



Door Closer with Fire Protection Plate (FPP®) **TS 93**





dormakaba's Sustainability Commitment

We are committed to foster a sustainable development along our entire value chain in line with our economic, environmental and social responsibilities toward current and future generations.

Sustainability at product level is an important, future-oriented approach in the field of construction. In order to give quantified disclosures of a product's environmental impacts through its entire life cycle, dormakaba provides Environmental Product Declarations (EPD), based on holistic life cycle assessments.

The full EPD is available for download at www.dormakaba.com.

Table of contents

04	Functions
06	Data and features
08	Slide channel G-N
10	Accessories
11	Scope of delivery and accessories
11	Specification texts

Versatile and elegant

For high-quality architectural solutions in the project

NEW

The TS 93 cam action door closer system sets new standards in user convenience in project applications. The proven dormakaba technology of the heart-shaped cam ensures exceptional ease of opening. The TS 93 series comprises a modular system which enables just a few door closer models to be combined with a number of different slide channels to meet virtually every conceivable functional requirement. Doors of varying designs can be equipped for a wide range of different applications.

The TS 93 with Fire Protection Plate (FPP®) design offers an even more impressive specification – thanks to

- concealed fixings
- height-adjustable G-N slide channel
- delayed closing action as standard
- simple, fast installation
- tested on uninsulated fire doors up to 4 hrs



Closes at 180°

If the door closer is mounted on the pull side, 180° closing is possible with door leaf installation.



Rapidly decreasing opening torque

The resistance that needs to be overcome when opening the door instantly decreases. Children and the elderly in particular will appreciate so much comfort.



Patented Fire Protection Plate FPP®

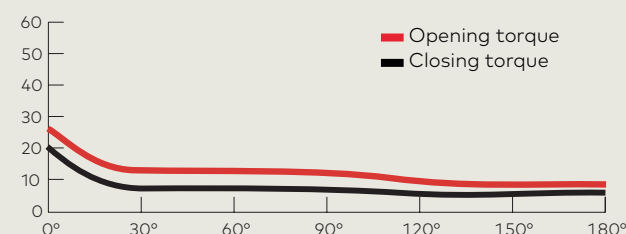
This mounting backplate with its unique composite construction ensures maximum fire safety for TS 93. This solution underpins dormakaba's ability to combine highest power density and most robust die cast steel door closers with highest possible fire resistance for the usage at high quality doors.



Force profile

TS 93 with FPP® (Spring strength EN 3)

Nm





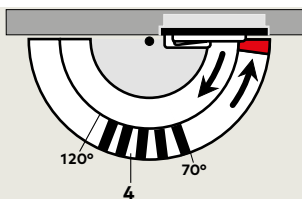
Delayed closing – DC/SV

The delayed closing reduces the closing speed until the door closing angle reaches 70°. As a result, there is always enough time to pass through the door.

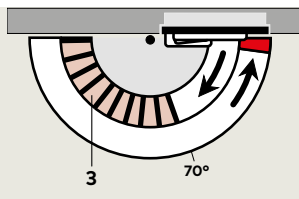


Backcheck – BC/OD

Thanks to the backcheck function, the momentum of a flung-open door or a door caught by the wind is mostly cushioned. This protects the wall and door from damage. However, we still recommend using a door stop.



Adjustable delayed closing



Adjustable backcheck

Flexible technology

Can be universally used for one and two-leaf door applications

Whether it is one-leaf or two-leaf, DIN left or right – the TS 93 with FPP® is dormakaba's door closer system for all installation types.

As a result, the number of product variants and complexity in installation is reduced while simultaneously increasing flexibility at the construction site.

The mounting plate in connection to the Fire Protection Plate offers the optimum fire resistance for uninsulated door sets. Adjustments are easily made from the front.

