



TOPP

tecnologie del movimento

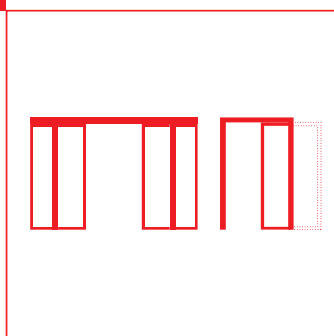


CATALOGUE

Door Automation
Window Automation



WHO WE ARE	4
MISSION	4
MADE IN ITALY	6
RESEARCH AND INNOVATION	6
QUALITY	7
CUSTOMER ORIENTATION	7



DOOR AUTOMATION

8

AUTOMATIC SWING DOOR OPERATORS

S200	max capacity 250 kg	12
M200	max capacity 250 kg	14

MODULAR SYSTEM FOR AUTOMATIC SLIDING DOORS

DUEVILLE	max capacity 200 kg	22
-----------------	---------------------	----

AUTOMATIONS FOR INTERIOR SLIDING DOORS

V1 V1E	max capacity 70 kg	28
---------------	--------------------	----

AUTOMATIONS FOR LINEAR SLIDING DOORS

K140 K200	max capacity 140 kg - 200 kg	30
K280 K500	max capacity 280 kg - 500 kg	32
T150 T240	max capacity 150 kg - 240 kg	34
K200R T240R	max capacity 200 kg - 240 kg redundant	36
K200T K280T K280TR	max capacity 200 kg - 280 kg telescopic	38
INSTALLATION TYPES		40

AUTOMATIONS ASSEMBLY KITS

K140 K200 K200R K200F K280 K500	48
T150 - T240 - T240R	49
K200T K280T K280TF	50
ACCESSORIES FOR ASSEMBLY KITS	51

ACCESSORIES

52

SPARE PARTS

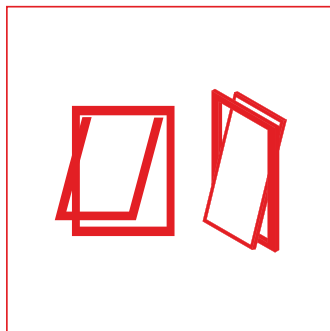
58

DOOR PANELS PROFILES

F30 PROFILE FOR SLIDING DOORS	62
P35 PROFILE FOR SLIDING DOORS	64
P45 PROFILE FOR SLIDING DOORS	68

TECHNICAL DRAWINGS

K140 K200 K200R DIMENSIONS	72
K280 K500 DIMENSIONS	73
T150 - T240 - T240R - K200T - K280T DIMENSIONS	74



WINDOW AUTOMATION

78

CHAIN ACTUATORS

C20	Thrust force 300N max stroke 360 mm	82
C30	Thrust force 300N max stroke 380 mm	84
C40	Thrust force 400N max stroke 500 mm	86
C50	Thrust force 500N max stroke 1000 mm	88
C60	Thrust force 300N max stroke 600 mm	90
ACK4	Thrust force 300N max stroke 400 mm	92
C130	Thrust force 300N max stroke 360 mm	94
C160	Thrust force 300N max stroke 600 mm	96

DOUBLE CHAIN ACTUATORS

C240	Thrust force 400N max stroke 360 mm	98
C260	Thrust force 600N max stroke 600 mm	100

LINEAR STEM ACTUATORS

S80	Thrust force 800N max stroke 1000 mm	102
------------	--------------------------------------	------------

RACK ACTUATORS

T50	Thrust force 500N max stroke 1000 mm	104
------------	--------------------------------------	------------

CONTROL AND POWER UNITS

TF23R TF33R TF24R TF44R RR MEM/AL RW RDC TR8 TR4	106
WIFI BOX	108

ACTUATORS FOR SMOKE EVACUATION SYSTEMS

C50 RWA	Thrust force 500N max stroke 1000 mm	112
ACK4 RWA	Thrust force 300N max stroke 400 mm	114
C160 RWA	Thrust force 300N max stroke 600 mm	116
C160 RWA DOUBLE CHAIN	Thrust force 600N max stroke 600 mm	118
S80 RWA	Thrust force 800N max stroke 400 mm	120
A90	Swing max. opening angle 90°	122

MULTI-POINT LOCK DRIVES

M00	124
------------	------------

CONTROL UNITS FOR SMOKE EVACUATION

RWA CONTROL UNITS	126
--------------------------	------------

DETECTORS AND EMERGENCY DEVICES

RW RDC RM2 TM2 RT2 MS-BL4	128
-------------------------------------	------------

TECHNICAL REMARKS

132

who we are

TOPP offers a wide range of devices, simple and functional for the automation of doors and windows designed to simplify our daily movements.

Our commitment is to bring you the benefits of a smooth and clean experience with windows and doors automation.

Our key values are:

- Expertise in innovation
- Proved quality
- Customer-oriented approach



mission

To be more than a simple manufacturer of automations for doors and windows and go beyond customer expectations. An accurate industrial design enables the development of innovative products enhanced by a complete service, from consultancy to installation through selected and reliable partners





TOPP
tecnologie del movimento

made in italy

Countless international patents, essential for the protection of the TOPP solutions, confirm our natural vocation: a constant search for the perfect balance between design, function, technology and creativity for the development of products renowned worldwide as “Made in Italy”

balance between design,
functionality, technology and creativity

research and innovation

We started from the very beginning, back in 1996, by offering our engineering know-how as a service bureau and high product innovation has been our focus ever since. The use of state-of-the-art 3D engineering tools and the aid of laser sintering systems for rapid prototyping accelerate the process of study and industrialization of the products and have brought Topp to the registration of over 50 international patents.

Innovation is our tradition

product quality

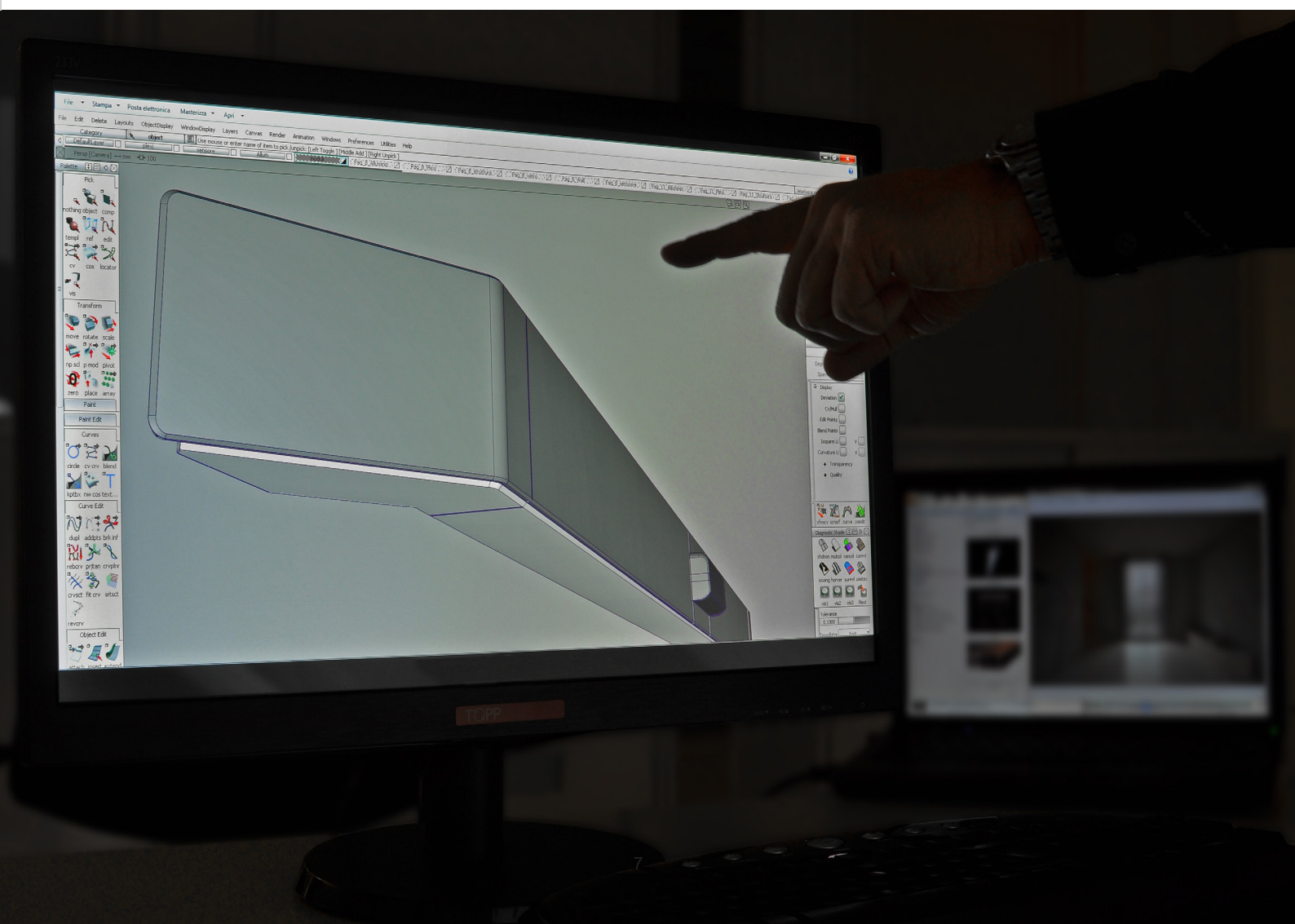
Proven quality means state of the art raw materials, technical know-how, full production process monitoring and the availability of a well-organized and efficient testing laboratory. After being produced, each device is tested individually in order to fulfill our commitment to quality. Product value is flanked by service quality, from the pre-feasibility analysis to the after-sales service.

Each device is tested individually:
Your satisfaction is our success.

long-term customer oriented approach

Customer orientation means keeping full focus on the market wants and needs: observing, feeling and listening to the customer requirements. Cooperation starts from the pre-sales activity, suggesting the most suitable product for his needs and grows up to the after-sales stage managing customers concerns and meeting them at their business environment.

Our major effort is to build long-lasting relation ships with sales partners all over the world.



WINDOW AUTOMATION

A full range of chain, stem and rack actuators designed to operate any kind of windows, domes and louvers in natural ventilation and in smoke evacuation systems.

NATURAL VENTILATION

C20
Pag.82



Chain actuator
Thrust force 300 N
Max stroke 360 mm

C30
Pag.84



Chain actuator
Thrust force 300 N
Max stroke 380 mm

C40
Pag.86



Chain actuator
Thrust force 400 N
Max stroke 500 mm

C50
Pag.88



Chain actuator
Thrust force 500 N
Strokes 600-800-1000 mm

C60
Pag.90



Chain actuator
Thrust force 300 N
Max stroke 600 mm

ACK4
Pag.92



Chain actuator
Thrust force 300 N
Max stroke 400 mm

C130
Pag.94



Chain actuator
Thrust force 300 N
Max stroke 360 mm

C160
Pag.96



Chain actuator
Thrust force 300 N
Stroke 360-600-1000 mm

C240
Pag.98



Double chain actuator
Thrust force 400 N
Max stroke 360 mm

C260
Pag.100



Double chain actuator
Thrust force 600 N
Max stroke 600 mm

S80
Pag.102



Linear stem actuator
Thrust force 800N
Max. stroke 1000 mm

T50
Pag.104



Linear rack actuator
Thrust force 500N
Max. stroke 1000 mm

SMOKE EVACUATION

C50 RWA

Pag.112



Chain actuator
Thrust force 500 N
Strokes 600-800 mm

ACK4 RWA

Pag.114



Chain actuator
Thrust force 300 N
Max stroke 400 mm

C160 RWA

Pag.116



Chain actuator
Thrust force 300 N
Strokes 360-600 mm

C160 RWA DOUBLE CHAIN

Pag.118



Double chain actuator
Thrust force 600 N
Strokes 360-600 mm

S80 RWA

Pag.120



Linear stem actuator
Thrust force 800N
Max. stroke 1000 mm

A90 RWA

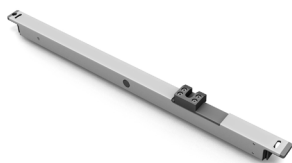
Pag.122



Actuator for swing opening
Maximum angle 90°

M00

Pag.124



Concealed
multi-point lock drive

M00-1

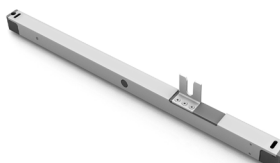
Pag.124



Exposed electric lock
for windows without
hardware

M00-2

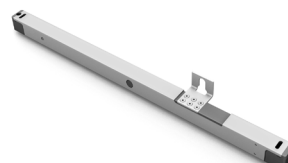
Pag.124



Multi-point lock drive on the
sash to open inwards or on
the frame to open outwards

M00-3

Pag.124



Multi-point lock drive on the
frame for inward opening

M00-4

Pag.124



Double electric lock
exposed on the frame
for inward opening





C20

Chain actuator
Thrust force 300 N
Max stroke 360 mm

TANDEM

PRODUCT DESCRIPTION

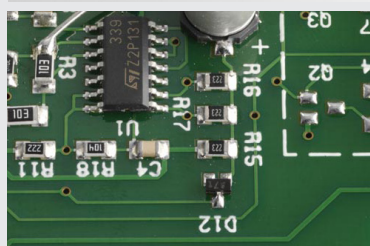
Electric C20 actuator with double link articulated chain, enclosed in a suitable casing, with different mounting accessories for top and bottom hung windows. Operation at 230V 50Hz or, as an alternative, at 24V DC. Maximum applicable load 300N. Fast hooking and unhooking system of the chain to the window. Adjustment of the force and of the stroke at 240 or 360mm by external knobs (for C20 tandem 360mm fixed stroke, special stroke optional on request). Electronic end of stroke in closing by current absorption control. CE marked device.



Double link chain with very high resistance on heavy loads.



Long stroke, together with a slim and attractive housing, to allow applications that require minimum size (International patent on the chain path).



Stroke-end by amperometric absorption in closing to avoid chain adjustments in closing and any possible installation mistake.

