

ABLOY[®] FIRE DOOR CLOSING SYSTEMS

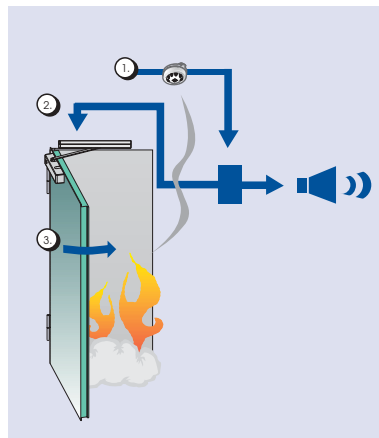


ABLOY® FIRE DOOR



It is vital for fire doors to close in the event of fire. The fire door must close and latch automatically in order to limit the spread of smoke and fire into the other parts of the building. During daytime the normal use of fire doors requires the doors to remain open.

ABLOY® fire door closing systems guarantee easy access and convenience for use in the day time as well as maximum security in the event of fire. **ABLOY®** fire door closing systems are composed of reliable and compatible components that enable building up a safe, individual solution for each application.



An example of the operation and main components of a fire door closing system

If fire doors are held open they must close in the break out of a fire, so that smoke and flames can be retained and not spread throughout the building. The smoke detector (1) reacts to smoke and activates the alarm to the hold open device of the door (2). The door closer (3) controls the door to close and latch into the shut position.

Features and arguments

- slim design
- low consumption: max. current 60 mA per hold open device
- one product fits all doors regardless of the door width
- flexibility in installation
 - easy to install to narrow frames
 - vertical adjustment
 - closing side installation available with the help of a small accessory set, which is easy to add to the standard product
- new hold open device
 - easy to install with adjustable angle (80°...130°)
 - hold open strength can be adjusted during the installation
- new coordinator
 - holds the active door open independently when the inactive door has been opened
 - hold open angle can range up to 150 degrees
 - guarantees the doors closing in the correct order with accurate closing times

CLOSING SYSTEMS



Colours

ABLOY® fire door closing systems are available in several colours: silver, white, brass, brown and black. Other RAL colours available on request.



Silver



White



Brass



Brown



Black

How to order

When ordering, please specify

- product number and colour for the fire door closing system (incl. arm and sliding rail), e.g. FD450 silver.



FD450

- product number and colour for the door closer, e.g. DC250 brass.



DC250

- product number and colour for the mounting plate and closing side installation set if needed, e.g. FD100 white.



FD100

Note:

All three components must be ordered separately.





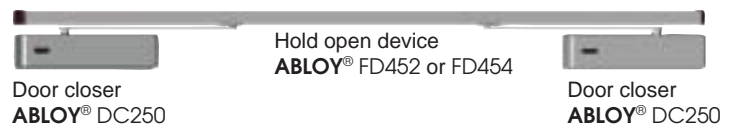
ABLOY® FIRE DOOR CLOSING SYSTEMS

System 1

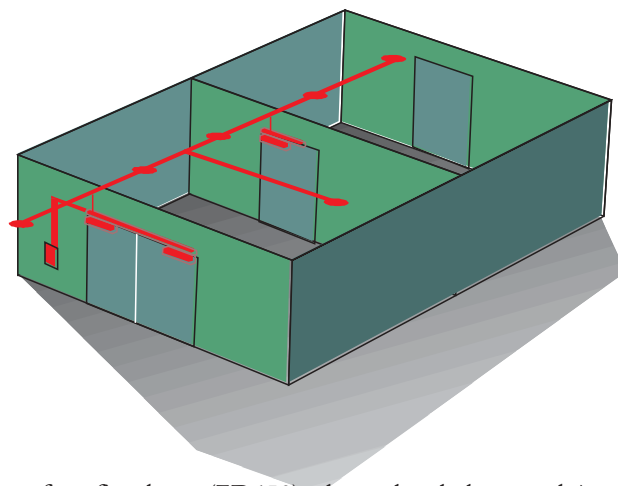
Single door



Double door



Control unit
ABLOY® 7400



Smoke detector
ABLOY® 7451 or 7452



Suitable for controlling up to four fire doors (FD450) when a local alarm and / or connection to a centralised fire alarm is required. Separate wiring for smoke detectors and door hold open devices. When fitted with battery back-up (7404), doors only close in fire conditions. The double door system has a built in co-ordinator.

