



Door Closer

### EASY TO FIT, ECONOMICAL AND WITH ADJUSTABLE CLOSING FORCE

# Simple, easy installation, and guaranteed quality. Tested to EN 1154

Specially designed for internal doors, including fire doors, the DORMA TS 73 V is a universal solution for doors of differing designs and styles.

The flat and compact format of the TS 73 V means that there are practically no problems with installation; and tried and trusted quality is your assurance of reliability.

Certified to ISO 9001

| Data and features                             |                     | TS 73 V |
|---|---------------------|---------|
| Closing force adjustable                      | Size                | EN 2-4  |
| Standard doors <sup>1)</sup>                  | ≤ 1100 mm           | •       |
| External doors, outward opening <sup>1)</sup> |                     | _       |
| Fire and smoke control doors <sup>1)</sup>    | ≤ 1100 mm           | •       |
| Non-handed                                    |                     | •       |
| Arm   | Standard            | •       |
|   | Flatform            | •       |
|   | Slide channel       | _       |
| Closing force adjustable by means             | of setting screw    | •       |
| Closing speed                                 | 180° – 15°          | •       |
| adjustable at 2 separate valves               | 15° - 0°            | •       |
| Backcheck                                     | self-regulating     | •       |
|   | adjustable at valve | •       |
| Adjustable latching action                    | by arm              | •       |
| Delayed action                                |                     | _       |
| Hold-open                                     |                     | 0       |
| Weight in kg                                  |                     | 1.3     |
| Dimensions in mm                              | Length              | 225     |
|   | Overall depth       | 40      |
|   | Height              | 60      |
| Door closer tested to EN 1154                 |                     | •       |
| ← mark for construction products              | 3                   | •       |

### ● ves — no ○ optional

<sup>1)</sup> For high and heavy doors, external doors, and for doors required to close against high wind pressure, we recommend DORMA TS 83.

### Plus points

#### For the trade

- One model for all applications.
- Really practical solutions for special installation situations, thanks to the wide range of accessories.

#### For the installer

- Quick and simple to fit.
   Closing force, closing speed, and latching action all set with just a few manual adjustments.
- Only one design for DIN-L and DIN-R doors, and for standard and framefixing.

### For the designers

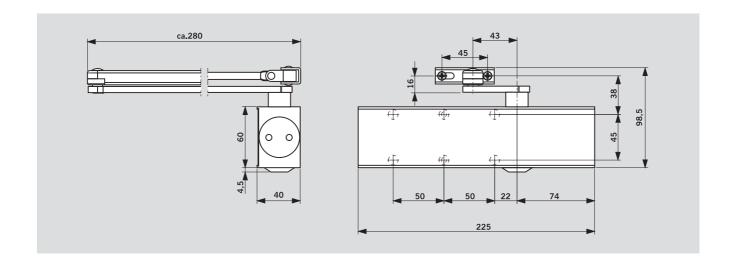
- Compact format in timeless design.
- Attractively-priced solution with optimum reliability.
- Wide range of applications.

#### For the user

- Optimum wall and door protection thanks to "thinking" backcheck.
- Constant closing speed virtually unaffected by temperature fluctuations, with adjustable latch action.
- Smooth door action thanks to high mechanical efficiency.



The TS 73 V complies with the requirements and/or recommendations of the following: CERTIFIRE approved for fire doors ITT 120; MM/IMM 240;Ref. CF 117



### FEATURES AND OPTIONAL FUNCTIONS

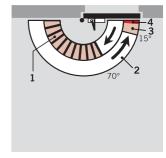
### With "thinking" backcheck (BC/ÖD)

Thanks to an innovative design concept, the resistance developed by this backcheck system as the door is opened beyond approx. 70° is directly proportional to door acceleration. It is almost imperceptible when the door is opened slowly. However, if the door is opened hastily, the backcheck responds in equal measure.

And if the door should be flung open at speed – whether deliberately, thoughtlessly, accidentally or as a result of a gust of wind – the backcheck reacts at full strength, protecting the wall and door from damage.

If no backcheck function is required, the system can simply be switched off.





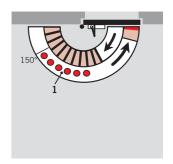
- 1 Self-regulating backcheck
- 2 Infinitely variable closing speed in the range 180° 15°
- 3 Infinitely variable closing speed in the range  $15^{\circ} 0^{\circ}$
- **4** Adjustable latch range (by arm)

### With hold-open arm

Combining the TS 73 V with a hold-open arm enables the door to be held open at an appropriate angle (up to approx. 150°).