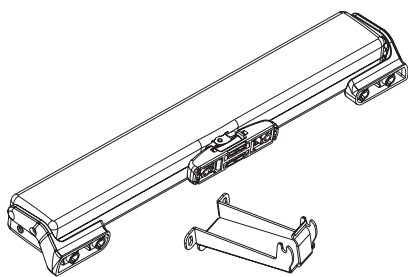


TECHNICAL SPECIFICATIONS

C20 230V

C20 24V

Power supply voltage	230V ~ 50Hz	min 21V ~ max 28V d.c.
Max applicable load in thrust	300 N	300 N
Max applicable load in traction	200N	200 N
Stroke	240 and 360 mm	240 and 360 mm
Absorbed current	0,12 A	0,43 A
Idle translation speed	8 mm/s	7,5 mm/s
Duration of the idle stroke	46 s	48s
Double insulated	YES	YES
Service type	S2 of 4 min	S2 of 4 min
Operating temperature	- 5°C + 50°C	- 5°C + 50°C
Protection Class	IP 30	IP 30
Stroke end regulation in closing	not necessary	not necessary
Parallel connection option	YES	YES
Stroke end	Electronic in opening, by amperometric absorption in closing	
Dimensions	362 x 34 x 48 mm	362 x 34 x 48 mm
Weight	0,970 kg	0,940 kg



C20 standard 1 push point

3A3#	C20 chain actuator 230V - black
3A3#	C20 chain actuator 230V - grey
3A3#	C20 chain actuator 230V - white
3A3#	C20 chain actuator 24V - black
3A3#	C20 chain actuator 24V - grey
3A3#	C20 chain actuator 24V - white

TANDEM

C20 Tandem standard 2 push points on the same window frame (360mm stroke)

3A7#	Kit C20 chain actuator - tandem version - 230V black
3A7#	Kit C20 chain actuator - tandem version - 230V grey
3A7#	Kit C20 chain actuator - tandem version - 230V white
3A7#	Kit C20 chain actuator - tandem version - 24V black
3A7#	Kit C20 chain actuator - tandem version - 24V grey
3A7#	Kit C20 chain actuator - tandem version - 24V white

Description of the standard pattern for 1 push point

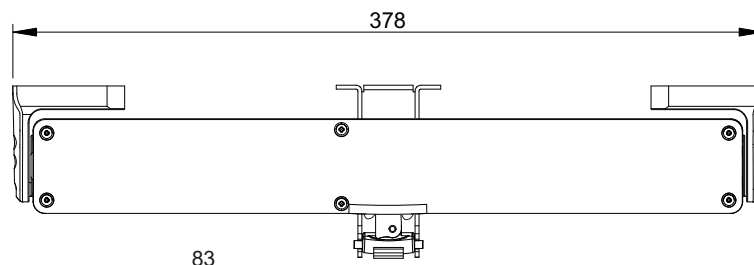
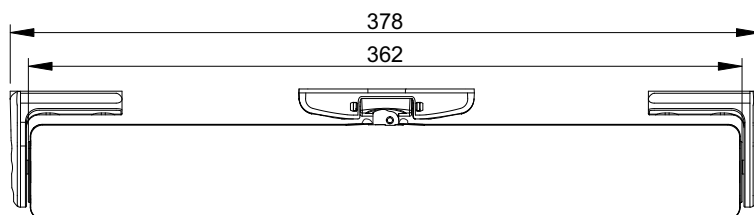
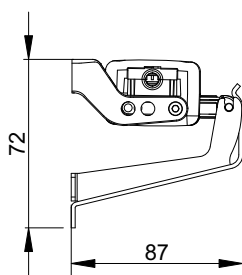
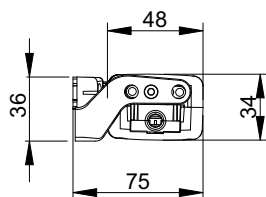
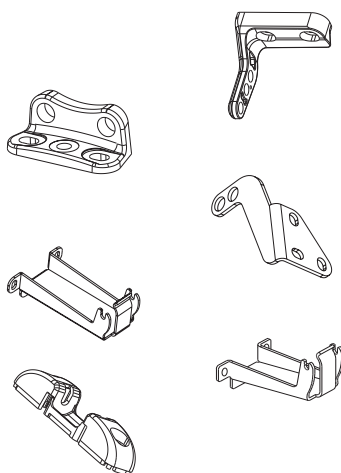
3A3#	C20 chain actuator 230V 1,5mt lead
	Frontal swivel brackets set for top/bottom hung windows
	Upper bracket for bottom hung windows
	ARS Rapid hooking device to the frame
	Spare parts

Description of the standard pattern for 2 push points

3A7#	C20 chain actuator - tandem version - 24V (2 pcs) 6mt lead
	AL2/SW 230V to 24V transformer unit
	Frontal swivel brackets set for top/bottom hung windows (2 pcs)
	Upper bracket for bottom hung windows (2 pcs)
	ARS Rapid hooking device to the window frame (2 pcs)
	Spare parts (2 pcs)

Accessories and spare parts

3A3200	Frontal swivel brackets set for top/bottom hung windows - black
3A3202	Frontal swivel brackets set for top/bottom hung windows - grey
3A3201	Frontal swivel brackets set for top/bottom hung windows - white
3A3210	Swivel brackets set for vertical mounting - black
3A3212	Swivel brackets set for vertical mounting - grey
3A3211	Swivel brackets set for vertical mounting - white
3A3501	Brackets set for installation on the moving part of the window - black
3A3503	Brackets set for installation on the moving part of the window - grey
3A3502	Brackets set for installation on the moving part of the window - white
1A3640	Upper bracket for bottom hung windows - black
1A3642	Upper bracket for bottom hung windows - grey
1A3641	Upper bracket for bottom hung windows - white
1UA001	ARS Rapid hooking device to the window frame - black
1UA003	ARS Rapid hooking device to the window frame - grey
1UA002	ARS Rapid hooking device to the window frame - white
3A3000	Standard spare parts



C30

Chain actuator
Thrust force 300 N
Max stroke 380 mm



PRODUCT DESCRIPTION

Electric C30 actuator with double link articulated chain, enclosed in a suitable casing, with different mounting accessories for top and bottom hung windows. Operation at 230V 50Hz or, as an alternative, at 24V DC. Maximum applicable load 300N. Fast hooking and unhooking system of the chain to the window. Adjustment of the stroke at 200 or 380mm by an external knob. Electronic device with acoustic warning to signal erroneous installation to the user. Upon request, a preset "S" version for the synchronous operation of two actuators on the same window is available. CE marked device.



Telescopic chain-end providing a rapid adjustment from 0 to 15mm, even with chain completely retracted into the actuator housing, that allows easy application on windows with overlap.



Easy fixing system, fit for windows of any type and size.



Double link chain with very high resistance on heavy loads.

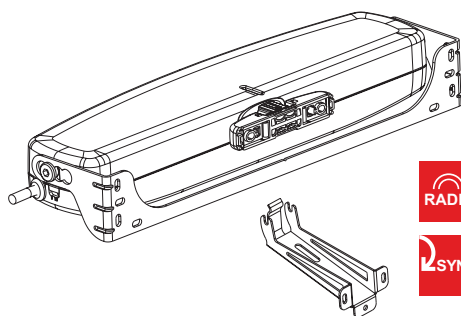


TECHNICAL SPECIFICATIONS

C30 230V

C30 24V

Power supply voltage	230V ~ 50Hz	24V d.c.
Maximum applicable load in thrust	300 N	300 N
Maximum applicable load in traction	300 N	300 N
Strokes	200 and 380 mm	200 and 380 mm
Absorbed current	0,26 A	1,3 A
Idle translation speed	37 mm/s	22 mm/s
Duration of the idle stroke	11 s	17 s
Double insulated	YES	YES
Service Type	S2 of 4 min	S2 of 4 min
Operating temperature	- 5°C + 50°C	- 5°C + 50°C
Protection Class	IP 30	IP 30
Adjustment of the window frame connection	15 mm	15 mm
Adjustment of pins for the swivel brackets	15 mm	15 mm
Parallel connection option	YES	YES
Synchronous operation of 2 C30s on the same window	with S version	NO
Chain position control	encoder	encoder
Acoustic warning for wrong installation (Buzzer)	YES	YES
Dimensions	337 x 49 x 80 mm	337 x 49 x 80 mm
Weight	1,1 kg	1,1 kg



C30 standard 1 push point

3A4#	C30 chain actuator 230V - black
3A4#	C30 chain actuator 230V - grey
3A4#	C30 chain actuator 230V - white

3A4#	C30 chain actuator 24V - black
3A4#	C30 chain actuator 24V - grey
3A4#	C30 chain actuator 24V - white

C30 230V with on-board radio receiver and TR4 remote control available upon request.

C30S synchronised for 2 push points on the same window frame

3A42#	C30S Chain actuator 230V black
3A42#	C30S Chain actuator 230V grey
3A42#	C30S Chain actuator 230V white

Description of the standard pattern for 1 push point

3A4#	C30 chain actuator 230V (spare parts included)
	Swivel frontal bracket for top/bottom hung windows
	Upper bracket for bottom hung windows
	ARS Rapid hooking device to the window frame
	Standard spare parts (C30/C40)

Description of the standard pattern for 2 push points

3A42#	C30S chain actuator 230V black 5mt cable
3A42#	C30S chain actuator 230V black 5mt cable

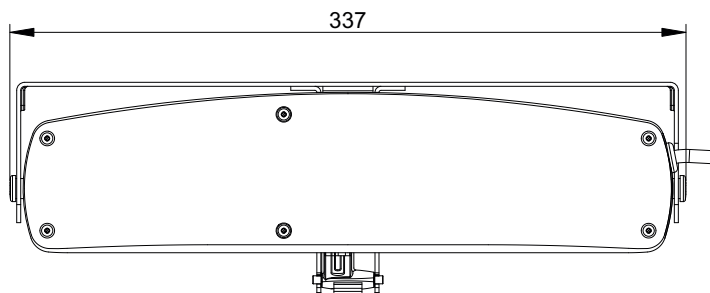
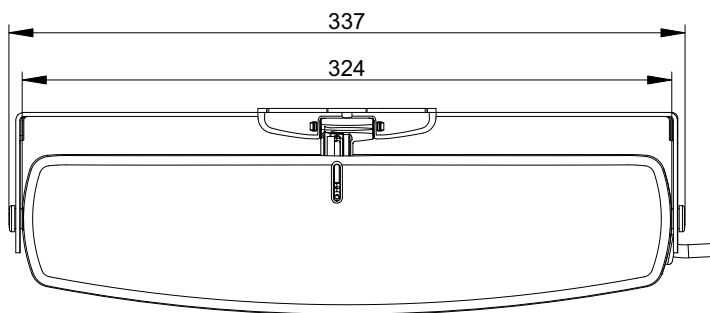
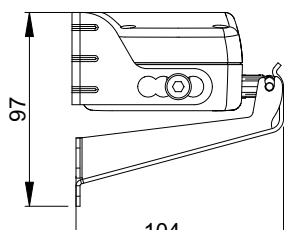
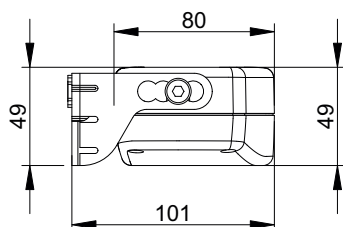
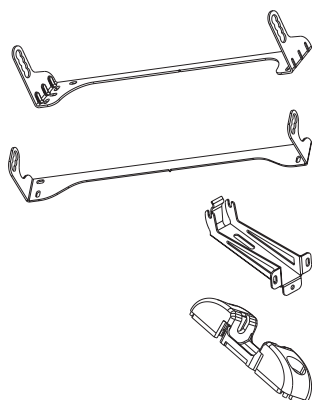
Accessories and spare parts

1A4810	Swivel frontal bracket for top/bottom hung windows - black
1A4812	Swivel frontal bracket for top/bottom hung windows - grey
1A4811	Swivel frontal bracket for top/bottom hung windows - white

1A4815	Swivel brackets set for vertical mounting - black
1A4817	Swivel brackets set for vertical mounting - grey
1A4816	Swivel brackets set for vertical mounting - white

1A4615	Upper bracket for bottom hung windows - black
1A4617	Upper bracket for bottom hung windows- grey
1A4616	Upper bracket for bottom hung windows - white

1UA001	ARS Rapid hooking device to the window frame - black
1UA003	ARS Rapid hooking device to the window frame - grey
1UA002	ARS Rapid hooking device to the window frame - white
3UM000	C30/C40 spare parts



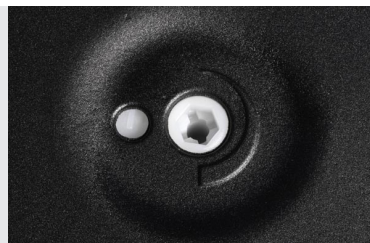
C40

Chain actuator
Thrust force 400 N
Adjustable stroke max.500 mm

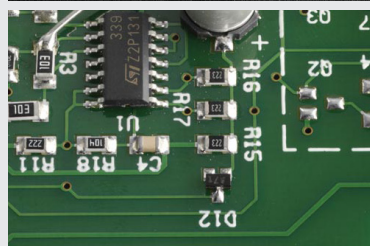


PRODUCT DESCRIPTION

Electric C40 actuator with double link articulated chain, enclosed in a suitable casing, with different mounting accessories for top and bottom hung windows. Operation at 230V 50Hz or, as an alternative, at 24V DC. Maximum applicable load 400N. Fast hooking and unhooking system of the chain to the window. Max. stroke 500mm, end of stroke adjustable at 100, 150, 200, 250, 300, 350, 400 mm by an external knob located on both sides of the actuator. Electronic device with acoustic warning to signal erroneous installation to the user. Electronic traction control with speed reduction, during the last 100mm of closing action. High protection IP 55 rated. Upon request, a preset "S" version for the synchronous operation of two actuators on the same window is available. CE marked device.



Easy stroke adjustment (7 positions from 100 to 500mm).



Electronic traction control with speed reduction to avoid chain adjustments in closing and avoid any possible installation mistake.



High protection IP 55 rated.

