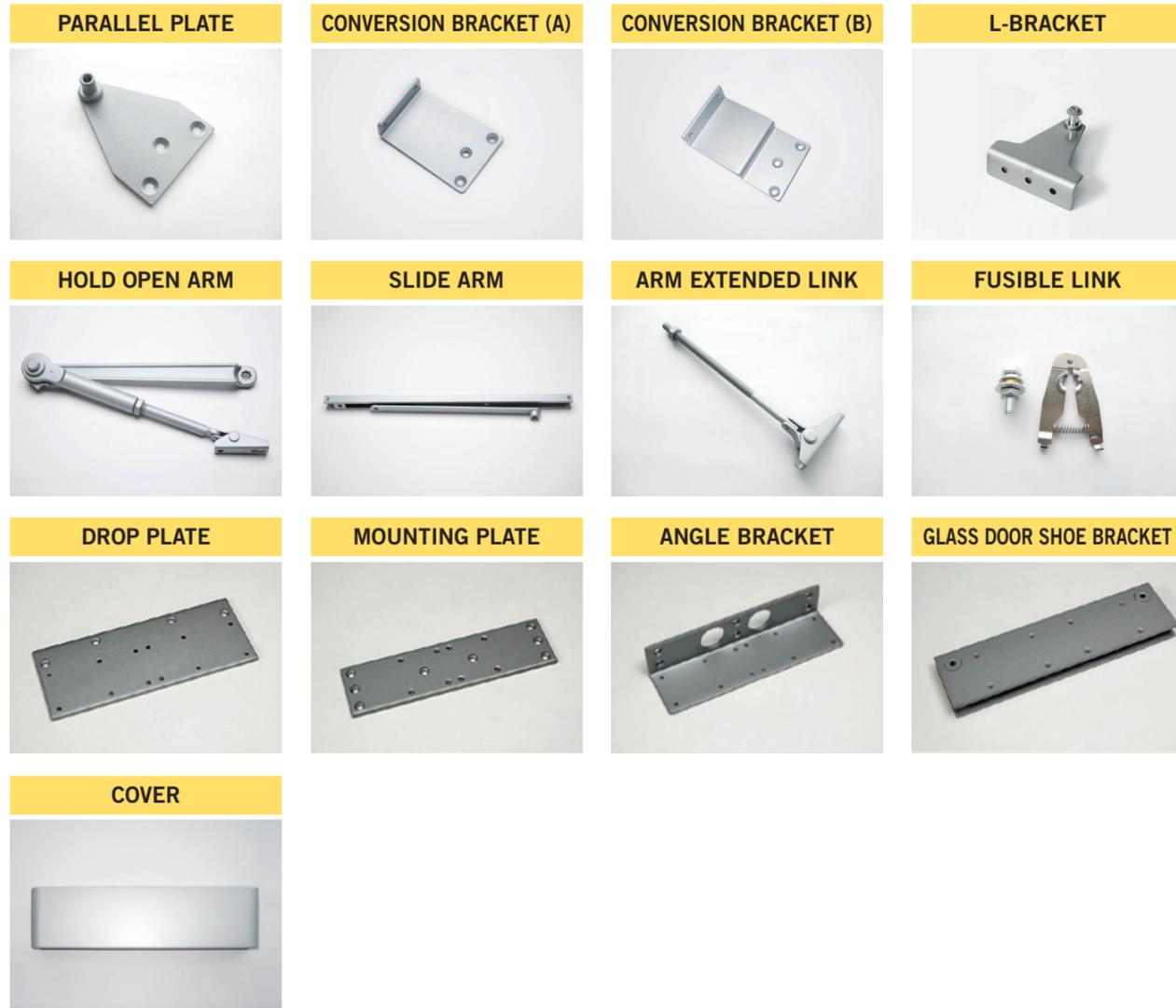


**ACCESSORIES**



# NHN<sup>®</sup> 400 Series



The NHN 400 Series overhead door closer offers a comprehensive range of hydraulic, power adjustable door closers to suit all applications.

The NHN 400 Series of door closers are current with modern designs offering two speed adjustment valves available at the front of the body for easy control of closing and latching. NHN 400 series are power adjustable by screw, whilst NHN 420 series are power adjustable by position.

NHN 400 & 420 are CE approved to EU directives (89/106/EEC) by the EN 1154:1996/A1:2002 and EN1634-1:2000. 10 year guarantee.

**DATA AND FEATURES**

- NHN 400 Series offers sizes EN 2-5, spring power adjustable by power adjustment screw.
- NHN 420 model offers sizes EN 2-4, by position of door closer body.
- Back check and delayed action functions available.
- Easy installation.
- Easy speed and control adjustments by valve screws at the front of the closer body.
- Slim and modern body.
- Non-handed applications.
- Comprehensive range of accessories including stainless steel and brass.
- RAL9006 finish as standard with others available.