Data and features		TS 93 with FPP® B/G ¹⁾	
Variable closing force	Spring strength	Size EN 2–5	Size EN 5–7
Standard doors ²⁾	≤ 1250 mm ≤ 1600 mm	● –	– ●
External doors, outward opening ²⁾	≤ 1250 mm ≤ 1600 mm	● –	– ●
For fire and smoke check doors ²⁾	≤ 1250 mm ≤ 1600 mm	● –	– ●
Non-handed		●	●
Arm assembly type	Standard	–	–
	Slide channel	●	●
Closing force variable by means of adjustment screw		●	●
Closing speed adjustable by valve		●	●
Latching speed adjustable	at arm	–	–
	at valve	●	●
Backcheck (BC/ÖD)	adjustable	–	–
	at valve	●	●
Delayed action (DC/SV) adjustable at valve		●	●
Hold-open		○	○
Weight in kg		3.5	5.2
Dimensions in mm	Length (L)	275	285
	Overall depth (B)	58	67
	Height (H)	60	71
Door closer tested to EN 1154		●	●
CE mark for building products		●	●
DIN SPEC 1104 / CEN TR 15894		●	●
Environmental product declaration in accordance with ISO 14025 Programme holder: Institute Construction and Environment e.V. Declaration number: EPD-DOR-2013121-E		●	●

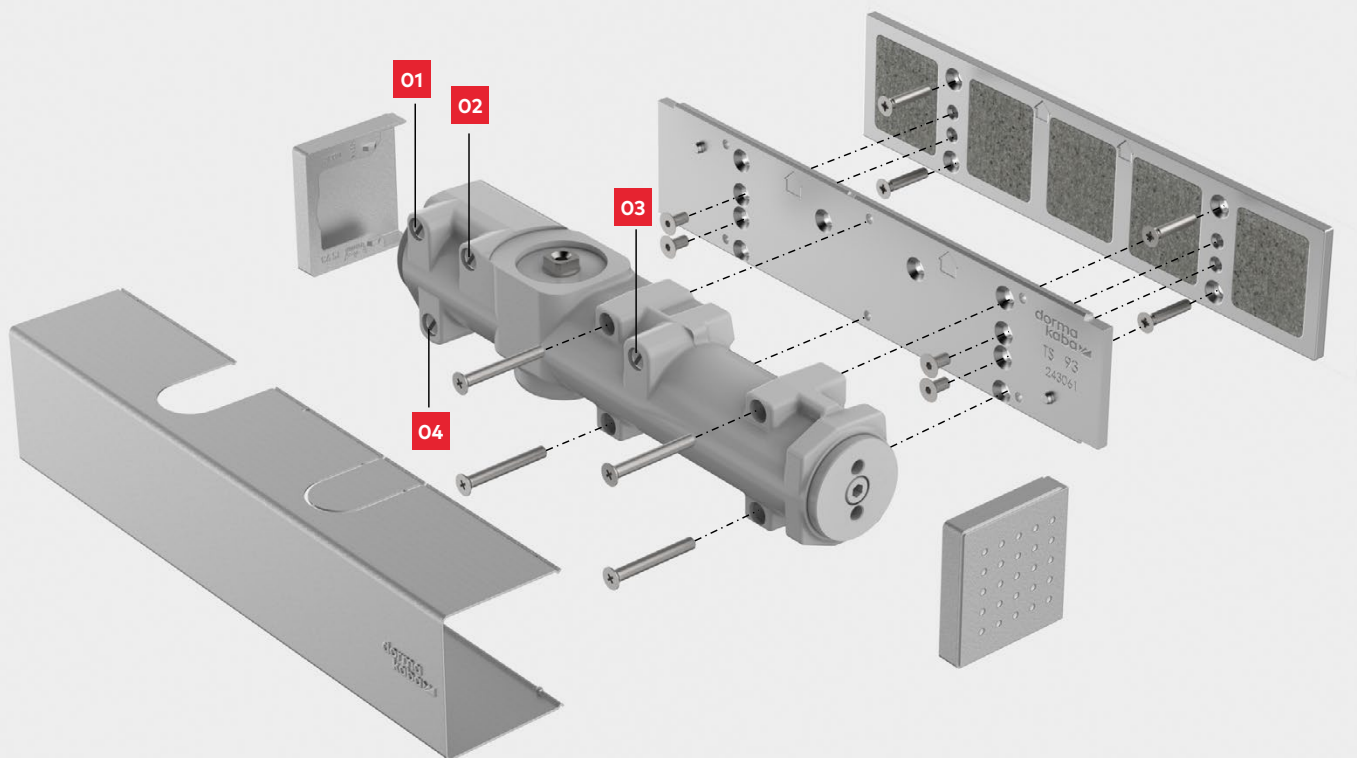
● yes – no ○ optional

¹⁾ B = Standard model for pull-side door leaf fixing/push-side transom fixing
G = Special model for push-side door leaf fixing/pull-side transom fixing.

²⁾ For applications involving particularly heavy or wide doors, and doors which have to close against wind resistance, the next highest door closer size should be selected, or the closing force adjusted to a higher setting.