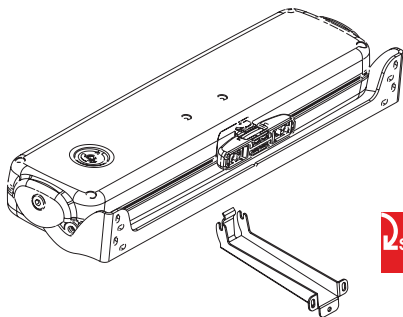


TECHNICAL SPECIFICATIONS

C40 230V

C40 24V

Power supply voltage	230V ~ 50Hz	24V d.c.
Maximum applicable load in thrust	400 N	400 N
Maximum applicable load in traction	400 N	400 N
Strokes	100 - 150 - 200 - 250 - 300 - 400 - 500 mm	
Absorbed current	0,24 A	1,1 A
Idle translation speed	18,5 mm/s	10,5 mm/s
Duration of the idle stroke	27 s	48 s
Double insulated	YES	-
Service Type	S2 of 5 min	S2 of 8 min
Operating temperature	- 5°C + 50°C	- 5°C + 50°C
Protection Class	IP 55	IP 55
Adjustment of the window frame connection	not necessary	not necessary
Adjustment of pins for the swivel brackets	YES	YES
Parallel connection option	YES	YES
Synchronous operation of 2 C40s on the same window	with S version	NO
Chain position control	Electronic in opening, by amperometric absorption in closing	
Acoustic warning for wrong installation (Buzzer)	YES	YES
Dimensions	388 x 50 x 95 mm	388 x 50 x 95 mm
Weight	1,9 kg	1,9 kg



C40 standard 1 push point

3A2#	C40 chain actuator 230V - black
3A2#	C40 chain actuator 230V - grey
3A2#	C40 chain actuator 230V - white
3A2#	C40 chain actuator 24V - black
3A2#	C40 chain actuator 24V - grey
3A2#	C40 chain actuator 24V - white



C40S synchronised for 2 push points on the same window frame

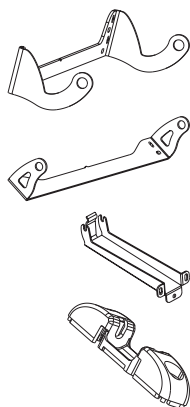
3A22#	C40S Chain actuator 230V black
3A22#	C40S Chain actuator 230V grey
3A22#	C40S Chain actuator 230V white

Description of the standard pattern for 1 push point

3A2#	C40 chain actuator C40 230V (spare parts included)- black
	Swivel frontal bracket for top/bottom hung windows - black
	Upper bracket for bottom hung windows - black
	ARS Rapid hooking device to the window frame - black
	Standard spare parts (C30/C40)

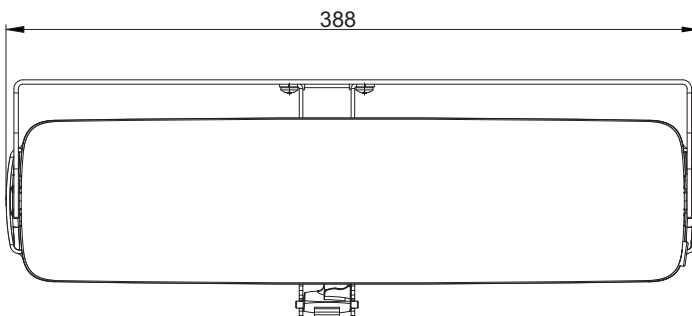
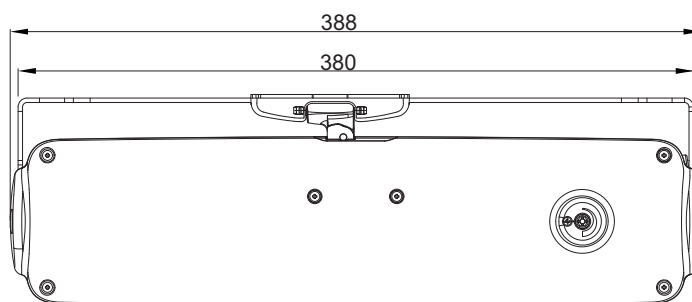
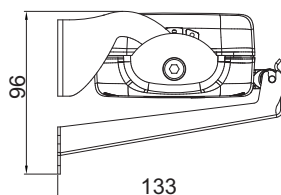
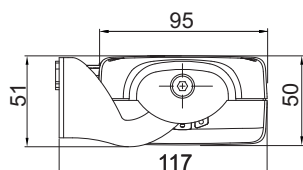
Description of the standard pattern for 2 push points

3A22#	C40S chain actuator 230V black 5mt cable
3A22#	C40S chain actuator 230V black 5mt cable



Accessories and spare parts

1A2600	Swivel frontal bracket for top/bottom hung windows - black
1A2602	Swivel frontal bracket for top/bottom hung windows - grey
1A2601	Swivel frontal bracket for top/bottom hung windows - white
1A2610	Swivel bracket for vertical mounting - black
1A2612	Swivel bracket for vertical mounting - grey
1A2611	Swivel bracket for vertical mounting - white
1A2620	Upper bracket for bottom hung windows - black
1A2622	Upper bracket for bottom hung windows- grey
1A2621	Upper bracket for bottom hung windows - white
1UA001	ARS Rapid hooking device to the window frame - black
1UA003	ARS Rapid hooking device to the window frame - grey
1UA002	ARS Rapid hooking device to the window frame - white
3UM000	C30/C40 spare parts



C50

Chain actuator
Thrust force 500N
Stroke 600mm - 800mm - 1000mm



PRODUCT DESCRIPTION

TOPP electric actuator model C50 with double-link chain, in an aluminium profile, available with brackets and accessories for skylights, bottom hung or top hung windows. Operation at 230V 50Hz. Max. thrust force 500N. Stroke 600 - 800 - 1000 mm. Patented chain terminal, attachment to the frame and chain load adjustment to ensure maximum resistance to high loads with long strokes. Pre-set for the synchronous operation of two actuators on the same window. CE marked device.



Double-link chain and die-cast aluminum gearbox with shaft supported by ball bearings for higher resistance to heavy loads.



Patented chain load adjustment system to allow the maximum resistance to high loads with long strokes.



Patented chain terminal with double lateral fixing and swivelling range of two degrees to ensure a greater resistance to heavy loads.



TECHNICAL SPECIFICATIONS

	C50 stroke 600 mm		C50 stroke 800 mm		C50 stroke 1000 mm
	Top hung	Bottom hung	Top hung	Bottom hung	Bottom hung
Power voltage	230V ~ 50Hz		230V ~ 50Hz		230V ~ 50Hz
Max applicable load in thrust	500 N		300 N		-
Max applicable load in traction	500 N		500 N		500 N
Stroke (+/-20mm)	600 mm		800 mm		1000 mm
Absorbed current	0.2 A		0.2 A		0.2 A
Idle translation speed opening	10,3 mm/s		12.7 mm/s	13.2 mm/s	13.2 mm/s
Idle translation speed closing	10.3 mm/s		8 mm/s	8 mm/s	8 mm/s
Duration of the idle stroke	63 s		83 s	63 s	75 s
Service type	S2 of 4 min		S2 of 4 min		S2 of 4 min
Operating temperature	-5°C + 50°C		-5°C + 50°C		-5°C + 50°C
Protection Class	IP 30		IP 30		IP 30
Synchronous operation of 2 actuators on the same window	YES		YES		YES
Parallel connection option	YES		YES		YES
Overlap from 0 to 50 mm with self-learning	YES		YES		YES
Dimensions	811 x 43 x 55 mm		911 x 43 x 55 mm		1011 x 43 x 55 mm



C50 chain actuator with accessories for application on top hung windows

3E40#	C50 chain actuator 230V 600mm stroke for top hung windows
3E40#	C50 chain actuator 230V 800mm stroke for top hung windows

C50 chain actuator with accessories for application on bottom hung outward opening windows

3E40#	C50 chain actuator 230V 600mm stroke for bottom hung outward opening
3E40#	C50 chain actuator 230V 800mm stroke for bottom hung outward opening
3E40#	C50 chain actuator 230V 1000mm stroke for bottom hung outward opening

C50 chain actuator with accessories for application on bottom hung inward opening windows

3E40#	C50 chain actuator 230V 600mm stroke for bottom hung inward opening
3E40#	C50 chain actuator 230V 800mm stroke for bottom hung inward opening
3E40#	C50 chain actuator 230V 1000mm stroke for bottom hung inward opening

Description of the standard pattern for 1 push point application on top hung windows

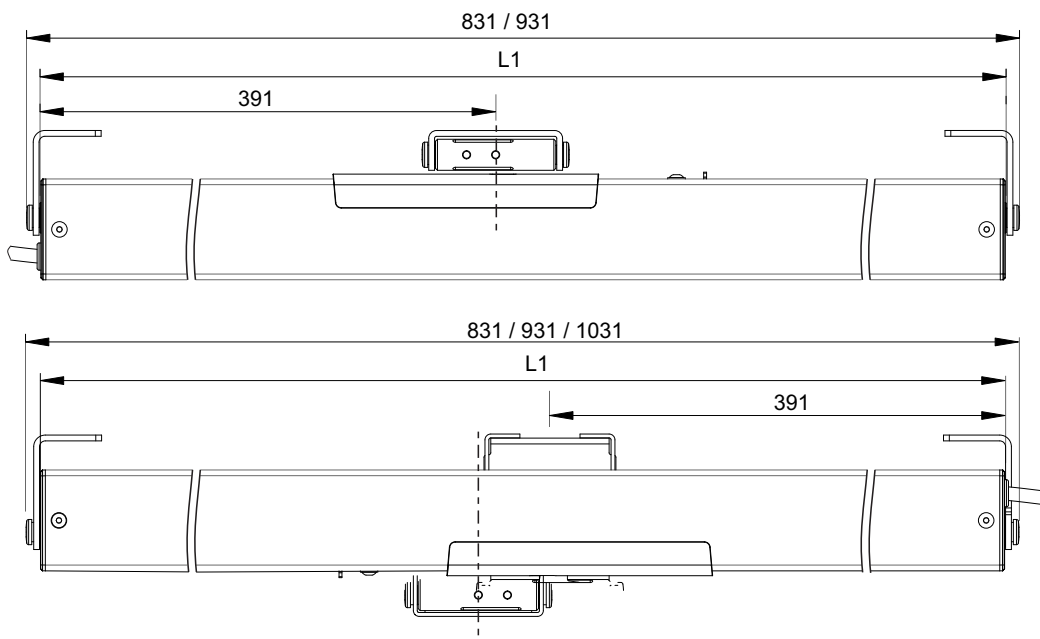
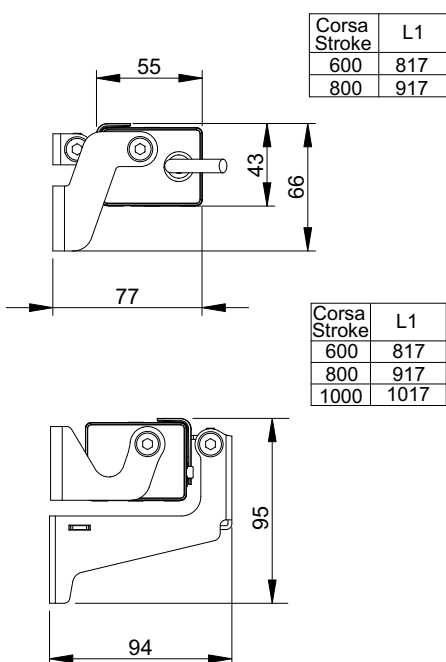
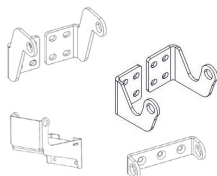
3E40#	C50 chain actuator 230V 600mm stroke
	Hooking device for top and bottom hung outwards opening
	Brackets for top/bottom hung outward opening
	Standard spare parts

Description of the standard pattern for 2 push points application on top hung windows

3E40#	C50 chain actuator 230V 600mm stroke
3E40#	C50 chain actuator 230V 600mm stroke

Accessories and spare parts

3E4100	Brackets for top-hung/bottom-hung outward opening
3E4101	Brackets for bottom-hung inward opening or vertical mounting
1E4604	Upper bracket for bottom hung windows
1E4820	Hooking device for top-hung and bottom hung outwards opening
3E4001	Standard spare parts



C60

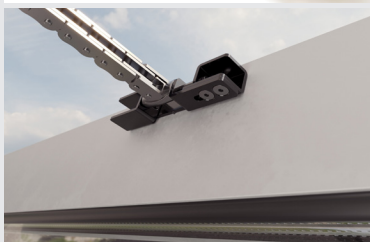
Chain actuator
Thrust force 300 N
Max stroke 600 mm

PRODUCT DESCRIPTION

Electric C60 actuator with double link articulated chain, enclosed in a suitable casing, with different mounting accessories for top or bottom hung windows. Operation at 230V 50Hz or, as an alternative, at 24V DC. Maximum applicable load 300N. Adjustment of the force and of the stroke at 510 or 600mm by external knobs. Electronic end of stroke in closing by current absorption control. CE marked device.



Long stroke, together with a slim and attractive housing, to allow applications that require minimum size.



Special hooking of chain to window to guarantee very high resistance with a long stroke even on top hung windows.

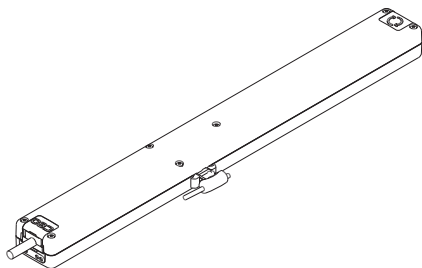


Simple swivel bracket for fast installation.



