to 1400 mm • External doors, outward opening Fire and smoke check doors up to 1100 mm • • up to 1400 mm Door leaf thickness equal to/greater than 40 mm equal to/greater than 50 mm • • Max. door leaf weight in kg 100 180 Non-handed design (closer) Arm Slide channel • • Closing force variable by means of adjustable screw • • Closing speed adjustable by means of valve • • Latching speed adjustable by means of valve • • Cushioned limit stay, mechanical . • 0 Double action Hold-open 0 0 Max. door opening angle approx. 120° (depends on door design) 1.3 2.5 Weight in kg 291 277 Dimensions in mm Length Width 32 39.5 42 51 Height Door closer tested to EN 1154 A Hold-open devices tested to EN1155 . Door co-ordinators tested to EN1158 • **(** mark for building products •

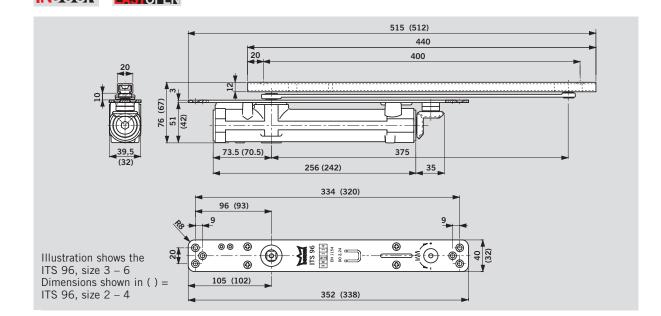
ITS 96

● Yes - No ○ Option

Further information

Data and features

Additional information about many of our products is available from a range of electronic media (Internet, CD-ROM). The abbreviated codes next to the computer symbol \square indicate the search terms.



 ...for the specifier/architect
 Unblemished appearance of prestige doors thanks to concealed installation.
 Ideal for doors integral to the interior design.
 Closing speed adjusta
 Latching speed adjusta
 Latching speed adjusta
 Data speed adjusta

- ...for the user
 Optimum protection against vandalism thanks
 - to the concealed installation.
 Enhanced user conveni-
 - ence and fully controlled, reliable closing with adjustable latch action.
 - Cushioned limit stay with progressive damping for protection of wall and door.

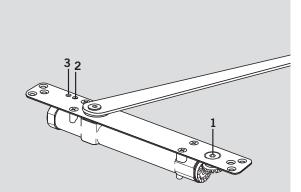


Adjustment of settings

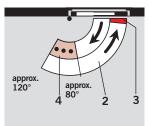
The functions of the DORMA ITS 96 can be individually adapted to the local conditions of each application. The closing strength can be easily varied in accordance with the door width via the adjustment screw accessible from the top. The closing speed and the latch action can likewise be modified at any time using adjustment screws at the top, even after the door has been hung.

Cushioned limit stay

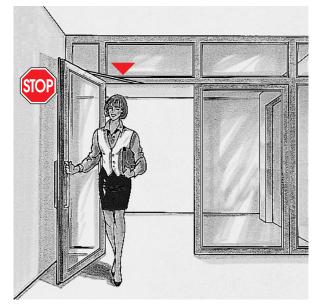
The integrated mechanically cushioned limit stay of the DORMA ITS 96 is progressively damped to protect the wall and doors from the damage arising from the door being opened too wide (under conditions of normal usage). It can be adjusted to an opening angle between approx. 80° and max. 120°. The cushioned limit stay feature is not an overload protection device and in many cases cannot replace a doorstop.

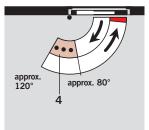


- 1 Screw for adjusting the closing strength
- 2 Valve for adjusting the closing speed
- **3** Valve for adjusting the latching speed



- 2 Fully controlled closing with adjustable speed
- 3 Adjustable latch action
- 4 Cushioned limit stay





4 Cushioned limit stay

F Approval certification

The DORMA ITS 96 is approved by the State Material Testing Authority, Dortmund, in accordance with EN 1154 A. Additionally, the model size EN 2 – 4 and EN 3 – 6 has CERTIFIRE approval (CF.140) for use on timber FD30 and FD60 doors (code ITT), when installed with the approved intumescent gasket set for FD30 or FD60 supplied by DORMA UK. The length, width and height of mortice for the body and slide channel must be increased by 2 mm to accommodate the gasket on 30 minute doors and 4 mm on the channel only for 60 minute doors. The ITS 96 has 4 hour CERTIFIRE approval for metal doors.

Specification text

Certifire

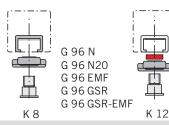
Cam-action door closer integrated in the door leaf or frame, tested to EN 1154 A, with rapidly decreasing opening torque/force. Closing strength, closing speed and latch action adjustable. Non-handed, with slide channel... (see pages 8 – 15)

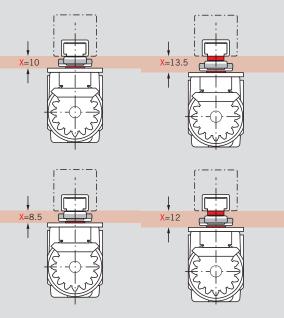
□ EN 2 – 4 □ EN 3 – 6

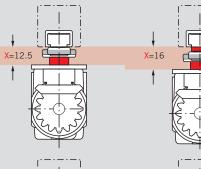
Size

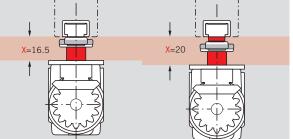
Make DORMA ITS 96

LITS96/2-4 ITS96/3-6 The DORMA ITS 96 concealed cam action door closer system is suitable for various door designs and different rebate clearance dimensions. This is achieved through the combination of different spindle lengths available with the closer and the universal K8/K12 slide channel. Installation suggestions for the DORMA ITS 96 door closer system relating to the most common door types are available from DORMA on request.