The TS 93 with FPP® complies with product testing standards and certification requirements with up to 240 min fire rating, in accordance with SS332:2018 Specification for Fire Doors."



All hydraulic functions are adjustable from the front



1 Adjustable closing speed between 70° and 0°.



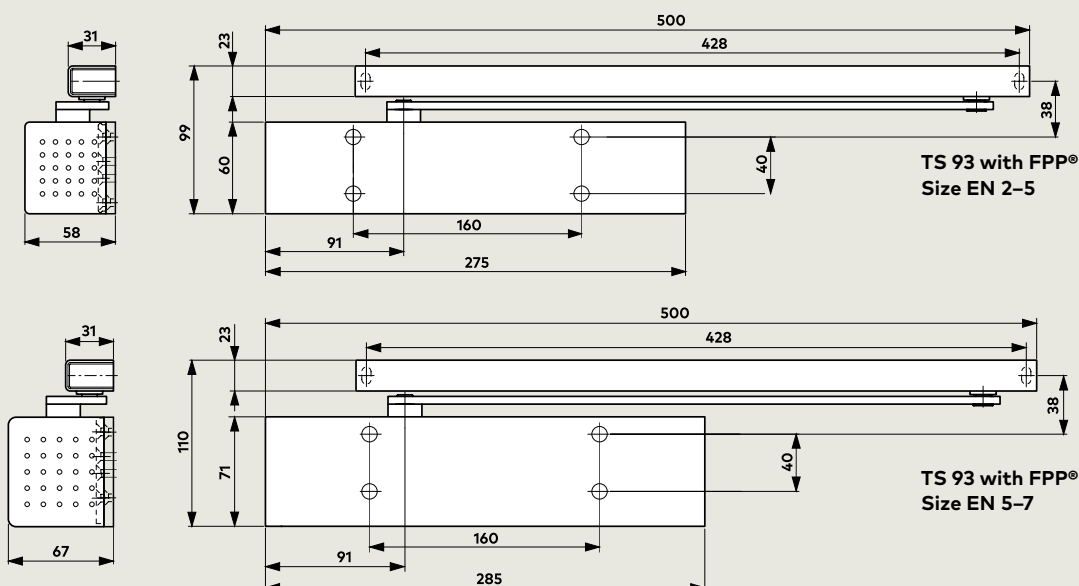
3 Backcheck – Thanks to the backcheck function, the momentum of a flung-open door or a door caught by the wind is mostly cushioned. This protects the wall and door from damage. However, we still recommend using a door stop.



2 Adjustable latching speed in the 7°-0° closing range.

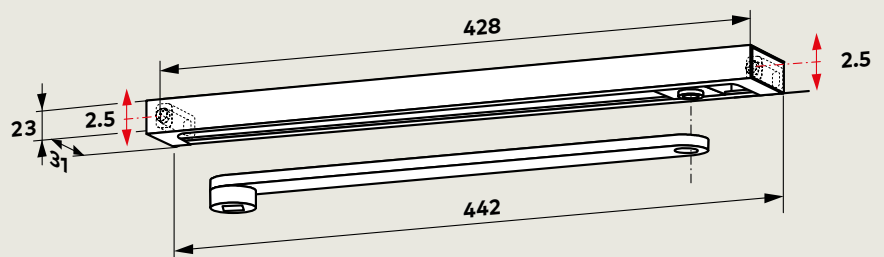


4 Delayed closing – DC/SV The delayed action feature retards the closing cycle between 120° and 70°. Allows for sufficient time to go through the door with luggage, baby carriages, hospital beds, etc.



G-N slide channel

Standard design for 1-leaf doors



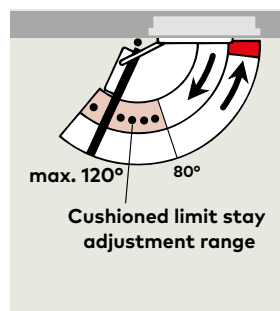
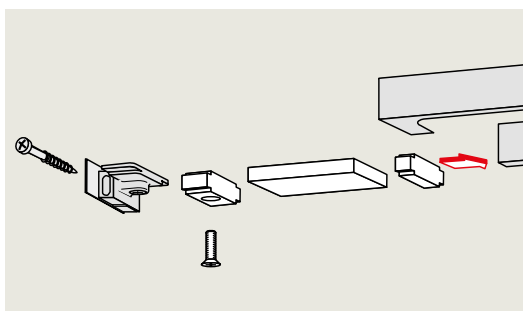
The **G-N slide channel** assembly incorporates the slide arm, slide channel, slide block, fixing adapters, screws and end caps.

