

# ABLOY® FIRE DOOR CLOSING SYSTEMS

*Maximum security*



# ABLOY® FIREDOOR CLOSING SYSTEMS

## *Maximum security and easy access*

**ABLOY®** high security products are well known and highly respected all over the world. Every item in our wide product range represents top quality and superior performance. Our long extensive experience and expertise combined with customer-oriented research and development ensure a wide range of solutions for the varying demands of different door environments.

Our global network of sales offices and distributors will help you to choose the right products to increase security and convenience in your specific application. The function and features offered by **ABLOY®** fire door closing systems give you convenient operation, simple installation as well as ease of adjustment and maintenance.

*Individual solution for each application*  
*Slim design*   *Simplified installation*  
*Wide range of colours*



### When ordering, please specify

- Product number and colour for the fire door closing system e.g. FD460 Silver (FD460 series includes arm and sliding rail)
- Product number and colour for the door closer e.g. DC250 Aluminium
- Product number and colour for the mounting plate e.g. DC115 White
- Product number and colour for the closing side accessory kit FD120 White, if needed



# ABLOY® FIRE DOOR CLOSING SYSTEMS

## Security in the event of fire

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

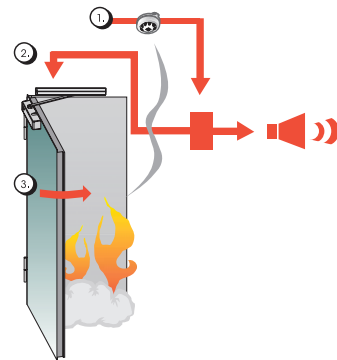
**ABLOY®** fire door closing systems guarantee easy access and convenience for use in the day time as well as maximum security in the event of fire.

**ABLOY®** fire door closing systems are composed of reliable and compatible components that enable building up a safe, individual solution for each application.

**ABLOY®** fire door closing systems are CE certified. Our products are available with wide variety of standard colours as well as all RAL-colours.

## FUNCTION OF FIRE DOOR CLOSING SYSTEMS

If fire doors are held open they must close in the break out of a fire to retain smoke and flames and prevent the fire from spreading 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) closes and latches the door into closed position. The fire alarm central panel or the fire detector (in a single door system) can activate the alarm.



### CONTENT

<b>ABLOY®</b> FD440 Freeswing solution	4
<b>ABLOY®</b> FD460 Electromechanical hold open device	5
<b>ABLOY®</b> FD461 Coordinator for double doors	6
<b>ABLOY®</b> FD462 Hold open device for double doors	7
<b>ABLOY®</b> FD464 Electromechanical hold open device for double doors	8
<b>ABLOY®</b> FD110 Coordinator for double doors	9
<b>ABLOY®</b> FD120 Accessory set for closing side installation	9
INSTALLATION, DIMENSIONS	
FD440	10
FD460, FD462, FD464	11
ACCESSORIES	12
MOUNTING PLATES AND ACCESSORIES	13
WIRING DIAGRAM	14
CONNECTION OF CONTROL UNIT	15

### COLOURS (Door closers, arms and mounting plates)

White (RAL 9010)



Aluminium (RAL 9006)



Brass



Brown (RAL 8014)



Black (RAL 9005)



### METAL COVERS

Stainless Steel



# ABLOY® FD440



## ABLOY® FD440 FREESWING SOLUTION FOR SINGLE DOOR

**ABLOY®** FD440 is particularly useful for applications where the door is in frequent use and the opening resistance of a standard door closer may be too heavy, such applications are kindergartens, schools, retirement homes and day centres.

**ABLOY®** FD440 incorporate adjustable closing force sizes EN 2-6 with standard arm FD499. When installed with FD499 arm, the maximum door weight is 120 kg and door width 1400 mm. Adjustable closing force size EN3-4 with sliding free swing arm FD494. When installed with FD494 arm, the maximum door weight is 80 kg and door width 1100 mm.

