



WMX 503 / 503 UL / 803 / 803 UL Chain actuator



Natural
ventilation



Smoke
ventilation



±24V control



MotorLink®



UL certification
– Actuators

Description

- optimized design for concealed installation in window profiles
- WMX 503 / 503 UL / 803 UL: for comfort ventilation
- WMX 803: for smoke and 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
- the electronics in this actuator can be programmed to suit specific requirements – i.e. pressure- and traction force, stroke, speed/sound level – with the WAT 100 programming box, also possible following installation
- 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 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. The set points determining when the actuators are to reverse are individually adjustable and can be adjusted after installation using the programming box WAT 100.



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.
- H&S and safety control speed – actuators run fastest. H&S control always has highest priority.

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	50 – 250mm in increments of 10mm, maximum opening depends on the window construction
Opening speed	7mm/s (programmable 3mm/s up to 9.5mm/s)
Window types	Window types and sizes must be agreed with the window supplier and WindowMaster
Window width	Min. 365mm, maximum width depends on the window construction and the number of window actuators
Window height	Min. 400mm, 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	-5°C - +74°C, max. 90% relative humidity (not condensing)
Switch-on-duration	ED 40% (max. 4 min. per 10 min)
Material	Lacquered zinc housing with 10mm zinc cromate passivated steel chain and a 100mm cable with fast-in/fast-on connectors for connection to the extension cable WLL
Colour	Grey (RAL 9006)
Size	342 x 30 x 42mm (W x H x D)
Weight	1.0kg
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
SHE test	WMX 503 / 503 UL / 803 UL: not SHE tested WMX 803*: tested in accordance with DIN 18232-3, section 3.6 (30 minutes at 300°C) *The construction of the actuator is identical with WMX 802, which has passed the SHE test
Life span	Tested with 10,000 opening and closing movements
Delivery includes	Actuator with 100mm 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

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.	

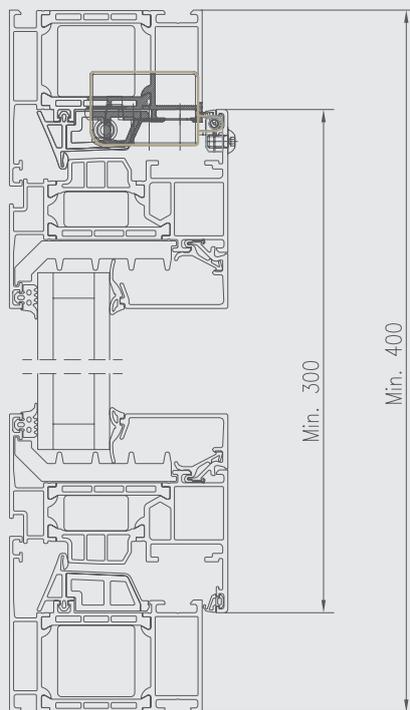
Product code composition <i>(actuator supplied in sealed plastic packaging)</i>						
WMX 503 WMX 803	-n	G	xxx	z	v	3
						Product version: 3
						Certification: 0 = CE, U = CE + UL
						Actuator hardware version: S = standard, E = with connection for pressure safety (E: not UL actuator)
						Chain opening: 50 – 250mm, in increments of 10mm (050 = 50mm)
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, 70mm chain opening, with connection for pressure safety, with CE certification, product version 3.						

Product code composition <i>(actuator supplied in sealed plastic packaging and cardboard box)</i>				
WMX 803	n	G	01	03
				Product version: 03
				Market variant: 01 = for Europe
				Colour: G = grey
Actuator variant: 1 = single, 2 = double				
Explanation of product code structure: (the actuator is supplied with 250mm chain opening and standard hardware version "S")				
WMX 803-2G 0103 WMX 803 actuator, double synchronisation, grey, for Europe, product version 3.				

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Installation suggestion



For questions regarding the concealed installation – contact WindowMaster