TECHNICAL SPECIFICATIONS

	C60 230V	C60 24V
Power supply voltage	230V ~ 50Hz	24V d.c.
Max applicable load in thrust	300N (max. stroke 510) - 250N (max. stroke 600)	
Max applicable load in traction	200 N	200 N
Stroke	510 mm and 600 mm	510 mm and 600 mm
Absorbed current	0,14 A	0,49 A
Idle translation speed	8 mm/s	7,5 mm/s
Duration of the idle stroke	75 s	80 s
Service type	S2 of 4 min	S2 of 4 min
Operating temperature	- 5°C + 50°C	- 5°C + 50°C
Protection Class	IP 30	IP 30
Parallel connection option	YES	YES
Stroke end	Electronic in opening, by amperometric absorption in closing	
Dimensions	470 x 34 x 48 mm	470 x 34 x 48 mm
Weight	1,5 kg	1,5 kg



C60 chain actuator with accessories for application on top hung windows

3E30#	C60 chain actuator 230V - black
3E30#	C60 chain actuator 230V - grey
3E30#	C60 chain actuator 230V - white
3E30#	C60 chain actuator 24V - black
3E30#	C60 chain actuator 24V - grey
3E30#	C60 chain actuator 24V - white

C60 chain actuator with accessories for application on bottom hung windows

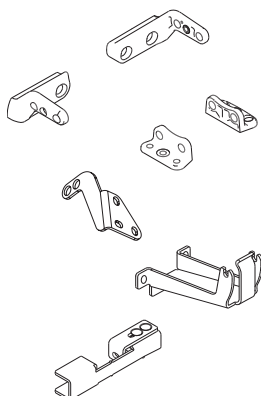
3E30#	C60 chain actuator 230V - black
3E30#	C60 chain actuator 230V - grey
3E30#	C60 chain actuator 230V - white
3E30#	C60 chain actuator 24V - black
3E30#	C60 chain actuator 24V - grey
3E30#	C60 chain actuator 24V - white

C60 chain actuator with accessories for application on vertical mounting windows

3E30#	C60 chain actuator 230V - black
3E30#	C60 chain actuator 230V - grey
3E30#	C60 chain actuator 230V - white
3E30#	C60 chain actuator 24V - black
3E30#	C60 chain actuator 24V - grey
3E30#	C60 chain actuator 24V - white

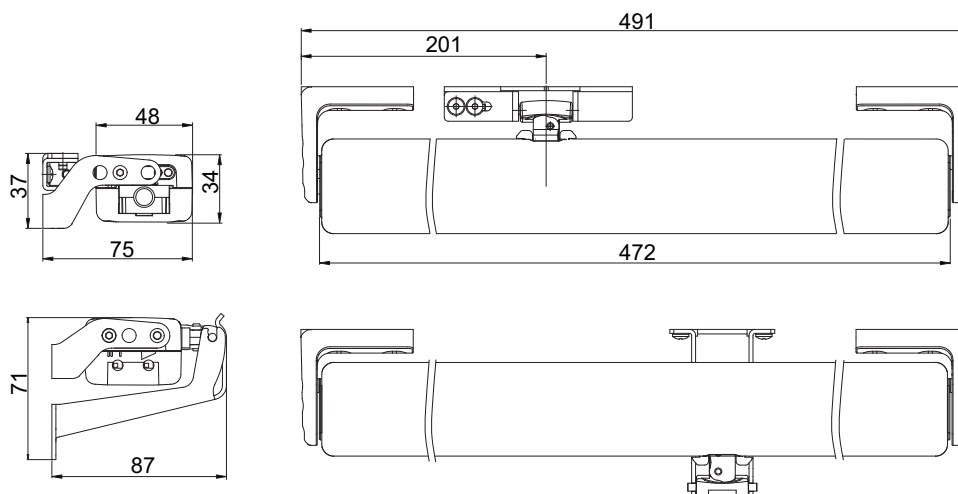
Description of the standard pattern for application on top hung windows

3E30#	C60 chain actuator 230V with sash bracket for top hung windows
	Frontal swivel brackets set for top/bottom hung windows
	Hooking device to the frame for top hung windows – black
	Standard spare parts



Accessories and spare parts

3A3200	Frontal swivel brackets set for top/bottom hung windows - black
3A3202	Frontal swivel brackets set for top/bottom hung windows - grey
3A3201	Frontal swivel brackets set for top/bottom hung windows - white
3A3210	Swivel brackets set for vertical mounting - black
3A3212	Swivel brackets set for vertical mounting - grey
3A3211	Swivel brackets set for vertical mounting - white
3E3130	Brackets set for installation on the moving part of the window - black
3E3132	Brackets set for installation on the moving part of the window - grey
3E3131	Brackets set for installation on the moving part of the window - white
1E3400	Upper bracket for bottom hung windows - black
1E3402	Upper bracket for bottom hung windows - grey
1E3401	Upper bracket for bottom hung windows - white
3E3100	Hooking device to the frame for top hung windows – black
3E3105	Hooking device to the frame for app. on vertical mounting windows - black
3A3000	Standard spare parts



ACK4

Chain actuator
Thrust force 300 N
Adjustable stroke max.400 mm



PRODUCT DESCRIPTION

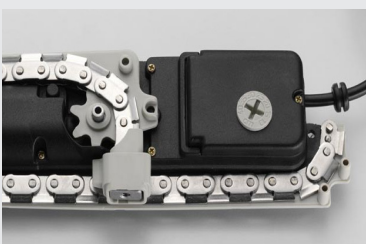
Electric actuator model ACK4 with a double link articulated stainless steel chain, enclosed in a special diecast aluminum casing, painted with epoxy powders, with different mounting accessories for top and bottom hung windows. Operation at 230V 50Hz. or, as an alternative, at 24V DC. Max. traction and thrust force 300N. End of stroke adjustable at 100, 150, 200, 250, 300, 350, 400 mm by an external knob located on both sides of the actuator. Electronic device with acoustic warning to signal erroneous installation (buzzer). Upon request, a preset "S" version for the synchronous operation of two actuators on the same window is available. High protection IP 55 rated. Available IP66 version (fixed stroke). CE marked device.



Easy stroke adjustment in 7 positions from 100 to 400mm. (International patent)



Double link articulated stainless steel chain.



High protection IP 55 rated (available special IP66 version).

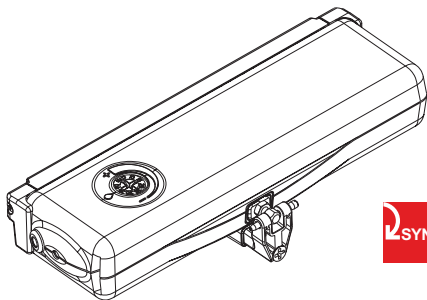


TECHNICAL SPECIFICATIONS

ACK4 230V

ACK4 24V

Power supply voltage	230V ~ 50Hz	24V d.c.
Maximum applicable load in thrust	300 N	300 N
Maximum applicable load in traction	300 N	300 N
Strokes	100 - 150 - 200 - 250 - 300 - 350 - 400 mm	
Absorbed current	0,32 A	1,35 A
Idle translation speed	27 mm/s	17 mm/s
Duration of the idle stroke	15 s	23 s
Double insulated	YES	-
Service Type	S2 of 2 min	S2 of 3 min
Operating temperature	- 5°C + 50°C	- 5°C + 50°C
Protection Class	IP 55 (available special IP66 version)	
Adjustment of the window frame connection	10 mm	10 mm
Adjustment of pins for the swivel brackets	YES	YES
Parallel connection option	with S version	with S version
Synchronous operation of 2 ACK4s on the same window	YES	YES
Chain position control	encoder	encoder
Acoustic warning for wrong installation (Buzzer)	YES	YES
Dimensions	288 x 48 x 83 mm	288 x 48 x 83 mm
Weight	1,9 kg	1,9 kg



ACK4 standard 1 push point

3A1#	ACK4 chain actuator 230V - black RAL 9005
3A1#	ACK4 chain actuator 230V - grey RAL 9006
3A1#	ACK4 chain actuator 230V - white Euro-White
3A1#	ACK4 chain actuator 24V - black RAL 9005
3A1#	ACK4 chain actuator 24V - grey RAL 9006
3A1#	ACK4 chain actuator 24V - white Euro-White



ACK4S synchronised for 2 push points on the same window frame

3A12#	ACK4S chain actuator 230V - black RAL 9005
3A12#	ACK4S chain actuator 230V - grey RAL 9006
3A12#	ACK4S chain actuator 230V - white Euro-White
3A12#	ACK4S chain actuator 24V - black RAL 9005
3A12#	ACK4S chain actuator 24V - grey RAL 9006
3A12#	ACK4S chain actuator 24V - white Euro-White



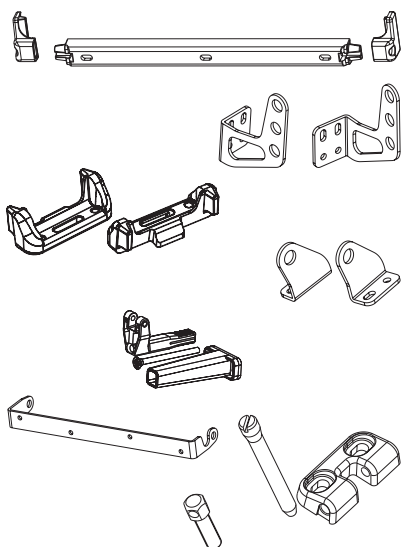
ACK4 IP66 version (fixed stroke) available upon request

Description of the standard pattern for 1 push point

3A1#	ACK4 chain actuator 230V
	Frontal bracket for top/bottom hung windows
	Upper bracket for bottom hung windows
	Hooking device to the frame and spare parts

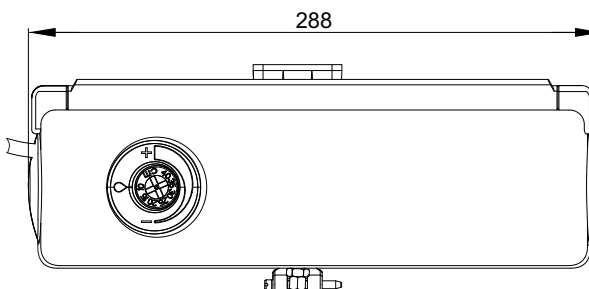
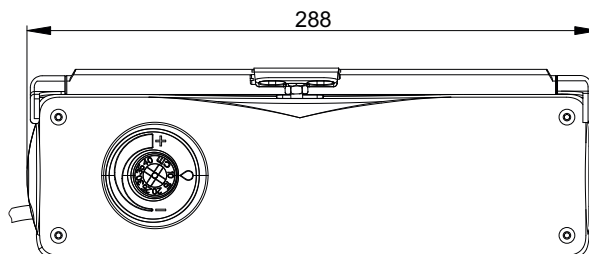
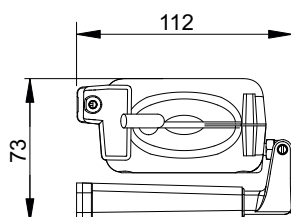
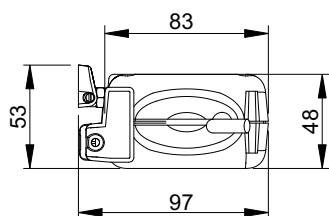
Description of the standard pattern for 2 push points

3A12#	ACK4S chain actuator 230V - black
3A12#	ACK4S chain actuator 230V - black



Accessories and spare parts

3A1360	Frontal bracket for top/bottom hung windows - black
3A1362	Frontal bracket for top/bottom hung windows - silver
3A1361	Frontal bracket for top/bottom hung windows - white
3A1391	Large swivel brackets set frontal mounting - black
3A1393	Large swivel brackets set frontal mounting - silver
3A1392	Large swivel brackets set frontal mounting - white
3A1380	Fixed vertical mounting brackets set - black
3A1382	Fixed vertical mounting brackets set - silver
3A1381	Fixed vertical mounting brackets set - white
3A1396	Small vertical mounting brackets set - black
3A1398	Small vertical mounting brackets set - silver
3A1397	Small vertical mounting brackets set - white
3A1355	Upper bracket for bottom hung windows - black
3A1375	Single swivel bracket for bottom hung windows - black
3A1377	Single swivel bracket for bottom hung windows - silver
3A1376	Single swivel bracket for bottom hung windows - white
3A1001	Hooking device to the frame with pin and spare parts
0B0005	Extension pin h 37,5 (overlap 10-20mm)
0B0007	Extension pin h 47,5 (overlap 20-30mm)
0B0006	Extension pin h 57,5 (overlap 30-40mm)



C130

Chain actuator
Thrust force 300N
Max stroke 360mm

PRODUCT DESCRIPTION

Electric actuator Topp model C130 with double-link chain, in an elegant die-cast aluminium profile, with custom-made length from 600 mm to 1200 mm, complete with brackets and accessories for top or bottom hung windows. Operation at 230V ~ 50Hz or, as an alternative, at 24V d.c. Max. thrust force 300N. Fast hooking and unhooking system to the window frame. Max. stroke 360 mm. Electronic end of stroke in closing by current absorption control. CE marked device.



Tailored profile lengths according to the window frame width.



Cable exit on both sides of the profile.



Innovative and original design.

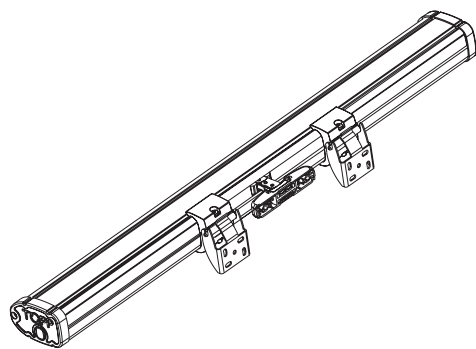


TECHNICAL SPECIFICATIONS

C130 230V

C130 24V

Power supply voltage	230V ~ 50Hz	min 21V ~ max 28V d.c.
Max applicable load in thrust	300 N	300 N
Max applicable load in traction	200 N	200 N
Stroke	360 mm	360 mm
Absorbed current	0,12 A	0,43 A
Idle translation speed	8 mm/s	7,5 mm/s
Duration of the idle stroke	46 s	48 s
Double insulated	YES	-
Service type	S2 of 4 min	S2 of 4 min
Operating temperature	- 5°C + 50°C	- 5°C + 50°C
Protection Class	IP 30	IP 30
Stroke end regulation in closure	not necessary	not necessary
Connection of two or more actuators in parallel	YES	YES
Stroke end	Electronic in opening, by amperometric absorption in closing	



**C130 chain actuator (profile's length: 600 mm - 900 mm), stroke 360 mm
application for top hung windows**

3A6#	C130 chain actuator 230V
3A6#	C130 chain actuator 24V

**C130 chain actuator (profile's length: 910 mm - 1200 mm), stroke 360 mm
application for top hung windows**

3A6#	C130 chain actuator 230V
3A6#	C130 chain actuator 24V

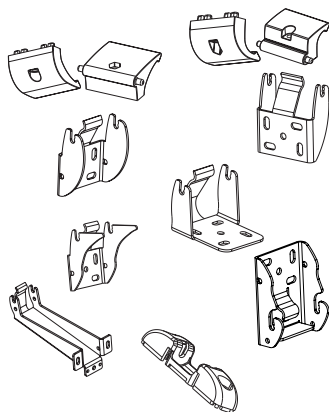
C130 chain actuator with on-board receiver