## PRODUCTS

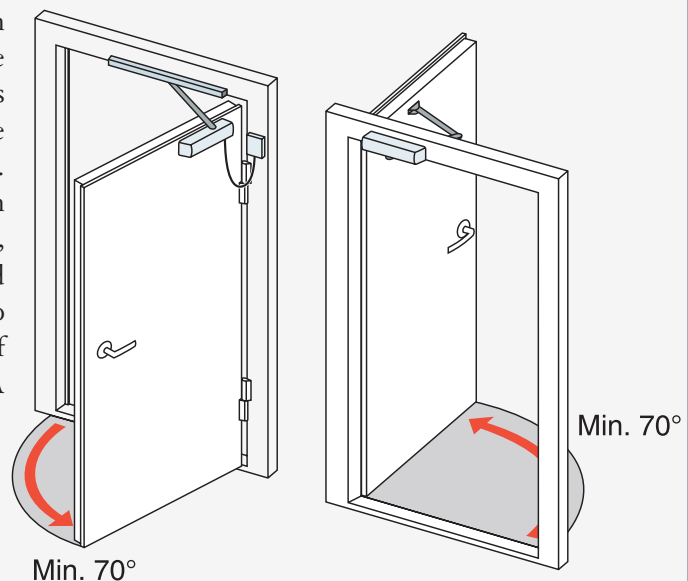
- **ABLOY®** FD440
- Arm type FD494 or FD499
- Power supply EA701 or control unit 7400
- Door release button 7462

If needed:

- Optical smoke detector FD600 2 pcs or heat detector FD602 2 pcs
- FD140 connection box for opening side installation

## FUNCTION

When freeswing arms are used and power is on the first door opening, the opening resistance is like with a normal door closer. The door is opened to the desired angle to determine the opening angle for later use (min. approx. 70°). After the first opening, the freeswing function enables the door to be opened and closed freely, without resistance. When the power is switched off, i.e. when the smoke detectors react to smoke, the FD440 closes the door regardless of the door position. Current consumption 90 mA (24 VDC).





# ABLOY® FD460



## ABLOY® FD460 ELECTROMECHANICAL HOLD OPEN DEVICE FOR SINGLE DOOR

**ABLOY®** FD460 is a small and aesthetic electromechanical hold open device system with a sliding arm. It is applicable for places, where fire doors are constantly kept open. The door is kept open at a selected angle. If fire breaks out, the door is closed, preventing smoke and flames from spreading. Applications for FD460 are hotels, office buildings and other fire doors where hold open function is needed.

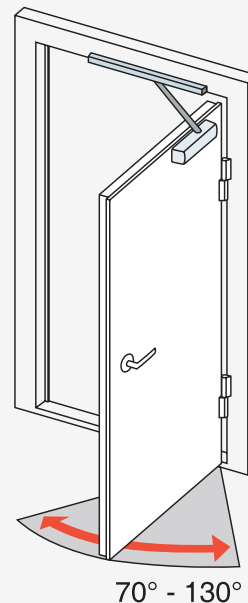
The maximum door leaf width is 1400 mm and the maximum door weight 120 kg. **ABLOY®** FD460 is recommended to be used with CAM closers. FD460 is CE certified according EN 1155.

### PRODUCTS

- **ABLOY®** FD460
  - Door Closer DC250 / DC330
  - Power supply EA701 or control unit 7400
  - Door release button 7462
- If needed:
- Optical smoke detector FD600 2 pcs or heat detector FD602 2 pcs.

### FUNCTION

The door is held open by hold open device in the selected angle. When power is switched off, e.g. when smoke detectors react to smoke, the door closes. Hold open angle can be adjusted from 70° up to 130°. Hold open device has adjustable hold open force. Current consumption 60 mA (24 VDC).



# ABLOY® FD461



## ABLOY® FD461 MECHANICAL COORDINATOR FOR DOUBLE DOORS

**ABLOY®** FD461 is a stylish and small mechanical coordinator for double doors. FD461 is useful in applications where doors are normally kept closed. The coordinator is integrated inside the covered sliding rails which protects the coordinator from abuse e.g. in schools. FD461 is suitable for all kinds of double doors e.g. entrance halls in office and commercial buildings.

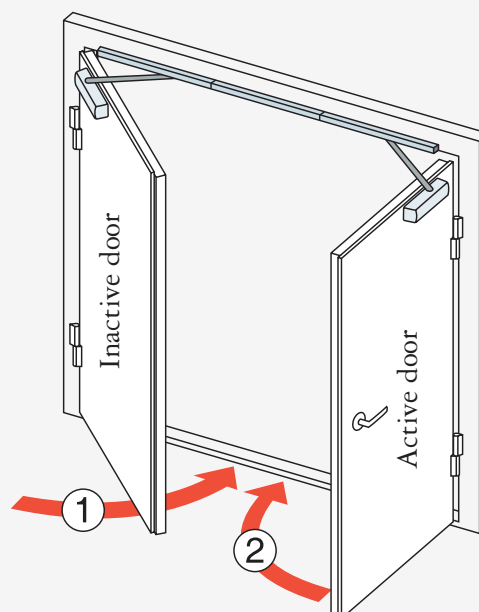
**ABLOY®** FD461 is suitable for double doors with hinge distance 1250-2800 mm and maximum door leaf weight of 120 kg. FD461 is recommended to be used with CAM closers. FD461 is CE certified according EN1158.