Hold-open arm with switch: The hold-open function can be switched on and off by the user by simply pressing a switch.





1 Hold-open range

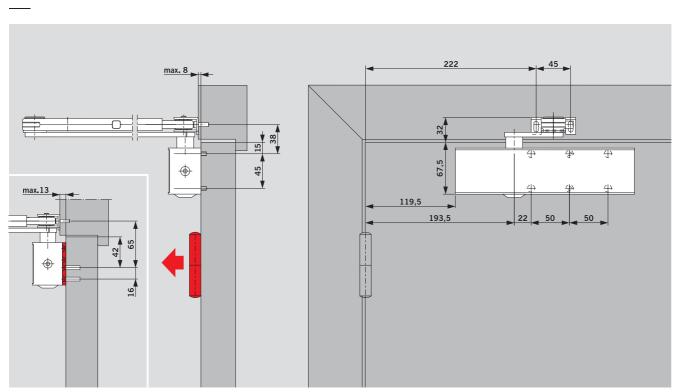
Hold-open arms are not permitted on fire doors

3

# DOOR LEAF FIXING, PULL SIDE

Example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement

# DOOR LEAF FIXING WITH HOLD-OPEN ARM



Example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement

# TRANSOM FIXING, PUSH SIDE

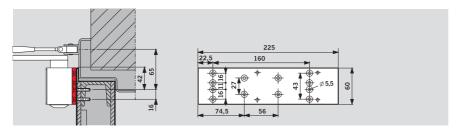
50 50 22 193,5 119,5 45 222

Example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement

Door closers may only be fitted on the frame of fire doors if proved suitable for the individual door by the issue of an approval certificate from a recognised testing institution.

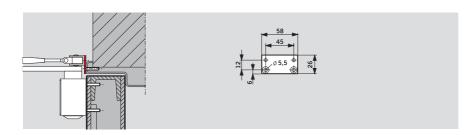
### **ACCESSORIES**

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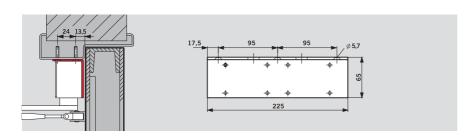
### Mounting plate TS 73 V

For fitting the door closer to fire doors and to doors where direct fitting is not possible. Hole group according to EN 1154, supplement 1.



#### Hinge plate TS 73 V/TS 83

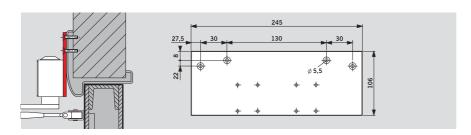
For securing the arm to particularly narrow door frames.



### Angle bracket TS 73 V

For overhead fitting on the push side, for deep-set door lintels.

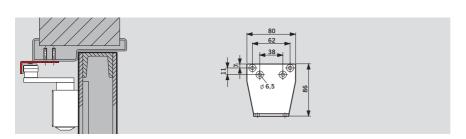
On fire doors, proof of suitability required in relation to the individual door concerned.



### Drop plate TS 73 V / TS 83

For use where the closer cannot be fitted directly to the door.

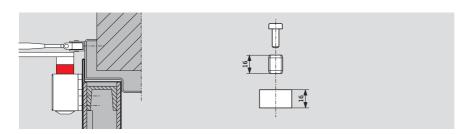
On fire doors, proof of suitability required in relation to the individual door concerned.



### Parallel arm bracket TS 73 V/TS 83

For parallel arm installation (see installation instructions for fitting dimensions).

On fire doors, proof of suitability required in relation to the individual door concerned.



### Spindle extension TS 73 V/TS 83

For increasing the distance between the closer and the arm assembly in the case of doors with a high overlap; 16 mm high.