3A6#	C130 chain actuator 230V RR (profile's length: 600 mm - 900 mm)
3A6#	C130 chain actuator 230V RR (profile's length: 910 mm - 1200 mm)

**Description of the standard pattern (profile's length: 600 mm - 900 mm)
application for top hung windows**

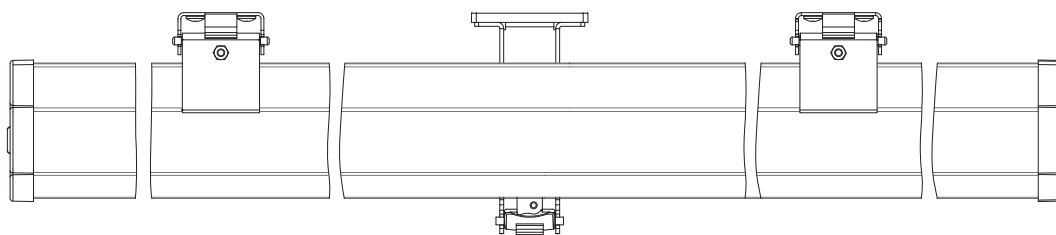
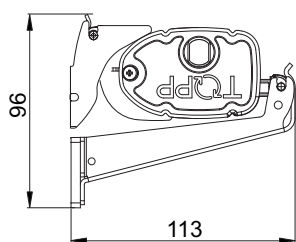
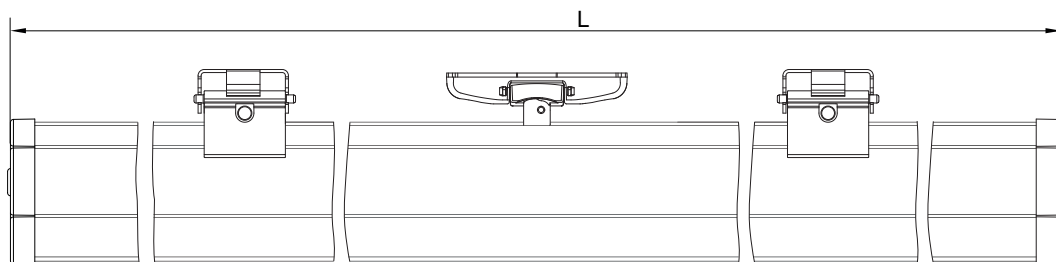
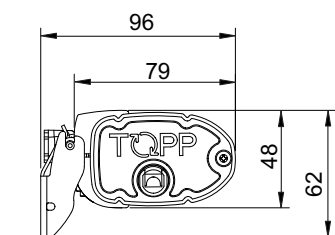
3A6#	C130 chain actuator 230V
	Frontal bracket for top hung windows (2 pcs)
	Clamps set for top hung brackets (2 pcs)
	ARS fast hooking device to the window frame

Note: Part Numbers will be assigned according to the required profile's length.



Accessories and spare parts

3A5005	Clamps for top hung windows
3A5006	Clamps for bottom hung windows
1A5822	Slim frontal bracket for top hung windows (window opening min 400mm)
1A5827	Frontal bracket for top hung windows (window opening min 700mm)
1A5823	Bracket for vertical mounting (window opening >350mm)
1A5832	Bracket for installation on bottom hung windows
1A5831	Bracket for bottom-hung outward opening application (window opening min 250mm)
1A5828	Fallback bracket for bottom hung windows
1UA003	ARS Rapid hooking device to the window frame - grey

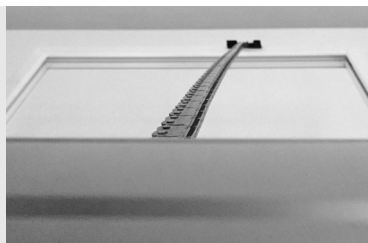


C160

Chain actuator
Thrust force max. 300N
Stroke 360mm - 600mm - 1000mm

PRODUCT DESCRIPTION

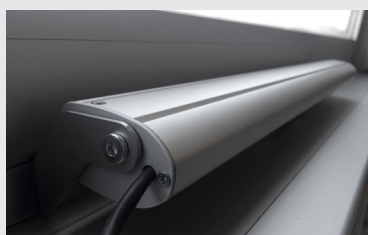
Electric actuator Topp model C160 with double-link chain, in an elegant die-cast aluminium profile, complete with brackets and accessories for top or bottom hung windows. Operation at 230V ~ 50Hz. Max. thrust force 300N. Stroke 360 - 600 - 1000 mm. Electronic end of stroke in closing by current absorption control. CE marked device.



Elegant and attractive aluminium profile with swivel brackets versatile and easy to install.



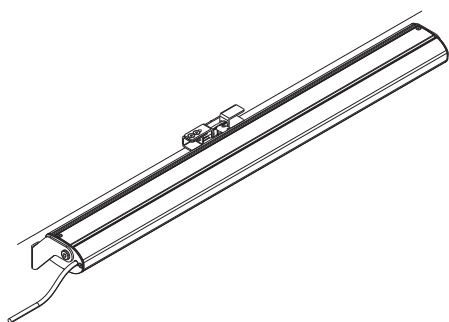
Available also for installation on side hung windows.



Long chain up to 1 meter enclosed in a slim housing.



TECHNICAL SPECIFICATIONS	C160 stroke 360 mm	C160 stroke 600 mm	C160 stroke 1000 mm
Power voltage:			
Max applicable load in thrust	300 N		50 N
Max applicable load in traction	200 N		185 N
Stroke for top-hung application	360 mm		1000 mm
Stroke for bottom-hung application	322 mm		962 mm
Absorbed current	0,12 A		0,14 A
Idle translation speed	8 mm/s		8 mm/s
Duration of the idle stroke *	45 s		125 s
Double insulated	YES		YES
Service type	S2 of 4 min		S2 of 4 min
Operating temperature	-5°C + 50°C		-5°C + 50°C
Protection Class	IP30		IP30
Stroke end regulation in closure	not necessary		not necessary
Parallel connection option	YES		YES
Possibility of installing double push point on the same window	YES		NO
Stroke end			



C160 standard 1 push point

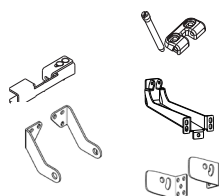
3E26#	C160 chain actuator 230V stroke 360mm top-hung application
3E26#	C160 chain actuator 230V stroke 360mm bottom-hung application
3E26#	C160 chain actuator 230V stroke 360mm outward swinging application
3E26#	C160 chain actuator 230V stroke 360mm inward swinging application
3E25#	C160 chain actuator 230V stroke 600mm top-hung application
3E25#	C160 chain actuator 230V stroke 600mm bottom-hung application
3E25#	C160 chain actuator 230V stroke 600mm outward swinging application
3E25#	C160 chain actuator 230V stroke 600mm inward swinging application
3E27#	C160 chain actuator 230V stroke 1000mm bottom-hung application
3E27#	C160 chain actuator 230V stroke 1000mm outward swinging application
3E27#	C160 chain actuator 230V stroke 1000mm inward swinging application

Description of the standard pattern, 1 push point

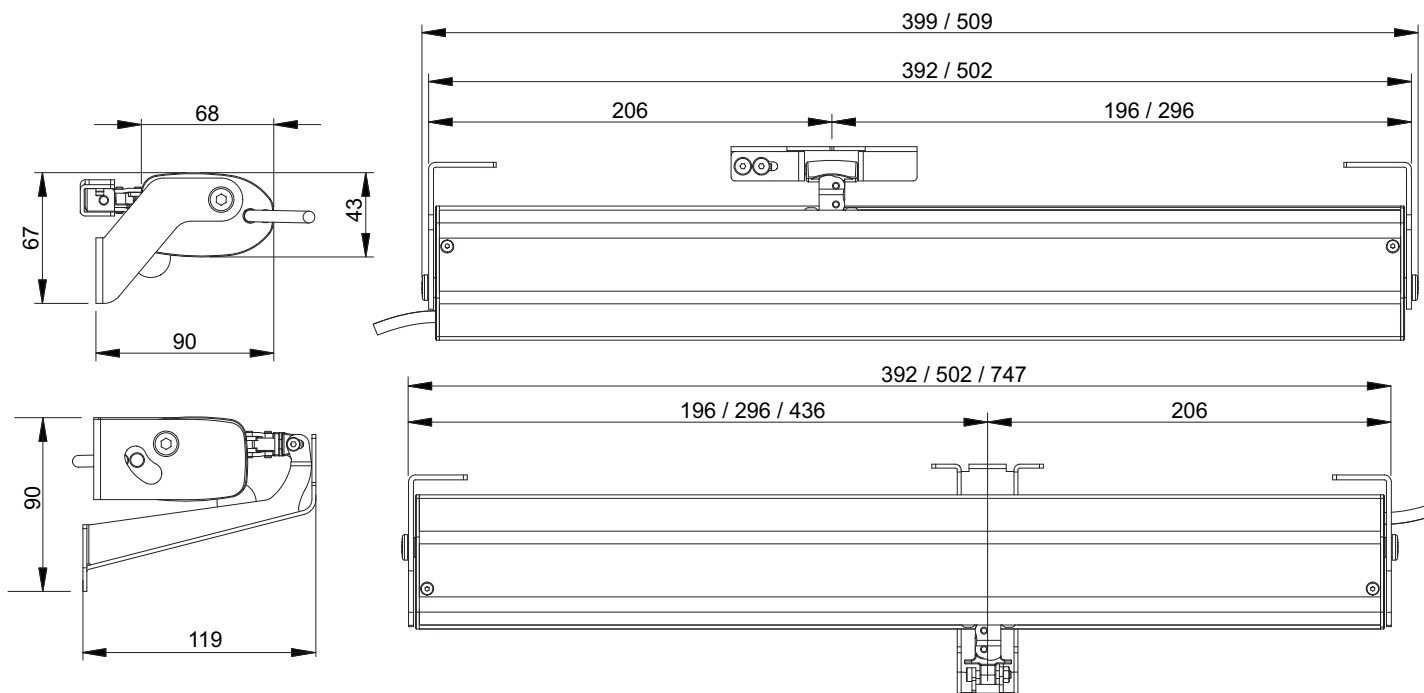
Application for top hung windows

3E25#	C160 chain actuator 230V stroke 600mm
	Iron hooking device for top-hung and bottom hung
	(outwards opening) for C160 600/1000 stroke
	Couple of swivel frontal brackets C160

Accessories and spare parts



3E2012	Hooking device for top-hung and bottom hung
	(outwards opening) for C160 360 stroke
3E3100	Iron hooking device for top-hung and bottom hung
	(outwards opening) for C160 600/1000 stroke
1E2804	C160 bottom-hung bracket for single push point
3E2100	Brackets for top-hung/bottom-hung outwards opening application
3E2101	Brackets for bottom-hung fallback application



C240

Dual push points chain actuator
Thrust force 400N
Max stroke 360mm

PRODUCT DESCRIPTION

Electric actuator Topp model C240 with 2 double-link chains, in an elegant die-cast aluminium profile, with custom-made length from 1200 mm to 4000 mm, complete with brackets and accessories for top or bottom hung windows. Operation at 230V~50Hz or, as an alternative, at 24V DC. Max. thrust force 400N. Fast hooking and unhooking system to the window frame. Max. stroke 360 mm. Electronic end of stroke in closing by current absorption control. CE marked device.



Tailored profile lengths according to the window frame width (International patent).



Cable exit on both sides of the profile.



Innovatory and original design.

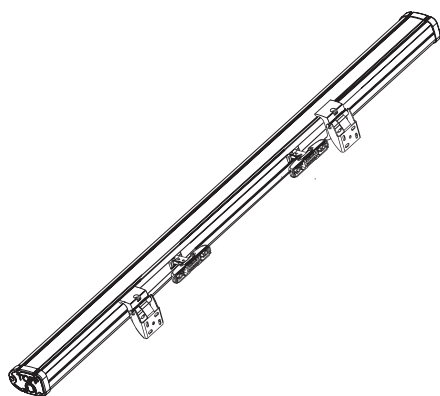


TECHNICAL SPECIFICATIONS

C240 230V

C240 24V

Power supply voltage	230V ~ 50Hz	min 21V ~ max 28V d.c.
Max applicable load in thrust	400 N	400 N
Max applicable load in traction	300 N	300 N
Stroke	360 mm	360 mm
Absorbed current	0,22 A	0,75 A
Idle translation speed	8 mm/s	7,5 mm/s
Duration of the idle stroke	46 s	48 s
Double insulated	YES	-
Service type	S2 of 4 min	S2 of 4 min
Operating temperature	- 5°C + 50°C	- 5°C + 50°C
Protection Class	IP 30	IP 30
Stroke end regulation in closure	not necessary	not necessary
Parallel connection option	YES	YES
Stroke end	Electronic in opening, by amperometric absorption in closing	



**C240 dual push points actuator (profile's length: 1200 - 1500 mm), stroke 360 mm
application for top hung windows**

3A5#	Dual push points actuator C240 230V
3A5#	Dual push points actuator C240 24V

**C240 dual push points actuator (profile's length: 1510 - 2000 mm), stroke 360 mm
application for top hung windows**

3A5#	Dual push points actuator C240 230 V
3A5#	Dual push points actuator C240 24 V

**C240 dual push points actuator (profile's length: 2010 - 2500 mm), stroke 360 mm
application for top hung windows**

3A5#	Dual push points actuator C240 230 V
3A5#	Dual push points actuator C240 24 V

**C240 dual push points actuator (profile's length: 2510 - 3000 mm), stroke 360 mm
application for top hung windows**

3A5#	Dual push points actuator C240 230 V
3A5#	Dual push points actuator C240 24 V

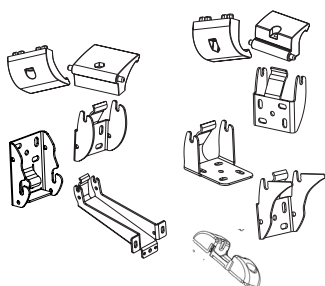
**C240 dual push points actuator (profile's length: 3010 - 4000 mm), stroke 360 mm
application for top hung windows**

3A5#	Dual push points actuator C240 230 V
3A5#	Dual push points actuator C240 24 V

