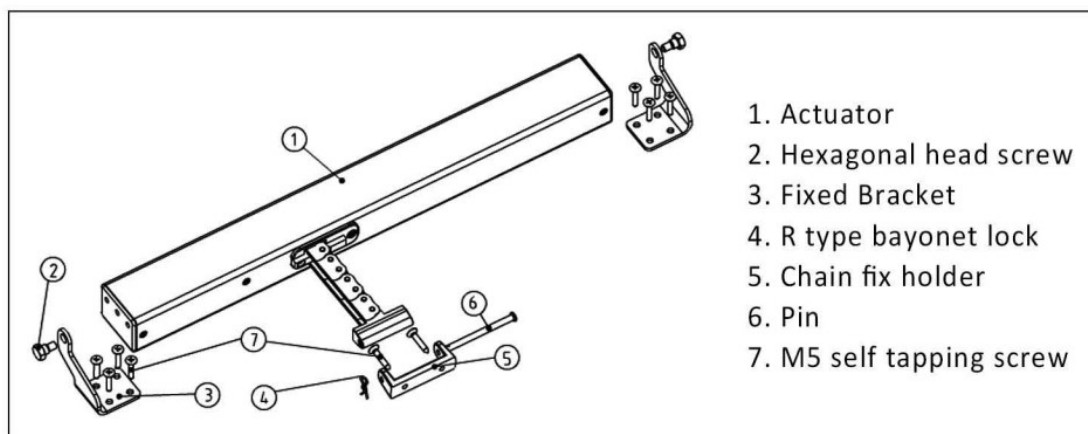


User Manual - Chain Window Opener

Electric chain actuator for windows and skylights · DC 24 V and AC 100–240 V versions · 400 N force, 100–1000 mm stroke

ACCESSORY DESCRIPTION



What the device does

A chain opener is an electric actuator that opens and closes a window by extending a link chain. It is mounted on the frame and the chain is attached to the sash. It is used where a window is high up or hard to reach, and anywhere ventilation should happen automatically.

Typical applications:

- smoke and heat exhaust in case of fire (as part of a certified system),
- automatic ventilation in a smart home, based on temperature, humidity or CO₂,
- roof windows and skylights, conservatories and greenhouses,
- awning windows, top-hung windows and casement windows.

Important notice before installation

- **The opener does not work on its own.** It always needs a compatible switch or control system. Without one, nothing tells it to open or close.
- **The DC and AC versions are not interchangeable.** A 24 V DC actuator will be destroyed immediately if connected directly to mains voltage. Always use the matching power supply or transformer.
- The opener is intended for installation **indoors**. IP32 means protection against dripping water, not against rain. Do not expose it to direct rain or continuous sunlight.
- If the actuator is used as part of a smoke and heat exhaust ventilation system, the whole installation must be designed and commissioned by a qualified person in accordance with the applicable regulations. The actuator alone does not constitute such a system.

Packaging list

No.	Part
1	Actuator (motor with chain)
2	Hexagonal head screw
3	Fixed bracket (left / right)
4	R type bayonet lock
5	Chain fix holder (window sash connector)
6	Pin
7	M5 self tapping screw

Safety instructions

- Disconnect the power supply before any wiring work. Connection to fixed mains wiring must be carried out by a person with the appropriate electrical qualification under national regulations.
- **The maximum force is 400 N.** Do not use the actuator on windows heavier than it can handle, or on windows that are stiff to operate.
- Keep clear of the gap between sash and frame while the window is moving. There is a risk of crushed fingers. Take particular care with windows within reach of children.
- Do not use the actuator if the cable, chain or housing is damaged.
- Do not dismantle or modify the device. Do not oil the chain unless the manufacturer explicitly recommends it.
- Before installation, check that the window hardware and hinges can take the load and that the window opens and closes by hand without resistance.
- Keep out of reach of children.

Specifications

Specification	Unit	DC 24 V	AC 100-240 V
Push / pull force	N	400	400
Max. current	A	1.0-2.0	1.0-2.0
Stroke	mm	100-1000	100-1000
Speed	mm/s	approx. 9	approx. 9
Working temperature	°C	-15 to 75	-15 to 75
Protection class	IP	32	32
Number of wires	—	2	3 or 4 (2 lives, 1 neutral)

At approximately 9 mm/s, a full 300 mm stroke takes about 33 seconds and a 1000 mm stroke just under two minutes. Bear this in mind when setting up automations.

Wiring



The illustration shows a typical installation: the actuator (*DC opener*) is connected to a wall switch (*Switch*), which is powered from the mains (*AC Power*) and can also be operated by a remote control (*1 CH remote*).