The G-N slide channel assembly is non-handed and can be combined with all door closer models. Thanks to oblong holes in the fixing adapters, the slide channel can be effectively adjusted to variations in the drill hole pattern while keeping the gap between door closer body and slide channel aligned and parallel.

F Approval certification

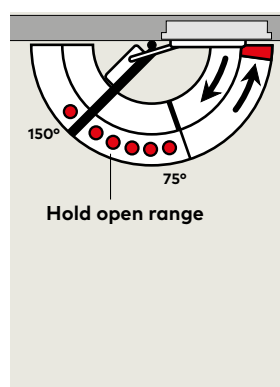
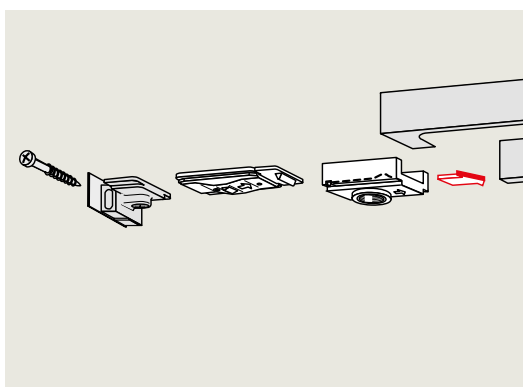
The G-N has been successfully type-tested to EN 1154 in conjunction with the TS 93 with FPP®. Certificates are available on request.

Accessories for G-N slide channel



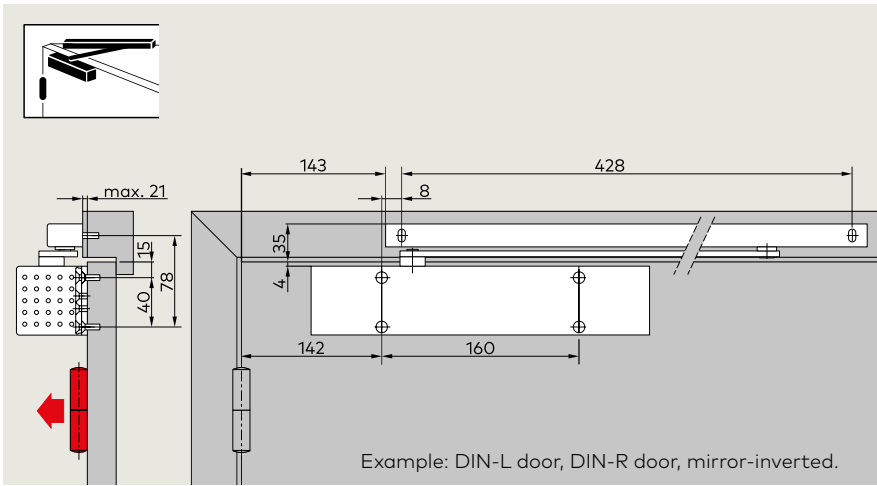
Cushioned limit stay

Accessories for the G-N, RF slide channel: **Cushioned limit stay** for retrofitting to the slide channel. Adjustable between 80° and **max. 120°**. The cushioned limit stay prevents the door from hitting the adjacent wall when opened normally. **The cushioned limit stay is not a heavy-duty protective device and in many applications cannot substitute for a door stop.**