### PRODUCTS

- **ABLOY®** FD461
- Door Closers DC250/DC330 2 pcs
- Flush bolt FD108 2 pcs
- Accessory set FD120 for closing side installation
- Carry bar FD101 or FD102

### FUNCTION

FD461 mechanical coordinator keeps the active door open when inactive door is open. Active door starts to close when the inactive door is almost closed. After the active door is closed it latches the inactive door. FD120 must be used with closing side installations.





## ABLOY® FD462 COORDINATOR AND TWO ELECTROMECHANICAL HOLD OPEN DEVICES

**ABLOY®** FD462 is a small, aesthetic fire door closing system with a sliding arm, a built-in coordinator and two electromechanical hold open devices for double doors. FD462 has been designed for places that require flexible use. Two electromechanical hold open devices provide possibility to keep either only the active door or both door leaves open.

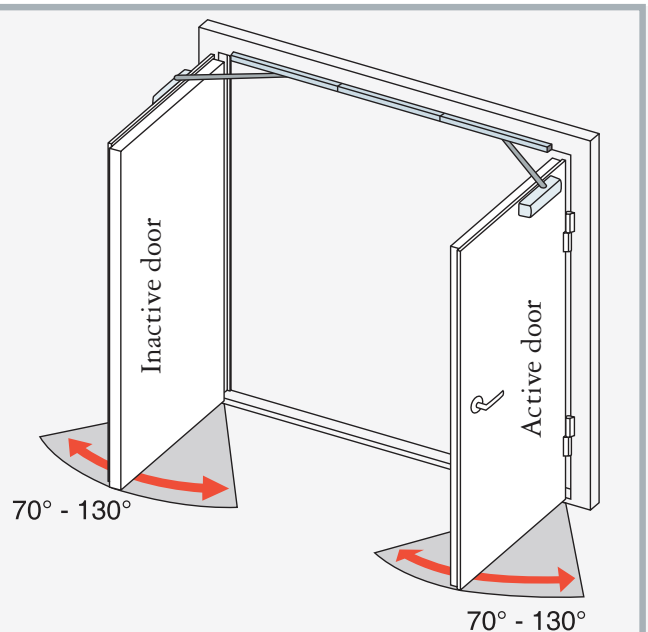
**ABLOY®** FD462 is designed for double doors with hinge distance 1250-2800 mm and maximum door leaf weight 120 kg. FD462 is recommended to be used with CAM closers. FD462 is CE certified according EN1155 and EN1158.

### PRODUCTS

- **ABLOY®** FD462
- Door Closers DC250/330 2 pcs
- Power supply EA701 or control unit 7400
- Door release button 7462
- Optical smoke detector FD600 2 pcs or heat detector FD602 2 pcs
- Flush bolt FD108 2 pcs
- Accessory set FD120 for closing side installation
- Carry bar FD101 or FD102

### FUNCTION

With FD462 the normal day use is convenient because both door leaves can be used independently. Only the active door or both door leaves can be kept open. The mechanical coordinator keeps the active door open when inactive door is open. When the power is switched off, i.e. when the smoke detectors react to smoke, the inactive door closes first and when it is almost closed, the active door starts to close. After the active door is closed it latches the inactive door. Hold open angle for both doors can be adjusted from 70 to 130 degrees. The Hold open devices include adjustable hold open force. Current consumption 120 mA (24 VDC). FD120 must be used with closing side installation of FD462.



# ABLOY® FD464



## ABLOY® FD464 COORDINATOR WITH ONE ELECTROMECHANICAL HOLD OPEN DEVICE

ABLOY® FD464 is a small, aesthetic fire door closing system with a sliding arm, one hold open device and the built-in coordinator for double doors. The applications for FD464 are for example hotels and hospital corridors, where both doorleaves are usually kept open.