### RANGE OF EQUIPMENT AND OPTIONAL ACCESSORIES

| Closer body<br>TS 73 V | Standa<br>arm | ard   | Flatfo<br>arm | rm    | Hold-open<br>arm with<br>on/off swit | backplate   | -   | _      | Angle<br>bracket | Drop plate | Parallel<br>arm<br>bracket | Spindel<br>extension<br>16 mm |
|------------------------|---------------|-------|---------------|-------|--------------------------------------|-------------|-----|--------|------------------|------------|----------------------------|-------------------------------|
|                        |               |       |               |       |                                      |             |     |        |                  | 0          |                            |                               |
|                        | □ 2200        | 023xx | □830          | 001xx | □ 220030                             | xx 370001xx | 830 | 0014xx | 370003xx         | 380002xx   | 280066xx                   | 83003705                      |
| Size<br>EN 2-4         |               |       |               |       |                                      |             |     | Δ      | Δ                | Δ          | Δ                          | Δ                             |
| ■ 370101xx             |               |       |               |       |                                      |             |     |        |                  |            |                            |                               |

| Body only |  |
|-----------|--|
| Arm only  |  |

|   | Arm only           |
|---|--------------------|
| Δ | Optional accessory |

| XX | Colour           |
|----|------------------|
| 01 | Silver           |
| 11 | White (RAL 9016) |
| 09 | Special colour   |

### SPECIFICATION TEXT

Rack and pinion door closer; with adjustable power size EN 2 – 4, according to EN 1154, carries the CE mark, integral self-regulating back-check; closing speed adjustable in two independent ranges and adjustable latch action.

Non-handed.

### Model

- ☐ with standard arm
- ☐ with flatform arm
- ☐ with hold-open arm with on/off switch

### Accessories

### Colour

- $\square$  silver
- $\hfill\square$  white (sim. to RAL 9016)
- $\square$  special colour (sim. to RAL)

#### Make

DORMA TS 73 V



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Easy-action Door Closer

### EASY-ACTION DOOR CLOSER WITH "THINKING" BACKCHECK

Easy to fix and even easier to adjust. The door closer for almost every door size and application.

Decades of experience have gone into the development of the TS 83. The result is user comfort coupled with outstanding versatility. It can be adjusted to suit almost all types of door.

It can even be supplied with additional anti-corrosion protection for exposed applications or aggressive conditions.

Fixing couldn't be easier – and last but not least – it's engineered for excellence.

Certified to ISO 9001.

### Plus points

#### For the trade

- Low inventory costs and reduced stocking requirement thanks to streamlined product range.
- Practical and effective solutions to meet special applications thanks to comprehensive choice of accessories.

### For the installer

- Easy to fix.
- Can be "tailored" to the requirements of the door by simple adjustment.
- Just one model for RH (DIN-R, ISO 5) and LH (DIN-L, ISO 6) doors, and for standard and frame/lintel fixing.
- Spring strength range
   EN 3-6 to suit virtually every application.

### For the specifier/architect

- Compact closer design and sturdy flat-form arm assembly.
- Wide range of standard functions supplemented by optional extras.
- Suitable for fire doors.

#### For the user

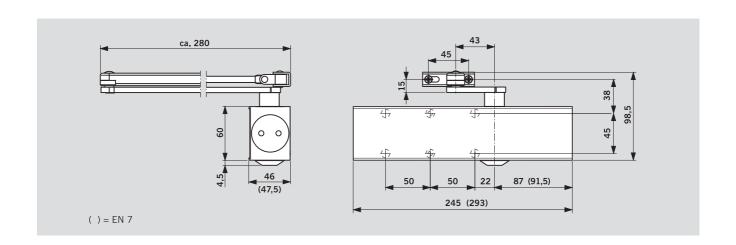
- Optimum wall and door protection thanks to "thinking" backcheck.
- Closing speed virtually unaffected by temperature fluctuations.
- Proportionately low opening resistance thanks to high mechanical efficiency.