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E.&O.E.

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NO.201011A

**SELECTION CHART**

| Power size (EN)    | Door width (mm) | Door weight (kg) | 400 SERIES   |           |            |                |           |                  | 420 SERIES   |           |            |                |           |                  |
|--------------------|-----------------|------------------|--------------|-----------|------------|----------------|-----------|------------------|--------------|-----------|------------|----------------|-----------|------------------|
|                    |                 |                  | STANDARD ARM | HOLD OPEN | BACK CHECK | DELAYED ACTION | SLIDE ARM | PARALLEL BRACKET | STANDARD ARM | HOLD OPEN | BACK CHECK | DELAYED ACTION | SLIDE ARM | PARALLEL BRACKET |
| 2                  | 850             | 40               |              |           |            |                |           |                  |              |           |            |                |           |                  |
| 3                  | 950             | 60               | 400          | 400S      | 400BC      | 400DA          | 400GL     | 400P             | 420          | 420S      | 420BC      | 420DA          | 420GL     | 420P             |
| 4                  | 1100            | 80               |              |           |            |                |           |                  |              |           |            |                |           |                  |
| 5                  | 1250            | 100              |              |           |            |                |           |                  |              |           |            |                |           |                  |
| <b>CE Approved</b> |                 |                  | <b>CE</b>    |           | <b>CE</b>  |                |           |                  | <b>CE</b>    |           |            |                |           |                  |

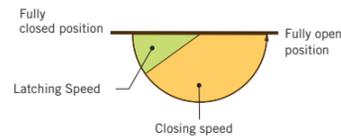
NOTE 1: Where the actual size and mass of door to which the door closer is to be fitted relates to two sizes of door closers, the larger power size of door closer should be used.

NOTE 2: The door widths given are for standard installations, in the case of unusually high or heavy doors, windy or draughty conditions, a larger power size of door closer should be used.

## FUNCTION

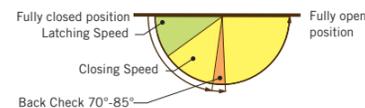
## Closing &amp; latching speed

The closing speed from maximum opening angle to 15° and the latching speed from 15° to 0° can easily be controlled by two independent valves at the front of the closer.



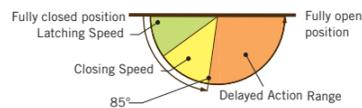
## Back-check function (optional)

This function is built into the door closer body and checks the outward swing of the door. Most suited where the opening door might hit a wall i.e. in a corridor, or where it could injure someone if it opens too quickly. It is recommended for use on externally opening doors in windy environments. The back check function works between 70° and 85°. The back check strength can be adjusted by turning the back check valve screw located at the front of the closer body.

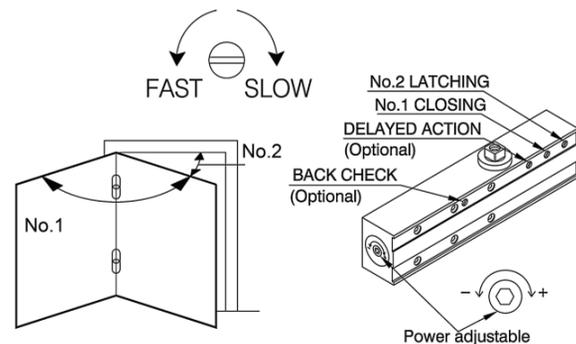


## Delayed action function (optional)

This function reduces the closing speed of the door to allow passers-by sufficient time to pass through the door opening i.e. people in wheelchairs, hospital staff with beds, elderly people etc. The maximum delay of 60 seconds is achieved from the 180° (fully open angle) through to 85°. After which the normal closing process takes effect to provide a secure and complete closure of the door. The duration of the delay can be adjusted via the delayed valve screw located on the front of the closer body.



## ADJUSTMENT



For easy adjustment the closing speed screw, the latching speed screw, the back check screw (if fitted) and the delayed action screw (if fitted) are located at the front of the closer body.

The power adjustment screw by no. 400 Series is located at the short side of the closer body. The manual shows the setting and the number of turns required to change the power force of the no. 400 closer body and the right position of the eccentric shoe.

The no. 400 and no. 420 Series door closers are designed to allow a door opening angle of 180° by using butt hinges with a maximum offset of 10mm. Using the door closers in top jamb application, parallel arm application or with hinges with a different offset can limit the maximum opening angle of the door.

It is recommended to fit always a door stop.



## SERIES 400 GL

The use of a slide arm in combination with a design cover gives a stylish look to the no. 400 Series door closers. The slide arm is also recommended in situations where vandalism often appears.

The slide arm can be fixed on to the front of the door frame for the regular applications, underneath for outswinging door applications or in top jamb application. A hold open unit is available to keep the door open at a desired position.

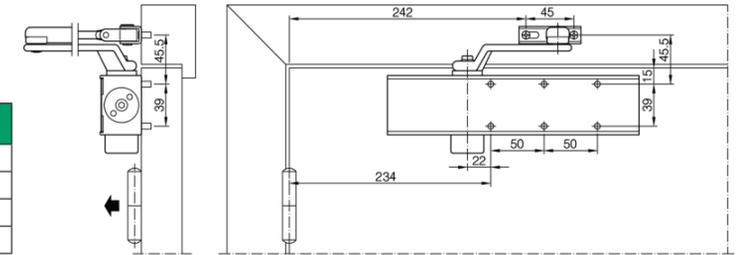
The no. 400 models with slide arm are suitable for doors up to a weight of 80kg and a width of 1100mm. The no. 420 models with slide arm are suitable for doors up to a weight of 60kg and a width of 1000mm.

## INSTALLATION

## Standard installation

Closer mounted hinge side of door.

| Force | Force | Max. Door Width |
|-------|-------|-----------------|
| -5    | EN2   | 850mm           |
| 0     | EN3   | 950mm           |
| +3    | EN4   | 1100mm          |
| +6    | EN5   | 1250mm          |

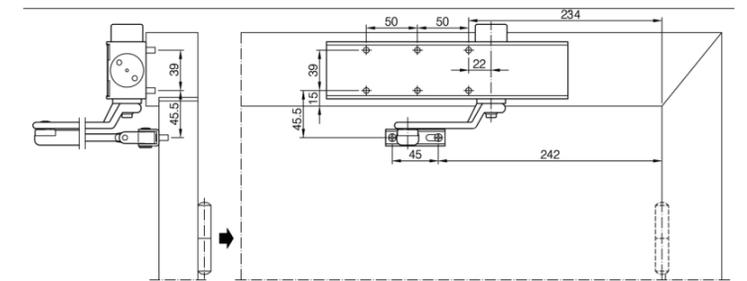


This illustration shows the NHN 400 door closer with standard arm in a right-handing configuration (DIN L)

## Top jamb installation

Closer mounted opposite hinge side of door.

Using the door closer in top jamb application might reduce the maximum opening angle of the door.

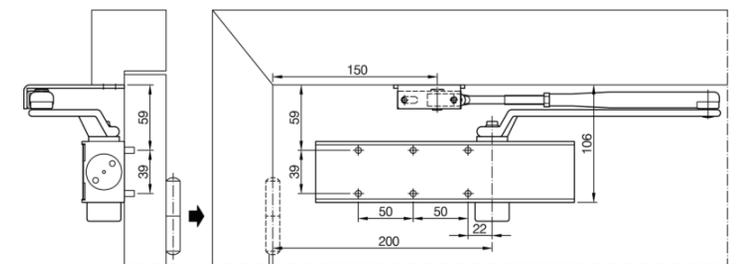


This illustration shows the NHN 400 door closer with standard arm in top jamb right-handing configuration (DIN L)

## Parallel arm installation

Closer mounted opposite hinge side of door.

Using the door closer in the parallel arm application with the optional parallel bracket will weaken it by one size. The maximum door opening angle of the door might be reduced.

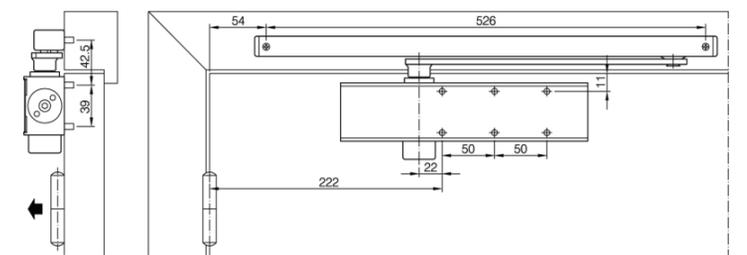


This illustration shows the NHN 400 door closer with the parallel bracket in the left-handing configuration (DIN R)

## Slide arm installation

Closer mounted hinge side of door.

The slide arm includes as standard a hold open device, which can easily be adjusted or removed. The slide arm can also be fitted underneath the top frame for outswinging applications or in top jamb applications.



This illustration shows the NHN 400GL door closer in the right-handing configuration (DIN L)