For G96N Arm please add 2mm to dimension X

UK Standard

ITS 96 2-4 ITS 96 3-6 with 1.5 mm extended spindle



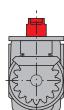
Specials

ITS 96 2-4 ITS 96 3-6

*G96N arm cannot be used with ITS96 reduced spindle unit

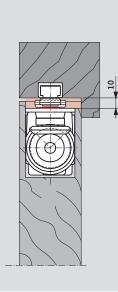
ITS 96 2-4 ITS 96 3-6 with 4 mm extended spindle

ITS 96 2-4 ITS 96 3-6 with 8 mm extended spindle

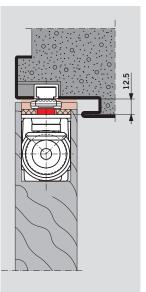




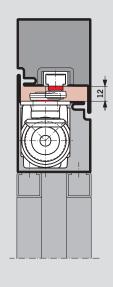
Timber door, flush-closing, clearance 10 mm, with UK ITS 96 EN 3–6 and slide channel G 96 N20 K8.



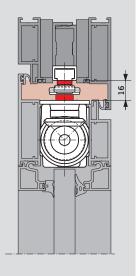
Timber door with steel frame, flush closing, clearance 12.5 mm, with ITS 96 EN 3–6, 4 mm extended spindle and slide channel G 96 N20 K8. Please check dimensions carefully



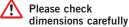
Tubular steel frame door, flush-closing, clearance 12 mm, with ITS 96 EN 3–6 and slide channel G 96 N20 K12.

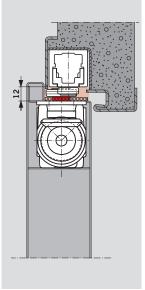


Aluminium tubular frame door, flush-closing, clearance 16 mm, with ITS 96 EN 3–6, 4 mm extended spindle and slide channel G 96 N20 K12.

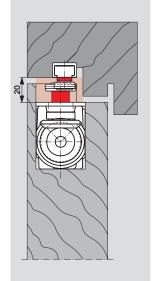


Hollow steel door with steel frame, over-rebated, clearance 12 mm, with ITS 96 EN 3–6, 4 mm extended spindle and slide channel G 96 EMF K8.

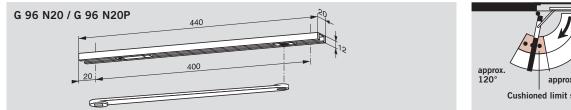




Timber door with solid frame, double rebated, clearance 20 mm, with ITS 96 EN 3–6, 8 mm extended spindle and slide channel G 96 N20 K12.



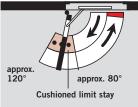
Slide channels



The DORMA G 96 N20 slide channel pack includes the arm, slide channel, slide block, cushioned limit stay and fixing screws, and can be combined with both door closer sizes in the DORMA ITS 96 range.

The DORMA G 96 N20 slide channel is adjustable to K8/K12.

F Approval certification The DORMA ITS 96 is approved by the State Material Testing Authority, Dortmund, in accordance with EN 1154 A. Additionally, the model size EN 2 – 4 and EN 3 – 6 has CERTIFIRE approval (CF.140) for use on timber FD30 and FD60 doors (code ITT), when installed with the approved intumescent gasket set for FD30 or FD60 supplied by DORMA UK. The length, width and height of mortice for the body must be increased by 2 mm to accommodate the gasket on 30 and 60 minute doors. The channel must be increased by 2mm for 30 minute doors and 4mm for 60 minute doors. The ITS 96 has 4 hour CERTIFIRE approval for metal doors.



Specification text

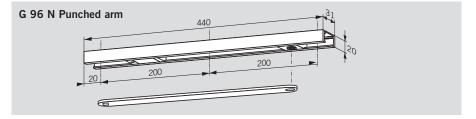
DORMA ITS 96 ... door closer (see pages 4 and 5) with slide channel G 96 N20

Version

□ LH (ISO 6) K8/K12 □ RH (ISO 5) K8/K12

Make DORMA ITS 96 N20

🖵 ITS96/2-4 ITS96/3-6

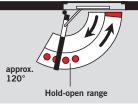


Hold-open unit



The DORMA RF hold-open unit enables doors to be securely held without any fall-back at precisely the required position up to an opening angle of approx. 120°. The pull-off force can be adjusted to any door situation. The DORMA RF mechanism is non-handed and has been specifically designed for retrofitting to the G 96 N or G 96 N20 slide channel.

Not for fire and smoke check doors.

