WINDOW
master ®
Fresh Air. Fresh People.

Black anodized aluminium ■

WLL 121 – Extension cable.

WLL 121E1 – Extension cable with entrapment connection via the extra 2 core cables.

WLL 121E2 – Extension cable with entrapment connection via the extra short cable.

WMX 813
Chain actuator

1.43

Natural ventilation	Smoke ventilation EN 12101	Smoke ventilation B300	24V ±24V control	MotorLink®	TrueSpeed™
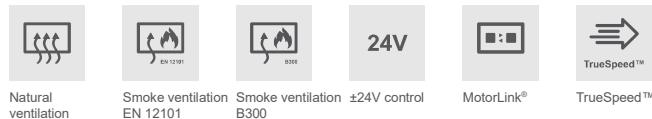
Description
- optimized design for concealed installation
- for smoke and comfort ventilation
- to be used with all window types
- to be used together with ±24V control units or control units with MotorLink®
- can be used together with locking actuators WMB
- external safety edge can be connected directly 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
- 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 ±24 VDC control units (e.g. WCC 103) can be run with one speed.
Actuators connected to control units with MotorLink® (e.g. WCC 3xx or 106) 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	
Pressure force	See diagram
Traction force	See diagram
Locking force	2000N
Chain opening	50 – 1000mm in increments of 10mm, maximum opening depends on the window construction
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	Concealed installation
Nominal voltage	24V DC (max. 10% ripple)
Voltage	20-36V DC
Max. open-circuit voltage	max. 36V DC
Current consumption	max. 1A
Working condition	-5°C - +74°C, max. 90% relative humidity (not condensing)
Switch-on-duration	ED 40% (max. 4 min. per 10 min). If speed < 20% ED 100%.
Material	Aluminium, steel chain, silicone cable
Colour	Black anodized aluminium E6/EV1, black RAL 9005. Other RAL colours available at additional price
Size	22 x 33mm (H x D), length (L) depending on chain stroke – see table.
Weight	400mm stroke: 1.28 kg; 600mm stroke: 1.42 kg; 800mm stroke: 1.63 kg; 1000mm stroke: 1.84 kg;
IP rating	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
Delivery includes	WMX 813 Z: Actuator with 35mm connection cable (3-core cables 0.34mm²) with Molex Micro-Fit connector for WLL cables WMX 813 E: Actuator with 35mm connection cable (3-core cables 0.34mm²) with Molex Micro-Fit connector for WLL cables and connection for safety device
To be ordered separately	Brackets and standard extension cables (WLL)
Note	We reserve the right to make technical changes and correct typing errors
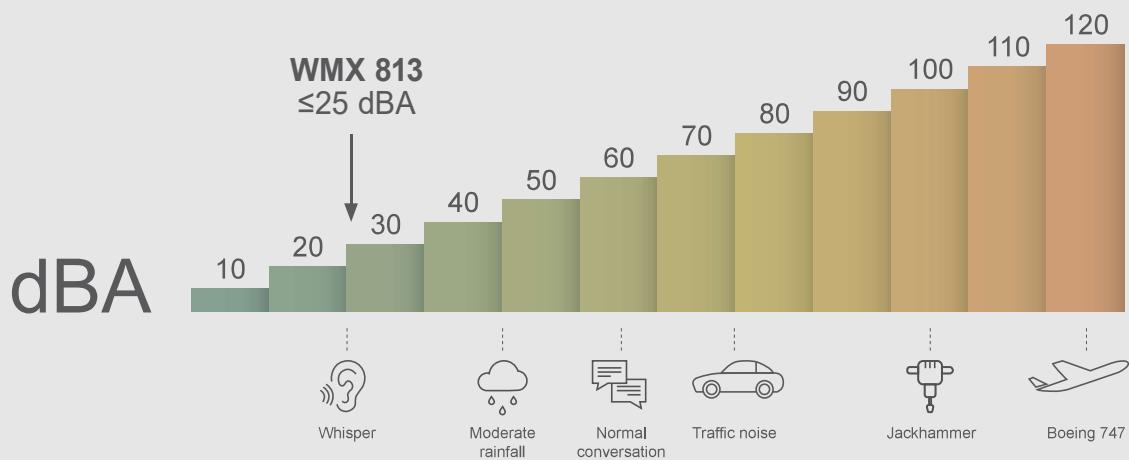
The sound pressure level was measured externally by The Danish Technological Institute. The measurements have been carried out in a large regular room size 7 x 14 x 2.4 m (W x L x H) with the ceiling covered with a standard sound absorbent material. The A-weighted sound pressure levels have been measured 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