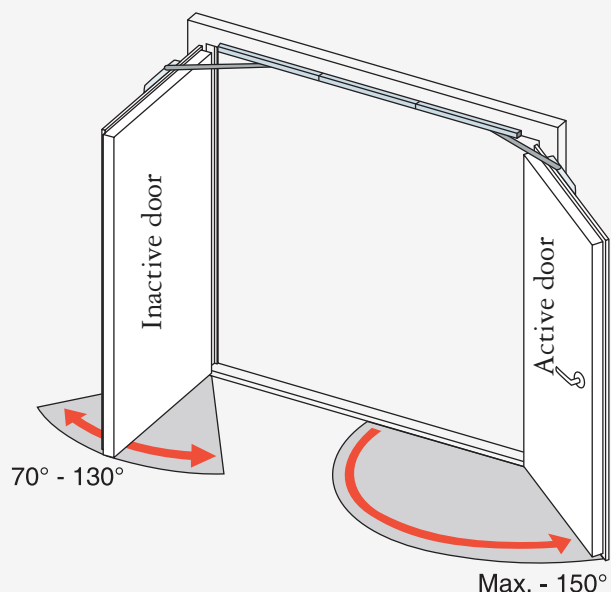
ABLOY® FD464 is designed for double doors with hinge distance 1250-2800 mm and maximum door leaf weight 120 kg. FD464 is recommended to be used with CAM closers. CE certified according EN1155 and EN1158.

### PRODUCTS

- FD464
- Door closers DC250/DC330 2 pcs
- Power supply EA701 or control unit 7400
- Door release button 7462
- Optical smoke detector FD600 2 pcs or heat detector FD602 2 pcs
- Flush bolt FD108 2 pcs
- Accessory set FD120 for closing side installation
- Carry bar FD101 or FD102

### FUNCTION

In normal day use both doors are open. The hold open angle for inactive door can be adjusted 70-130 degrees. The hold open device keeps the inactive door open whereas the coordinator keeps the active door open. The maximum hold angle for the active door is 150°. When the power is switched off, i.e. when the smoke detectors react to smoke, the inactive door closes first and when it is almost closed, the active door starts to close. Hold open device includes adjustable hold open force. Current consumption 60mA (24 VDC). FD120 must be used with closing side installations of FD464.





# ABLOY® FD110, FD111 AND FD120

## ABLOY® FD110 / FD111 MECHANICAL COORDINATOR FOR DOUBLE DOORS

---

**ABLOY®** FD110 coordinator is particularly useful for heavy doors e.g. warehouses in industrial halls and garages. When FD110 is installed with wall magnets, the hold open angle can be 180 degrees. FD110/FD111 is designed for double doors with a maximum hinge distance of 3 m and the maximum weight of door leaf is 160 kg.

### PRODUCTS

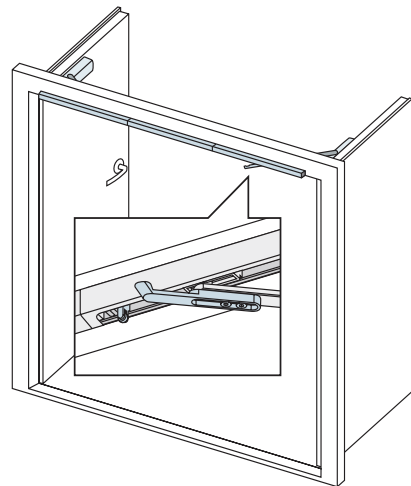
- Coordinator FD110 (hinge distance 1500-2000 mm) / FD111 (hinge distance 2000-3000 mm)
- Door Closer DC240 2 pcs
- Standard arm DC199 2 pcs
- Flush bolt FD108 2 pcs
- Carry bar FD101
- Wall magnets 2 pcs, if needed.



## ABLOY® FD120 ACCESSORY SET FOR CLOSING SIDE INSTALLATION

---

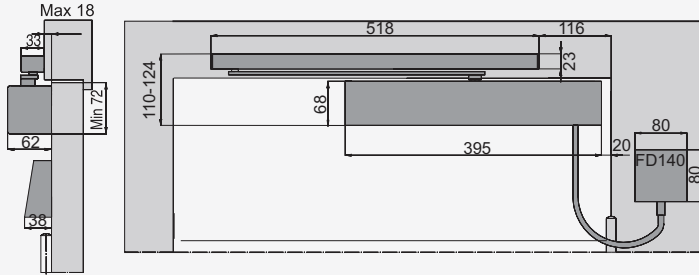
FD120 accessory set is needed when coordinator FD461 and electromechanical hold open devices FD462 / FD464 are installed on the closing side of the door. In the closing side installation the sliding piece in the arm moves back and forth before the door closes. When the inactive door is almost closed, FD120 releases the coordinator and the active door leaf closes. FD120 is also suitable for exit door solutions.