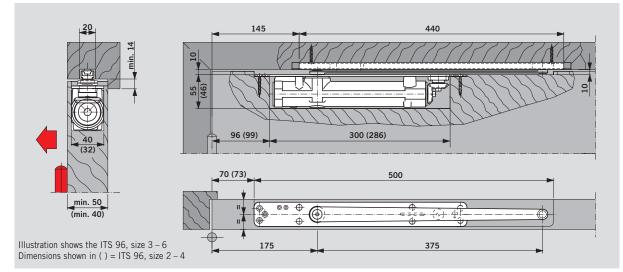


Accessories

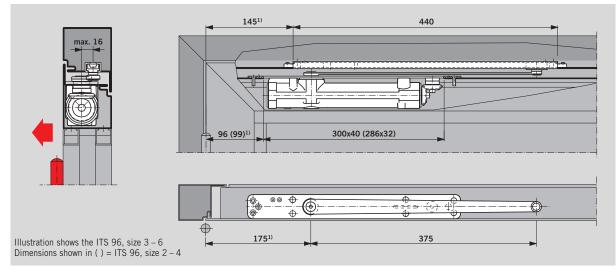
Hold-open unit DORMA RF G 96 or G 96 N20

L ITS96RF/2-4 ITS96RF/3-6

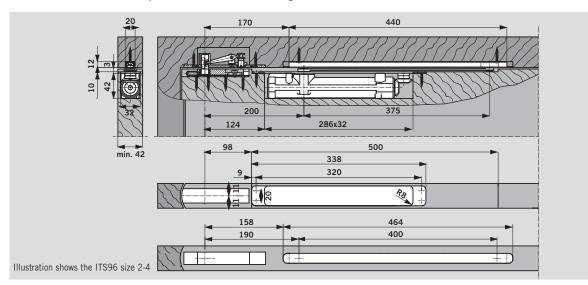




DORMA ITS 96 door closer with DORMA G 96 N20 slide channel in a **timber door** Example: Anticlockwise-closing (ISO 6) door; mirror image applies to clockwise-closing (ISO 5) doors.

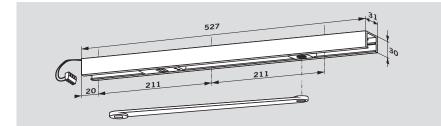


DORMA ITS 96 door closer with DORMA G 96 N20 slide channel in an **aluminium framed door** Example: Anticlockwise-closing (ISO 6) door; mirror image applies to clockwise-closing (ISO 5) doors. ¹⁰ Add 25 mm for aluminium profile frames with corner-angle reinforcement.



DORMA ITS 96 door closer with DORMA G 96 N20 P double action slide channel in a timber door.

Electro-mechanical hold-open (single and double action)



The **DORMA G 96 EMF** slide channel assembly enables the door to be held open securely at a pre-selected position without fall-back. The hold-open point can be adjusted within an opening angle of approx. 80° and 120°.

In the event of an alarm or a fault in the power supply, the hold-open is released and the door is closed by the door closer. The release is triggered by a signal from external smoke detectors (e.g. DORMA RMZ). The release force for the hold-open mechanism can be adjusted without tools and is rated to ensure that the door can also be easily released manually.

Note:

The hold-open point also constitutes the max. door opening angle (position door stop accordingly). The DORMA G 96 EMF slide channel assembly comprises the arm, slide channel, slide block, electro-mechanical hold-open unit and fixing screws, and can be combined with both door closer sizes in the DORMA ITS 96 range.

In the case of particulary large and heavy doors (over 1250 mm), we recommended that DORMA EM holdopen magnets be employed instead of the electromechanical hold-open unit.

F Approval certification

The DORMA ITS 96 EMF has been tested by the State Material Testing Authority, Dortmund, to EN 1155, Electrically Powered Hold-open Devices and is CE marked. DORMA ITS 96 ... door closer (see pages 4 and 5) with G 96 EMF K8/K12 slide channel assembly, with integrated 24 V DC electro-mechanical hold-open, tested to EN 1155. Holdopen point ($80^{\circ} - 120^{\circ}$) and release force adjustable. Approved by the Institute for Building Technology, Berlin, for general use in hold-open systems. Acceptance inspection of the system is mandatory in Germany.

approx. 80°

Hold-open range

Version

approx. 120°

• = Door stop

Specification text

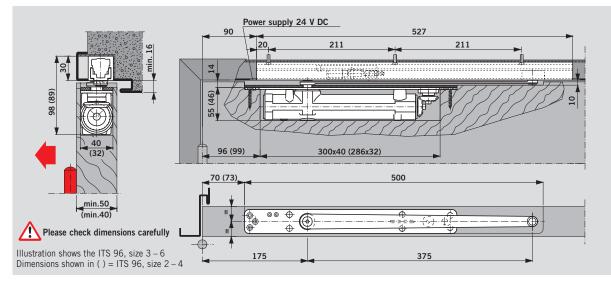
□ LH (ISO 6) K8/K12 □ RH (ISO 5) K8/K12

Make DORMAITS96EMF

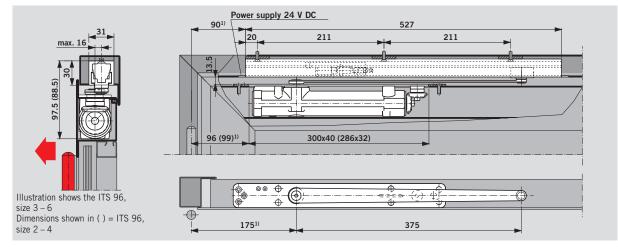
LTS96EMF/2-4 ITS96EMF/3-6

Technical data Operating voltage: 24 V DC, ± 15% Power input: 1.4 W Rated for continuous duty: 100% Release force: Adjustable