WMX 813	-n	x	yyyy	z	v	1
						Product version: 1
					Certification: 0 = CE, P = CE + EN 12101-2	
				Actuator hardware version: Z = cable not included, E = with connection for safety device		
			Chain opening: 50 – 1000mm, in increments of 10mm (0050 = 50mm)			
		Colour: B = black anodized aluminium				
	Actuator variant: 1= single, 2 = double, 3 = triple, 4 = quad					

Explanation of product code structure
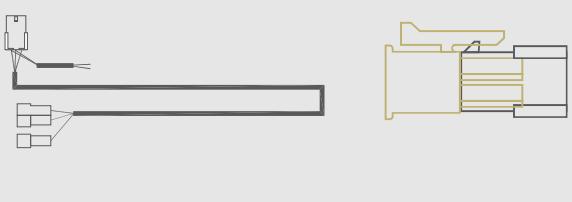
WMX 813-2B0070Z P1 — WMX 813 actuator, double synchronisation, black, 70mm chain opening, standard without cable, with CE and EN 12101-2 certification, product version 1.

WMX 813-2B0070E P1 — WMX 813 actuator, double synchronisation, black, 70mm chain opening, with connection for safety device, without cable, with CE certification, product version 1.
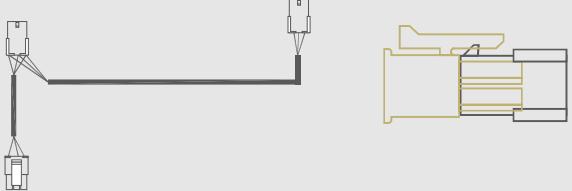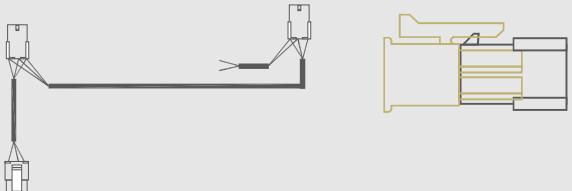
Items	Chain stroke [mm]	Length (L) [mm] (incl. screws = 18mm)	Item no. without cable	Item no. with connection for safety device
Single actuator	400	499	WMX 813-1B0400Z P1	WMX 813-1B0400E P1
	600	599	WMX 813-1B0600Z P1	WMX 813-1B0600E P1
	800	699	WMX 813-1B0800Z P1	WMX 813-1B0800E P1
	1000	799	WMX 813-1B1000Z P1	WMX 813-1B1000E P1
Double actuator	400	499	WMX 813-2B0400Z P1	WMX 813-2B0400E P1
	600	599	WMX 813-2B0600Z P1	WMX 813-2B0600E P1
	800	699	WMU 831-2B0800Z P1	WMX 813-2B0800E P1
	1000	799	WMX 813-2B1000Z P1	WMX 813-2B1000E P1
Triple actuator	400	499	WMX 813-3B0400Z P1	WMX 813-3B0400E P1
	600	599	WMX 813-3B0600Z P1	WMX 813-3B0600E P1
	800	699	WMX 813-3B0800Z P1	WMX 813-3B0800E P1
	1000	799	WMX 813-3B1000Z P1	WMX 813-3B1000E P1
Quad actuator	400	499	WMX 813-4B0400Z P1	WMX 813-4B0400E P1
	600	599	WMX 813-4B0600Z P1	WMX 813-4B0600E P1
	800	699	WMX 813-4B0800Z P1	WMX 813-4B0800E P1
	1000	799	WMX 813-4B1000Z P1	WMX 813-4B1000E P1

| Accessoires	Item no.
Actuator bracket for WMX 813, Wicona WICLINE 75 EVO, fixed mounting	WAB 813C
Bracket set for WMX 813, Schüco TipeTronic AWS 75, fixed mounting	WAB 813F
Extension cable	WLL 121
Extension cable with entrapment connection	WLL 121E1
Extension cable with entrapment connection	WLL 121E2
Connection cable for 2 actuators	WLL 122
Connection cable for 2 actuators with entrapment connection	WLL 122E

Extension cables

WLL 121

Material	silicone, black 5m, 3-core 0.34mm²
Application	extension cable
Delivery includes	1 x cable with attached Molex Micro-Fit connector and fast-on socket

