



- Black anodized aluminium
- White, RAL 9010
- Natural anodized aluminium



**WMX 814 E1** - Actuator with entrapment connection via the extra 2 core cables.



**WMX 814 E2** - Actuator with entrapment connection via the extra short cable.

## WMX 814 Chain actuator



Natural ventilation



Smoke ventilation EN 12101



Smoke ventilation B300

24V



MotorLink®



TrueSpeed™

1.47

### Description

- designed for surface mounting
- for smoke and comfort ventilation
- to be used with top hung, bottom hung and turning windows
- to be used together with  $\pm 24V$  control units or control units with MotorLink®
- can be used together with WMB locking actuator
- external safety edge can be connected directly to the actuator (actuator version 'E')
- synchronization of up to four window actuators – no need for an external synchronization module
- genuine position feedback and three speeds when using control unit with MotorLink®
- soft close function
- the electronics in this actuator can be programmed to suit specific requirements – i.e. pressure- and traction force, stroke, speed/sound level
- built-in electronic load switch-off/end stop
- electronic actuator with micro controller
- the actuator has an integrated reverse function to ensure a prolonged life span of the window gaskets

### Actuator variants

The actuator is available in four different versions: single actuator (-1), double actuator (-2), triple actuator (-3) and quad actuator (-4).

The synchro actuators (-2, -3 and -4) are equipped with a synchronization function, in which the actuators communicate directly with each other, which ensures the actuators operate at exactly the same speed and position.

On large windows up to four actuators can be mounted on the same window – with no need for an external synchronization module.

### Pressure safety function

The risk of entrapment is reduced as the actuators are programmed to reverse if they encounter obstacles when closing.

### Opening speeds

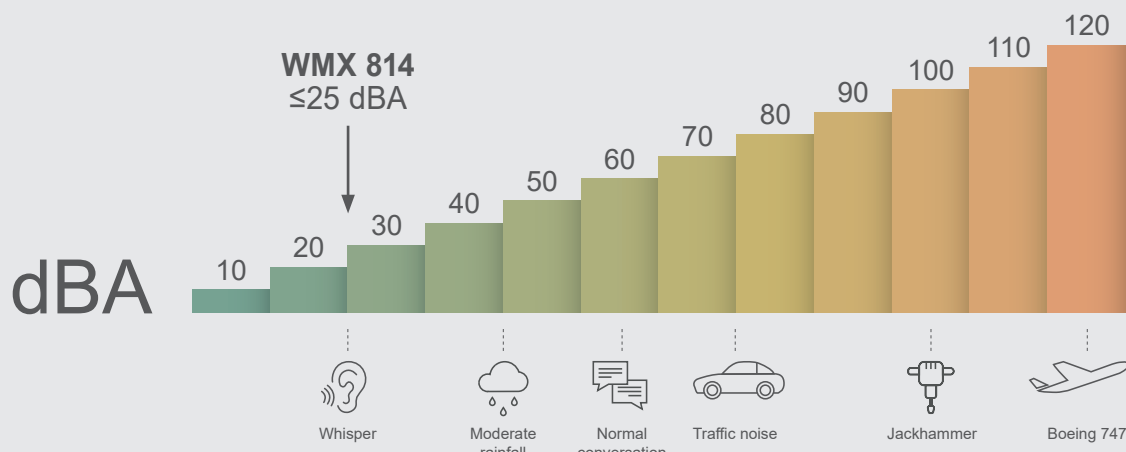
Actuators connected to  $\pm 24$  VDC control units (e.g. WUC) can run with one speed.

Actuators connected to control units with MotorLink® (e.g. WCC) can run with three different speeds:

- automatically control speed – actuators run slowly and almost soundlessly.
- manual control speed – actuators run faster and more audibly.
- H&S and safety control speed – actuators run fastest. H&S control always has highest priority.

Technical specifications	
Pressure force	See diagram.
Traction force	See diagram.
Locking force	2000N
Chain stroke	50 – 1000mm in increments of 10mm. Special version up to 1000mm possible (only for bottom hung windows) – contact WindowMaster for further information.
Opening Speed	1-17 mm/s (TrueSpeed™)
Sound pressure level	≤25 dBA (operational speed: 1 mm/s), ≤42 dBA (operational speed: 10 mm/s)
Window type	Tophung, bottomhung and turning windows.
Power consumption	24V DC (max. 10% ripple)
Voltage	20-36V DC
Open-circuit voltage	Max. 36V DC
Current consumption	Max. 1A
Operating conditions	-5°C - +74°C. Max. 90% relative humidity (not condensing)
Switch-on-duration	ED 40% (max. 4min. per 10min). If speed < 20% ED 100%.
Colour	Standard colors: Black anodized aluminium, E6/EV1; Natural anodized aluminium, EV1; White, RAL 9010. Other RAL colours available at additional price.
Material	Anodized aluminium housing with steel chain. black anodized aluminium actuators: black silicone cable natural anodized aluminium actuators: grey silicone cable white actuators: grey silicone cable
Size	25 x 37mm (H x D), length (L) depending on chain stroke – see table.
Weight	400mm stroke: 1.36kg; 600mm stroke: 1.58kg; 800mm stroke: 1.80kg; 1000mm stroke: 1.97kg
IP rating	Surface mounted: IP 20, concealed: IP 32
SHE test	Approved according to EN 12101-2 with selected profiles – please contact WindowMaster for further information B300 tested according to EN 12101-2
Life span	Tested with 10,000 opening and closing movements.
Delivery	<b>WMX 814 S:</b> Actuator with 5m connection cable (3-core cables, 0.34mm <sup>2</sup> ) with fast-in/fast-on connector for WLL cable. <b>WMX 814 E1:</b> Actuator with 5m connection cable (5-core cables, 0.34mm <sup>2</sup> , with connection for external entrapment protection device) with fast-in/fast-on connector for WLL cable <b>WMX 814 E2:</b> Actuator with 5m connection cable (3-core cables, 0.34mm <sup>2</sup> ) with fast-in/fast-on connector for WLL cable, and 0,1m cable (2-core cables, 0.34mm <sup>2</sup> , with connection external entrapment protection device). External entrapment protection device not included. It can be supplied by an alternative supplier.
To be ordered separately	Brackets and standard extension cables type WLL.
Note	We reserve the right to make technical changes.

The sound pressure level was measured externally by The Danish Technological Institute. The measurements have been carried out in a large regular room size 7 x 14 x 2.4 m (W x L x H) with the ceiling covered with a standard sound absorbent material. The A-weighted sound pressure levels have been measured at a distance of 1 meter away from the surface of the actuators and at the height of 1.6 meters from the floor. The actuators were not installed on any window profile nor added any load. The full opening and full closing sound of the actuators have been measured and the result represents the average of the measurements.



#### Item code composition

WMX 814	-n	x	yyyy	zz	v	1
<b>Product version: 1</b>						
<b>Certification: 0 = CE, E = CE + EN 12101-2, U = CE + UL</b>						
<b>Actuator hardware version: S = standard, E1 / E2 = with connection for safety device</b>						
<b>Chain opening: 50 – 1000mm, in increments of 10mm (0050 = 50mm)</b>						
<b>Colour: B = black anodized aluminium, G = natural anodized aluminium, W = white</b>						
<b>Actuator variant: 1 = single, 2 = double, 3 = triple, 4 = quad</b>						

#### Explanation of product code structure

<b>WMX 814-2B0170S E1</b>	WMX 814 actuator, double synchronisation, black, 170mm chain stroke, standard, with CE and EN 12101-2 certification, product version 1
<b>WMX 814-2B0170E1 01</b>	WMX 814 actuator, double synchronisation, black, 170mm chain stroke, with connection for safety device, with CE certification, product version 1

Items	Chain stroke [mm]	Length (L) [mm] (incl. screws = 18mm)	Item no.
Single actuator	400	563	WMX 814-1*0400S E1
	600	663	WMX 814-1*0600S E1
	800	763	WMX 814-1*0800S E1
	1000	863	WMX 814-1*1000S E1
Double actuator	400	563	WMX 814-2*0400S E1
	600	663	WMX 814-2*0600S E1
	800	763	WMU 814-2*0800S E1
	1000	863	WMX 814-2*1000S E1
Triple actuator	400	563	WMX 814-3*0400S E1
	600	663	WMX 814-3*0600S E1
	800	763	WMX 814-3*0800S E1
	1000	863	WMX 814-3*1000S E1
Quad actuator	400	563	WMX 814-4*0400S E1
	600	663	WMX 814-4*0600S E1
	800	763	WMX 814-4*0800S E1
	1000	863	WMX 814-4*1000S E1

\* **B** = Black anodized aluminium, **G** = Natural anodized aluminium, **W** = White, RAL 9010.

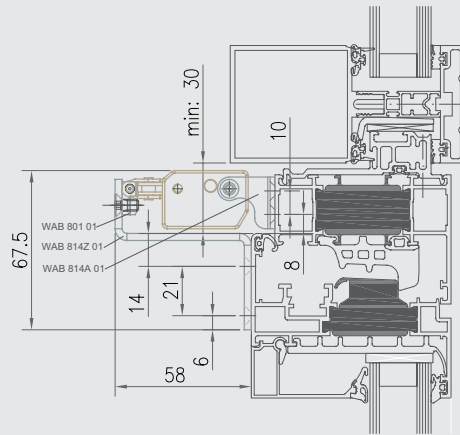
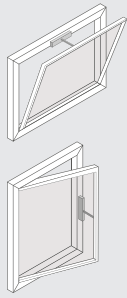
Items	Chain stroke [mm]	Length (L) [mm] (incl. screws = 18mm)	Item with entrapment connection via the extra 2 core cables	Item with entrapment connection via the extra short cable
<b>Single actuator</b>	400	563	WMX 814-1*0400E1 01	WMX 814-1*0400E2 01
	600	663	WMX 814-1*0600E1 01	WMX 814-1*0600E2 01
	800	763	WMX 814-1*0800E1 01	WMX 814-1*0800E2 01
	1000	863	WMX 814-1*1000E1 01	WMX 814-1*1000E2 01
<b>Double actuator</b>	400	563	WMX 814-2*0400E1 01	WMX 814-2*0400E2 01
	600	663	WMX 814-2*0600E1 01	WMX 814-2*0600E2 01
	800	763	WMX 814-2*0800E1 01	WMX 814-2*0800E2 01
	1000	863	WMX 814-2*1000E1 01	WMX 814-2*1000E2 01
<b>Triple actuator</b>	400	563	WMX 814-3*0400E1 01	WMX 814-3*0400E2 01
	600	663	WMX 814-3*0600E1 01	WMX 814-3*0600E2 01
	800	763	WMX 814-3*0800E1 01	WMX 814-3*0800E2 01
	1000	863	WMX 814-3*1000E1 01	WMX 814-3*1000E2 01
<b>Quad actuator</b>	400	563	WMX 814-4*0400E1 01	WMX 814-4*0400E2 01
	600	663	WMX 814-4*0600E1 01	WMX 814-4*0600E2 01
	800	763	WMX 814-4*0800E1 01	WMX 814-4*0800E2 01
	1000	863	WMX 814-4*1000E1 01	WMX 814-4*1000E2 01

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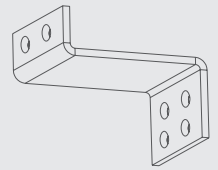
Accessories	Item no.
Chain bracket with tight-fitting bolt, WMX, for sash or frame	WAB 801
Actuator bracket, matt finish stainless steel	WAB 814A 0101
Actuator bracket, black RAL 9005	WAB 814A 2101
Actuator bracket, matt finish stainless steel	WAB 814B 0101
Actuator bracket, black RAL 9005	WAB 814B 2101
Actuator bracket, matt finish stainless steel	WAB 814C 0101
Actuator bracket, black RAL 9005	WAB 814C 2101
Actuator bracket for inwards opening windows, matt finish stainless steel	WAB 814I 0101
Actuator bracket for inwards opening windows, black RAL 9005	WAB 814I 2101
Z bracket for sash, matt finish stainless steel	WAB 814Z 0101
Z bracket for sash, black RAL 9005	WAB 814Z 2101

**See separate product sheets for further information.**

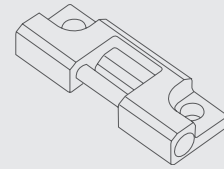
Installation suggestion 1 - Inward Opening



WAB 814A

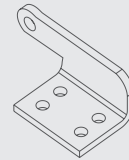
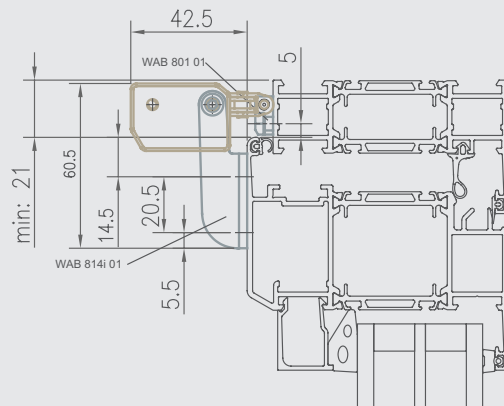
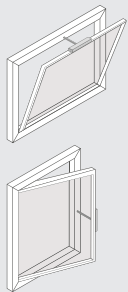


WAB 814Z

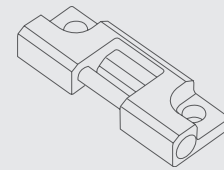


WAB 801

Installation suggestion 2 - Inward opening

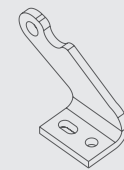
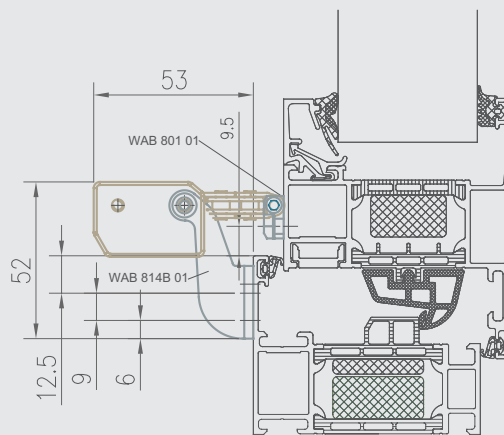
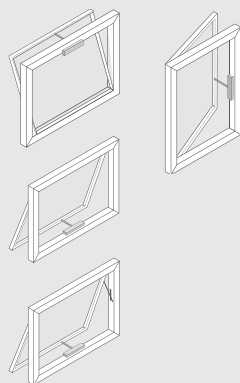


WAB 814i

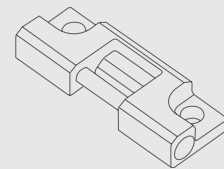


WAB 801

Installation suggestion 3 - Outward opening



WAB 814B

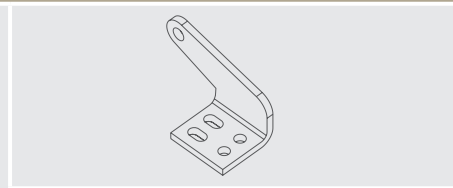
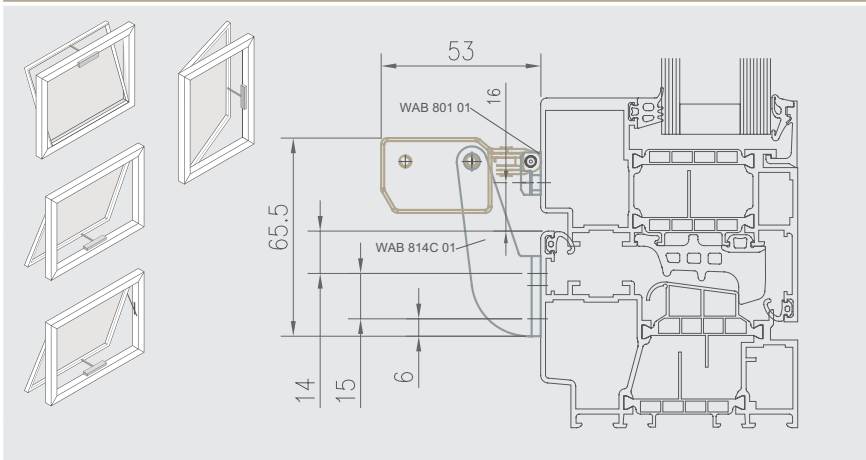


WAB 801

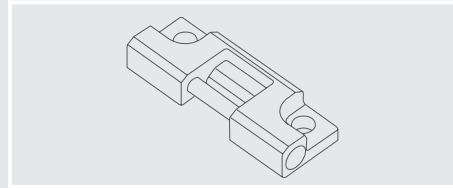
WMX 814

# Chain actuator

## Installation suggestion 4 - Outward opening

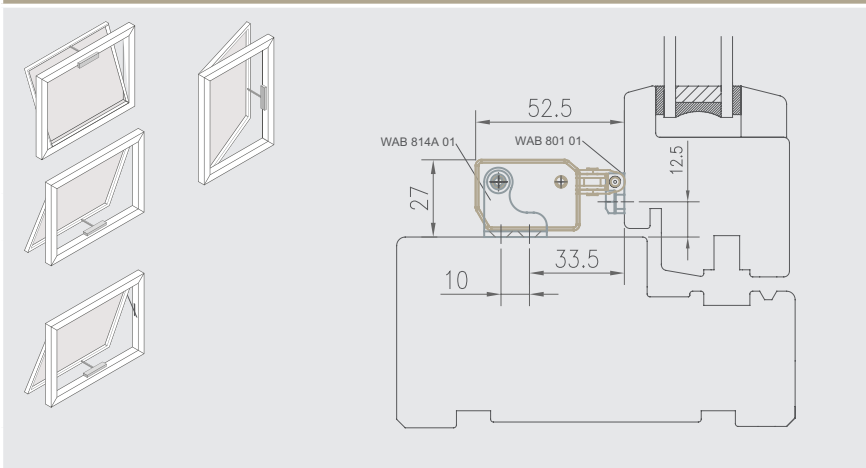


WAB 814C

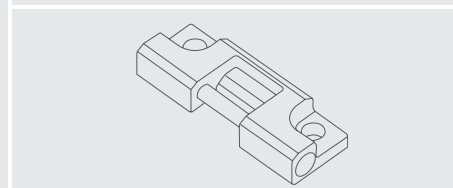


WAB 801

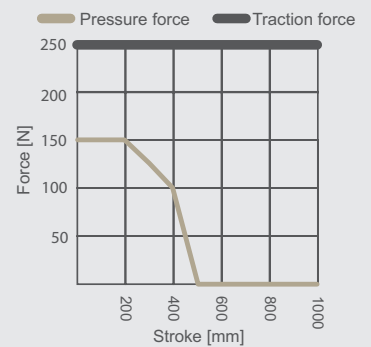
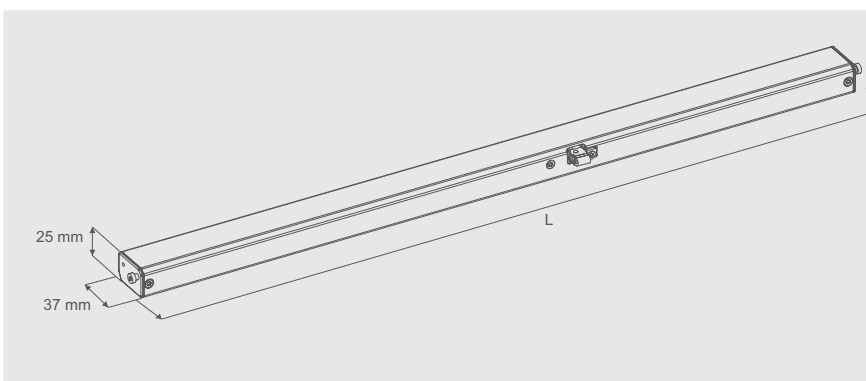
## Installation suggestion 5 - Outward opening



WAB 814A



WAB 801



L = Length (incl. screws) – see table of items