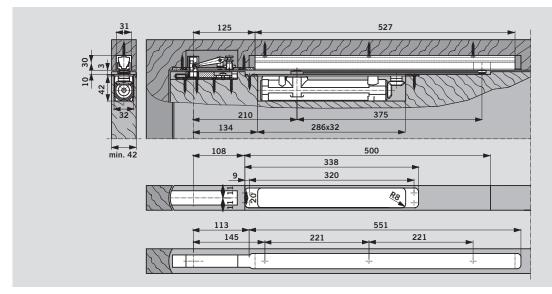




DORMA ITS 96 door closer with DORMA G 96 EMF slide channel assembly in a **timber door** Example: Anticlockwise-closing (ISO 6) door; mirror image applies to clockwise-closing (ISO 5) doors.



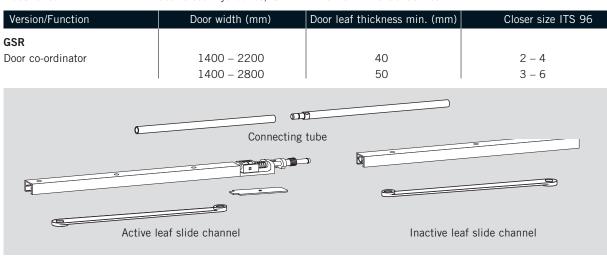
DORMA ITS 96 door closer with DORMA G 96 EMF slide channel assembly in an **aluminium framed door** Example: Anticlockwise-closing (ISO 6) door; mirror image applies to clockwise-closing (ISO 5) doors. ¹⁾Add 25 mm for aluminium profile frames with corner-angle reinforcement.



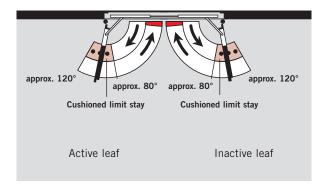
DORMA ITS 96 door closer with DORMA G 96 EMF double action slide channel assembly in a timber door

Door co-ordinator

The **DORMA G 96 GSR** slide channel with integral door co-ordinator for pairs of doors ensures that the active leaf always closes after the inactive leaf. The DORMA G 96 GSR slide channel door co-ordinator features a push rod clamping system. As this system operates independently of door closer hydraulics, it offers maximum safety and reliability. An overload release protects the door co-ordinator and the door set from damage. The DORMA G 96 GSR can be combined with both door closer sizes of the DORMA ITS 96 range.



A DORMA G 96 GSR slide channel door co-ordinator encompasses an active leaf and an inactive leaf slide channel with cushioned limit stay, a connecting tube, a cover for the co-ordinator mechanism on the active leaf slide channel, and two arms.



The DORMA ITS 96 GSR

has been tested to EN 1158, Door Co-ordinator

F Approval certification

Specification text

DORMA ITS 96 ... door closer (see pages 4 – 5) with G 96 GSR K8/K12 slide channel, featuring integrated mechanical door co-ordinator using a push rod clamping system with overload release which operates independently of the closer hydraulics. Standard design – door leaves with no hold-open. Tested to EN 1158. Approved by the Institute of

Devices by the State

Dortmund/Germany.

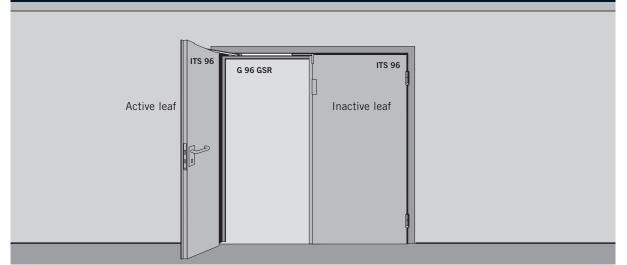
Material Testing Authority,

Approved by the institute of Building Technology, Berlin, for general use in conjunction with fire and smoke check doors.

Make DORMAITS96GSR

LTS96GSR/2-4 ITS96GSR/3-6

Example application





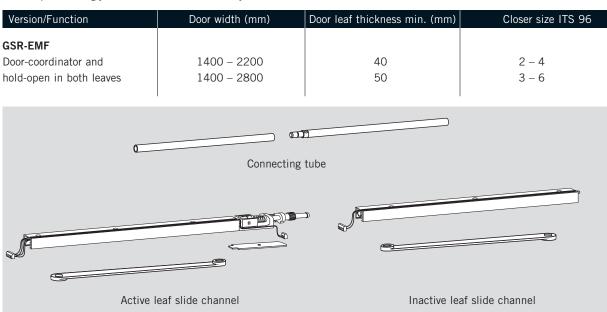
Door co-ordinator with electro-mechanical hold-open

This door co-ordinator not only ensures the correct closing sequence of pairs of doors, but also allows the door leaves to be individually held open by an electro-mechanical device. The hold-open point for both door leaves lies between approx. 80° and 120°. **Note:** The hold-open point also

constitutes the max. door opening angle – position door stop accordingly. In the event of an alarm or a fault in the power supply, the hold-open is released and the door is closed by the door closer. The release is initiated by a signal from external smoke detectors (e.g. DORMA RMZ) or other fire alarm. The release force for the hold-open mechanism can be adjusted without tools and is rated to ensure that the door can also be easily released manually. The DORMA G 96 GSR-EMF slide channel door co-ordinator can be combined with both door closer sizes of the DORMA ITS 96 range. In the case of particulary large and heavy doors (over 2500 mm), we recommended that DORMA EM holdopen magnets be employed instead of the electromechanical hold-open unit.