**Description of the standard pattern (profile's length: 1200 - 1500 mm)
application for top hung windows**

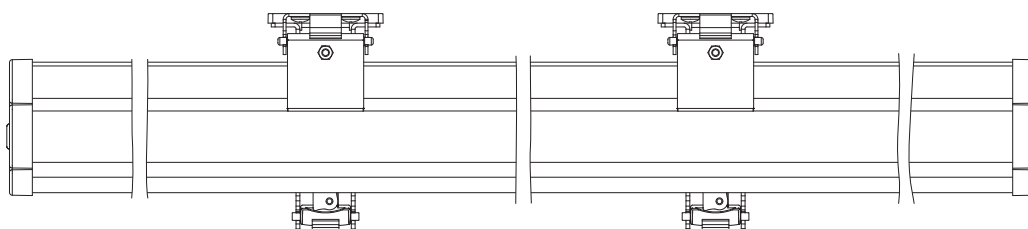
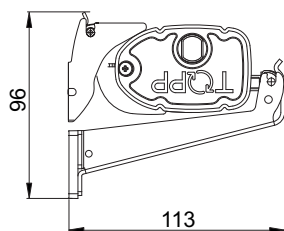
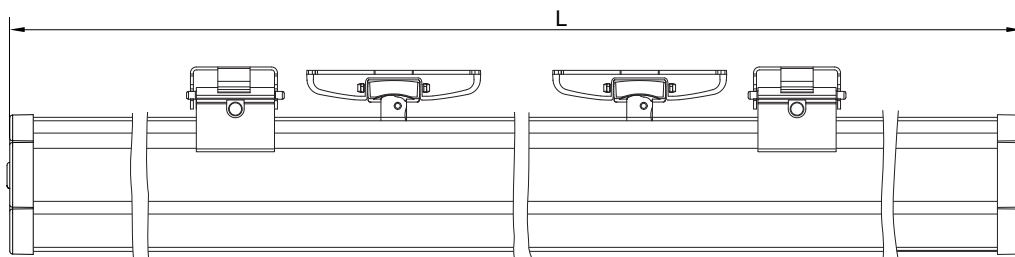
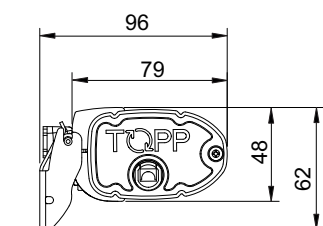
3A5#	Dual push points actuator C240 230 V
	Frontal bracket for top hung windows (2 pcs)
	Clamps set for top hung brackets (2 pcs)
	ARS Fast hooking device to the window frame (2 pcs)

Note: Part Numbers will be assigned according to the required profile's length.



Accessories and spare parts

3A5005	Clamps for top hung windows
3A5006	Clamps for bottom hung windows
1A5822	Slim frontal bracket for top hung windows (window opening min. 400mm)
1A5827	Frontal bracket for top hung windows (window opening min. 700mm)
1A5823	Bracket for vertical mounting (window opening >350mm)
1A5832	Bracket for installation on bottom hung windows
1A5831	Bracket for bottom-hung outward opening (window opening 550mm)
1A5828	Fallback bracket for bottom hung windows
1UA003	ARS Rapid hooking device to the window frame - grey



C260

Dual push points chain actuator
Thrust force 600N
Max stroke 600mm

PRODUCT DESCRIPTION

Electric actuator Topp model C260 with 2 double-link chains, in an elegant die-cast aluminium profile, with custom-made length from 1550 mm to 4000 mm, complete with brackets and accessories for top and bottom hung windows. Operation at 230V~50Hz. Max. thrust force 600N. Max. stroke 600 mm. Electronic end of stroke in closing by current absorption control. CE marked device.



Tailored profile lengths according to the window frame width (International patent).



Special hooking of chain to window to guarantee very high resistance with a long stroke even on top hung windows.



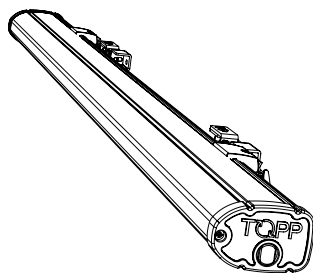
Innovatory and original design.



TECHNICAL SPECIFICATIONS

C260 230V

Power supply voltage	230V ~ 50Hz
Max applicable load in thrust	600 N
Max applicable load in traction	600 N
Stroke	600 mm
Absorbed current	0,4A
Idle translation speed	13 mm/s
Duration of the idle stroke	46 s
Double insulated	YES
Service type	S2 of 4 min
Operating temperature	- 5°C + 50°C
Protection Class	IP 30
Stroke end regulation in closure	not necessary
Parallel connection option	YES
Stroke end	Electronic in opening, by amperometric absorption in closing



C260 dual push points actuator (profile's length: 1550 - 2000 mm), stroke 600 mm

3E15#	Dual push points actuator C260 230 V for top hung windows
3E15#	Dual push points actuator C260 230 V for bottom hung windows
3E15#	Dual push points actuator C260 230 V for swinging windows

C260 dual push points actuator (profile's length: 2010 - 2500 mm), stroke 600 mm

3E15#	Dual push points actuator C260 230 V for top hung windows
3E15#	Dual push points actuator C260 230 V for bottom hung windows
3E15#	Dual push points actuator C260 230 V for swinging windows

C260 dual push points actuator (profile's length: 2510 - 3000 mm), stroke 600 mm

3E15#	Dual push points actuator C260 230 V for top hung windows
3E15#	Dual push points actuator C260 230 V for bottom hung windows
3E15#	Dual push points actuator C260 230 V for swinging windows

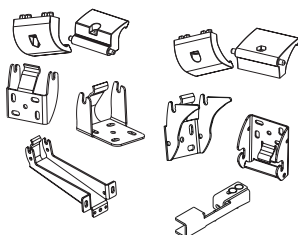
C260 dual push points actuator (profile's length: 3010 - 4000 mm), stroke 600 mm

3E15#	Dual push points actuator C260 230 V for top hung windows
3E15#	Dual push points actuator C260 230 V for bottom hung windows
3E15#	Dual push points actuator C260 230 V for swinging windows

Description of the standard pattern (profile's length: 1550 - 2000 mm), stroke 600 mm application on top hung windows

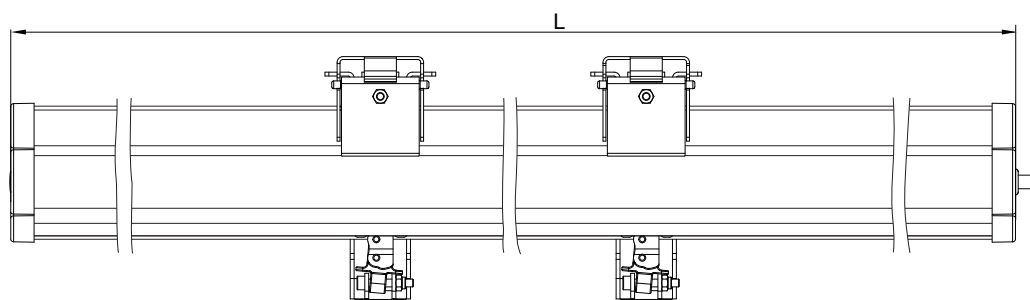
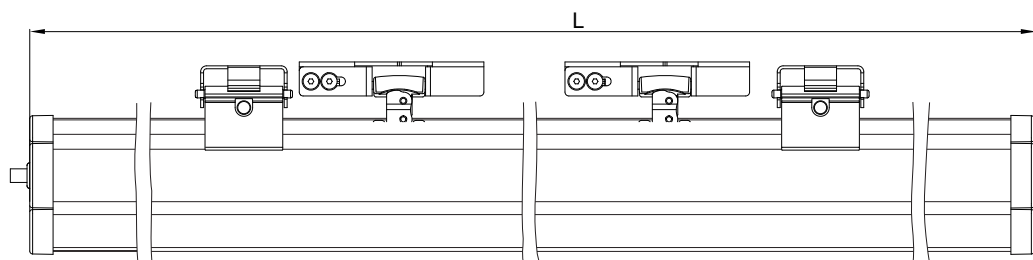
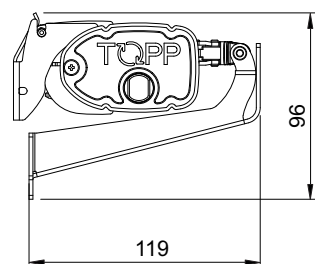
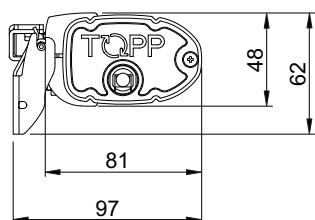
3E15#	Dual push points actuator C260 230 V
	Frontal bracket for top hung windows (2 pcs)
	Clamps set for top hung brackets (2 pcs)
	Hooking device to the frame for top-hung application - black (2 pcs)

Note: Part Numbers will be assigned according to the required profile's length.



Accessories and spare parts

3A5005	Clamps for top hung windows
3A5006	Clamps for bottom hung windows
1A5822	Slim frontal bracket for top hung windows (window opening min. 400mm)
1A5801	Bracket for vertical mounting
1A5832	Bracket for bottom-hung inward opening application
1A5831	Bracket for bottom-hung outward opening application (550mm opening)
1A5800	Fallback bracket for bottom hung windows
3E3100	Hooking device to the frame for top-hung application - black



S80

Linear stem actuator
Thrust force 800N
Adjustable stroke max.1000 mm



PRODUCT DESCRIPTION

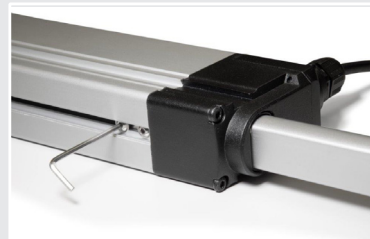
Linear electric actuator Topp model S80 with self-aligning tilting movement, complete with support and fitting accessory for top hung windows or sun blades and louvers. Operation at 230V 50Hz, or, as an alternative, at 24V DC. Max. traction and thrust force 800N. Preset for the synchronous operation of two actuators on the same window. Available strokes: 200 - 400 - 600 - 800 - 1000mm. Worm screw in stainless steel and IP68 protection degree for 200 and 400mm strokes. IP65 for 600, 800 and 1000mm strokes. CE marked device.



High degree of protection against dust and water IP68.



Stainless steel drive.



Millimetrically adjustable stroke.



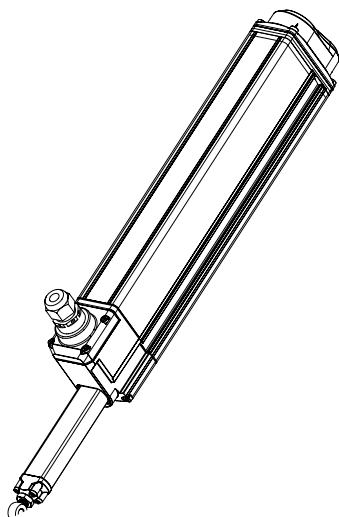
TECHNICAL SPECIFICATIONS

	S80 230V	S80 24V
Power Supply voltage *	230V ~ 50Hz	24V d.c.
Maximum load applicable in thrust	800 N	800 N
Maximum applicable load in traction	800 N	800 N
Strokes	200 - 400 - 600 - 800 - 1000 mm	
Absorbed current	0,2 A	1A
Idle translation speed	6,5 mm/s	6,5 mm/s
Duration of the idle stroke	(stroke/idle translation speed)	
Double insulated	YES	YES
Service type	S2 of 3 min	S2 of 3 min
Operating temperature	-20°C + 60°C	-20°C + 60°C
Protection class	IP 68 (200-400strokes) IP65 (600-800-1000 strokes)	
Parallel connection	YES	YES
Synchronous operation of more actuators on the same window	YES	YES
Stroke end	mechanical / electronic	mechanical / electronic

* power supply cable not included



S80 standard 1 push point



3B20#	S80 linear stem actuator 230V stroke 200mm
3B20#	S80 linear stem actuator 230V stroke 200mm (louvers)
3B20#	S80 linear stem actuator 230V stroke 400mm
3B20#	S80 linear stem actuator 230V stroke 400mm (louvers)
3B20#	S80 linear stem actuator 230V stroke 600mm
3B20#	S80 linear stem actuator 230V stroke 800mm
3B20#	S80 linear stem actuator 230V stroke 1000mm

3B20#	S80 linear stem actuator 24V stroke 200mm
3B20#	S80 linear stem actuator 24V stroke 200mm (louvers)
3B20#	S80 linear stem actuator 24V stroke 400mm
3B20#	S80 linear stem actuator 24V stroke 400mm (louvers)
3B20#	S80 linear stem actuator 24V stroke 600mm
3B20#	S80 linear stem actuator 24V stroke 800mm
3B20#	S80 linear stem actuator 24V stroke 1000mm

Note: feeding cable not included

Description of the standard 1 push point pattern for top-hung windows

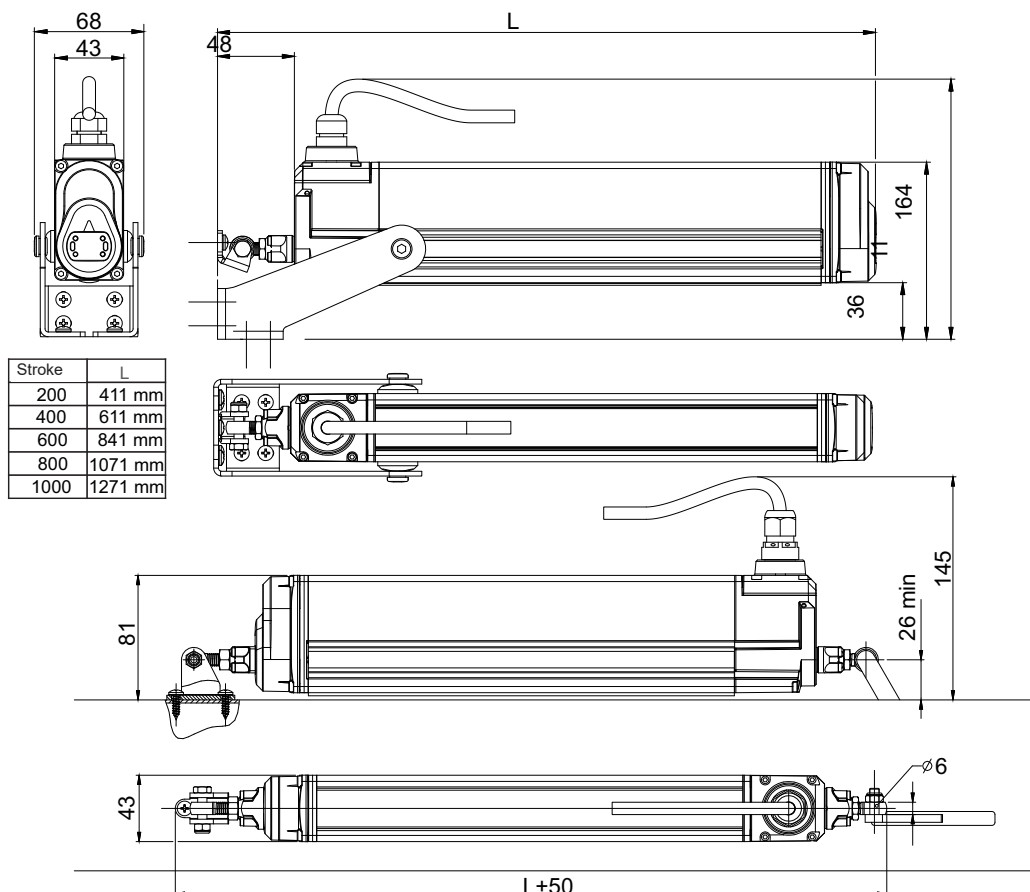
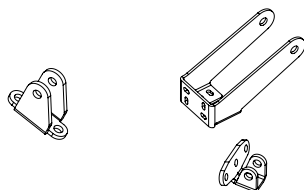
3B20#	S80 linear stem actuator 230V stroke 400mm
	Actuator supporting bracket
	Fitting bracket to the frame
	Spare parts

