WINDOW **master** ®
Fresh Air. Fresh People.

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

1.47

| Natural ventilation | Smoke ventilation EN 12101 | Smoke ventilation B300 | ±24V control | MotorLink® | TrueSpeed™ |

Description
- designed for surface mounting
- for smoke and comfort ventilation
- to be used with tophung, bottomhung and turning windows
- to be used together with ±24V control units or control units with MotorLink®
- can be used together with WMB loking 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 patented 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.
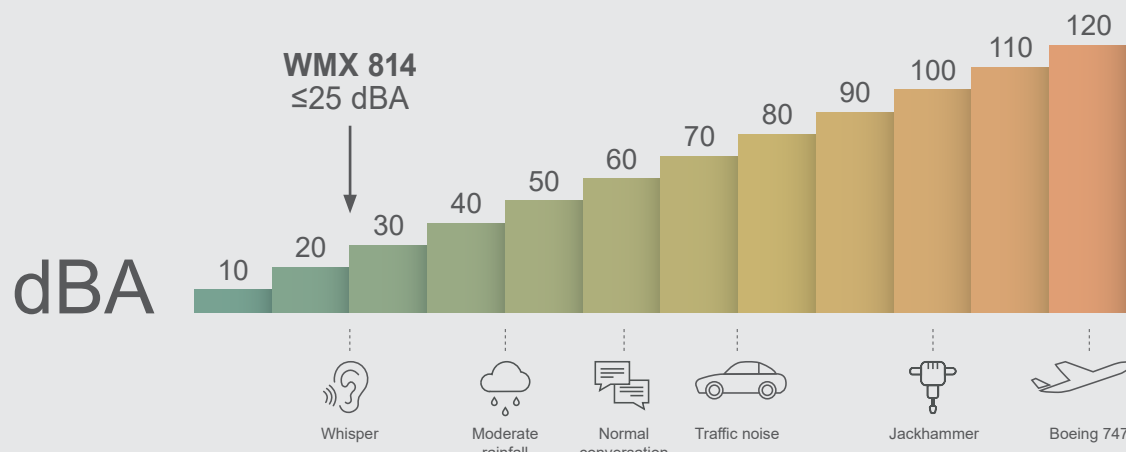
Opening speeds
Actuators connected to ±24 VDC control units (e.g. WUC) can run with one speed.
Actuators connected to control units with MotorLink® (e.g. WCC) can run with three different speeds:
- automatically control speed – actuators run slowly and almost soundlessly.
- manual control speed – actuators 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)
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	**WMX 814 S**: Actuator with 5m connection cable (3-core cables, 0.34mm²) with fast-in/fast-on connector for WLL cable. **WMX 814 E1**: Actuator with 5m connection cable (5-core cables, 0.34mm², with connection for external entrapment protection device) with fast-in/fast-on connector for WLL cable **WMX 814 E2**: Actuator with 5m connection cable (3-core cables, 0.34mm²) with fast-in/fast-on connector for WLL cable, and 0,165m cable (2-core cables, 0.34mm², 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.

dBA scale: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120

WMX 814 ≤25 dBA

Whisper — Moderate rainfall — Normal conversation — Traffic noise — Jackhammer — Boeing 747

Item code composition

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

Explanation of product code structure

WMX 814-2B0170S E1 — WMX 814 actuator, double synchronisation, black, 170mm chain stroke, standard, with CE and EN 12101-2 certification, product version 1