Regulations/Information

The use of hold-open devices may be subject to certain conditions – see page 25.

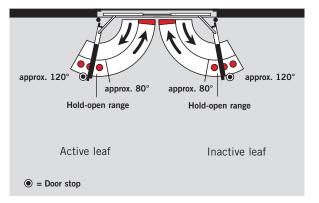


A DORMA G 96 GSR slide channel door co-ordinator encompasses an active leaf and an inactive leaf slide channel with electromechanical hold-open, a connecting tube, a cover for the co-ordinator mechanism on the active leaf slide channel, and two arms.

Technical data	
Operating voltage:	24 V DC, ± 15%
Power input:	2.8 W
Rated for continuous duty:	100%
Release force:	Adjustable

F Approval certification

The DORMA ITS 96 GSR-EMF has been tested by the State Materials Testing Authority, Dortmund, to EN 1158, Door Co-ordinator Devices, and EN 1155, Electrically Powered Hold Open Devices.



Specification text

DORMA ITS 96 ... door closer (see pages 4 - 5) with G 96 GSR-EMF K8/K12 slide channel, featuring integrated mechanical door co-ordinator using a push rod clamping system with overload release which operates independently of the closer hydraulics, with integrated electromechanical hold-open, 24 V DC. Hold-open point $(80^{\circ} - 120^{\circ})$ and release force adjustable. Tested to EN 1158 and EN 1155.

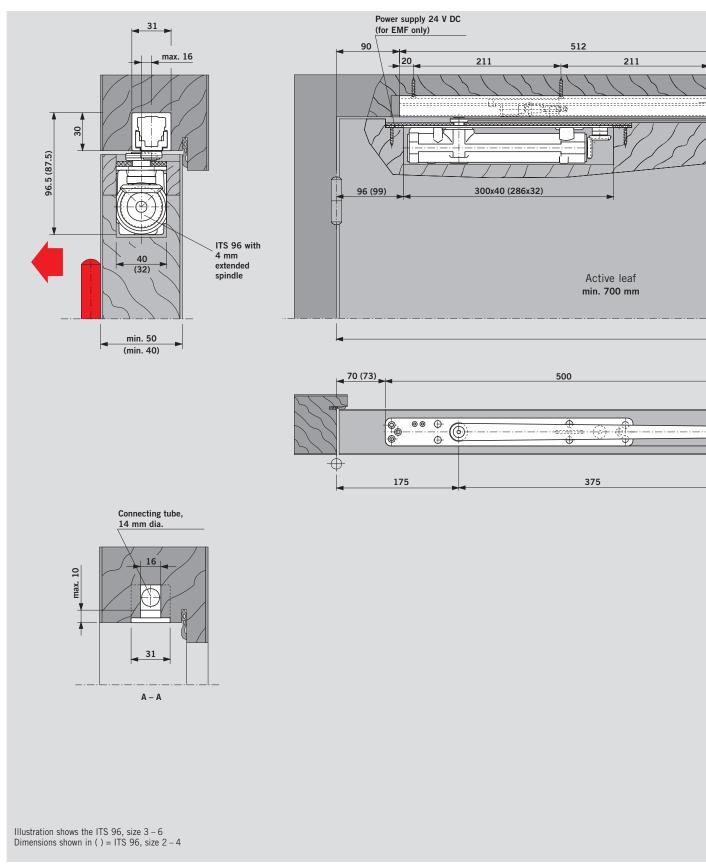
Approved by the Institute of Building Technology, Berlin, for general use in hold-open systems. Acceptance inspection of the system is mandatory in Germany.

Make

DORMAITS96GSR-EMF

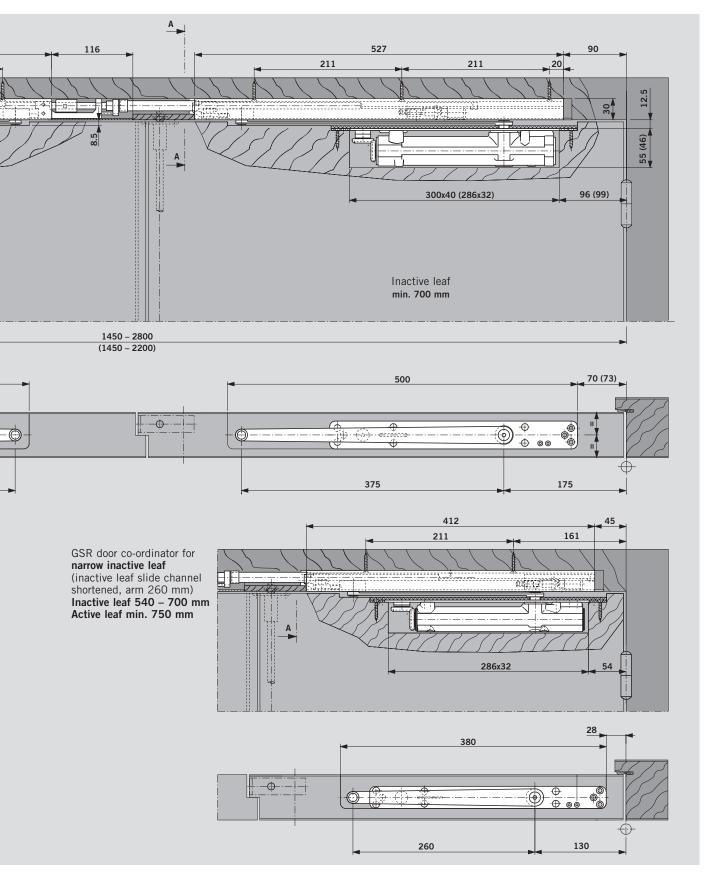
ITS96GSR-EMF/2-4 ITS96GSR-EMF/3-6 Slide channel door co-ordinators