Description of the standard 1 push point pattern for louvers

3B20#	S80 linear stem actuator 230V stroke 200mm
	Actuator supporting bracket for louvers
	Standard connector
	Spare parts for louvers

Accessories and spare parts

1B2801	Actuator supporting bracket
1B2802	Actuator supporting bracket for louvers
1S1604	Fitting bracket to the frame
3B2001	Spare parts for top hung windows
3B2002	Spare parts for louvers
1B2120	Feeding cable for synchronization (2m)
3B2011	Standard connector
3B2015	90° connector



T50

Rack actuator
Thrust force 500N
Adjustable stroke max.1000 mm



PRODUCT DESCRIPTION

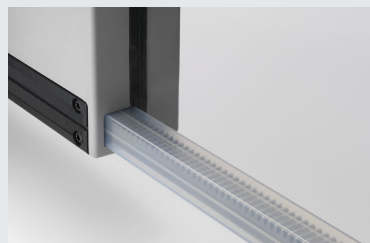
Linear electrical actuator, model T50, with rack, with self-aligning swivel movement, complete with brackets and fitting accessories for top hung windows. Available at 230V 50Hz or at 24V DC. Max. applicable force 500N, max. stroke 1000mm +/- 20mm. Stroke adjustable about every 50mm by external adjusting selector. Preset for the mechanical connection of 2 or more push points by transmission rod. S version for simultaneous synchronization and operation of two actuators installed on a single window (without connecting bar) available on demand . CE marked device.



Connection of several drives by adding connecting rods and rack groups for the installation in large windows.



Fast installation without the need of power, thanks to the self-aligning sliding bracket with easy adjustment in 2mm steps along the body of the actuator.



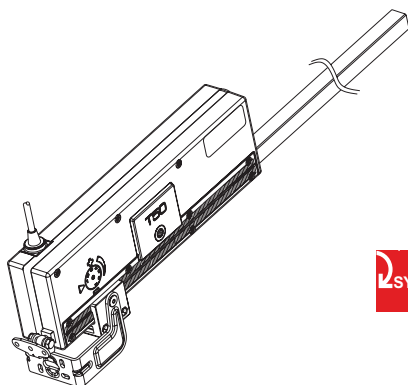
High protection IP 55 rated.



TECHNICAL SPECIFICATIONS

	T50 230V	T50 24V
Power supply voltage	230V ~ 50Hz	24 V d.c.
Max. applicable load	500 N	
2 push points (1 master + 1 slave)	500 N	
2 push points (1 master + 1 master)	700 N (800N Sync version)	
3 push points (1 master + 2 slave)*	450 N	
Distance between 2 push points	max 2,4m - min 1m (1,5m between 2 masters)	
Available strokes (+/- 20mm) T50 mod. 320	150 - 200 - 250 - 320 mm	
Available strokes (+/- 20mm) T50 mod. 500	150 - 200 - 250 - 320 - 400 - 450 - 500 mm	
Available strokes (+/- 20mm) T50 mod. 750	180 - 280 - 370 - 470 - 560 - 650 - 750 mm	
Available strokes (+/- 20mm) T50 mod. 1000	Millimetrically adjustable on demand	
Absorbed current at max. load	0,3 A	1,4 A
Idle translation speed	18 mm/s	10 mm/s
Duration of the idle stroke	(stroke/idle translation speed)	
Double insulated	YES	-
Service type	S2 of 4 min	
Operating temperature	- 5°C +55°C	
Protection class	IP 55	
Parallel connection option	YES	
Stroke end	encoder	

* Operation up to 6 drives on the same window frame is possible by transmission rod. Ask our technical dept. for the placement of the pushing points and the calculation of the thrust force.



T50 Actuator Kit (master)

3C20001	T50 Rack actuator 230V stroke 320 mm (adjustable)
3C20002	T50 Rack actuator 230V stroke 500 mm (adjustable)
3C20013	T50 Rack actuator 230V stroke 750 mm (adjustable)
3C22004	T50S Rack actuator 230V stroke 1000 mm (adjustable) *
3C20003	T50 Rack actuator 24V stroke 320 mm (adjustable)
3C20004	T50 Rack actuator 24V stroke 500 mm (adjustable)
3C20014	T50 Rack actuator 24V stroke 750 mm (adjustable)
3C22008	T50S Rack actuator 24V stroke 1000 mm (adjustable) *



* T50S with stroke 1000mm is equipped with electronic board for the synchronized operation of 2 actuators on the same window. Thrust force 400N.

T50S version for the synchronous operation of two T50 on the same window frame without connection rod available upon request.



T50 Rack assembly kit (slave)

3C2100	T50 Rack assembly stroke 320 mm (connection and fitting accessories included)
3C2101	T50 Rack assembly stroke 500 mm (connection and fitting accessories included)
3C2104	T50 Rack assembly stroke 750 mm (connection and fitting accessories included)
3C2105	T50 Rack assembly stroke 1000mm (connection and fitting accessories included)

T50 connection rod

1C2505	T50 connecting rod - Length 1500 mm (interaxis max. 1400 mm)
1C2509	T50 connecting rod - Length 3000 mm (interaxis max. 2400 mm)

Description of the standard pattern for 2 push points

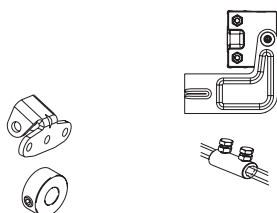
3C20001	T50 Rack actuator 230V stroke 320 mm (adjustable)
3C2100	T50 Rack assembly stroke 320 mm
1C2505	T50 connecting rod - Length 1500 mm

Description of the standard pattern for 3 push points

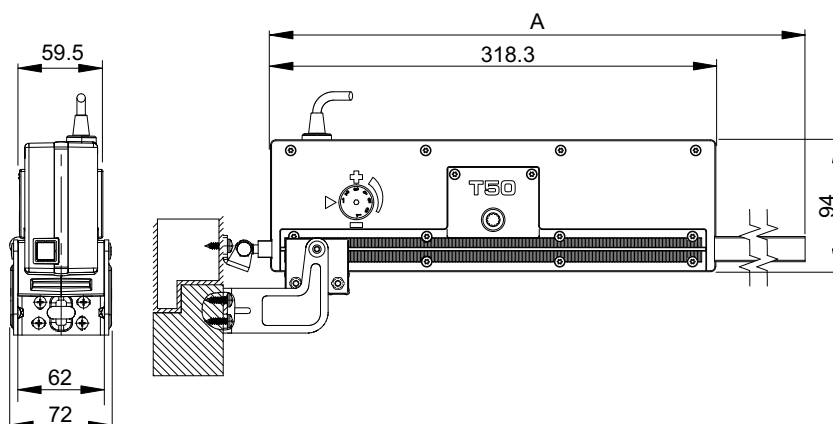
3C20001	T50 Rack actuator 230V stroke 320 mm (adjustable)
3C2100	T50 Rack assembly stroke 320 mm
3C2100	T50 Rack assembly stroke 320 mm
1C2509	T50 connecting rod - Length 3000 mm

Accessories and spare parts

8C0016	CC1 control unit for simultaneous stop max 3 T50 230V stroke 320mm
3C2010	Actuator support brackets
3C2001	Spare parts and sash bracket
1C2804	Junction ring between the connecting rods for 3 push point
0A0483	Connecting rod stop



	A
T50 320 mm	576.5 mm
T50 500 mm	746.5 mm
T50 750 mm	983.5 mm
T50 1000 mm	1246.5 mm



TF23R TF33R TF24R TF44R RR MEM/AL RW RDC TR8 TR4

Control and power units Detectors and remote controls



PRODUCT DESCRIPTION

TF33R - Control and feeding unit with 2 outputs at 24V and 1 output at 230V, max. 1,5A each. Provided with remote control receiver, either at 433,92 MHz or infra-red. Input for one RW wind sensor with adjustable speed threshold via trimmer. Possibility to operate two RDC 12V rain sensors simultaneously. A blue LED indicates the control unit and the remote control status. All functions (rain sensor exclusion, manual operation, thermostat connection, etc.) can be set out via dipswitch. CE marked device.

TF23R TF24R TF44R RR - The TF23R, TF24R, TF44R and RR control units feed and control 24V or 230V TOPP actuators. Built-in radio receiver at 433,92 MHz. Pre-set for RW wind sensor and RDC 12V rain sensor. CE marked device.

MEM/AL - Power supply system for connecting 24V actuators, max 16A, to an existing detection control unit. In the temporary absence of main voltage, the MEM/AL module guarantees, by the use of back-up batteries (to be requested separately) a limited number of activations of the actuators connected to it. The existing detection control unit must be equipped with a 24V dc alarm signal or, alternatively, a N.O. contact. The MEM/AL module is designed to be connected to a double N.O. switch to control the actuators as well for ventilation (limited number of daily operations) or for closing the windows in the event of an opening command from the existing control unit. CE marked.

TECHNICAL SPECIFICATIONS	TF23R_TF33R	TF24R	TF44R	RR
Power supply voltage	230 V~50 Hz.			
Output voltage	24 V - 230 V	24 V c.c.	230 V~50 Hz.	230 V~50 Hz.
Max power consumption	32 W	62 W	300 W	300 W
Max absorbed current	0,5 A	1,35 A	1,3 A	1,3 A
Service type	S1 – continuous			depending on the connected motors
Pre-set for	wind sensor, rain detector, push button			rain detector or cabled push button
Operating temperature	- 5 + 50 °C			
Dimensions	150x80x55 mm 150x80x28 mm	160x120x75 mm	160x120x75 mm	87x53x32 mm
Connectable C20 actuators	3	1 (4*)	4 (16*)	6
Connectable C20 tandem actuators-	-	1 (4*)	2 (8*)	3
Connectable C30 actuators	-	4*	16*	4
Connectable C40 actuators	-	1 (4*)	5 (20*)	5
Connectable C50 actuators	-	1 (4* **)	4 (16* **)	4
Connectable C60 actuators	3	2	6	6
Connectable ACK4 actuators	-	-	4 (16*)	4
Connectable C130 actuators	3	2 (8*)	4 (16*)	6
Connectable C160 actuators	-	2	6	6
Connectable C240 actuators	-	1 (4*)	2 (8*)	3
Connectable C260 actuators	-	-	4 (16*)	3
Connectable S80 actuators	-	1 (4* ***)	4 (16* ***)	4
Connectable T50 actuators	-	1	4 (16*)	4

* Motors must be equally located on the four feeding unit outputs, which implies a 1 minute delay between 2 consecutive commands.

** Max. 800 mm stroke. *** Max. 400 mm stroke.

TECHNICAL SPECIFICATIONS	MEM/AL
Power supply voltage	230 V~50 Hz.
Output voltage	24 V
Max power consumption	0,30W
Max absorbed current	16 A
Service type	S1 – continuous
Operating temperature	-5 °C +50 °C
Dimensions	234x315x190 mm
Connectable C20 actuators	30
Connectable C20 tandem actuators	15
Connectable C30 actuators	12
Connectable C40 actuators	12
Connectable C50 actuators	11
Connectable C60 actuators	26
Connectable ACK4 actuators	10
Connectable C130 actuators	30
Connectable C160 actuators	15
Connectable C240 actuators	15
Connectable S80 actuators	12
Connectable T50 actuators	10

Control and power units for actuators at 230V and 24V

8C0070	TF23R Control and power pack, 3 outputs for 24V DC actuators, with 433 MHz on-board receiver and infra-red LED for remote control. Box for wall fixing with sliding opening to programm the remote control and the emergency closure. Can be paired with TR8 remote control.
8C0071	TF33R Control and power pack, 2 outputs for 24V DC actuators and 1 output for 230V DC actuators , with 433 MHz on-board receiver and infra-red LED for remote control. Box for wall fixing with sliding opening to programm remote control and emergency closure. Can be paired with TR8 remote control.
8C0072	TF33R Control and power pack, 2 exits at 24V and 1 exit at 24V with adjustable power, with 433 MHz remote control receiver and infra-red LED. Box for wall fixing with sliding opening to programm remote control and emergency closure. Can be paired with TR8 remote control.
8C0054	TF24R Control and power unit 24V (4 outputs) with 433MHz receiver. Can be paired with TR8 remote control.
8C0066	TF44R Control and power unit 230V (4 outputs) with 433MHz receiver. Can be paired with TR8 remote control.
8C0123	RR Control and feeding unit 230V (1 outputs) with 433 MHz on-board receiver. Can be paired with TR4 and TR8 remote controls.
8C0016	CC1 control unit for simultaneous stop max 3 T50 230V stroke 320 mm
8D0008	AL/TF power pack 230/24V (for TF24R) battery backup not included
8K0001	Battery set for AL/TF and MEM/AL feeder units (2x12V 7Ah)
8D0004	AL2/SW electronic feeder board for 24V DC actuators, max 1,6A (max. 2 pcs only C20)
8C0091	MEM/AL Expanding module for 24V motors (max. 16A)
8C0090	MEM module for local operation
8E0030	RW wind sensor
8E0054	RDC/12 12V Rain sensor, incl. roof fixing adhesive tape
0B0020	Special adjustable bracket for RDC/12 roof installation
8E0314	TR8 8 chanel remote control with wall mount holder
8E0330	TR4 4 chanel remote control (for C30R and RR)

WiFi Box

WiFi devices
for window actuators control
via smartphones and tablets

ShutterBox



WiFi device for the control of 230V window actuators via smartphone or tablet.