ABLOY® DC250	Door closer for single or double doors system without arm.
ABLOY® FD450	Electromechanical hold open device for single door system with arm
ABLOY® FD452	Two electromechanical hold open devices for double door systems including coordinator and arms
ABLOY® FD454	Electromechanical hold open device for inactive door in double door system incl. coordinator and arms
ABLOY® 7400	Control unit
ABLOY® 7451/7452	Optical/ ionization smoke detector
ABLOY® 7462/7463	Door release button surface/ mortice



System 2

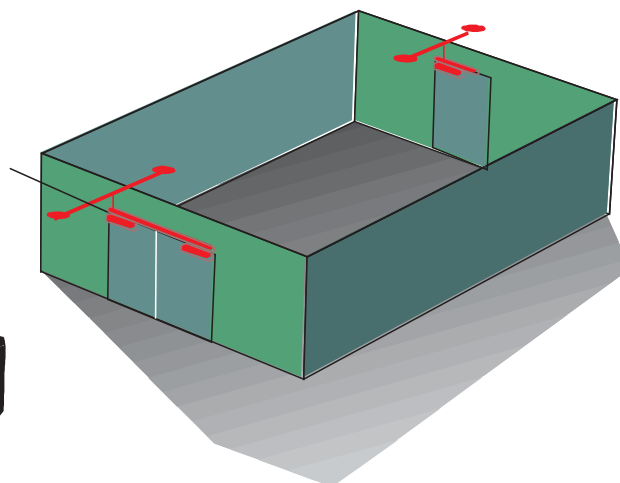
Single door



Double door



Power supply
ABLOY® 8551



Smoke detector
ABLOY® 7451 or 7452
+ relay 7453



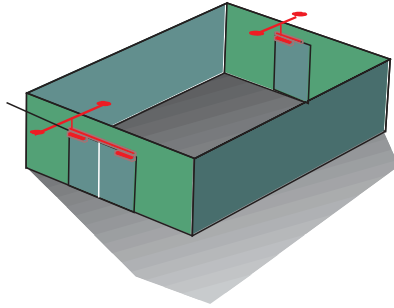
Suitable for local control of one or more doors (max 7/FD450). Doors will also close when the main power is interrupted. The double door system has a built in door co-ordinator.

ABLOY® DC250	Door closer for single or double doors system without arm.
ABLOY® FD450	Electromechanical hold open device for single door system with arm
ABLOY® FD452	Two electromechanical hold open devices for double door system including coordinator and arms
ABLOY® FD454	Electromechanical hold open device for inactive door in double door system incl. coordinator and arms
ABLOY® 8551	Power supply
ABLOY® 7451/7452	Optical/ ionization smoke detector
ABLOY® 7453	Relay
ABLOY® 7462/7463	Door release button surface/mortice



System 3

Smoke detector
ABLOY® 7451 or 7452



Control unit **or** Power supply
ABLOY® 7400 **ABLOY® 8551**



ABLOY® 7438



ABLOY® 7439

ABLOY® DC250 Door closer

ABLOY® FD451 Mechanical coordinator

(double door)

ABLOY® DC194 Sliding arm (single door)

ABLOY® 8551 or 7400 Power supply or control unit

ABLOY® 7451 or 7452 Smoke detector

ABLOY® 7453 Relay when using 8551

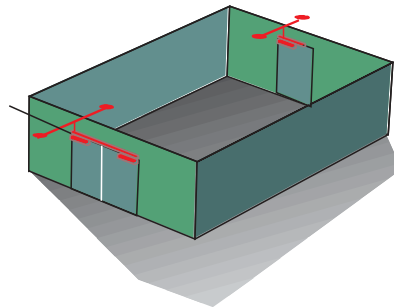
ABLOY® 7438, 7439 Wall magnets

ABLOY® 7462/7463 Door release button

Sliding door closer system for applications with hold open position up to 170°. The double door system has a built in co-ordinator. Suitable for controlling several fire doors when using the **ABLOY® 7400**. With the **ABLOY® 8551** the system is suitable for local control of several fire doors.