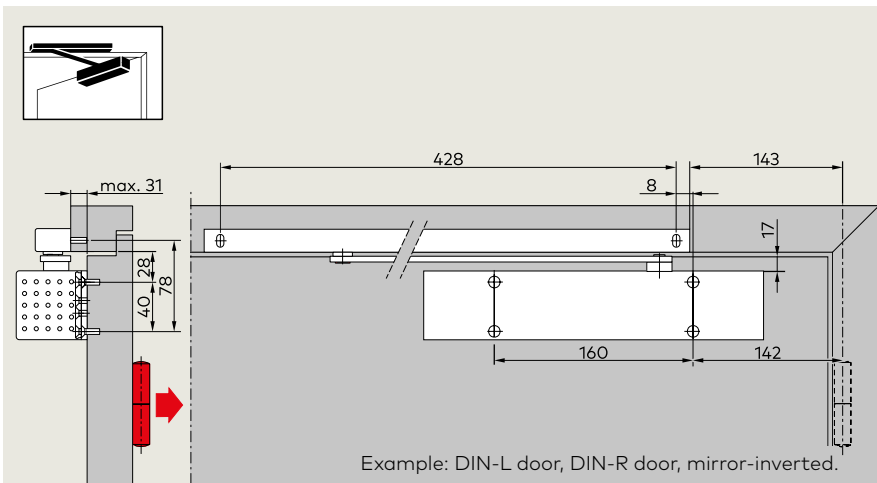
Hold-open unit RF

The **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. 150°. The hold-open function can be easily switched on and off by the user, and the release force can be adjusted to the door type concerned. The RF mechanism is non-handed and has been specifically designed for retrofitting to the G-N type standard slide channel. The suitability of the hold-open unit may be limited where the closer unit is fixed to the door leaf on the push side, in combination with outward-opening doors, and also in the case of large, heavy doors. **Not for fire and smoke doors.**



Door leaf installation, pull side

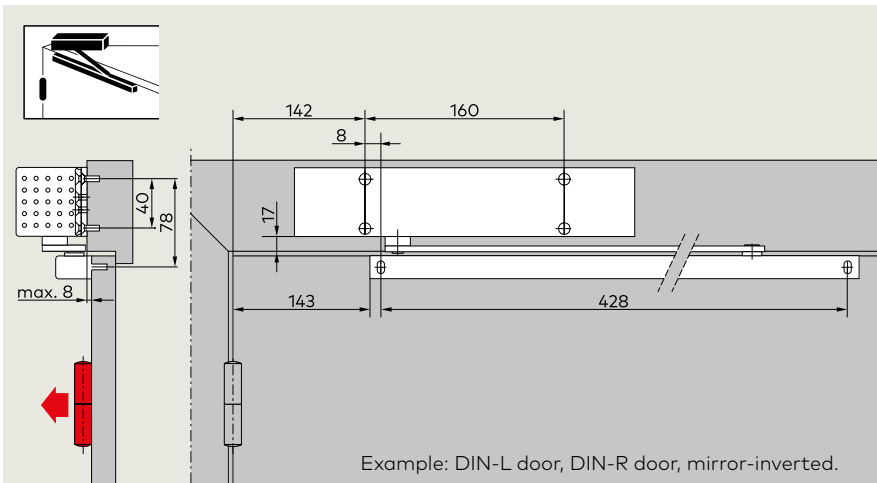
Door leaf fixing (standard arrangement) of the **TS 93 B with FPP®** on the pull side. Structural conditions permitting, an opening angle of 180° is possible with this fixing method. In most cases, a wall recess may have to be provided for the door closer.



Door leaf installation, push side

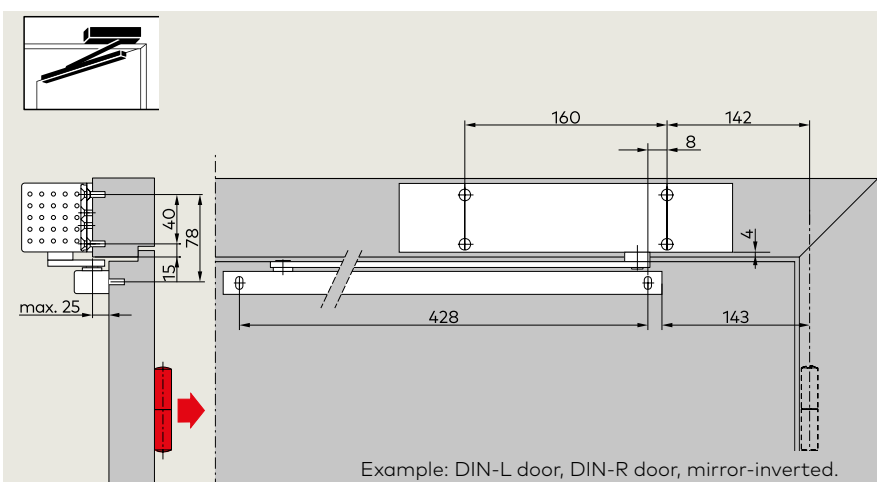
Door leaf fixing (standard installation) of the **TS 93 G with FPP®** on the push side. The door opening angle is limited to approx. 120° to 145°, depending on the structural conditions. In order to prevent damage to the wall and door, a door stop should be installed to limit the maximum angle of door opening.