| Data and features                  |                     | TS  | 83   |
|------------------------------------|---------------------|-----|------|
| Closing force adjustable           | Size                | EN  | EN   |
|                                    |                     | 3–6 | 7    |
| Standard doors <sup>1)</sup>       | ≤ 1400 mm           | •   | _    |
|                                    | ≤ 1600 mm           | _   | •    |
| External doors,                    | ≤ 1400 mm           | •   | _    |
| outward opening <sup>1)</sup>      | ≤ 1600 mm           | _   | •    |
| For fire and                       | ≤ 1400 mm           | •   | _    |
| smoke check doors <sup>1)</sup>    | ≤ 1600 mm           | _   | •    |
| Non-handed                         |                     | •   | •    |
| Arm assembly type                  | Standard            | •   | •    |
|                                    | Flatform            | •   | •    |
|                                    | Slide channel       | _   | _    |
| Closing force variable by means of | of adjustment screw | •   | _    |
| Closing speed                      | 180° – 15°          | •   | _    |
| adjustable at 2 separate valves    | 15° - 0°            | •   | _    |
| Closing speed variable by means    | of valve adjustment | _   | •    |
| Adjustable latching action         | by arm              | •   | •    |
| Backcheck                          | self-regulating     | •   | •    |
|                                    | adjustable          |     |      |
|                                    | at valve            |     | •    |
| Delayed action variable at valve   |                     | 0   | _    |
| Hold-open                          |                     | 0   | 0    |
| Weight in kg                       |                     | 1.7 | 3.3  |
| Dimensions in mm                   | Length              | 245 | 293  |
|                                    | Overall depth       | 46  | 47.5 |
|                                    | Height              | 60  | 60   |
| Door closer tested to EN 1154      |                     | •   | •    |
| C€ mark for construction product   | S                   | •   | •    |
|                                    |                     |     |      |

<sup>&</sup>lt;sup>1)</sup> For applications involving particularly heavy or wide doors, and doors which have to close against wind resistance, the next highest closer size or a higher spring strength should be applied.



The TS 83 conforms to most recognised international standards and complies with the requirements and/or recommendations of the following: CERTIFIRE approved for fire doors; Ref. CF 118



### STANDARD AND OPTIONAL FUNCTIONS

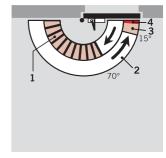
### With "thinking" backcheck - Model BC/ÖD

Thanks to an innovative design concept, the resistance developed by this backcheck system as the door is opened beyond approx. 70° is directly proportional to door acceleration. It is almost imperceptible when the door is opened slowly. However, if the door is opened hastily, the backcheck responds in equal measure. And if the door should be flung open at

speed – whether deliberately, thoughtlessly, accidentally or as a result of a gust of wind – the backcheck reacts at full strength, protecting the wall and door from damage.

If no backcheck function is required, the system can simply be switched off.





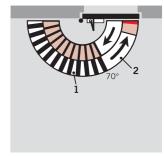
- 1 Self-regulating backcheck
- 2 Infinitely variable closing speed in the range 180° 15°
- 3 Infinitely variable closing speed in the range 15° 0°
- **4** Adjustable latch range (by arm)

### With additional delayed action - Model BC/ÖD + DC/SV

This model with its additional, integrated delayed action enables the closing cycle to be retarded within an adjustable range from  $180^{\circ}-70^{\circ}$  so that disabled persons, mothers with prams and people carrying bulky items are able to pass through the door without difficulty.

This model can also be used for fire doors.





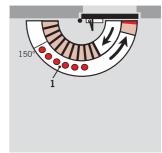
- 1 Adjustable delayed action
- 2 Fully controlled closing with adjustable speed

### With hold-open - Model with hold-open arm

Combining the TS 83 with a hold-open arm enables the door to be held open at an appropriate angle (up to approx. 150°).

The hold-open function in the standard hold-open arm can be switched on and off by the user by simply pressing a switch.





1 Hold-open range

Hold-open arms are not approved for fire and smoke check doors.