Installation in a timber door



DORMA ITS 96 door closer with DORMA G 96 GSR/GSR-EMF slide channel Example: Anticlockwise-closing (ISO 6) active leaf; mirror image applies to clockwise-closing (ISO 5) active leaf.

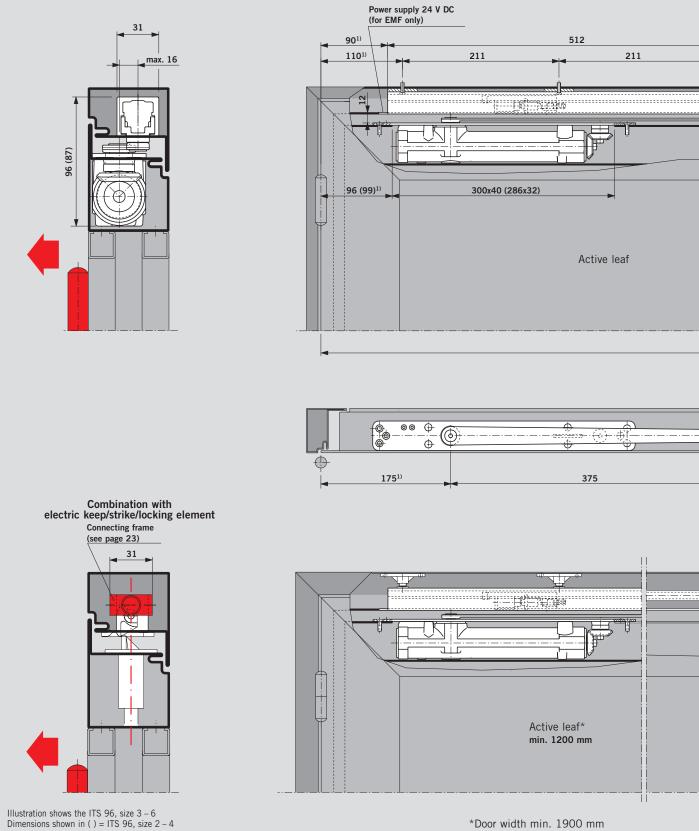




F When installed in fire and smoke check doors, ensure that the DORMA MK 397 carry bar is also fitted.

Slide channel door co-ordinators

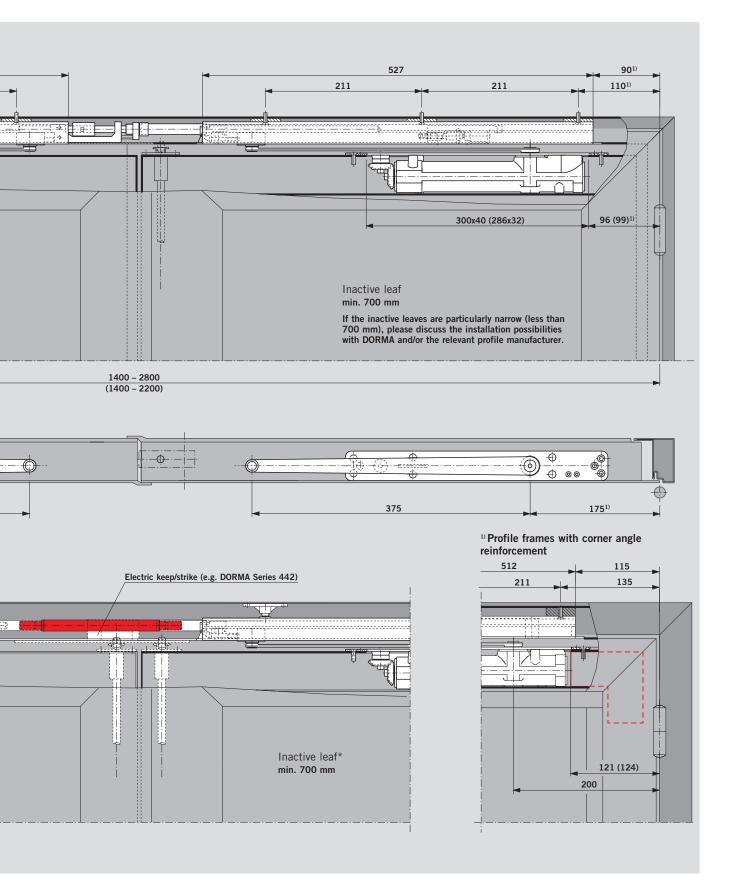




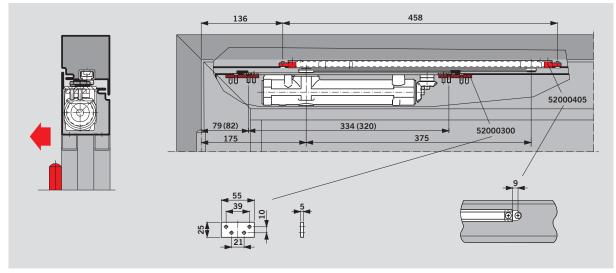
*Door width min. 1900 mm

DORMA ITS 96 door closer with DORMA G 96 GSR/GSR-EMF slide channel Example: Anticlockwise-closing (ISO 6) active leaf; mirror image applies to clockwise-closing (ISO 5) active leaf.