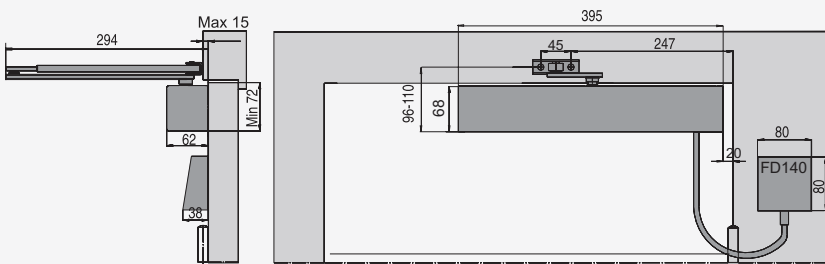
## ABLOY® FD440

### OPENING SIDE

FD440 + FD494 / DC194 + FD140

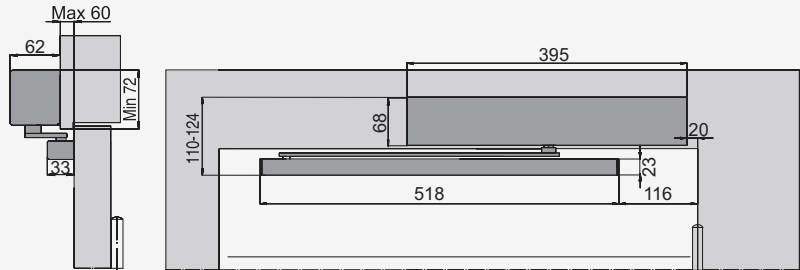


FD440 + FD499 / DC199 + FD140

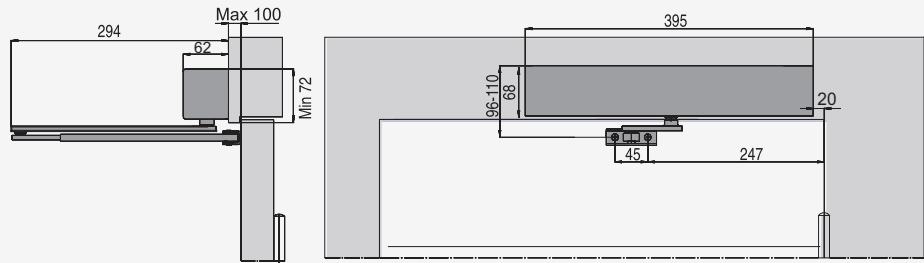


### CLOSING SIDE

FD440 + FD494 / DC194



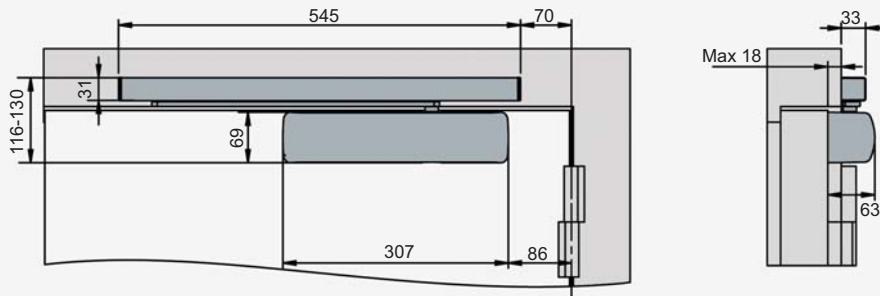
FD440 + FD494 / DC199



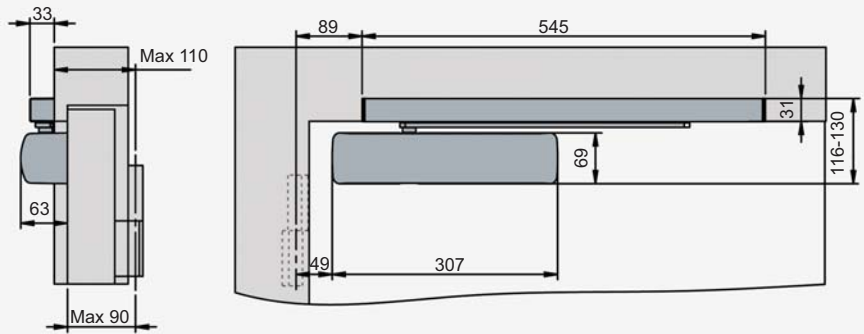
# ABLOY® DIMENSIONS FD460 AND FD461-FD464

