

# CHAIN ACTUATOR



#### Description

- designed for surface mounting
- WMX 524 for comfort ventilation
- WMX 824 for smoke and comfort ventilation
- to be used with tophung, bottomhung and turning windows
- direct cable connection under the integrated cablecover
  no need for junction box
- to be used together with  $\pm 24V$  control units or control units with MotorLink  $^{\text{TM}}$
- can be used together with espagnolette WMB
- external safety edge can be connected directly to the actuator (actuator version 'E')
- the actuator is ETL certified
- 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<sup>™</sup>
- 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 – 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 also after installation using the programming box WAT 100.

#### **Opening speeds**

Actuators connected to  $\pm 24$  VDC control units (e.g. WUC) have one chain speed – see the following page for opening speed.

Actuators connected to control units with MotorLink™ (e.g. WSC xxM) have three different speeds:

- slow speed by soundless automatic control of the windows
- faster speed by audible manual (keypads) control of the windows
- fast speed by smoke ventilation and security functions

Force (pressure/tractive)	WMX 524: max. 150N/150N / WMX 824: max. 200N/200N (see pressure/tractionforce diagram) To achieve 150N respectively 200N pressure the actuator is to be mounted correctly according to the instructions.
Locking force	3000N
Chain stroke	50 - 500mm in increments of 10mm. Special version up to 600mm possible (only for bottom hung windows) – contact WindowMaster for further information.
Speed	WMX 524: 7mm/s / WMX 824: 9mm/s (programmable 3 - 9mm/s)
Window type	tophung, bottom hung and turning windows
Window width	min. 700mm, maximum width depends on the window construction and the number of window actuators
Window height	min. 700mm, maximum height depends on the window construction and the number of window actuators
Power consumption	24V DC (max. 10% ripple)
Voltage	20-36V DC
Open-circuit voltage	max. 36V DC
Current consumption	WMX 524: max. 0.5A / WMX 824: max. 1A
Operating conditions	-5°C - +74°C. Max. 90% relative humidity (not condensing)
Switch-on-duration	ED 40% (max. 4min. per 10min)
Material	lacquered aluminium house with 13mm zinc cromate passivated steel chain and 30mm cable with fast-in/fast-on connectors for connection to the extension cable WLL
Colour	aluminium (RAL 9006) or white (RAL 9010), other RAL colours available at additional price
Size	610 x 30,5 x 42mm (W x H x D)
Connection cable	extension cable as a standard product (WLL cable) is available and is to be ordered separately
Weight	1.4kg
IP rating	IP20 when surface mounted / IP32 when concealed
Certification	ETL certified accordingly to UL 325 and CAN/CSA-22.2 No. 247-92
Fire test	WMX 824: tested in accordance with DIN 18232, part 3 (30minutes at 300°C)
Life span	tested with 10,000 opening and closing movements
Delivery	actuator with 30mm cable with connectors
To be ordered separately	brackets and standard extension cables (WLL)
Note	we reserve the right to make technical changes

Product code composition (actuator supplied in sealed plastic packaging)

WMX 524	-n	у	ххх	z	0	3			
WMX 824						Product version: 3			
				Certification: CE + UL/ETL					
				Actuator hardware version: S = standard, E = with connection for pressure safety (E: not for U.S/Canada)					
		Chain opening: 50 – 500mm, in increments of 10mm (050 = 50mm)							
	Colour: G = grey, W = white								

Actuator variant: 1= single, 2 = double, 3 = triple, 4 = quad

#### Explanation of product code structure:

WMX 524-2G070E 03: WMX 526 actuator, double synchronisation grey, 70mm chain opening, with connection for pressure safety, with CE + UL/ETL certification, product version 3

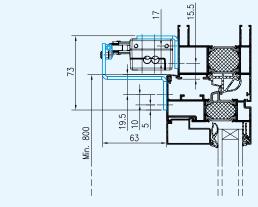
<b>Product code composition</b> (actuator supplied in sealed plastic packaging and cardboard box)								
WMX 824	-n	у	01	03				
				Product version: 03				
			Market variant: 01 = for Europe					
		Col	our: G = grey, W = white					
	Actuator variant: 1 = single, 2 = synkro							

**Explanation of product code structure:** (the actuator is supplied with 500mm chain opening and standard hardware version "S") <u>WMX 824-2G 0103</u> WMX 824 actuator, double synchronisation, grey, for Europe, product version 3.

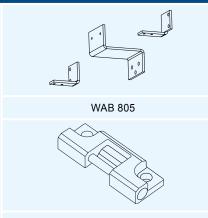
Accessories	ltem no.
Chain bracket multi	WAB 801
Chain bracket with split	WAB 460
Chain bracket for wooden windows	WAB 867
Angle bracket for actuator, grey RAL 9006	WAB 804 0101
Angle bracket for actuator, white RAL 9010	WAB 804 1101
Z bracket for actuator WMX 504/804/524/824. Sash min 800mm.	WAB 805
Actuator bracket for buttomhung window	WAB 845
Actuator bracket	WAB 824B

See separate product sheets for further information.

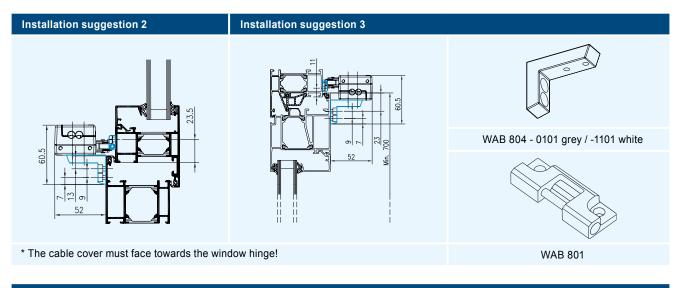
## Installation suggestion 1



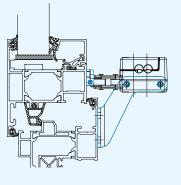
\* The cable cover must face towards the window hinge!



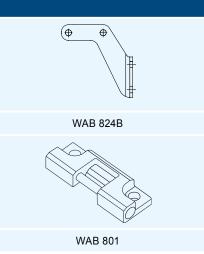
WAB 801



# Installation suggestion 4

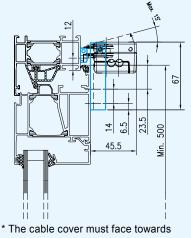


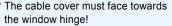
\* The cable cover must face towards the window hinge!



# WMX 524 / WMX 824 CHAIN ACTUATOR

#### Installation suggestion 5





### Installation suggestion 6

#### Installation suggestion 7

Actuator with limited 15°

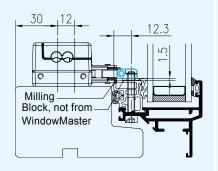
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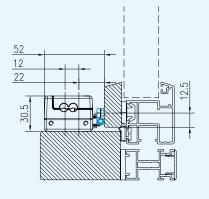
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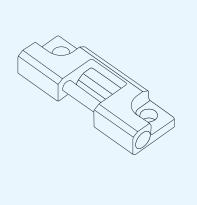
rotation mounted:

Actuator unlimited

rotation mounted:







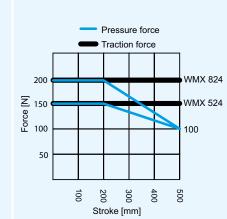
WAB 801

WAB 845

WAB 801

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\* The cable cover must face towards the window hinge!





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