System 4

Smoke detector
ABLOY® 7451 or 7452



Control unit **or** Power supply
ABLOY® 7400 **ABLOY® 8551**



ABLOY® 7439



ABLOY® 7438

ABLOY® DC235, DC240 Door closer

ABLOY® 7199 Standard arm

ABLOY® 8551 or 7400 Power supply or control unit

ABLOY® 7451 or 7452 Smoke detector

ABLOY® 7453 Relay when using 8551

ABLOY® 7438, 7439 Wall magnets

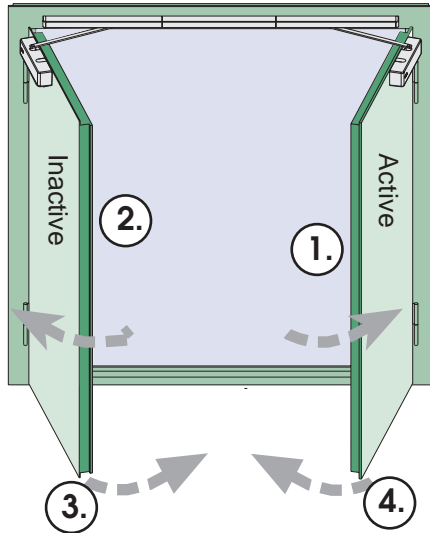
ABLOY® 7462/7463 Door release button

ABLOY® 7420-7422 Mechanical coordinator

(double door)

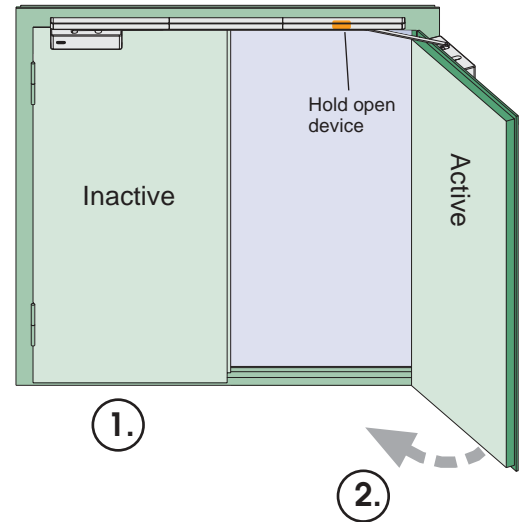
As system 3 but with door closer and standard arm. For applications up to 180 degree hold open position. Suitable for controlling several fire doors when using the **ABLOY® 7400**. With the **ABLOY® 8551** the system is suitable for local control of several fire doors.

FD451 Mechanical co-ordinator



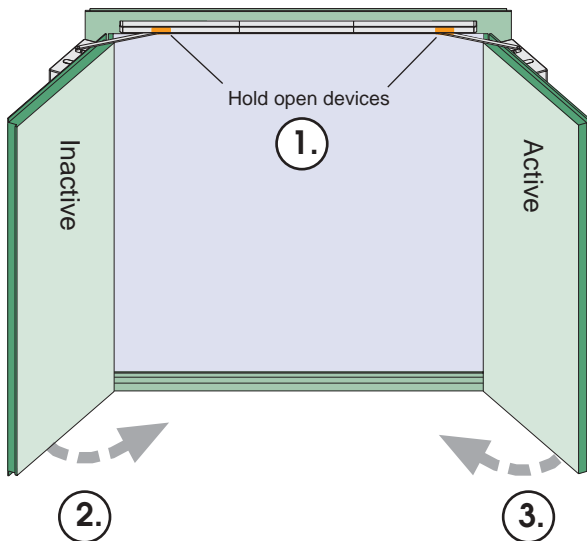
During the day the doors are normally closed and the active door is used as passage door. If both doors need to stay open, the active door must be opened first (1), after which the inactive door can be opened (2). The co-ordinator holds the active door in the desired angle during the time the inactive door is open. The inactive door stays open only if someone holds it or a wall magnet is used. When the inactive door is closed (3), the active door starts to close (4).