WLL 121E1

Material	silicone, black 5m, 5-core 0.34mm² (2-core for entrapment connection)
Application	extension cable
Delivery includes	1 x cable with attached Molex Micro-Fit connector and fast-on socket

WLL 121E2

| Material	silicone, black 1 x 5m, 3-core 0.34mm² 1 x 0.165m, 2-core 0.34mm² (for entrapment connection)
Application	extension cable
Delivery includes	2 x cable with attached Molex Micro-Fit connector and fast-on socket

Connection cables

WLL 122

Material	silicone, black 1 x 1.5m, 3-core 0.34mm² 1 x 0.15m, 3-core 0.34mm²
Application	cable for 2 actuators
Delivery includes	2 x cable with attached Molex Micro-Fit connectors

WLL 122E

| Material	silicone, black 1 x 1.5m, 3-core 0.34mm² 1 x 0.15m, 3-core 0.34mm² 1 x 0.165m, 2-core 0.34mm² (for entrapment connection)
Application	cable for 2 actuators
Delivery includes	3 x cable with attached Molex Micro-Fit connectors

Installation suggestion 1 - Inward Opening
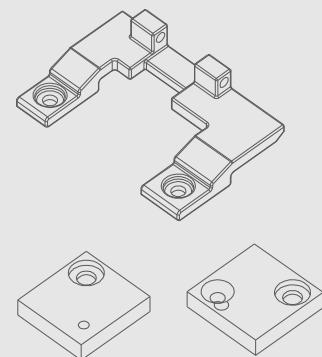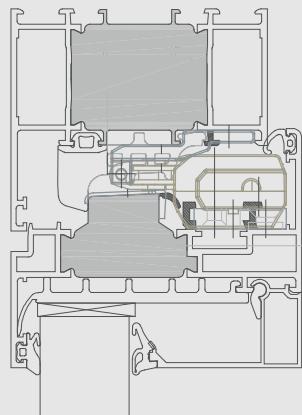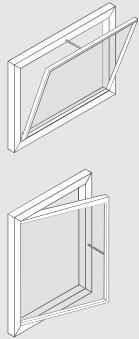
WAB 813C

Installation suggestion 2 - Inward Opening

WAB 813F

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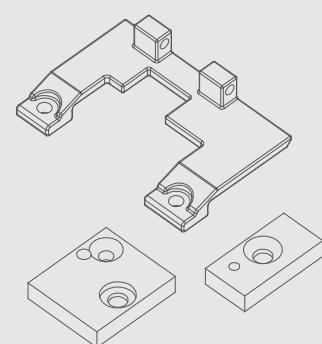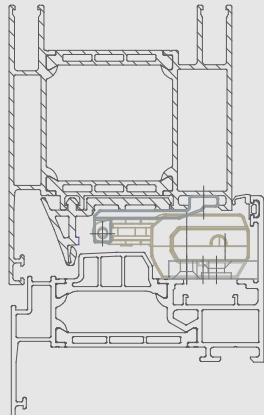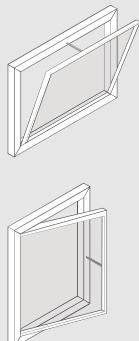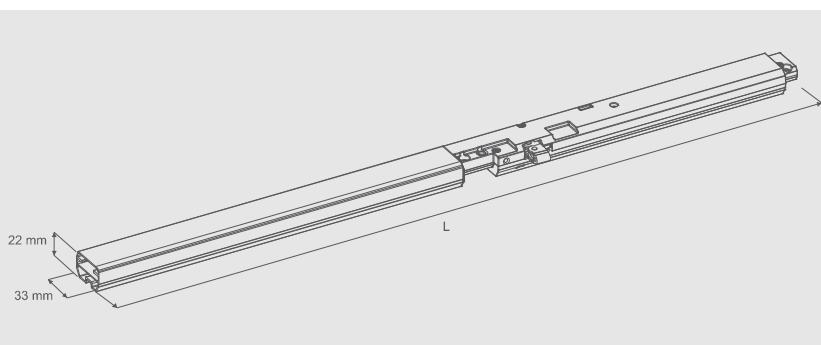
L = Length (incl. screws) – see table of items

Pressure force Traction force

Force [N]

250
200
150
100
50

200 400 600 800 1000

Stroke [mm]

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