

WMX 503 / 503 UL / 803 / 803 UL

Chain actuator

Natural ventilation | 24V ±24V control | MotorLink® | UL certification – Actuators

Description

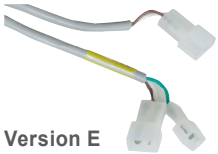
- optimized design for concealed installation in window profiles
- for comfort ventilation
- to be used with all window types
- to be used together with ±24V control units or control units with MotorLink®
- can be used together with espagnolette WMB
- external safety edge can be connected directly to the actuator (actuator version 'E')
- available with and without UL certification:
  - Europe: order without UL certification
  - USA / Canada: order with UL certification (version UL)
- 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
- 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
- easy mounting

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. The set points determining when the actuators are to reverse are individually adjustable.



Version S



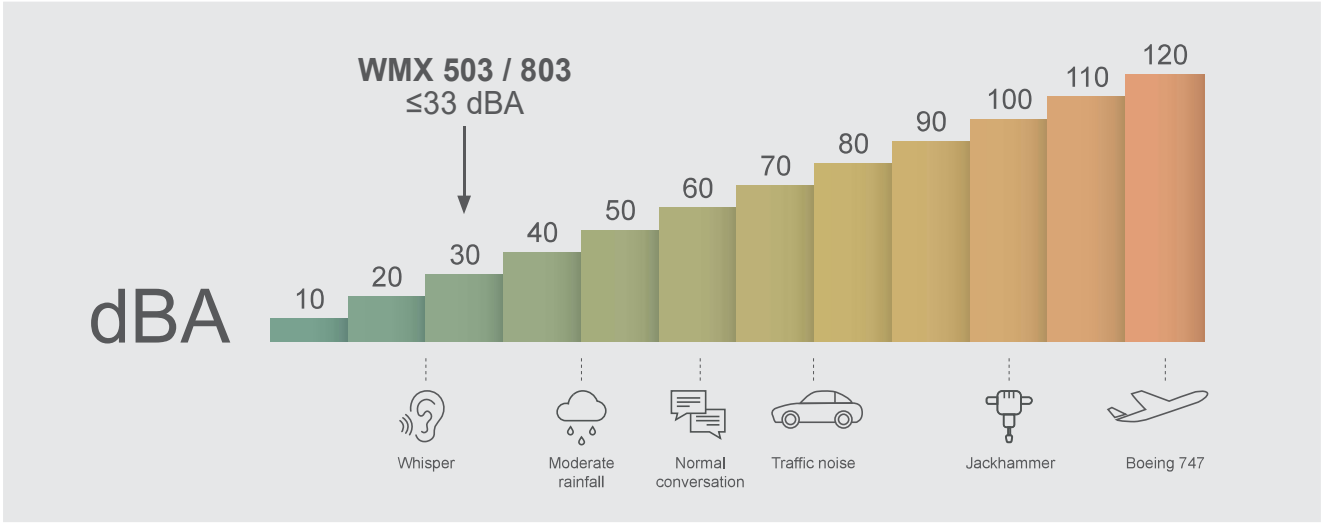
Version E

Opening speeds
One speed:
Actuators connected to ±24 VDC control units (e.g. WUC) can be run with one speed – see the following page for opening speed.

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

- automatically control speed – actuators run slowly and almost soundlessly.
- manual control speed – actuators run faster and more audibly.
- Safety control speed – actuators run fastest.

Technical specifications	
Permitted constant pressure load	45N by 10,000 opening and closing movements (up to 150N for special version with shorter chain lengths)
Permitted constant tractive load	WMX 503 / 503 UL: 150N by 10,000 opening and closing movements WMX 803 / 803 UL: 200N by 10,000 opening and closing movements
Locking force	3000N
Permitted short pressure load when chain has run to end stop	100N
Short pressure capacity on motor	Max. 150N (e.g. at the beginning of opening: sticky gasket, ice, wind speed)
Chain opening	1 15/16'' – 9 13/16'' increments of 25/64'', maximum opening depends on the window construction
Opening speed	0.276 in/s (programmable 0.118 in/s up to 0.374 in/s)
Sound pressure level	≤33 dBA (operational speed: 0.118 in/s), ≤43 dBA (operational speed: 0.374 in/s)
Window types	Window types and sizes must be agreed with the window supplier and WindowMaster
Window width	Min. 1' 3/8'', maximum width depends on the window construction and the number of window actuators
Window height	Min. 1' 3 3/4'', maximum height depends on the window construction and the number of window actuators
Nominal voltage	24 VDC (max. 10% ripple)
Voltage	20 - 36V DC
Max. open-circuit voltage	Max. 36V DC
Current consumption	WMX 503 / 503 UL: max. 0.5A WMX 803 / 803 UL: max. 1A
Operating condition	+23°F – +113°F, max. 90% relative humidity (not condensing)
Switch-on-duration	ED 40% (max. 4 min. per 10 min)
Material	Lacquered zinc housing with 3/8" zinc cromate passivated steel chain and a 3' 15/16'' cable with fast-in/fast-on connectors for connection to the extension cable WLL
Colour	Grey (RAL 9006)
Size	1' 1 7/16'' x 1 1/8'' x 1 5/8'' (L x H x W)
Weight	2.2 lbs
IP rating	IP20 - when surface mounted / IP32 - when concealed
Certification	Actuators with "U" in the article no. are UL certified accordingly to UL 325 and CAN/CSA-22.2 No. 247-14 and is supplied with UL approved cables UL STYLE 2464
Delivery includes	Actuator with 3 15/16'' cable with fast-in/fast-on connector for WLL cable
To be ordered separately	WLL extension cable
Note	We reserve the right to make technical changes and correct typing errors



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.