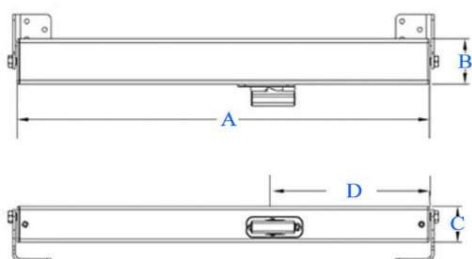
Version	Wires	Note
DC 24 V	2 wires	Direction of travel is reversed by swapping polarity. Requires a 24 V DC supply with sufficient current (at least 2 A) and a switch designed for DC actuators.
AC 100–240 V	3 or 4 wires – two lives and one neutral	One live opens, the other closes. The two lives must never be energised at the same time.

Check the wiring once more before switching the power on. The most common mistake on the AC version is swapping live and neutral; on the DC version it is connecting the wrong voltage.

Product dimensions

The length of the actuator varies with the selected stroke. All dimensions are in millimetres.

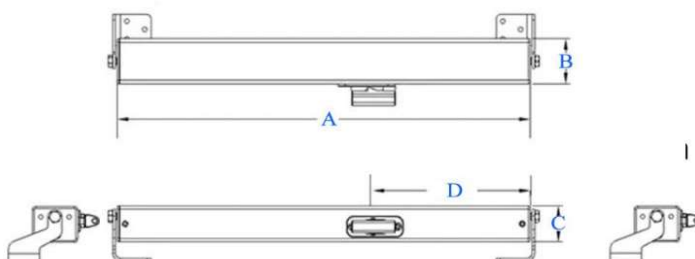
Product dimension



AC opener				
Stroke length	A	B	C	D
200mm	490	50	40	250
300mm	490			
400mm	540			
500mm	590			
600mm	640			
700mm	690			
800mm	740			
900mm	790			
1000mm	840			

Unit:mm

Product dimension

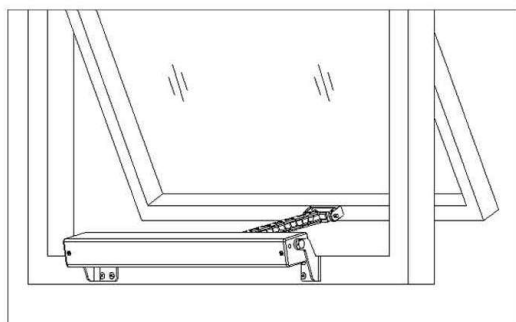


DC24V opener				
Stroke length	A	B	C	D
200mm	418	50	40	180
300mm	418			
400mm	468			
500mm	518			
600mm	568			
700mm	618			
800mm	668			
900mm	718			
1000mm	768			

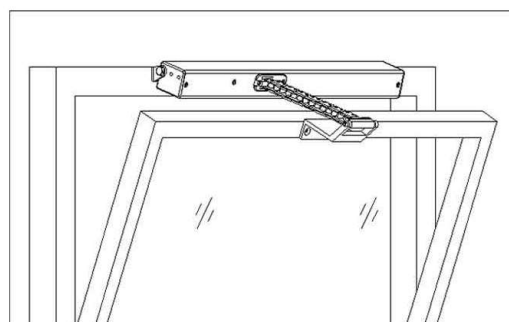
Unit:mm

AC version on the left, DC 24 V version on the right. **A** is the overall length, **B** the height, **C** the depth and **D** the position of the chain holder.