FD454 Hold open for active door



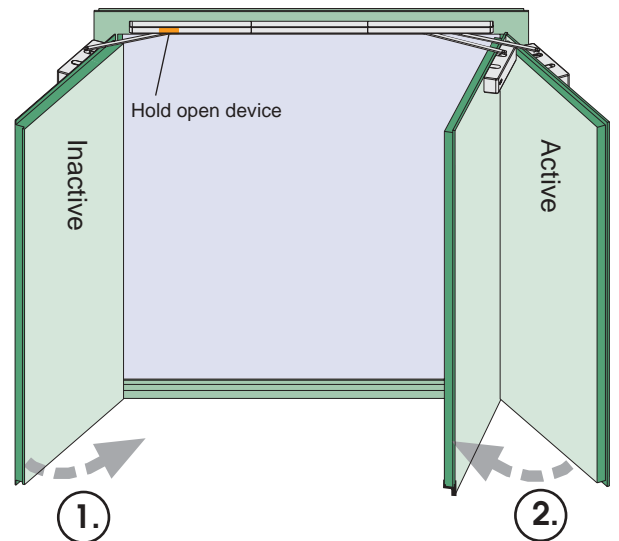
The inactive door is normally closed (1) and remains open only if someone holds it or a wall magnet is used. When the power is switched off, e.g. when smoke detectors react to smoke, the active door closes. Hold open angle for active door can be adjusted from 80° to 130°.

FD452 Two electro-mechanical hold open devices



The doors are held open by the hold-open devices in the selected angle (1). When the power is switched off, e.g. when the smoke detectors react to smoke, the doors close so that the inactive door closes first (2), and when it is completely closed the active door starts to close (3). Hold open angle for both doors can be adjusted from 80° to 130°.

FD454 Hold open for both doors

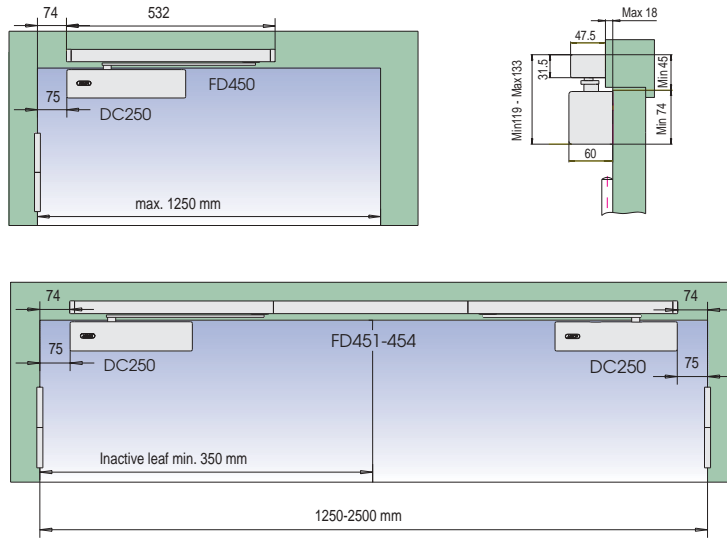


During the day both doors are normally held open. The inactive door is held open by the hold open device in the angle determined during the installation. The active door closes first (1), and when it is completely closed, the co-ordinator holds the active door in the desired angle (2). The hold open angle of the active door is adjustable (up to 150°). When the power is switched off, e.g. when the smoke detectors react to smoke, the passive door closes first (1), and when it is completely closed, the active door starts to close (2).

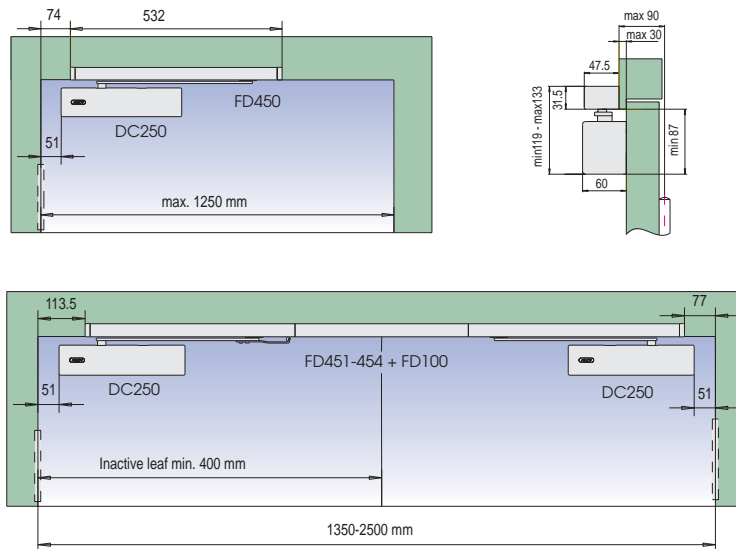
The above solutions can be installed on the closing side of the door with the help of a small accessory set (see page 9).

Dimensions

Opening side

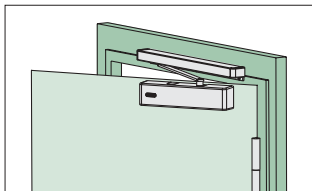
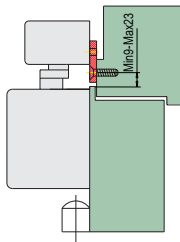


Closing side

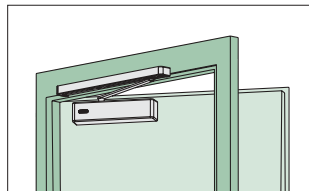
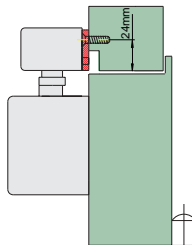


Installation examples

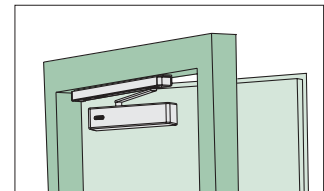
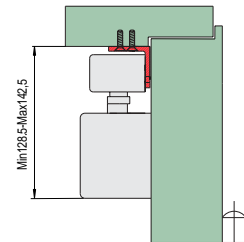
DC103 opening side



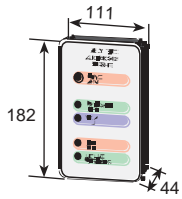
DC103 closing side



DC105 (+DC109) closing side



Components



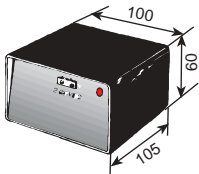
Control unit **ABLOY® 7400**
 - power supply 230 AC
 - Output voltage 24VDC
 - Max. current 300 mA



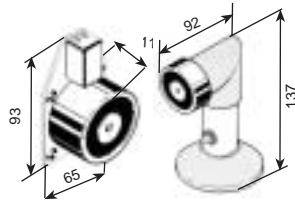
Battery back-up **ABLOY® 7404**
 - Capacity 0,7 Ah



Smoke detectors
ABLOY® 7451 (optical)
ABLOY® 7452 (ionisation)
 - Operating voltage 15-30mA
 - Current when triggered 25mA
 - Operating temperature -20°...+60°C
 Relay **ABLOY® 7453**



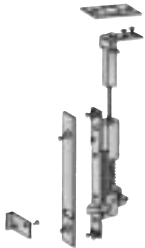
ABLOY® 8551
 - Power supply 230 AC
 - Output voltage 240VDC
 - Max. current 0,5A



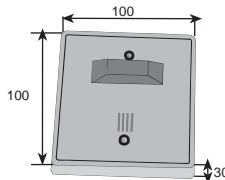
Wall magnets **ABLOY® 7438, 7439**
 - operating voltage 24VDC
 - normal current 16mA
 - hold open force 500 N



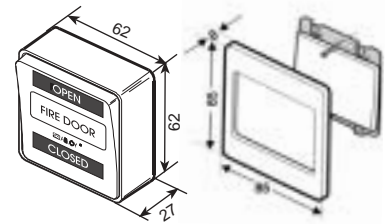
Carry bar **ABLOY® FD101**
 - enables the correct closing sequence of the doors



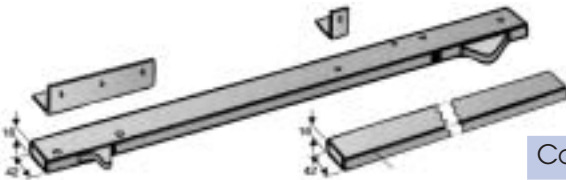
Automatic flush bolt 5741145
 - used in double door systems for locking the passive door leaf



Alarm **ABLOY® 7461**
 - sound and light



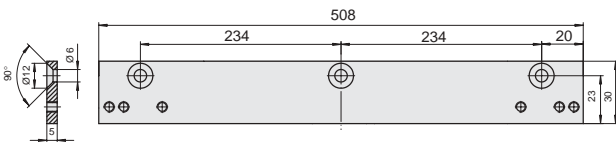
Door release buttons
ABLOY® 7462 (surface)
ABLOY® 7463 (mortice)



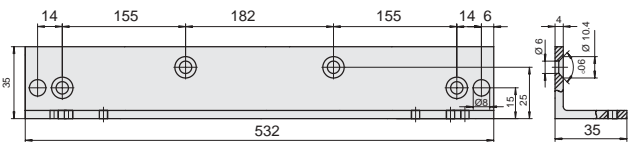
Mechanical coordinators
ABLOY® 7420-7422
 - ensure that double doors close correctly

Coordinator	7420	7421	7422
Length	813	1320	1525
Door opening	860-1360	1360-2450	2450-
Max. width of active door	700mm	1200mm	1400mm

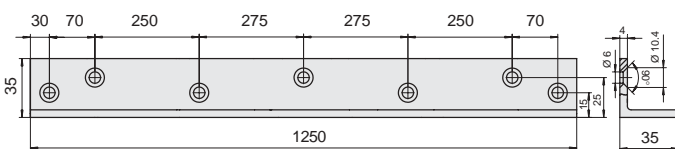
Accessories



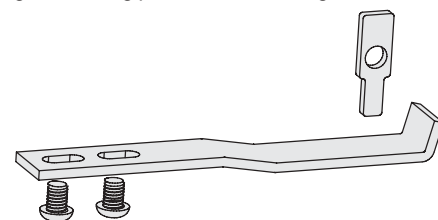
Plain mounting plate DC103 for single or double doors



Angle mounting plate DC105 for single or double doors



Angle mounting plate DC109 for double doors



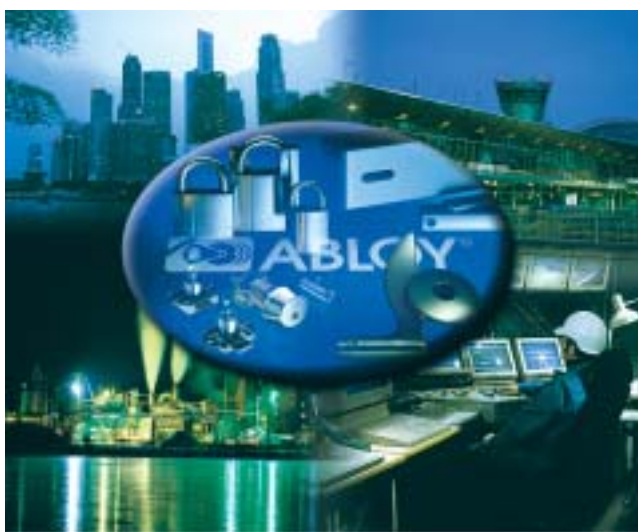
Accessory set FD100 for closing side installation

ABLOY® – the sign for security



The quality and environmental systems used by Abloy Oy guarantee that customers can be certain of **ABLOY®** quality in every field. We received our first Quality System Certificate - SFS-EN ISO 9001 - in 1989. Just eight years later, Abloy Oy was one of the first companies in Finland to be granted an SFS-EN-ISO 14001 Environmental System Certificate.

Our products are designed and manufactured not only to provide high levels of security, but also to be reliable, user-friendly and aesthetically pleasing. **ABLOY®** is your sign for security.



ABLOY® is a registered trademark of Abloy Oy, one of the leading manufacturers of locks, locking systems and architectural hardware and the world's leading developer of products in the field of electromechanical lock technology.

The unique **ABLOY®** detainer disc cylinder mechanism has several advantages over conventional locking mechanisms. Ever since its invention in 1907, it has been a symbol of high security and superior performance.

Our range consists of electromechanical locks, cam locks, padlocks, office furniture locks, rim locks, lock cases, cylinders for different types of mortice locks, door closers, door automatics and architectural hardware. **ABLOY®** locking solutions for every application are available from our world-wide network of distributors.

Customer-oriented development, combined with our long experience and extensive security expertise, mean that **ABLOY®** security solutions employ the very latest technology to meet your needs.



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