A door stop must be installed for fire and smoke doors.



Transom installation, pull side

Transom fixing (overhead frame fixing) of the **TS 93 G with FPP®** on the pull side. Structural conditions permitting, an opening angle of 180° is possible with this fixing method.

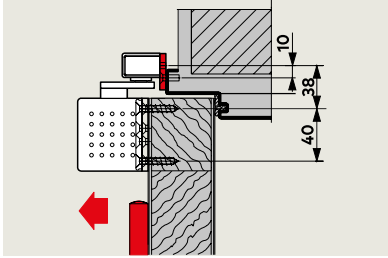


Transom installation, push side

Transom fixing (overhead frame fixing) of the **TS 93 B with FPP®** on the push side. Backcheck and delayed action non-operative with this fixing arrangement. The door opening angle is limited to approx. 120° to 145°, depending on the structural conditions. In order to prevent damage to the wall and door, a door stop should be installed to limit the maximum angle of door opening.

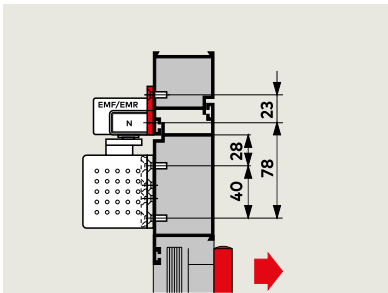
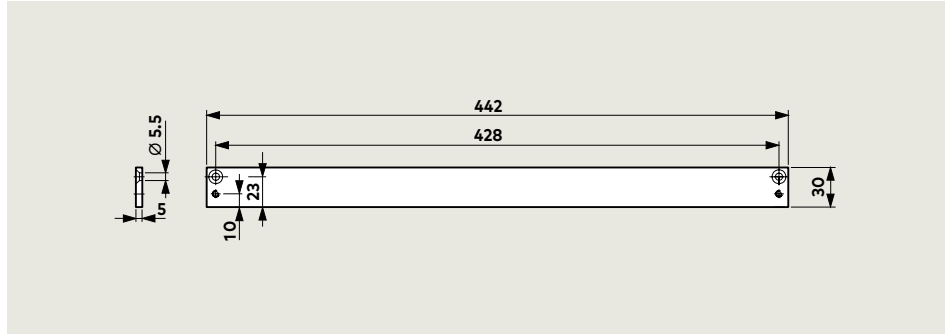
Accessories

1-leaf doors



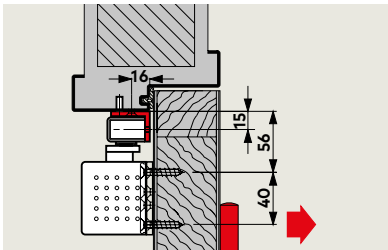
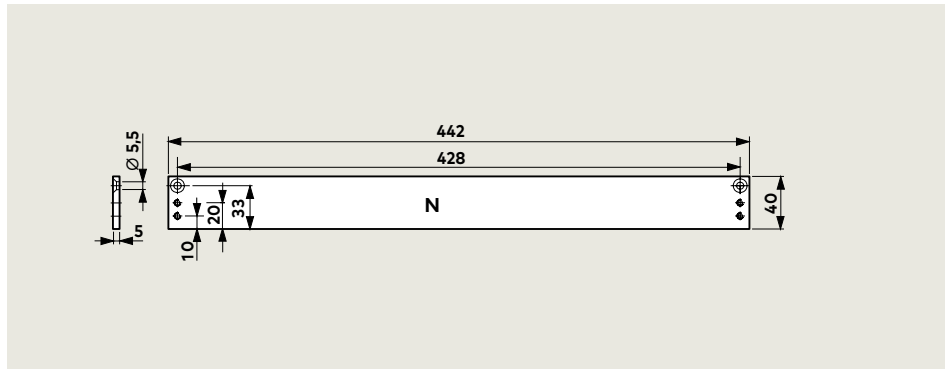
30 mm mounting backplate for G-N

For fixing the slide channel to the door frame where direct fixing is not possible.