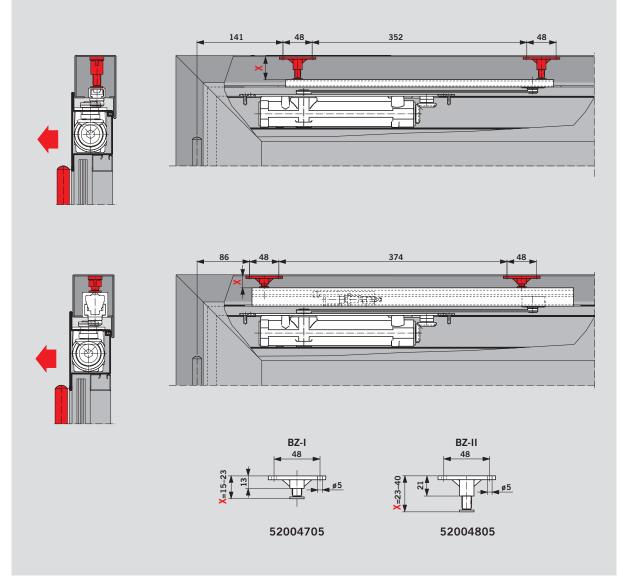




F When installed in fire and smoke check doors, ensure that the DORMA MK 397 carry bar is also fitted.

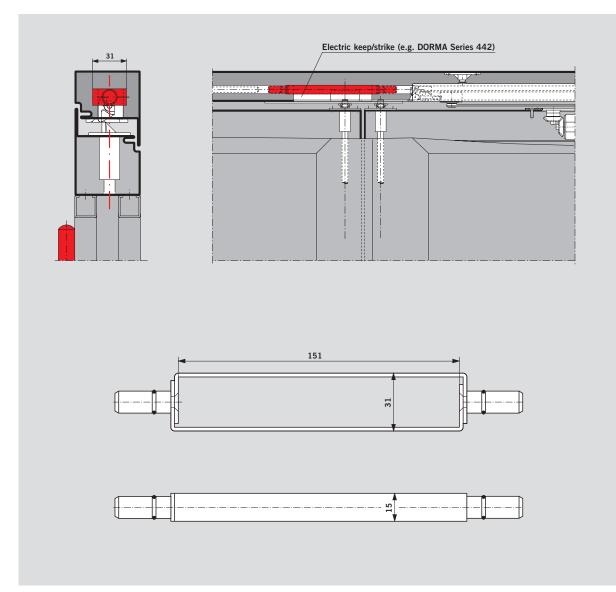


Fixings for **G 96 N20** and mounting plate for ITS 96 Example: Anticlockwise-closing (ISO 6) door; mirror image applies to clockwise-closing (ISO 5) doors.



Fixings for height adjustment in relation to **G 96 N20, EMF, GSR** Example: Anticlockwise-closing (ISO 6) door; mirror image applies to clockwise-closing (ISO 5) doors.





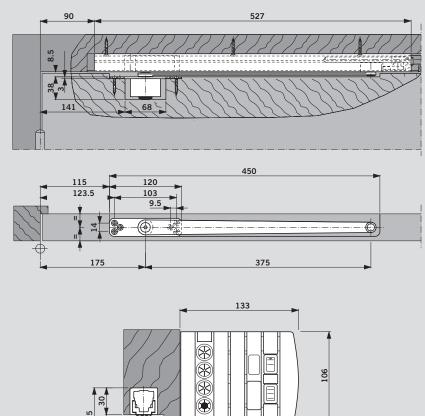
Connecting frame for **G 96 GSR** door co-ordinator for use on doors with electric keep/strike or overhead electromechanical locking element (see page 18) *Door width min. 1900 mm If the DORMA G 96 GSR door co-ordinators are required to operate independently of the ITS 96 door closers, e.g. in combination with the ED 200 automatic swing door operator, the connection between the door co-ordinator and the door leaf is provided by means of GSR pivot blocks.

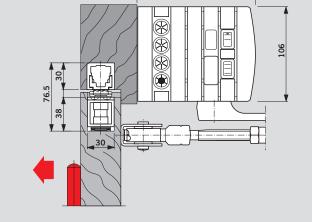
Specification text

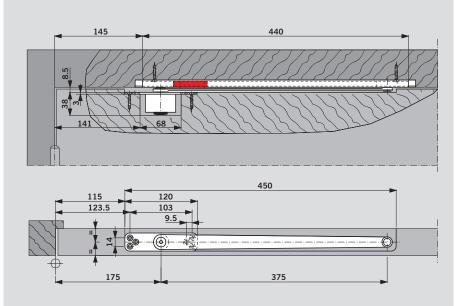
Pivot bearing for closer-independent door co-ordination with DORMA G 96 GSR door co-ordinators.

