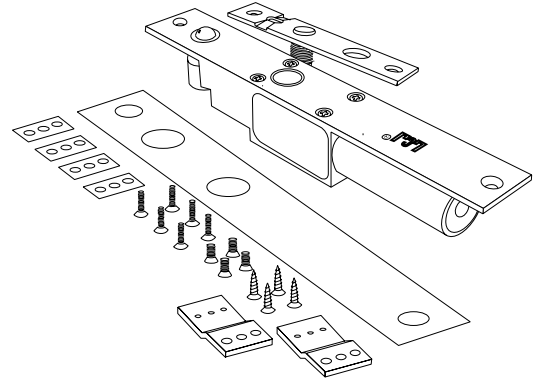


### General description

EC235 is an electric operated drop bolt lock. Operation is based on electromagnet. Design is continuously improved, refined and tested until failure to yield product with outstanding performance. Stringent quality control following ISO 9001 guarantees consistent reliability of this product. Optimized manufacturing flow allow EC235 to be a very cost competitive solution in the market.

### Application

All types of door: framed door, hollow framed door, and frameless door (require extra bracket and accessories). Suitable for office buildings as well as residential premises.



### Feature

Power to open. Fail safe.

Ball bearing to help align door with drop bolt by reducing door sway during closing. Adjustable ball bearing tension to accommodate door closer force. This ensures the door is lock securely every time.

Built in adjustable delay time for door closing (DIP switch adjustable 0/3/6/9 sec). Time delay starts after the door (with gusset plate) is aligned with drop bolt.

Magnetic contact output to indicate if door (with gusset plate) has been opened. Can be interfaced to any access control system, alarm system or just a simple buzzer.

LED to indicate if plunger has been successfully dropped into the gusset plate. Visual feedback for user if the door is locked properly after it is closed.

With the accessories provided, the lock can be used on wooden, glass and even metal door.

Top quality magnets raw material processed using special unique techniques to ensure no residual magnetism over period of time. This drastically reduce failure rate and any maintenance required.

Elegant finish and the cover plate give better cosmetic appearance after installation.

### Technical specification

| Parameter         | Description     |
|-------------------|-----------------|
| Power             | DC 12V          |
| Operating current | 250 mA          |
| Starting current  | 650 mA          |
| Temperature       | 15° Celcius     |
| Holding force     | 1000 kg         |
| Weight            | 1.05 kg         |
| Delay time        | 0/3/6/9 seconds |
| Door swing angle  | 180°            |

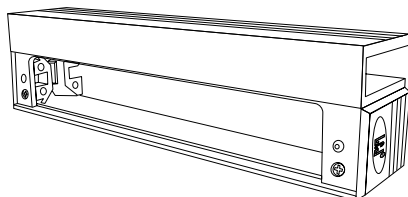
### Ordering information

Ordering code: EC235

Each standard package includes the following:

| Qty   | Parts                                   |
|-------|---|
| 1 pcs | Electric drop bolt                      |
| 1 pcs | Gusset plate                            |
| 1 pcs | Cover metal plate                       |
| 2 pcs | Side mount bracket for hollow frame     |
| 4 pcs | Small metal plate for height adjustment |
| 4 pcs | Self tapping screw                      |
| 6 pcs | Long machine screw                      |
| 4 pcs | Short machine screw                     |

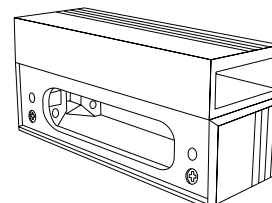
### Optional accessories



FEC235 - down mounting

Bracket to mount drop bolt on frameless door (w/ metal plate).

240x60x48 mm

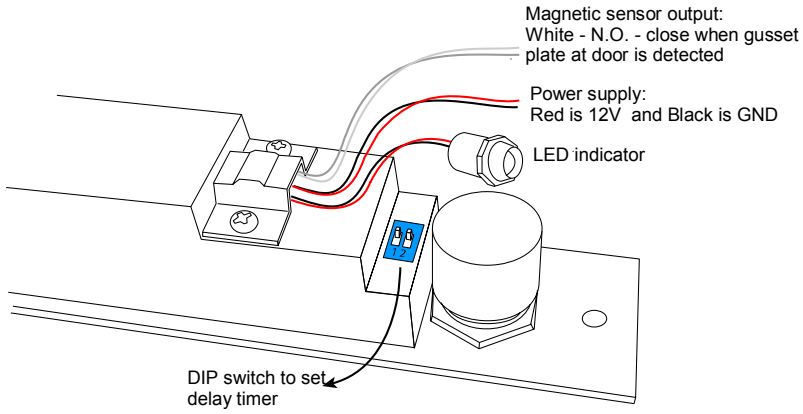


FEC130

Bracket to mount gusset plate on frameless door (w/ metal plate)