WMX 814-2B0170E1 01 — WMX 814 actuator, double synchronisation, black, 170mm chain stroke, with connection for safety device, with CE certification, product version 1
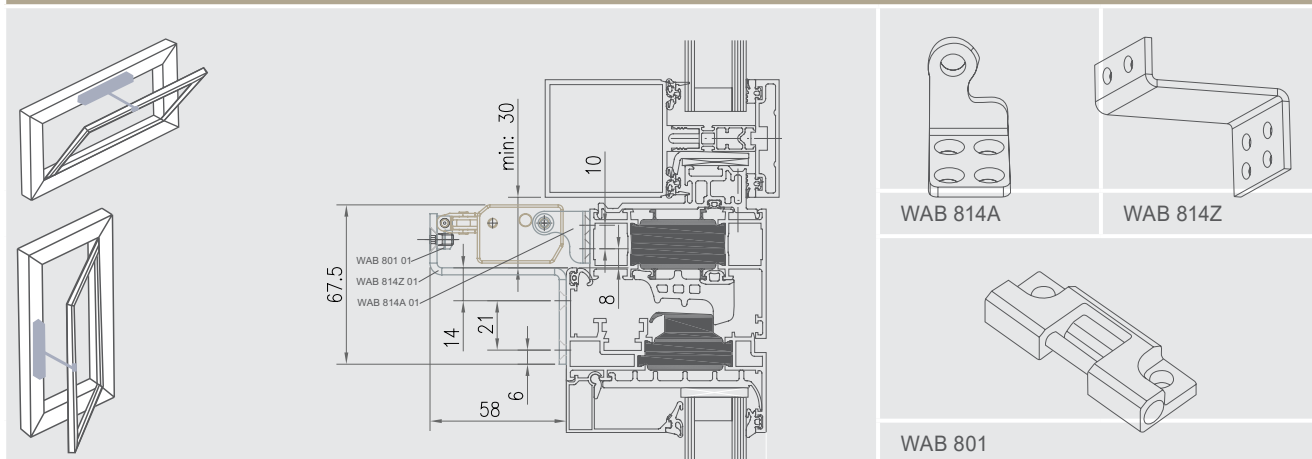
Items	Chain stroke [mm]	Length (L) [mm] (incl. screws = 18mm)	Item no.
Single actuator	400	563	WMX 814-1*0400S E1
	600	663	WMX 814-1*0600S E1
	800	763	WMX 814-1*0800S E1
	1000	863	WMX 814-1*1000S E1
Double actuator	400	563	WMX 814-2*0400S E1
	600	663	WMX 814-2*0600S E1
	800	763	WMU 814-2*0800S E1
	1000	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.
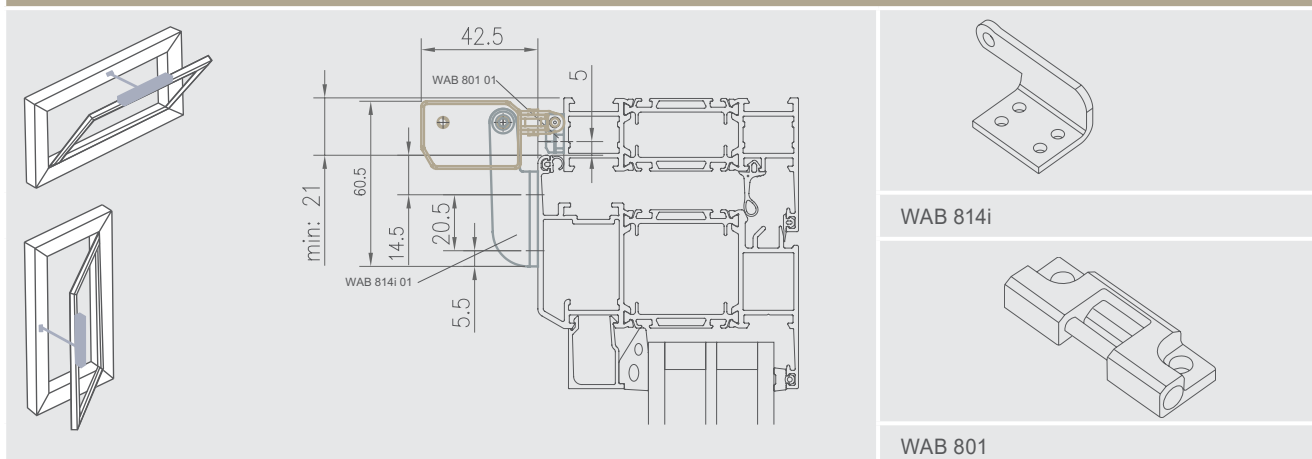
Items	Chain stroke [mm]	Length (L) [mm] (incl. screws = 18mm)	Item with entrapment connection via the extra 2 core cables	Item no. with entrapment connection via the extra short cable
Single actuator	400	563	WMX 814-1*0400E1 01	WMX 814-1*0400E2 01
	600	663	WMX 814-1*0600E1 01	WMX 814-1*0600E2 01
	800	763	WMX 814-1*0800E1 01	WMX 814-1*0800E2 01
	1000	863	WMX 814-1*1000E1 01	WMX 814-1*1000E2 01
Double actuator	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
Triple actuator	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
Quad actuator	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

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

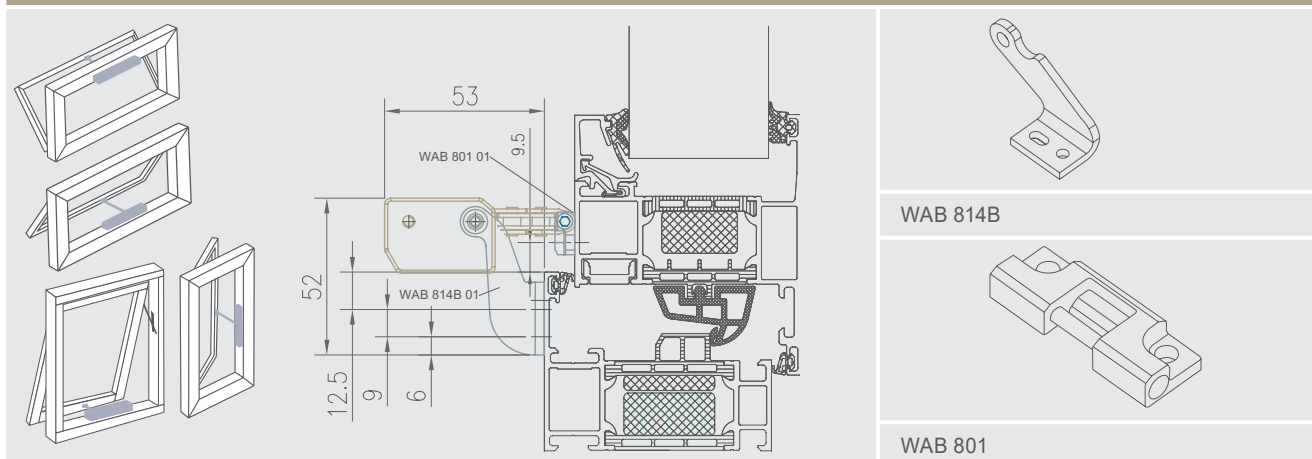| Accessories	Item no.
Chain bracket with tight-fitting bolt, WMX, for sash or frame	WAB 801
Actuator bracket, matt finish stainless steel	WAB 814A 0101
Actuator bracket, black RAL 9005	WAB 814A 2101
Actuator bracket, matt finish stainless steel	WAB 814B 0101
Actuator bracket, black RAL 9005	WAB 814B 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 801 01
WAB 814Z 01
WAB 814A 01

67.5
min: 30
10
8
14
21
6
58

WAB 814A

WAB 814Z

WAB 801

Installation suggestion 2 - Inward opening

WAB 801 01
WAB 814i 01

42.5
5
min: 21
60.5
14.5
20.5
5.5

WAB 814i

WAB 801

Installation suggestion 3 - Outward opening

WAB 801 01
WAB 814B 01

53
9.5
52
12.5
9
6

WAB 814B

WAB 801

WMX 814
Chain actuator

Installation suggestion 4 - Outward opening

53

16

WAB 801 01

65.5

WAB 814C 01

14

15

6

WAB 814C

WAB 801
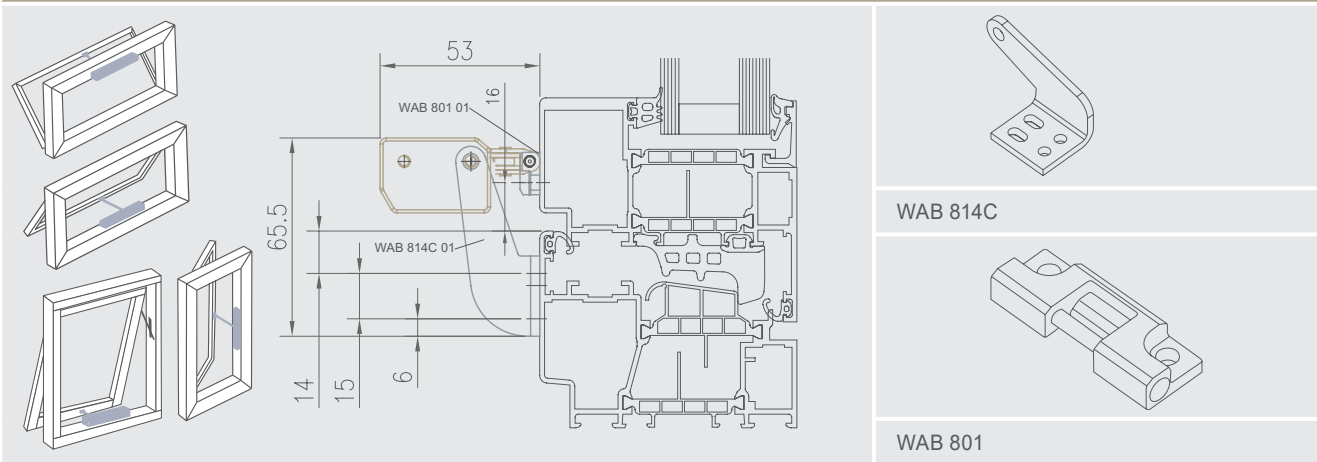
Installation suggestion 5 - Outward opening

52.5

WAB 814A 01   WAB 801 01

12.5

27

33.5

10

WAB 814A

WAB 801

25 mm

37 mm

L

Pressure force   Traction force

Force [N]

250

200

150

100

50

200   400   600   800   1000

Stroke [mm]

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

windowmaster.com