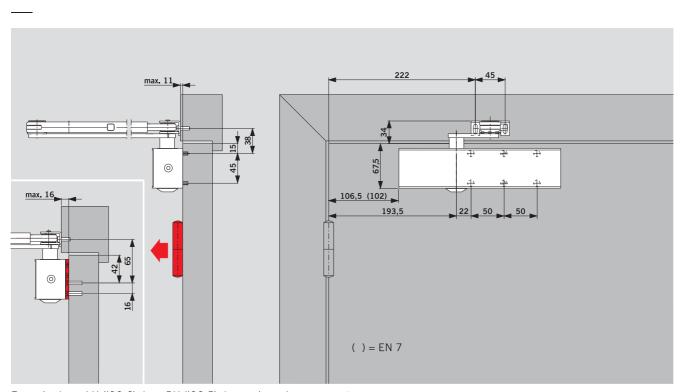
# DOOR LEAF FIXING, PULL SIDE

max. 16

max

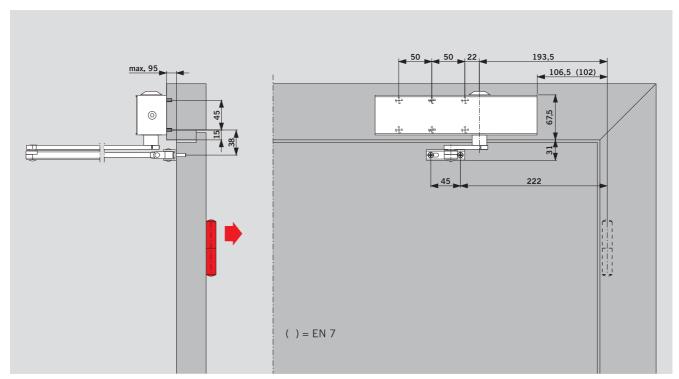
Example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement

# DOOR LEAF FIXING WITH HOLD-OPEN ARM



Example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement

# TRANSOM FIXING, PUSH SIDE



Example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement

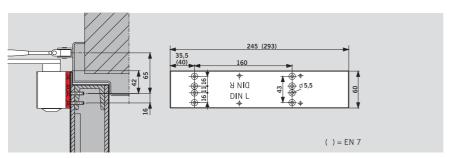
In the case of fire doors, door closers may only be transom-fixed where appropriate approval has been obtained in the form of a certificate or test report issued by an accredited testing agency.

### Transom fixing:

With transom-fixed closers, the backcheck only responds at between 85° and 90°, depending on the depth of reveal and type of door hinge involved; the delayed action, on the other hand, releases the door at an earlier point in its closing sweep.

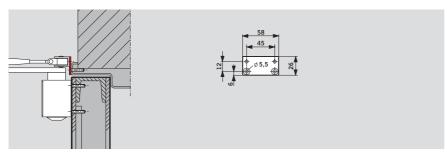
### **ACCESSORIES**

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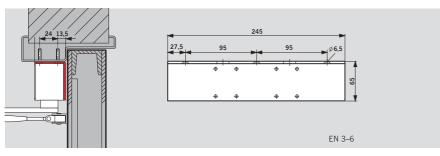
### Mounting backplate TS 83

For use with fire and smoke check doors and also as an intermediate plate when direct fixing to the door is not possible; with fixing hole pattern to EN 1154, supplement 1.



### Arm bracket adapter plate TS 73 V / TS 83

For fixing the arm bracket to particularly narrow door frames.

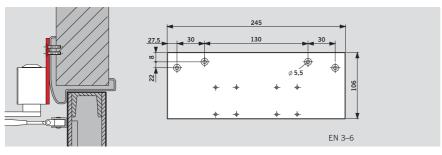


### Angle bracket TS 83

For frame/lintel fixing of the closer on the push side of doors with deep reveals.

On fire and smoke check doors, proof of

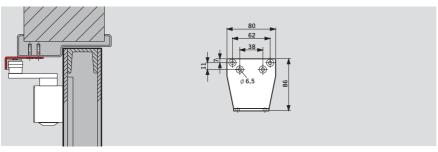
suitability required in relation to the individual door concerned.



### Drop plate TS 73 V / TS 83

For installation on frame when direct fixing of closer is not possible.

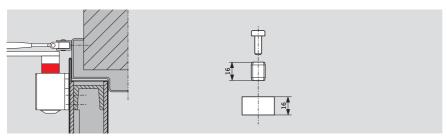
On fire and smoke check doors, proof of suitability required in relation to the individual door concerned.



#### Parallel arm bracket TS 73 V / TS 83

For parallel arm installation on the push side (see fixing instructions for dimensions).

On fire and smoke check doors, proof of suitability required in relation to the individual door concerned.



### Spindle extension TS 73 V / TS 83

For increasing the distance between the closer and the arm assembly in the case of doors with a high overlap; 16 mm high.