## ABLOY® FD460

OPENING SIDE

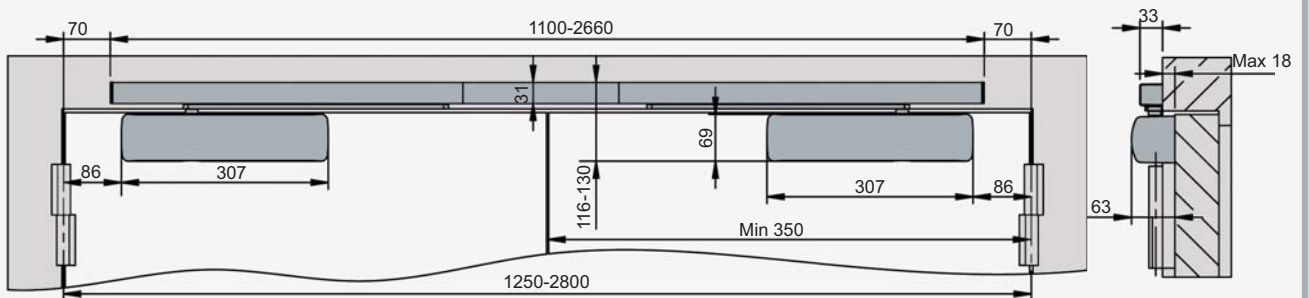


CLOSING SIDE



## ABLOY® FD461-FD464

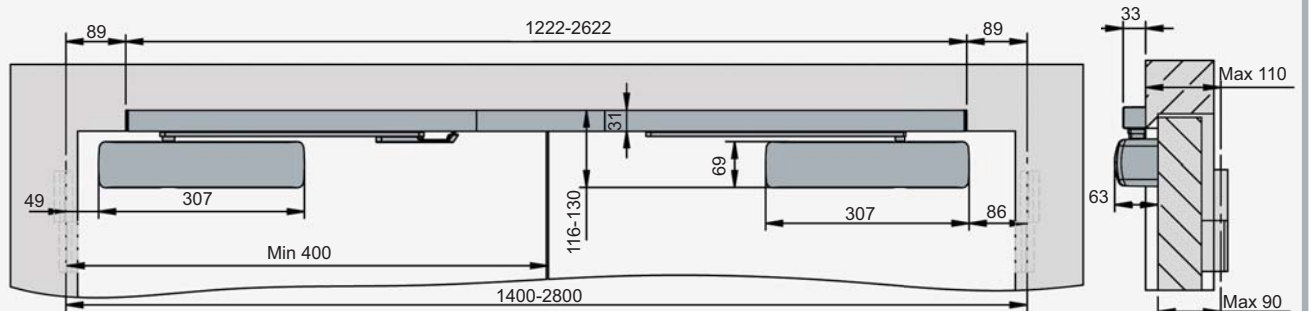
OPENING SIDE



ACTIVE DOOR

INACTIVE DOOR

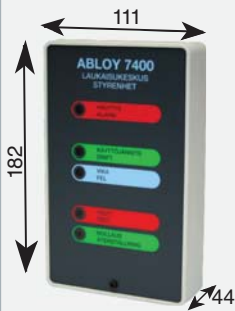
CLOSING SIDE



INACTIVE DOOR

ACTIVE DOOR

## ACCESSORIES



- Control unit **ABLOY® 7400**
- Supply voltage 230 VAC
  - Output voltage 24VDC
  - Max. output current 300 mA



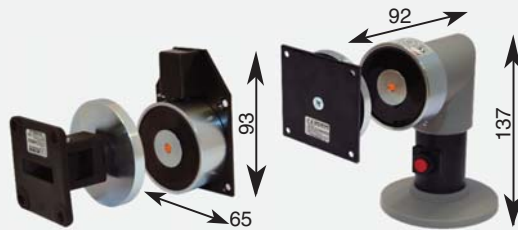
- Battery back-up **ABLOY® 7404**
- Capacity 0,7 Ah



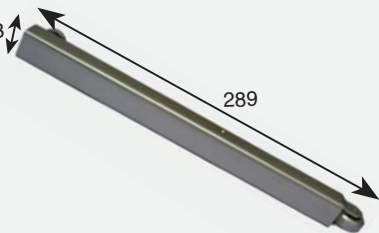
- Smoke detector  
**ABLOY® FD600** (optical)  
**ABLOY® FD602** (heat)
- Operating voltage 15-30 VDC
  - Maximum current 30 mA



- ABLOY® EA701**
- Power supply 230 AC
  - Output voltage 24VDC
  - Max. current 2,5 A



- Wall magnets **ABLOY® 7438, 7439**
- Operating voltage 24VDC
  - Normal current 16mA
  - Hold open force 500 N



- Carry bar **ABLOY® FD101**
- Enables the correct opening sequence of the doors



- Automatic flush bolt **ABLOY® FD108**
- Used in double door systems for locking the passive door leaf



- ABLOY® FD140** Connecting box
- FD140 connection box for opening side installation

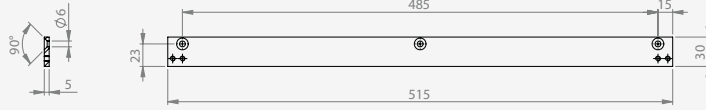


- Door release buttons  
**ABLOY® 7462** (surface)  
**ABLOY® 7463** (mortice)

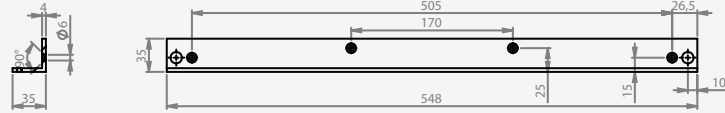
# ABLOY® ACCESSORIES

## ABLOY® DC115 AND DC116 MOUNTING PLATES

DC115

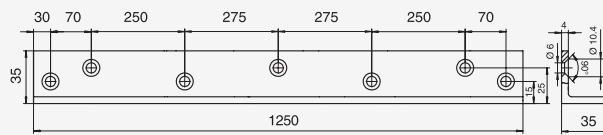


DC116



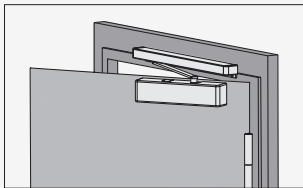
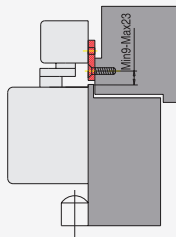
DC117

Angle mounting plate for double doors

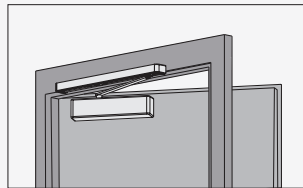
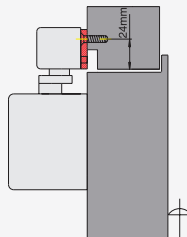


## MOUNTING PLATE INSTALLATION EXAMPLES

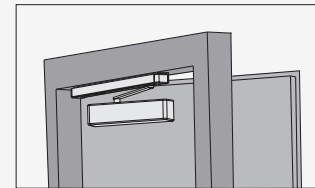
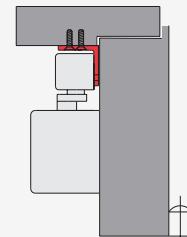
ABLOY® DC115 opening side