130x60x48 mm

## Wiring diagram

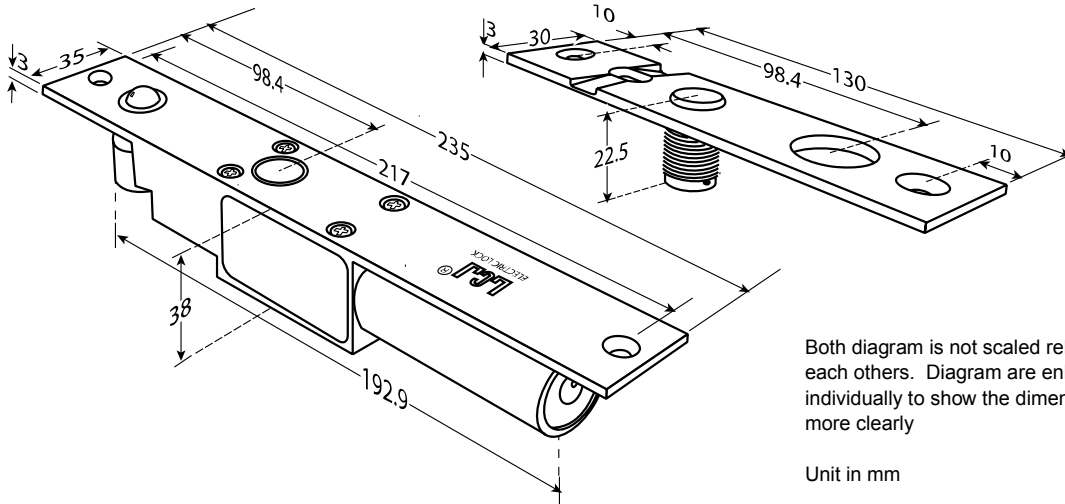


## Delay timer setting configuration:

| Time  | 1   | 2   |
|-------|-----|-----|
| 0 sec | OFF | OFF |
| 3 sec | ON  | OFF |
| 6 sec | OFF | ON  |
| 9 sec | ON  | ON  |

\*\* Need to be re-configured for every new installation to minimize door sway.

## Dimension specification



## Installation diagram for framed door

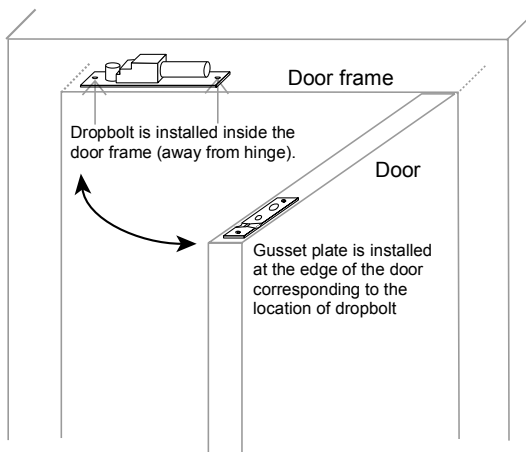


fig 1: Dropbolt and gusset plate mounting location on framed door  
\*\* drill a hole on the door frame to install LED