Window types



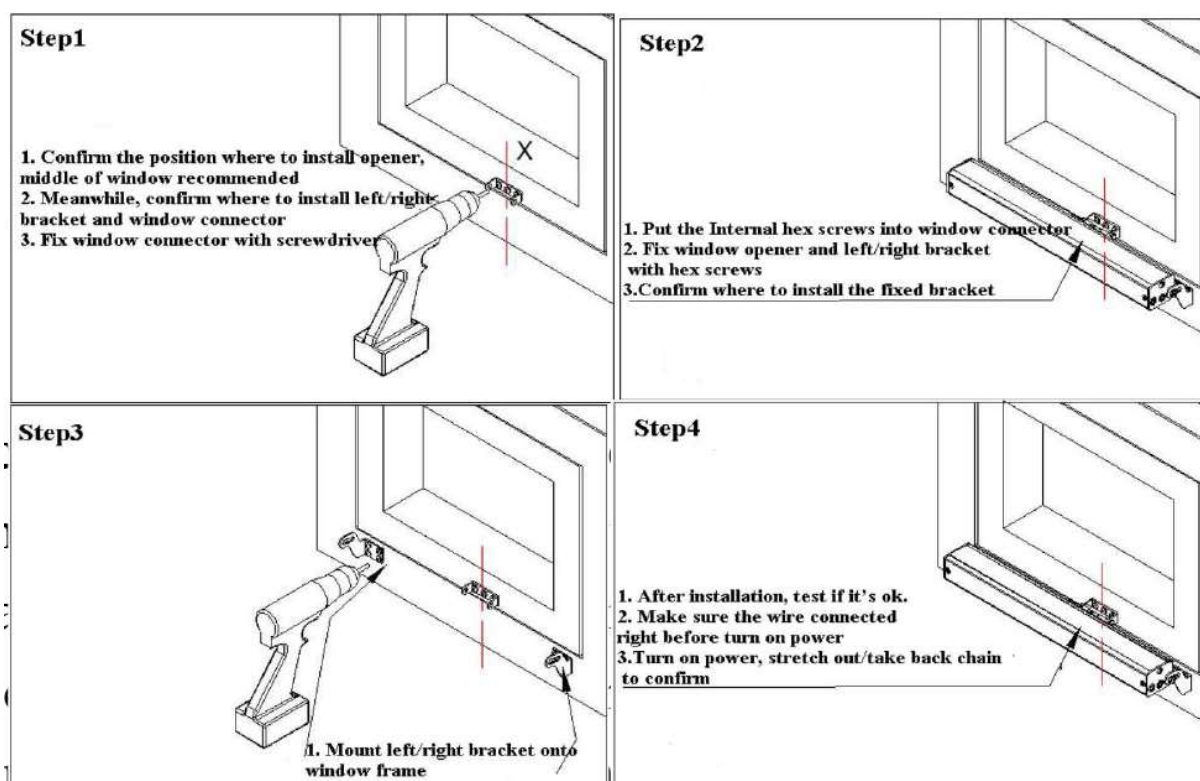
Outward-opening Window



Inward-opening Window

The actuator suits both outward-opening and inward-opening windows. **Inward-opening windows require additional brackets**, which must be ordered separately - without them the chain has nothing to push against.

How to install



1. **Determine the position of the actuator.** Measure the width of the window frame and place the actuator in the middle. At the same time, mark where the left and right brackets and the chain holder on the sash will go.
2. **Fit the chain holder to the window sash.** Measure the width of the sash and place the holder in the middle. Fix it with the M5 self tapping screws.
3. **Mount the left and right brackets on the frame.** Check that they are secure and aligned with each other.
4. **Place the actuator into the brackets.** The chain must face down towards the window. Insert the actuator and rotate it 90° as shown by the arrow until it locks into the brackets. Secure it with the R type bayonet lock.
5. **Connect the chain to the holder on the sash** using the pin and secure it.
6. **Check the wiring** and only then switch the power on.
7. **Test the operation.** Extend and retract the chain and watch whether the window moves smoothly, without binding and without sideways pull.

The actuator and the chain holder must be in the same vertical plane. A chain pulled sideways is loaded laterally and its service life is shortened considerably.

Use in a smart home

The actuator has no smart functions of its own – it is controlled purely by the voltage applied to it. It is integrated into a smart home through a switching module intended for actuators:

Condition	Action	Note
Greenhouse temperature above 28 °C	open the window	Add hysteresis to the scene so the window does not open and close constantly.
Rain sensor reports rain	close the window	Give closing priority over opening when both conditions are met.
Indoor CO ₂ above 1200 ppm	open the window for 10 minutes	Combine with an outdoor temperature reading so you are not heating the street in winter.
Leaving home	close all windows	Convenient, but always confirm visually that the window really is closed.

Use a switching module with **output interlock**. On the AC version the two lives must never be energised at the same time – a module without interlock can damage the actuator.

Remember that automation depends on mains power and on the network. In a power cut the window stays in whatever position it was in.

Maintenance

- Twice a year, check that the brackets and the chain holder are still tight. Screws work loose in service.
- Wipe dust off the chain and the guide slot with a soft dry cloth.
- Check that the window seal has not hardened – a stiff seal increases the force needed to close and overloads the actuator.
- Before winter, confirm that the window closes fully and that no gap remains in the profile.

Troubleshooting

The actuator does not start

- Check the power supply and the circuit protection.
- On the DC version, check the polarity and the output voltage of the supply.
- On the AC version, check that the relevant live is energised and that the switch actually changes over.
- Check that the window is not held shut by its locking hardware or handle.

The chain moves but the window does not open

- The window is too heavy or too stiff – open it by hand and compare the resistance.
- The chain holder has worked loose or bent.
- The window is locked.

The actuator stops halfway

- The power supply cannot deliver enough current. The actuator draws up to 2 A and a weak adapter sags on start-up.

- The window is binding against the frame. Check the hinge adjustment.
- The actuator met an obstruction and stopped on its protection.

The window does not close completely

- Check that the actuator is centred on the frame and the chain runs vertically.
- Confirm that the selected stroke suits the window – an excessive stroke may not retract fully.
- A hardened or damaged seal prevents the sash from seating.

Disposal and recycling (WEEE)

This product is electrical equipment within the meaning of Directive 2012/19/EU and must not be disposed of with unsorted municipal waste. At the end of its service life, hand it in at a collection point designated for waste electrical and electronic equipment. Correct disposal helps prevent negative effects on the environment and human health. Your local authority or your retailer can tell you where the nearest collection point is.

Retailer

Retailer	Smart-Switch.cz
Web	www.smart-switch.cz
Technical support	via the contact form on the retailer's website

This manual was compiled by the editorial team at Smart-Switch.cz from the manufacturer's technical data sheet, from supplier documentation and from verified behaviour of the device. It is not the manufacturer's original documentation. The data on the rating label of the device always takes precedence.