


# Door Closers, Floor Springs & Fire Door Hold Open Devices

Compliance and Technical  
Guidance (2025)

# Door Closers, Floor Springs & Fire Door Hold Open Devices

## WHICH DOOR CLOSER?

All forms of 'controlled door closing devices' are covered by the harmonised European standard **EN 1154**. This provides details on product types by use, test cycles, door mass, corrosion resistance and product performance requirements using a 6-digit classification code.

In addition to EN 1154, door closers may have also been third party tested which provides reassurance to specifiers and authorities that all aspects of the product's testing, assessment and manufacturing have been checked and verified. This is performed by the  Scheme at Warrington and products will be labelled accordingly.

### LEGAL & STANDARDS OVERVIEW

This document outlines the regulatory, technical and compliance requirements for all controlled door closing devices used on fire doors. All information reflects updates as of **August 2025**, including:

- The Equality Act 2010
- Building Safety Act (BSA)
- Approved Document B (Fire Safety)
- Approved Document M (Access to and use of buildings)



*Heavy Duty Adjustable Power Hydraulic Door Closer*



*Electromagnetic Hold Open / Swing Free Door Closer (E-mag Closer)*



*Heavy Duty Adjustable Power Concealed Cam Action Door Closer*

# KEY COMPLIANCE REQUIREMENTS

## FIRE DOOR TESTING STANDARDS

Current acceptable standards:

- **BS 476-22:** Valid for fire resistance testing until **2 September 2029**
- **EN 1634-1:** Accepted now, will be mandatory **post-2029** for all fire-resisting doorsets.

Fire doors must be tested to **EN 1634-1** and classified under **EN 13501-2** for fire resistance by 2029. Although EN 13501-2 is not a test, it is under the classification framework used following successful EN 1634-1 testing. This distinction is crucial for correct specification.



## REACTION TO FIRE (BS 476 PARTS 6 & 7)

From **2 March 2025**, BS 476 Parts 6 & 7 were removed from Approved Document B as valid methods for reaction-to-fire classification. These have been replaced with **EN 13501-1**, the only accepted standard for reaction-to-fire performance (e.g. wall linings, cladding, insulation).

While this change does not directly affect door closers, it is important context for full fire safety compliance.

## CERTIFICATION REQUIREMENTS

Door closers are an important link in the control of fire and smoke and their usage can help save lives. Door closers and hold-open devices must be:

- Tested to **EN 1154** (door closers)
- Tested to **EN 1155** (electromagnetic hold-open devices)
- **CE** marked (UKCA and CE are not mandatory)
- Supplied with a **Declaration of Performance (DoP)**

To futureproof your specification, always select closers and hardware that are tested **as part of a complete doorset** under EN 1634-1 and classified accordingly.

# INSTALLATION & PERFORMANCE

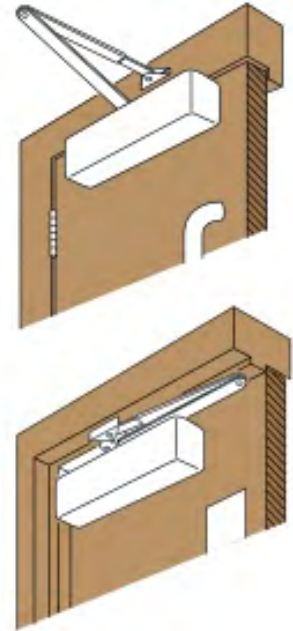
## MOUNTING POSITIONS

**Fig 1. DOOR MOUNTED PROJECTING ARM, PULL-SIDE**

The most common application. Provides a high degree of door control and range of adjustment. The closer is mounted on the pull side of the door with the arm mounted on the frame. When the door opens the arm passes over the door.

**Fig 66. TRANSOM MOUNTED PROJECTING ARM, PUSH-SIDE**

The closer is mounted on the frame above the door. The foot is mounted on the push side of the door. This position is intended for external doors opening outward to protect the closer from external elements, and also used on doors where is insufficient room between the door and the wall.



## DOOR SIZE CHART – EN 1154

Power sizes 1 to 7 (based on door weight and width).

**NOTE:** For fire door applications, power size 3 is a minimum requirement.

DOOR CLOSER SIZE	MAXIMUM DOOR WIDTH	MAXIMUM DOOR WEIGHT
1	750mm	20kg
2	850mm	40kg
3	950mm	60kg
4	1100mm	80kg
5	1250mm	100kg
6	1400mm	120kg
7	1600mm	160kg

## CLOSER FUNCTIONALITY

- **Adjustable closing speed** (general and latch speed)
- **Backcheck:** Prevents door slamming into walls
- **Delayed action:** Allows slower close for elderly/disabled users

Installation of fire door assemblies should follow **BS 8214:2016** to ensure full performance integrity of the doorset, including ironmongery components such as door closers.

# EN 1154

## CLASSIFICATION GUIDE

This is the European standard for the performance of controlled door closing devices. It uses a 6 digit coding system to give clear details on the capabilities and performance levels of what the specific door closer model has been tested and approved to.

4

3 / 4

### Category of use

Defines the angle from which the device will close the door in a controlled manner.

- Grade 3 – 105°
- Grade 4 – 180°

1

0 / 1

### Suitability for fire / smoke doors

Having successfully completed a fire test to EN 1634

- Grade 1 – suitable for use on fire/smoke door assemblies
- Grade 0 – not suitable for use on fire/smoke assemblies

8

8

### Test cycles

Prescribes a series of test cycles. Only one grade is identified

- Grade 8 – 500,000 cycles

1

1

### Safety

Ensures the operation and suitability of the closer is hazard free – operated without risk to the user.

- Only Grade 1 is identified

3

1-7

### Door mass / size

Identifies the closer power size as defined by the door width and mass. Adjustable power closers are defined by their upper and lower power sizes.

e.g.  $\frac{5}{2}$  (40 – 100kg)

3

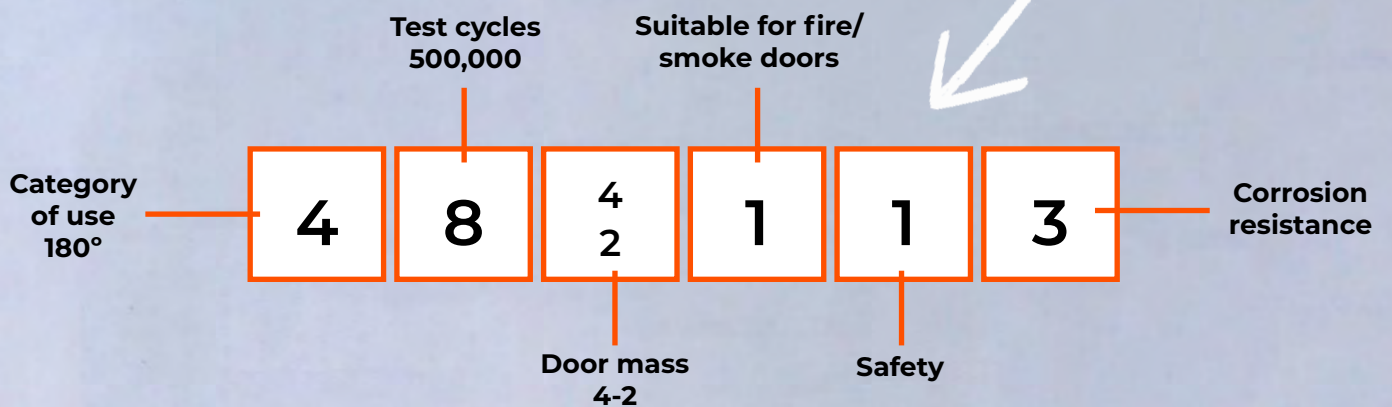
1-7

### Door mass / size

Level of corrosion resistance to EN 1670 Neutral Salt Spray test and operation of the product at extreme temperatures. Five grades are identified:

- Grade 0: No identified resistance
- Grade 1: Mild resistance
- Grade 2: Moderate resistance
- Grade 3: High resistance
- Grade 4: Very high resistance (240 hours)

# DOOR CLOSER CLASSIFICATION

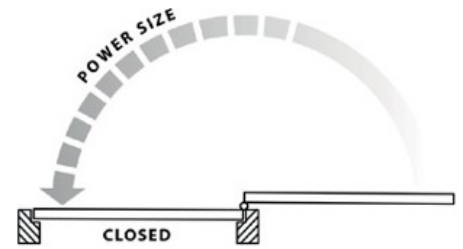


# DOOR CLOSER FEATURES



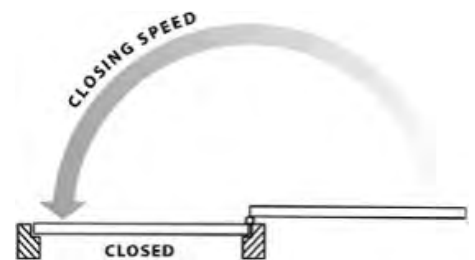
## POWER SIZE

The power size of a door closer is measured in accordance with the closing torque that is achievable on the closing cycle. The BS EN 1154 Standard classifies closers from a Size 1 through to a size 7 and recommends the use in accordance with the door width and door mass (weight). Power sizes can be fixed, selectable or adjustable.



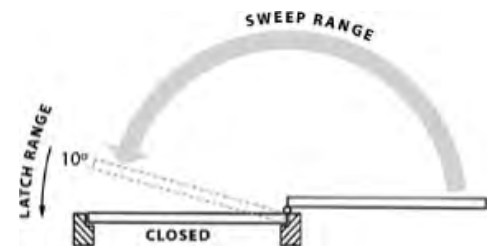
## ADJUSTABLE CLOSING SPEED

Controlled door closers offer adjustability to the speed that the door will operate, the closing speed has adjustment from the maximum opening angle through to the last 10 to 15°.



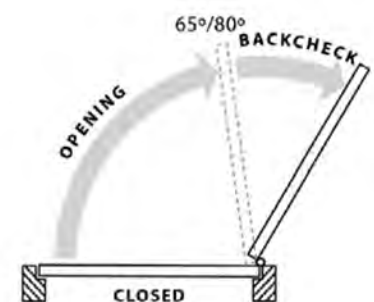
## ADJUSTABLE LATCH ACTION

This allows speed adjustability on the last 10 to 15° to assist with overcoming latches and seals.



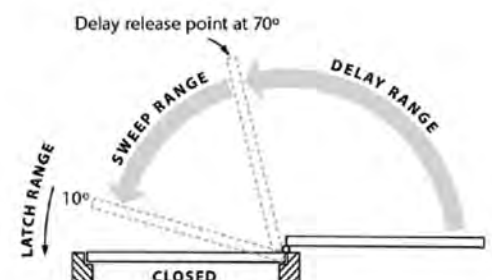
## ADJUSTABLE BACKCHECK

The backcheck function slows the speed of the door whilst in the opening cycle, the function is to prevent damage being caused to the door, associated hardware or adjacent walls in the event of the door being flung open (Backcheck is not an alternative to a door stop).



## ADJUSTABLE DELAYED ACTION

The delayed action function slows the first part of the closing cycle down. Its function is particularly useful for disabled / elderly who may need additional time to pass through the doorway, delayed action normally releases around 70° where the standard closing speed will then commence.



# ACCESSIBILITY: EQUALITY ACT & DOCUMENT M

The Equality Act (2010) works to protect people with disabilities – including blind and partially sighted people – from discrimination.

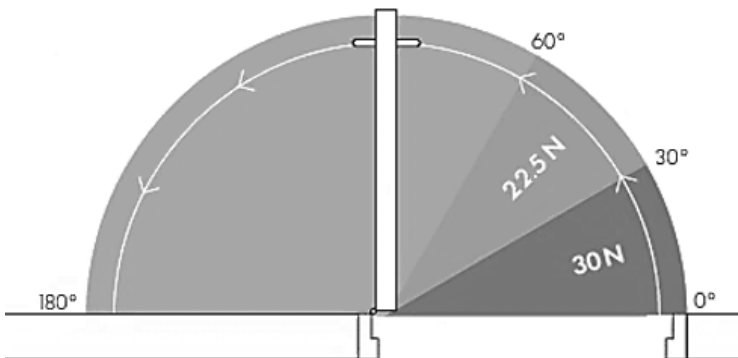
The Disability Discrimination Act (DDA) was replaced with the **Equality Act** in 2010 in England, Scotland and Wales. Specifically, the DDA now applies in Northern Ireland only.

A common misconception is that Architectural Hardware needs to be designed to be DDA compliant. Strictly speaking, elements originally covered by the DDA are now covered in the Equality Act 2010 which incorporated (and repealed) the DDA. This means that the Equality Act therefore renders the term 'DDA compliant' obsolete.


## OPENING FORCE

UK fire resistant doors are required to achieve a minimum closing force of between 18 & 26 Newton Metres (Size 3 in accordance with BS EN 1154:1997).

- Opening force must not exceed **30N** from 0° (closed position) to 30° (open.)
- Opening force must not exceed **22.5N** from 30° to 60°



Opening resistance for door closers.



**EQUALITY ACT 2010**

Newly supplied door closers on fire doors should have the relevant documentation to comply with BS 8300 Part 2.

This requires the opening force of door controls to assist less-abled users, children, the elderly, and disabled.

Most fire doors should be fitted with an appropriately controlled self-closing device that will effectively close the door from a suitable and tested angle.

The strength and control of the closing device should be compatible with the size of the door and other factors. Certain door closers will require the suitable intumescent kit when being fitted on fire doors.

**Note:** these opening forces are according to specific controlled Test Lab Data. However, other installed hardware may affect the force readings – additional friction on hinges or door seals installed may affect the opening forces.

# POPULAR FIRE DOOR HOLD OPEN DEVICES



*Dorgard*

## Dorgard

- Battery operated (no wires)
- Listens for a continuous fire alarm for 14 seconds before being activated
- Smartsound version available
- Tested to BS EN 1155



*Hold open / swing free electromagnetic door closer*

## Hold Open / Swing Free Electromagnetic Door Closer

- Holds door open
- Swing free mode allows door to open with no resistance
- 24V with test release button
- BS EN 1155 & EN 1634 FD30/60



*Door retaining magnet with armature plate*

## Door Retaining Magnet with Armature Plate

- Wall mounted or floor mounted options
- 24V with test release button
- Tested to BS EN 1155 & EN 1634 FD30/60
- Connected to PSU (power is cut when fire alarm sounds)

# DORGARD Fire door holder

Dorgard has a rubber plunger that remains in contact with the floor when depressed which allows the door to be held open in any selected position. When the fire alarm is activated, the sound is detected within the integral audio electronic pick-up and signals the plunger to retract, allowing the fire door to close under normal means.

battery operated  
(no wires)



listens for the fire  
alarm to activate

Activated after  
listening to 14 seconds  
of continuous alarm