### RANGE OF EQUIPMENT AND OPTIONAL ACCESSORIES

| Closer body<br>TS 83                       | Standar<br>arm | -    | Standard<br>arm anti-<br>corrosive<br>type (AC) | Flatfo<br>arm | rm    | Hold-<br>arm w<br>on/off<br>switch | rith<br>f | Mounting backplate         | Arm<br>bracket<br>adapter<br>plate | Angle<br>bracket | Drop plate | Parallel<br>arm<br>bracket | Spindel<br>extension<br>16 mm |
|--|----------------|------|---|---------------|-------|------------------------------------|-----------|----------------------------|------------------------------------|------------------|------------|----------------------------|-------------------------------|
|  |                |      |   |               |       |                                    |           | EN 3-6<br>380001xx<br>EN 7 |                                    | EN 3-6           | EN 3-6     | \$ 3<br>2 3                |                               |
|  | □ 22002        | 23xx |   | □830          | 001xx | □ 220                              | 030xx     | 830011xx                   | 830014xx                           | 380003xx         | 380002xx   | 280066xx                   | 83003705                      |
| Size EN 3–6<br>BC/ÖD<br>■ 380101xx         | •              |      |   | •             |       | -                                  |           | Δ                          | Δ                                  | Δ                | Δ          | Δ                          | Δ                             |
| Size EN 3–6<br>BC/ÖD + DC/SV<br>■ 380201xx | •              |      |   | •             |       | -                                  |           | Δ                          | Δ                                  | Δ                | Δ          | Δ                          | Δ                             |
| Size EN 3-6<br>BC/ÖD<br>(AC)               |                |      | <b>■</b> □<br>38030301                          |               |       |                                    |           | Δ                          | Δ                                  | Δ                | Δ          | Δ                          | Δ                             |
| Size EN 7<br>BC/ÖD<br>■ 830501xx           | •              |      |   | •             |       | •                                  |           | Δ                          | Δ                                  |                  |            | Δ                          | Δ                             |

Arm only

Optional accessory

| XX | Colour           |
|----|------------------|
| 01 | Silver           |
| 11 | White (RAL 9016) |
| 09 | Special colour   |

### SPECIFICATION TEXT

### **TS 83** EN 3 – 6

Rack and pinion door closer; with adjustable power size EN 3 – 6, according to EN 1154, carries the CE mark, integral self-regulating backcheck; closing speed adjustable in two independent ranges and adjustable latch action. Non-handed.

### Model

- ☐ with additional, adjustable delayed action ☐ anti-corrosion protected (AC)
- $\square$  with standard arm
- ☐ with flatform arm
- ☐ with hold-open arm with switch

### **Accessories**

### Colour

- □ silver
- ☐ white (sim. to RAL 9016)
- ☐ special colour (sim. to RAL)

### Make

DORMA TS 83

### **TS 83** EN 7

Rack and pinion door closer; with power size EN 7, according to EN 1154, carries the CE mark, integral self-regulating backcheck; adjustable closing speed and adjustable latch range. Non-handed.

### Model

- $\square$  with standard arm
- $\square$  with flatform arm
- ☐ with hold-open arm with switch

### Accessories

### Colour

- □ silver
- ☐ white (sim. to RAL 9016)
- ☐ special colour (sim. to RAL)

#### Make

DORMA TS 83

Closer with arm, complete

<sup>\*</sup> Anti-corrosion protected closers and arms available in silver (01) only.



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Cam-action door closer

### HIGH-TECH FOR THE GLOBAL MARKET

The TS 90 Impulse combines technical superiority with outstanding value, and unites advanced design with convenient functionality – all on the basis of its heart-shaped cam.

With its installation versatility and inherent functional reliability, it is ideal for virtually any application.

TS 90 Impulse: Certified to ISO 9001

| Ranafite |            |          |  |
|----------|------------|----------|--|
|          | <b>D</b> - | <br>40.0 |  |
|          |            |          |  |

#### For the trade

- Unique DORMA cam action technology for the entry-level segment, compliant with EN 1154.
- Complete package for easy stocking.
- Sets new standards to open up new markets.

### For the installer/fabricator

- Easy to fix without mounting backplate.
- Non-handed.
- Four installation arrangements with one model.
- Proven DORMA quality for long service life.

#### For the architect/specifier

- Proven technology of the heart-shaped cam.
- Cost-efficient slide channel door closer for interior doors.