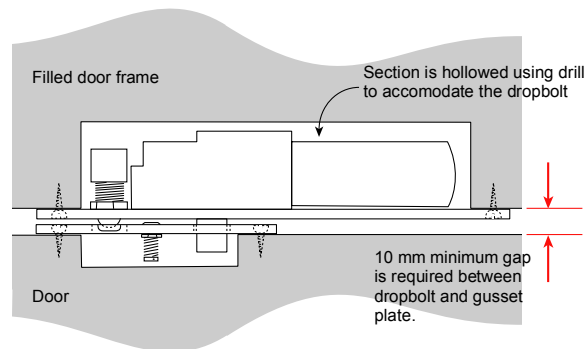


fig 2: Side cross section diagram when door is closed for filled door frame

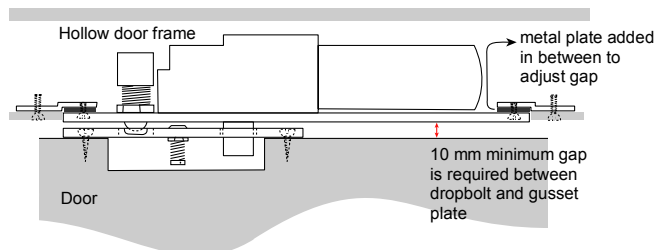


fig 3: Side cross section diagram when door is closed for hollow door frame

## Installation diagram for frameless door

Installation of frameless door requires the used of additional bracket; FEC235 to mount drop bolt and FEC130 to mount the gusset plate. Typical example is frameless glass door.

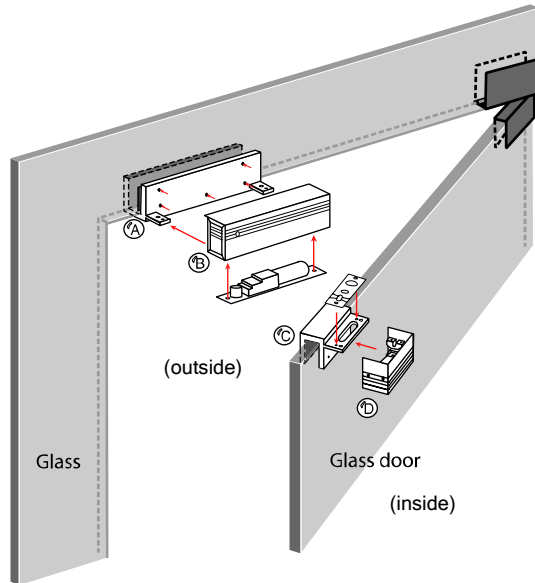


fig 4: FEC235 and FEC130 bracket mounting location on frameless door

### Installing drop bolt

1. Dismantle FEC 235 into bracket A and bracket B.
2. Mount bracket A to the glass.
3. Slot the provided metal plate in between the bracket A and the glass
4. Tighten the internal flat head screw of bracket A to press the metal plate against the glass.
5. Now bracket A is securely mounted onto the glass.
6. Mount bracket B back to bracket A
7. Mount drop bolt to FEC235.

### Installing the gusset plate

1. Dismantle FEC 130 into bracket C and bracket D.
2. Mount bracket C to the glass.
3. Slot the provided metal plate in between the bracket C and the glass.
4. Tighten the internal flat head screw of bracket C to press the metal plate against the glass.
5. Now bracket C is securely mounted onto the glass.
6. Mount bracket D back to bracket C
7. Mount gusset plate to FEC130.

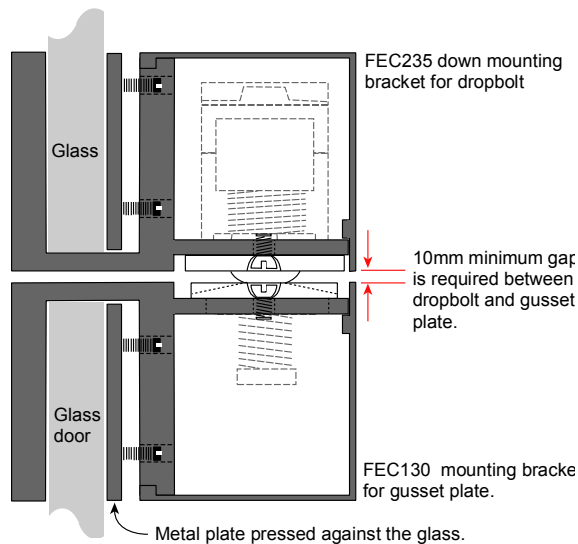


fig 5: Front cross section diagram when door is closed.

- Punch a hole on the circle mark on the bracket for wiring exit.
- LED mount through the big hole on FEC235.

### \*\* Installation precaution:

Location to mount FEC130 must be corresponding to FEC235 so that the drop bolt location will match its corresponding gusset plate.

Failure to do so will cause the drop bolt's plunger unable to be released accurately into gusset plate hole and jammed in between. This improper operation will cause the lock to emit a lot of heat and shorten its life time significantly.

## Packaging information

Standard package comes in a box that contains the lock and necessary screws. Each standard unit is approximately 1.05 kg. Box dimension is 67 mm x 290 mm x 56 mm.

Distributor/installer: