

## Operation Instructions (translation) – Rack actuator E-xxx-230



**Please read these instructions, the enclosed safety instructions and the instructions of the opening mounting carefully and completely.  
Keep children away from actuators and controls.**

## 1 General

This electric rack actuator is designed for automatic natural ventilation. The actuator is delivered with connection cable and eyebolt. Further fixing material (fixing plugs, mounting bracket, coupling bracket etc.) is available separately.

## 2 Technical data

Type	E-xxx-230	Dimensional drawing (mm)
Stroke (xxx)	see name plate	<p>The drawing shows two views of the actuator. The front view (left) shows a total height of 185 mm, with a 90 mm wide body. The side view (right) shows a total height of 100 mm (+10/-7 mm) for the upper section, with a 54 mm wide top section. The lower section is 185 mm high. The drawing also indicates a 90 mm wide base and a 54 mm wide top section.</p> <p>E-300-*: 225 E-500-*: 430 E-750-*: 680</p>
Push/pull force	see name plate	
Nominal voltage	230 V~, 50 – 60 Hz	
Current input	0.15 A	
Inrush current	max. 1.7 A/5 ms	
Mode of operation/duty cycle (control voltage may be connected permanently)	S3 25 %	
Travel speed	approx. 7 mm/s	
Start-up delay	approx. 0,5 s	
Service life (stroke cycles)	> 10000	
Stability	3500 N	
Load rating of internal contact Open (bistable).	230 V~/1 A	
Provide fuse F 1 A on site		
Emission sound pressure level	$L_{pA} \leq 70 \text{ dB(A)}$	
Ambient temperature	-5 °C ... +60 °C	
Relative humidity	20 % ... 80 %, non-condensing IP54 (300 mm stroke) IP33 (stroke $\geq 500$ mm)	
Enclosure protection rating	IP33 (stroke $\geq 500$ mm)	
Enclosure	Plastic (light grey, like RAL 7035)	
Connection cable (PVC, approx. 2.5 m)	5 x 0.5 mm <sup>2</sup> (with contact Open)	

The requirements of Directives 2014/35/EU and 2014/30/EU are met. 

### 3 Mounting and Connection

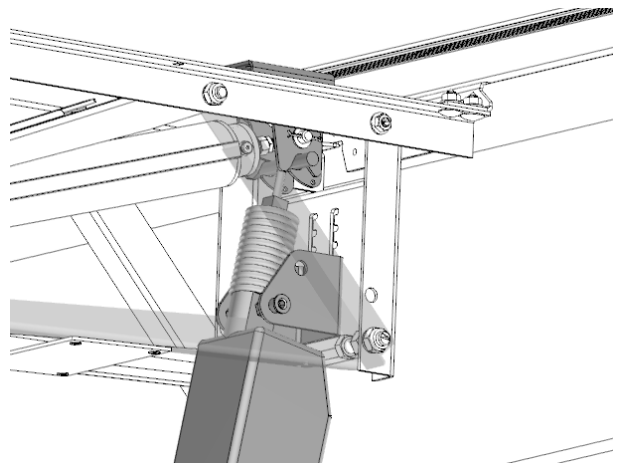
The actuator can be mounted in opening mountings type *BF* or *BG* (e.g. for skylights or roof flaps). For pure ventilation purposes, it can be mounted directly on the curb and ventilation frame.

Necessary tools:

- M6 Allen key
- M8 spanner (size 13 mm)
- Pliers

#### 3.1 Mounting in opening mounting

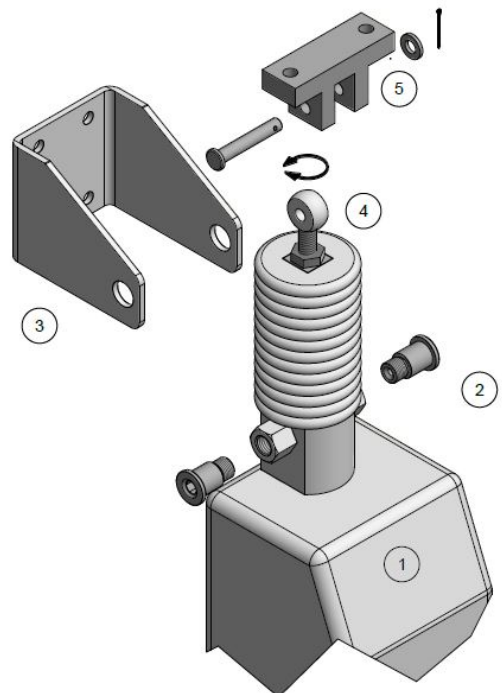
Install the actuator in the opening mounting as illustrated.  
Also note the instructions and datasheets of the opening mounting.



#### 3.2 Mounting directly on curb and ventilation frame

Mounting overview:

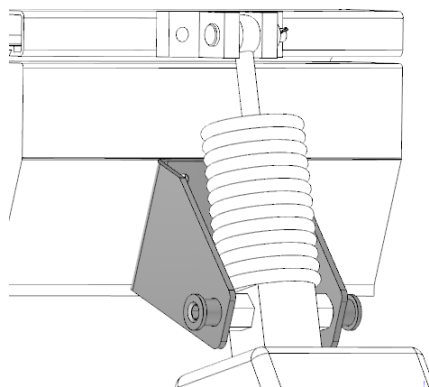
- (1) Actuator
- (2) Fixing plugs
- (3) Mounting bracket
- (4) Eyebolt
- (5) Coupling bracket with bolt, washer and splint pin



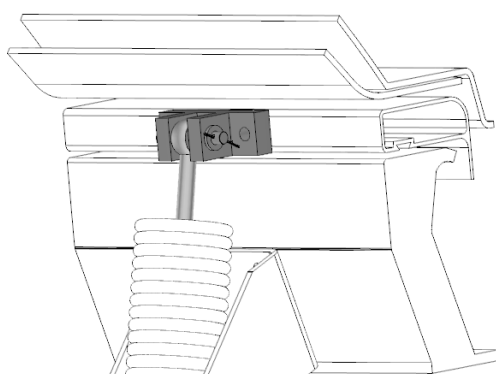


**Flush-align the eyebolt, mounting bracket and coupling bracket.  
Ensure that the mounting bracket and coupling bracket are mounted securely.**

1. Fix the actuator in the mounting bracket using the fixing plugs.



- 2.



Fix the eyebolt in the coupling bracket using the bolt.

The mounting dimensions can be adjusted by turning the eyebolt. After adjusting, fix the eyebolt by tightening the nut. Secure the bolt with washer and splint pin. Connect the actuator.

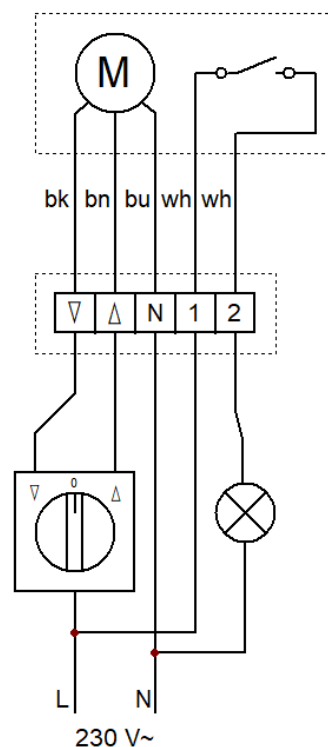
## 3.3 Connection

The connection diagram shows the connection to a ventilation button without an integrated position indicator.

If this is the case, the contact of the actuator can be used to forward the position indicator (e.g. to the building management system).

### Colour legend:

- bk: black
- bn: brown
- bu: blue
- wh: white



### 4 Functions

- **Normal operation:** Actuator extends and retracts based on a travel command
- **Emergency power-off:** Reacts in the event of an overload. In order to continue travelling in the desired direction, the actuator has to travel briefly in the opposite direction first.
- **Contact for position indicator Open:**
  - When moving towards Open the contact is closed. The position indicator lights up and indicates the open position.
  - At the end of moving towards Closed, the contact is opened and the position indicator is switched off.



**If the emergency power-off reacts while moving towards Closed, the contact is opened as well. Please note that in this case the actuator can still be open.**

- Travel direction of the actuator may be switched immediately

### 5 Malfunctions

Fault	Possible cause	Remedy
Actuator without function	No supply voltage	Check devices that supply the actuator (e.g. Control Centre/Control)
	Supply line interrupted	Check supply line
	Emergency power-off activated	Switch travel direction briefly
	Wind and rain control active	No error, no measures necessary
Wrong travel direction	Control cables are swapped	Swap control cables $\Delta/\nabla$

### 6 Maintenance and Disposal

The actuator is maintenance-free. Check installation components and connection cable at least once a year, unless specified otherwise by any other local regulations.

Clean with a dry cloth. Do not use any solvent cleaner.

Dispose of the product using an environmentally friendly method and not as domestic waste.