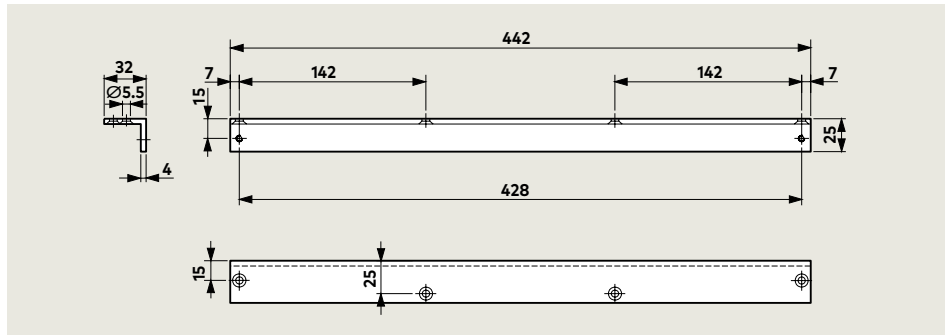
40 mm mounting backplate for G-N

For fixing the slide channel to the door frame where direct fixing is not possible.



Angle bracket for G-N

For push-side fixing of the slide channel to door frames with a deep reveal.



Specification texts

TS 93 with FPP® EN 2-5 / EN 5-7

Cam action door closer with fire protection plate (FPP®) tested for up to 4 hrs at uninsulated metal doors for highest fire safety conforming to EN 1154, carries the CE mark, Contur design, with rapidly decreasing opening torque/force. Door leaf fixing on the pull side, transom fixing on the push side. Closing speed, latching speed, hydraulically controlled backcheck and delayed action

conveniently adjustable at valves accessible from the front. Mounting bracket with universal fixing hole system. Non-handed. Height-adjustable slide channel.

Optional

- With retrofittable cushioned limit stay for integration in the standard slide channel.
- With retrofittable mechanical hold-open unit (RF), hold-open point adjustable between 75° and 150°.

Colour

- silver
- special colour (sim. to RAL)


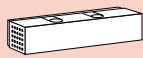
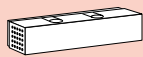




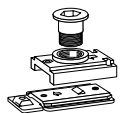
Make

- TS 93 with FPP®, EN 2-5
- TS 93 with FPP®, EN 5-7

Use of mechanical hold-open units is not permitted on fire and smoke check doors.

Scope of delivery and accessories

1-leaf doors

		G-N	
			<input type="checkbox"/> 640100xx
TS 93 B with FPP®		<input checked="" type="checkbox"/> 2-5: 431200xx <input checked="" type="checkbox"/> 5-7: 435600xx	<input type="checkbox"/>
TS 93 G with FPP®		<input checked="" type="checkbox"/> 2-5: 431300xx <input checked="" type="checkbox"/> 5-7: 435700xx	<input type="checkbox"/>
30 mm mounting backplate for G-N		644000xx	△
40 mm mounting backplate for G-N		644100xx	△
Angle bracket for G-N		644300xx	△
Cushioned limit stay set for G-N		35800093	△
Add-on hold-open unit for G-N		18570000	△
xx Colour		<input checked="" type="checkbox"/> Closer separate	
01 Silver		<input type="checkbox"/> Slide channel assembly separate	
09 Special colour		△ Optional accessory	

* "Design" refers to the surface finish of the products

TS 93 G with FPP® EN 2-5 / EN 5-7

Cam action door closer with fire protection plate (FPP®) tested for up to 4 hrs at uninsulated metal doors for highest fire safety conforming to EN 1154, carries the CE mark, Contur design, with rapidly decreasing opening torque/force. Door leaf fixing on the push side, transom fixing on the pull side. Closing speed, latching speed, hydraulically controlled backcheck and delayed action

conveniently adjustable at valves accessible from the front. Mounting bracket with universal fixing hole system. Non-handed. Height-adjustable slide channel.

Optional

- With retrofittable cushioned limit stay for integration in the standard slide channel.
- With retrofittable mechanical hold-open unit (RF), hold-open point adjustable between 75° and 150°.

Colour

- silver
- special colour (sim. to RAL)

Make

- TS 93 G with FPP®, EN 2-5
- TS 93 G with FPP®, EN 5-7

Use of mechanical hold-open units is not permitted on fire and smoke check doors.



Door Hardware



**Automatic Door
Systems**



**System Solutions
Access and Time**



Glass Systems



**Mechanical
Lock Systems**



Service

dormakaba
International Holding AG
Hofwissenstrasse 24
CH-8153 Rümlang
T +41 44 818 90 11
info@dormakaba.com
www.dormakaba.com