Make

DORMA ITS GSR pivot block







The pivot bearing used in conjunction with the G 96 N20 slide channel also acts as a **cushioned limit stay.**



ITS96 Intumescent Fire Seal Packs

G 96 N

Intumescent Pack to suit EN2-4 unit with standard arm and channel (30 min) 40FD3024

Intumescent Pack to suit EN3-6 unit with standard arm and channel (30 min) 40FD3036

Intumescent Pack to suit EN2-4 unit with standard arm and channel (60 min) 40FD6024

Intumescent Pack to suit EN3-6 unit with standard arm and channel (60 min) 40FD6036

Intumescent Pack to suit EN2-4 unit with G 96 N20 arm and channel (30 min) 40FD3024N20

G 96 N20

Intumescent Pack to suit EN3-6 unit with G 96 N20 arm and channel (30 min) 40FD3036N20

Intumescent Pack to suit EN2-4 unit with G 96 N20 arm and channel (60 min) 40FD6024N20

Intumescent Pack to suit EN3-6 unit with G 96 N20 arm and channel (60 min) 40FD6036N20

G 96 EMF

Intumescent Pack to suit EN2-4 EMF unit with standard arm and channel (30 min) 40FD3024EMF

Intumescent Pack to suit EN3-6 EMF unit with standard arm and channel (30 min) 40FD3036EMF

Intumescent Pack to suit EN2-4 EMF unit with standard arm and channel (60 min) 40FD6024EMF

Intumescent Pack to suit EN3-6 EMF unit with standard arm and channel (60 min) 40FD6036EMF

G 96 N20P

Double Action Intumescent Pack to suit EN2-4 or EN2-4 EMF (30 or 60 min) must be used with suitable pack from list 40FDSDA24

1 General

1.1 In respect of doors etc. which are held open by hold-open systems, the area needed for closure must be kept permanently free of obstructions. This area should be clearly indicated by means of lettering, floor markings or similar. If necessary, structural measures may need to be taken in order to ensure that wiring/ducting, stored goods or structural components (e.g. false ceilings or other components) do not fall down into the area to be kept clear.

1.2 As far as possible, smoke detectors should be used for hold-open systems.

Smoke detectors should be used for hold-open systems for doors etc. in emergency exits and escape routes.

1.3 All hold-open devices should allow manual release without their operational readiness being adversely affected. Door closers with electro-magnetic hold-open

systems can be released by pressing lightly on the door leaf. If hold-open magnets or free-swing door closers are used, the release function is triggered by pressing a switch. The switch must be located in the immediate proximity of the door and must not be covered when the door is held open.

2 Commissioning

2.1 After the system has been fitted ready for use on site, it should be commissioned to check that its operation is problem-free and that its installation complies with all relevant regulations. The commissioning should only be performed by qualified technical personnel.

3 Routine Inspection

3.1 The operator should keep the hold-open system in a permanently fit state for use and must inspect it at least once a month to ensure its functional integrity.

3.2 In addition, it is the responsibility of the operator to ensure that all devices are checked and maintained/ serviced to ensure their combined functional integrity, this to be performed at least

once a year, unless a shorter time period is stipulated in the national regulations. This inspection and servicing activity should only be carried out by a specialist or suitably qualified person. **3.3** The scope, result and time of the routine inspections should be recorded, and these records should be retained by the operator.

For specification text/product description, see All part numbers denote silver finish. Other finishes (satin stainless steel, polished or and polished brass) are available.		ITS 96 EN 2 - 4 52400150 EN 3 - 6 52250150 4	ITS 96 with 1.5 mm extended spindle EN 2 - 4 52430150 EN 3 - 6 52290150 4	ITS 96 with 4 mm extended spindle EN 2 - 4 52410150 EN 3 - 6 52260150 4	ITS 96 with 8 mm extended spindle EN 2 - 4 52420150 EN 3 - 6 52270150 4
	003701 003801 000501				
G 96 EMF L] 520 K8/K12 R] 520	001501 10 001601				
G 96 GSR	001801 12 004001	2× 0 2× 0 1	2× 0 2×	2× 0 2×	2x 0 2x 0
G 96 GSR-EMF	001701 14 004201	2× 0 2× 0	2× 0 2×	2× 0 2×	2× 0 2×
Fixing plates for ITS 96	000300 22	#	#	#	#

- Closer body separate
- = Slide channel separate
- # = Optional accessory

L = LH/anticlockwise closing (ISO 6)

- **R** = RH-clockwise closing (ISO 5)
- ¹⁾ GSR door co-ordinator for inactive leaf of 540–700 mm (inactive leaf slide channel shortened, arm 260 mm)



RF hold-open unit for G 96 N G 96 N20	RF hold-open unit for G 96 GSR, inactive leaf	Fixing BZ I for narrow- stile/alu- framed doors	Fixing BZ II for narrow- stile/alu- framed doors	Fixings for mounting the G 96 N20 aluminium doors	Connecting frame for G 96 GSR	Pivot bearing	Carry bar MK 397
52003600 52005600	K8/K12 52003500	52004705	52004805	52000405	52004400	520034001)	470029xx ²⁾
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¹⁰ Pivot bearing with 4 mm and 8 mm extended spindle available on request

²⁾ MK 397 Colour xx galvanised 00 special colour 30





Door Control



Automatic



Glass Fittings and Accessories



and Access (STA)



Movable Walls

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