ABLOY® DC115 closing side

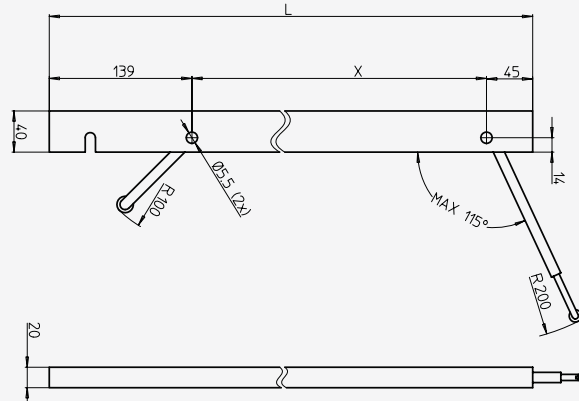


ABLOY® DC116 (+DC117) closing side



## ABLOY® FD110 AND FD111 MECHANICAL COORDINATOR

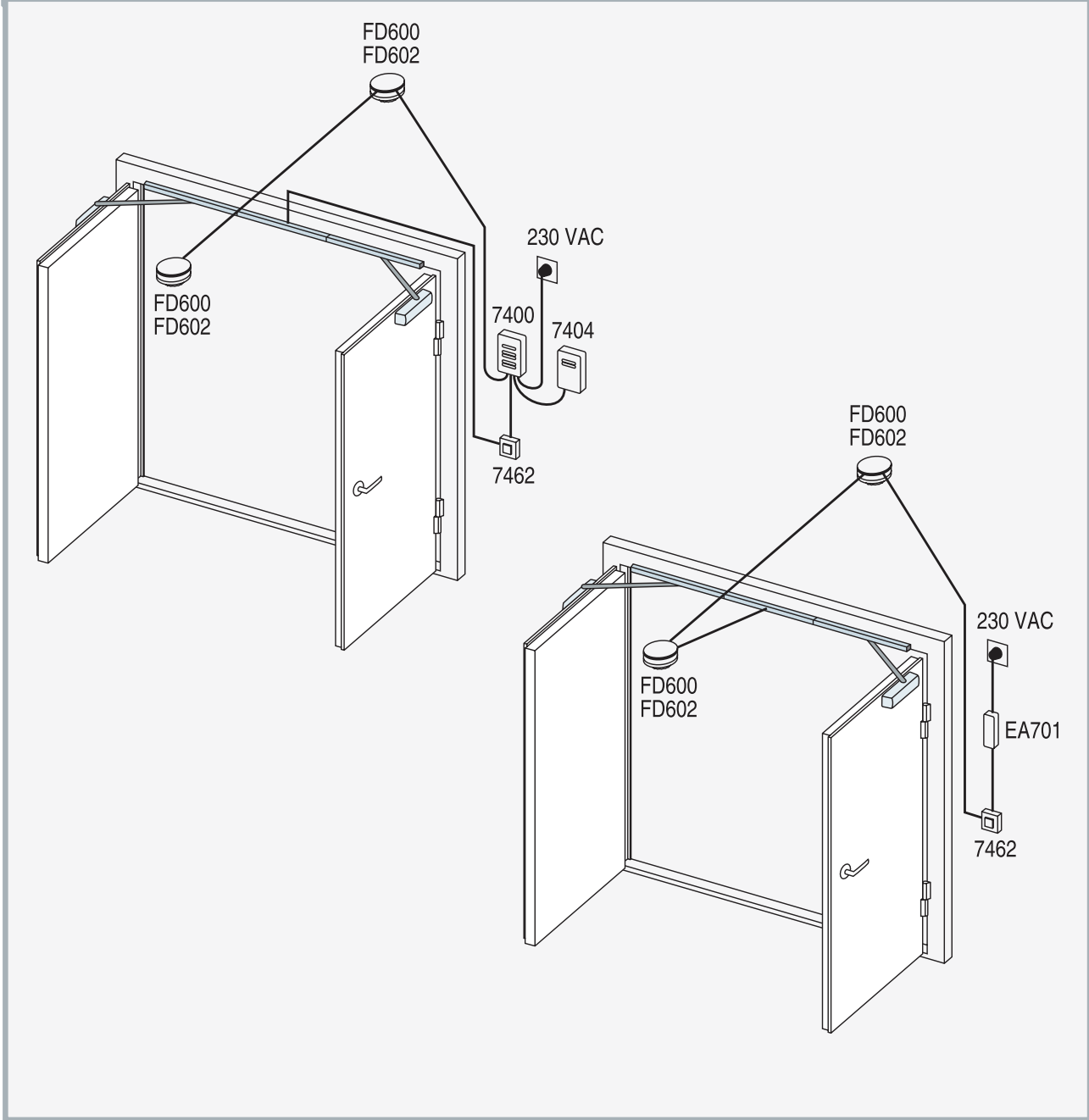
Coordinator	Measure L	Measure X
FD110	650	466
FD111	1050	866





# ABLOY® WIRING DIAGRAM

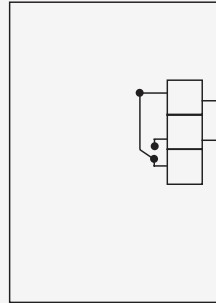
## WIRING DIAGRAM EXAMPLE FD462 / FD464



# ABLOY® CONNECTION OF CONTROL UNIT

## CONNECTION OF CONTROL UNIT 7400 TO CENTRAL FIRE ALARM

FIRE ALARM CENTRAL PANEL



Resistors required:  
R1 = 470 Ohms  
R2 = 2200 Ohms

CONTROL UNIT  
**ABLOY® 7400**

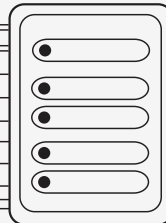
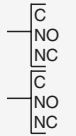


Control unit **ABLOY® 7400**

Smoke detectors or central fire alarm  
Hold open magnets and door release button

Alarm relay 2A / 24 VDC

Error relay 2A / 24 VDC

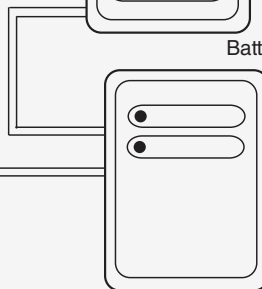


230 VAC

Note!  
Always use installation instructions.  
Control unit can supply 300 mA, 24 VDC.  
The current draw of connected equipments  
may not exceed 300 mA.

Battery backup **ABLOY® 7404**

External battery max 6,5 Ah





[www.abloy.com](http://www.abloy.com)

Abloy Oy  
Wahlforssinkatu 20  
P.O.Box 108  
FI-80101 JOENSUU  
FINLAND  
Tel. +358 20 599 2501  
Fax +358 20 599 2209



An ASSA ABLOY Group brand

Abloy Oy is 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 locking technology.

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience.

**ASSA ABLOY**