Product code composition *(actuator supplied in sealed plastic packaging)*

WMX 503 **WMX 803**	**-n**	**G**	**xxx**	**z**	**v**	**3**
						Product version: 3
					Certification: 0 = CE, U = CE + UL	
				Actuator hardware version: S = standard, E = with connection for pressure safety *(E: not UL actuator)*		
			Chain opening: 1 15/16'' – 9 13/16'', in increments of 25/64'' (050 = 25/64'')			
		Colour: G = grey				
	Actuator variant: 1= single, 2 = double, 3 = triple, 4 = quad					

Explanation of product code structure:

WMX 503-2G070E 03 WMX 503 actuator, double synchronisation, grey, 2' 3/4'' chain opening, with connection for pressure safety, with CE certification, product version 3.

Items	Chain stroke [ft. and in.]	Length (L) [ft. and in.]	UL	Item no.	Item no. with entrapment connection
Single actuator	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 503-1Gxxx*S **	WMX 503-1Gxxx*E **
	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 803-1Gxxx*S **	WMX 803-1Gxxx*E **
Double actuator	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 503-2Gxxx*S **	WMX 503-2Gxxx*E **
	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 803-2Gxxx*S **	WMX 803-2Gxxx*E **
Triple actuator	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 503-3Gxxx*S **	WMX 503-3Gxxx*E **
	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 803-3Gxxx*S **	WMX 803-3Gxxx*E **
Quad actuator	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 503-4Gxxx*S **	WMX 503-4Gxxx*E **
	1 15/16'' – 9 13/16''	1' 1 7/16''	X	WMX 803-4Gxxx*S **	WMX 803-4Gxxx*E **

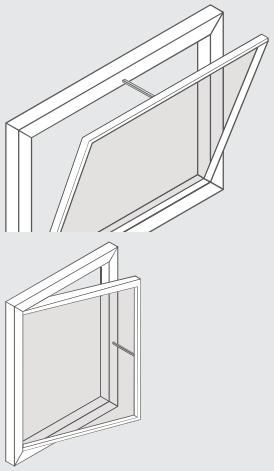
* 1 15/16'' – 9 13/16'', in increments of 25/64'' (050 = 25/64'')
** The actuator can be supplied with certification according to UL 325 – see column UL.
See also the table 'Product code composition' for further details as well as determination of final item no.

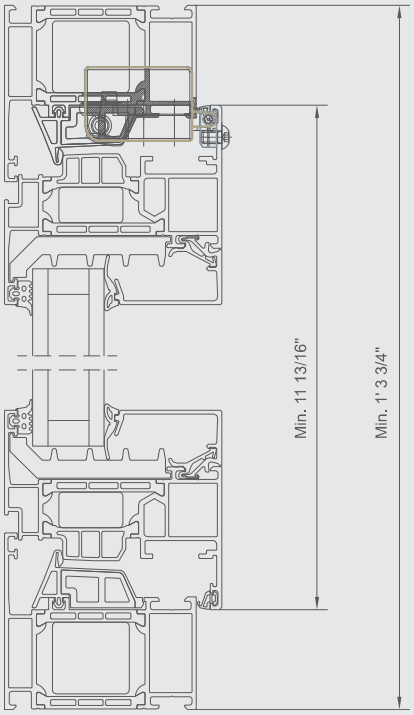
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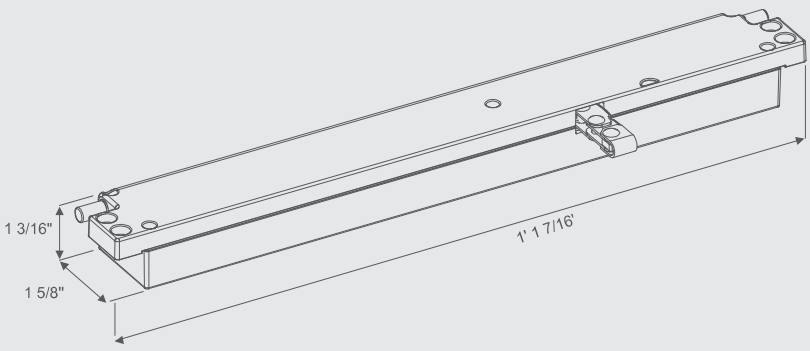
Brackets	Item no.
Chain bracket with split	WAB 860
Window fitting for wooden windows	WAB 867
Multi bracket	WAB 801
Chain bracket for integrated WMX	WAB 833
See separate product sheets for further information.	

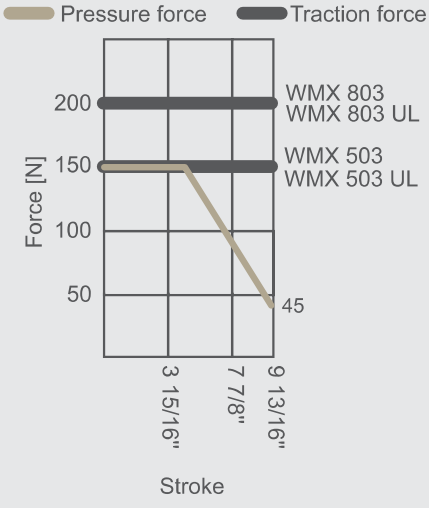
Installation suggestion





For questions regarding the concealed installation – contact WindowMaster





All dimensions are originally in metric units and converted into imperial units.
For exact measurements please refer to documentation with metric values.

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