#### For the user

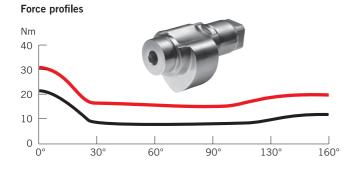
- Convenient, low-resistance opening with fully controlled closing.
- Two regulating valves for precise adjustment of closing speed.
- Available with hold-open and cushioned limit stay options.

| Data and features                             |                | TS 90 Impulse |
|---|----------------|---------------|
| Closing force                                 | Size           | EN 3/4        |
| Standard doors <sup>1)</sup>                  | ≤ 1100 mm      | •             |
| External doors, outward opening <sup>1)</sup> |                | •             |
| Fire and smoke check doors <sup>1)</sup>      |                | •             |
| Non-handed                                    |                | •             |
| Slide channel                                 |                | •             |
| Two independent valves for closing spe        | eed adjustment | •             |
| Cushioned limit stay (mechanical)             |                | 0             |
| Delayed action                                |                | _             |
| Hold-open                                     |                | 0             |
| Weight in kg                                  |                | 1.7           |
| Dimensions in mm                              | Length         | 246           |
|   | Overall depth  | 46            |
|   | Height         | 57            |
| Door closer compliant with EN 1154            |                | •             |
| <b>(</b> €-mark for construction products     |                | •             |

yes 
 − no ○ option

<sup>1)</sup> In the case of particularly heavy doors and doors that have to close against wind pressure, we recommend the DORMA TS 93.



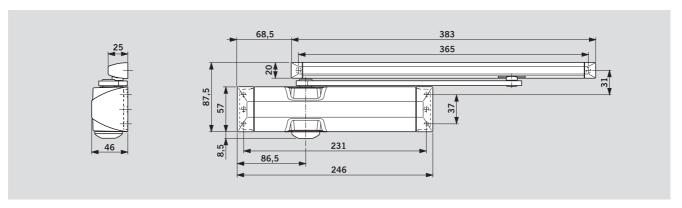


The heart-shaped cam and the linear drive mechanism of the TS 90 Impulse ensure that the resistance encountered decreases almost instantly with the door opening action – so even children, the elderly and people with disabilities have no problem in opening the door. User-friendly and reliable closing

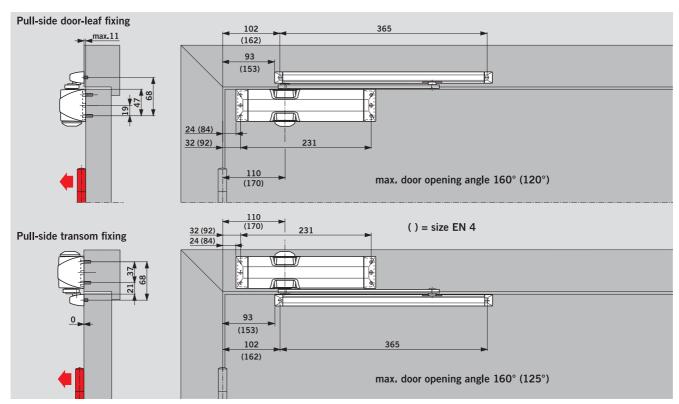
is also ensured by the delayed increase in the actuating torque at the "latching" end of the sweep.

#### Force profile

TS 90 Impulse
(Spring strength: EN 3)
Opening force
Closing force

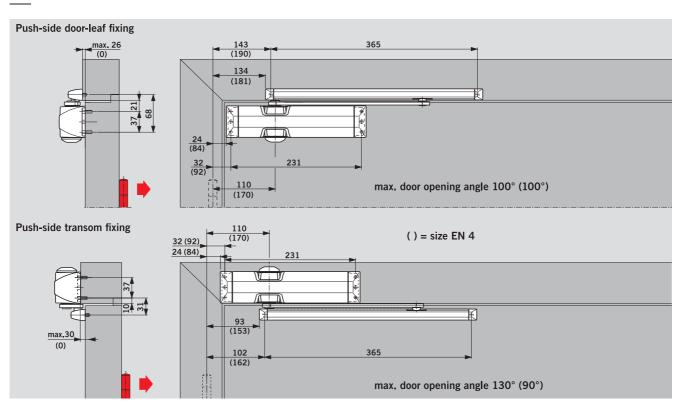


### PULL-SIDE FIXING (example: LH/ISO 6 door; mirror image for RH/ISO 5 door)



Depending on the structural conditions, the door opening angle is likely to be limited. It is recommended to install the cushioned limit stay or position a door stop at this point. A door stop must be installed in the case of fire and smoke check doors.

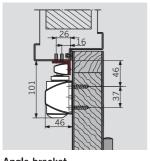
# $PUSH-SIDE\ FIXING\ \ (example:\ RH/ISO\ 5\ door;\ mirror\ image\ for\ LH/ISO\ 6\ door)$



Depending on the structural conditions, the door opening angle is likely to be limited. It is recommended to install the cushioned limit stay or position a door stop at this point.

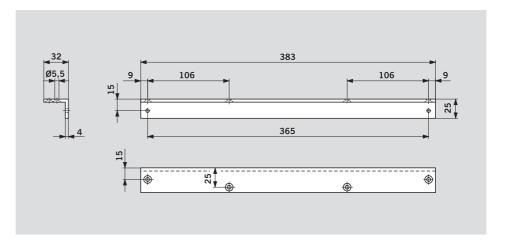
### **ACCESSORIES**

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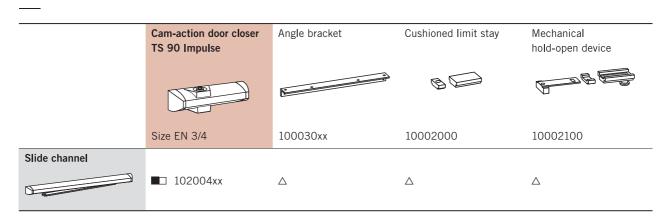


Angle bracket

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



### STANDARD EQUIPMENT AND ACCESSORIES



Order No.:

■□ = Closer body with slide channel, complete

 $\triangle$  = Accessory

Colourxxsilver01

white (sim. to RAL 9016) 11

### SPECIFICATION TEXT

Universal cam-action door closer with linear drive and rapidly decreasing opening torque; closing speed adjustable in two independent ranges.

Closing force = Size EN 3/4. Non-handed. Compliant with EN 1154. Accessories

- ☐ Angle bracket☐ Hold-open device
- ☐ Cushioned limit stay

Colour

☐ silver

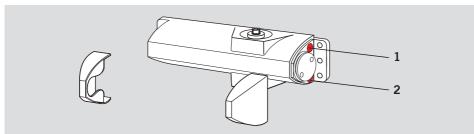
 $\square$  white (sim. to RAL 9016)

Make

DORMA TS 90 Impulse EN 3/4

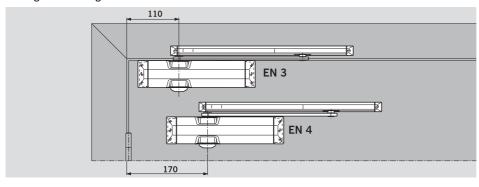
# STANDARD AND OPTIONAL FUNCTIONS

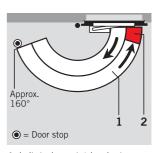
### Closing speed



The closing speed of the TS 90 Impulse is adjustable in two independent ranges at the valves indicated.

### Closing force settings EN 3/EN 4



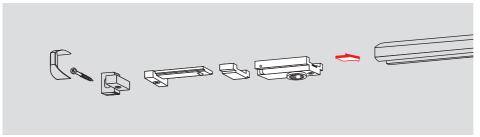


- 1 Infinitely variable closing speed in the range  $160^{\circ} 15^{\circ}$
- 2 Infinitely variable closing speed in the range  $15^{\circ} 0^{\circ}$

| Door width | size setting |
|------------|--------------|
| ≤ 950 mm   | EN 3         |
| ≤ 1100 mm  | EN 4         |

The TS 90 Impulse size setting is selected for the door width by the closer.

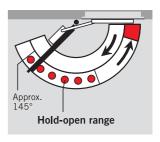
### Mechanical hold-open device



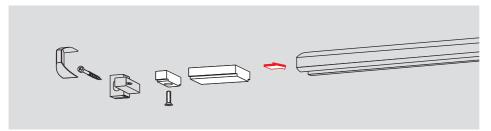
The hold-open device enables doors to be precisely held without any fall-back up to an opening angle of approx. 145°.

The hold-open device is suitable for both LH and RH doors and is designed for retrofitting to the slide channel.

Not for fire and smoke doors.



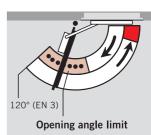
### **Cushioned limit stay**



Cushioned limit stay for retrofitting by insertion in the slide channel.

Adjustable between 80° and max. 120°.

Use of the cushioned limit stay helps to prevent a normally opened door from colliding with adjacent walls. The cushioned limit stay is not an overload protection device and in many cases is no substitute for a door stop. Only for the use of TS 90 Impulse size EN 3.





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