RwBox



WiFi device for the connection to wind and rain sensors and control of window actuators connected to the WiFi.

µRemotePro



Remote control with rechargeable batteries for the control of window actuators connected to the WiFi.

InBox



WiFi switches connection for the control of window actuators connected to the WiFi.

TempSensor



WiFi detector, equipped with waterproof measurement probe, for temperature indication and control of window actuators connected to the WiFi, based on detection and temperature changes.

AirSensor



WiFi detector for measuring the presence of polluting dust and display via smartphone or tablet with control of window actuators connected to the WiFi.

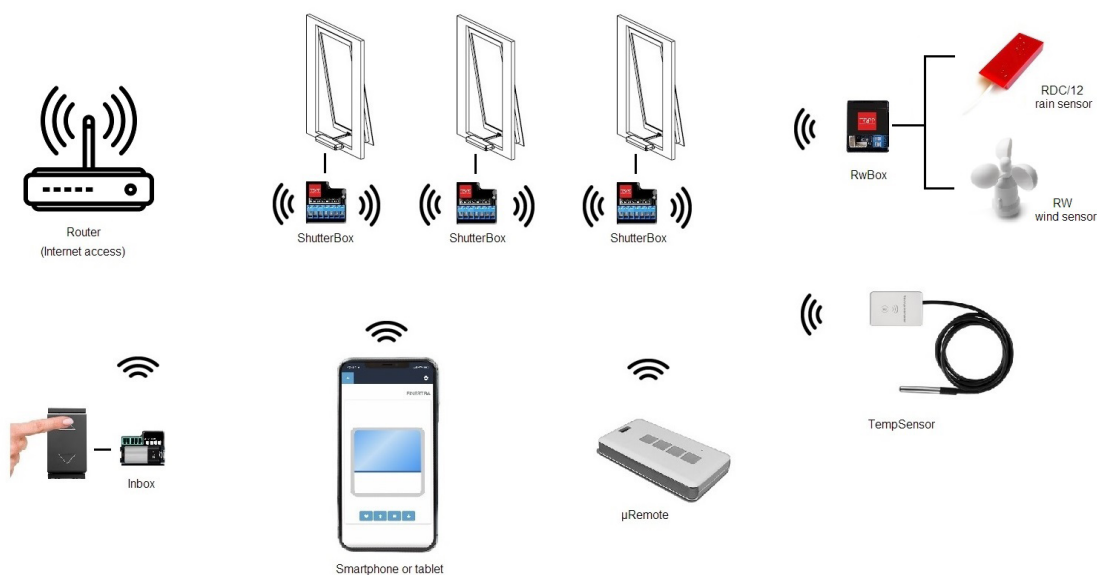
Compatible with iOS, Android,
Alexa and Google Assistant





WiFi devices for the control of window actuators via smartphones and tablets

8C0470	ShutterBox WiFi device for the control of 230V window actuators via smartphone or tablet.
8C0472	RwBox WiFi device for the connection to wind or rain sensors and control of window actuators connected to the WiFi.
8C0480	µRemotePro remote control with rechargeable batteries for the control of window actuators connected to the WiFi.
8C0485	InBox WiFi switches connection for the control of window actuators connected to the WiFi.
8C0474	TempSensor WiFi detector, equipped with waterproof measurement probe, for temperature indication and control of window actuators connected to the WiFi, based on detection and temperature changes.
8C0475	AirSensor WiFi detector for measuring the presence of polluting dust and display via smartphone or tablet.







C50 RWA

Chain actuator thrust force 500N
Stroke 600mm - 800mm - 1000mm

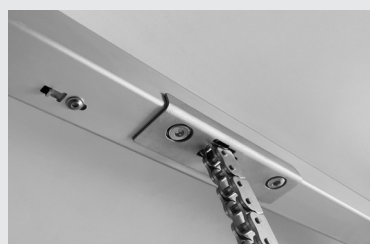


PRODUCT DESCRIPTION

TOPP electric actuator model C50 RWA with double-link chain, in an aluminium profile, available with brackets and accessories for skylights, bottom hung or top hung windows. Operation at 24V DC. Max. thrust force 500N. Stroke 600 - 800 - 1000 mm. Patented chain terminal, attachment to the frame and chain load adjustment to ensure maximum resistance to high loads with long strokes. Pre-set for the synchronous operation of two actuators on the same window. CE marked device, 600mm and 800mm strokes tested in accordance with the EN12101-2 Standard for smoke ventilation applications.



Double-link chain and die-cast aluminum gearbox with shaft supported by ball bearings for higher resistance to heavy loads.



Patented chain load adjustment system to allow the maximum resistance to high loads with long strokes.



Patented chain terminal with double lateral fixing and swivelling range of two degrees to ensure a greater resistance to heavy loads.



TECHNICAL SPECIFICATIONS

	C50 RWA stroke 600 mm		C50 RWA stroke 800 mm		C50 stroke 1000 mm
	Top hung	Bottom hung	Top hung	Bottom hung	Bottom hung
Power voltage	24V d.c.		24V d.c.		24V d.c.
Max applicable load in thrust	500 N		300 N		-
Max applicable load in traction	500 N		500 N		500 N
Stroke (+/-20mm)	600 mm		800 mm		1000 mm
Absorbed current	1A		1 A		1 A
Idle translation speed opening	10,3 mm/s		12.7 mm/s	13.3 mm/s	13.2 mm/s
Idle translation speed closing	10.3 mm/s		8 mm/s	8 mm/s	8 mm/s
Duration of the idle stroke*	60 s		80 s	60 s	75 s
Service type	S2 of 4 min		S2 of 4 min		S2 of 4 min
Operating temperature	-5°C + 50°C		-5°C + 50°C		-5°C +50°C
Protection Class	IP 30		IP 30		IP 30
Synchronous operation of 2 actuators on the same window	YES		YES		YES
Parallel connection option	YES		YES		YES
Overlap from 0 to 50 mm with self-learning	YES		YES		YES
Dimensions	811 x 43 x 55 mm		911 x 43 x 55 mm		1011 x 43 x 55 mm

* For RWA application: required max opening time 60s.



C50 chain actuator with accessories for application on top hung windows

3E41#	C50 RWA chain actuator 24V 600mm stroke for top hung windows
3E41#	C50 RWA chain actuator 24V 800mm stroke for top hung windows

C50 chain actuator with accessories for application on bottom hung outward opening windows

3E41#	C50 RWA chain actuator 24V 600mm stroke for bottom hung outward opening
3E41#	C50 RWA chain actuator 24V 800mm stroke for bottom hung outward opening
3E41#	C50 chain actuator 24V 1000mm stroke for bottom hung outward opening

C50 chain actuator with accessories for application on bottom hung inward opening windows

3E41#	C50 RWA chain actuator 24V 600mm stroke for bottom hung inward opening
3E41#	C50 RWA chain actuator 24V 800mm stroke for bottom hung inward opening
3E41#	C50 chain actuator 24V 1000mm stroke for bottom hung inward opening

Description of the standard pattern for 1 push point application on top hung windows

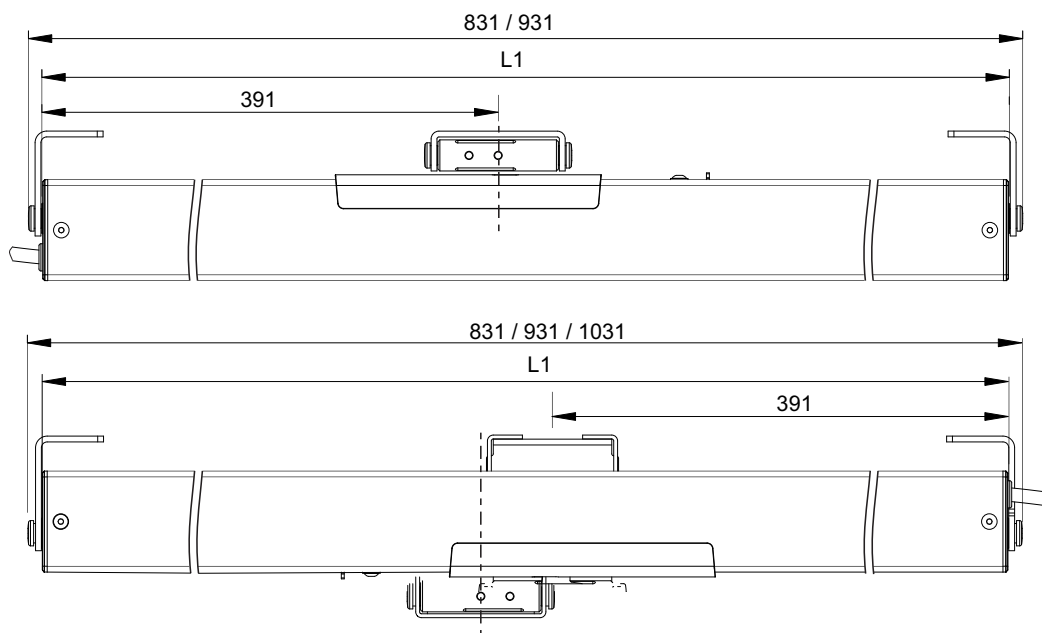
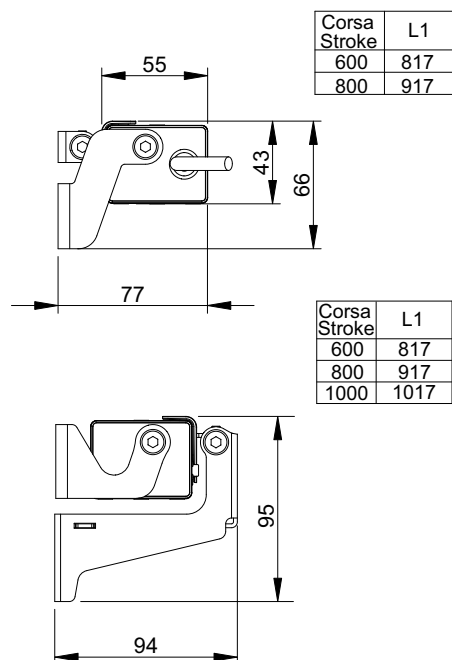
3E41#	C50 RWA chain actuator 24V 600mm stroke
	Hooking device for top and bottom hung outwards opening - stainless steel
	Brackets for top/bottom hung outward opening and vertical mounting - stainless steel
	Standard spare parts

Description of the standard pattern for 2 push points application on top hung windows

3E41#	C50 RWA chain actuator 24V 600mm stroke
3E41#	C50 RWA chain actuator 24V 600mm stroke

Accessories and spare parts

3E4100	Brackets for top-hung/bottom-hung outward opening
3E4101	Brackets for bottom-hung inward opening or vertical mounting
1E4604	Upper bracket for bottom hung windows
1E4820	Hooking device for top-hung and bottom hung outwards opening
3E4001	Standard spare parts



ACK4 RWA

Chain actuator thrust force 300 N
Adjustable stroke max.400 mm



PRODUCT DESCRIPTION

Electric actuator Topp model ACK4 with a double link articulated stainless steel chain, enclosed in a special diecast aluminum casing, painted with epoxy powders, complete with brackets and accessories for bottom hung windows outward opening for smoke evacuation application. Operation at 24V DC Max. traction and thrust force 300N. End of stroke adjustable at 100, 150, 200, 205, 300, 350, 400 mm by an external knob located on both sides of the actuator. Electronic device with acoustic warning to signal erroneous installation (buzzer) Upon request, a preset "S" version for the synchronous operation of two actuators on the same window is available. High protection IP 55 rated. Available IP66 version (fixed stroke). CE marked device, tested in accordance with the EN12101-2 Standard for smoke ventilation applications.



Easy stroke adjustment with 7 positions
from 100 to 400mm.
(International patent)



Double link articulated stainless steel
chain.



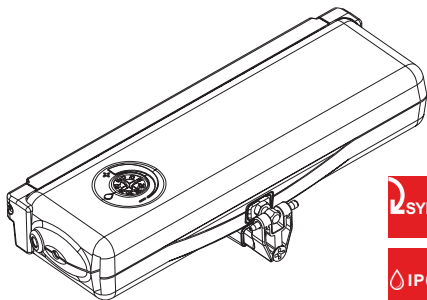
High protection IP 55 rated.
(available special IP66 version)



TECHNICAL SPECIFICATIONS

Power supply voltage	24V d.c.
Maximum applicable load in thrust	300 N
Maximum applicable load in traction	300 N
Strokes	100 - 150 - 200 - 250 - 300 - 350 - 400 mm
Absorbed current	1,35 A
Idle translation speed	17 mm/s
Duration of the idle stroke	23 s
Double insulated	YES
Service Type	S2 of 3 min
Operating temperature	- 5°C + 50°C
Protection Class	IP 55 (available special IP66 version)
Adjustment of the window frame hooking system	10 mm
Parallel connection option	YES
Synchronous operation of more actuators on the same window	with S version
Chain position control	YES
Stroke end	encoder
Acoustic device that warns of any eventual incorrect installations (buzzer)	YES
Dimensions	288 x 48 x 83 mm
Weight	1,9 kg

ACK4 RWA



ACK4 RWA version 1 push point

3A11#	ACK4 RWA chain actuator 24V RWA version - black RAL 9005 bottom-hung outwards opening application (without fallback bracket)
3A11#	ACK4 RWA chain actuator 24V RWA version - silver RAL 9006 bottom-hung outwards opening application (without fallback bracket)
3A11#	ACK4 RWAchain actuator 24V RWA version - white Euro-White bottom-hung outwards opening application (without fallback bracket)



ACK4S version for the synchronous operation of two ACK4 on the same window frame available upon request.



ACK4 IP66 version (fixed stroke) available upon request.

CS1 chain anti-closing accessory for top-hung application available upon request.

Description for 1 push point solution for bottom-hung outward opening application

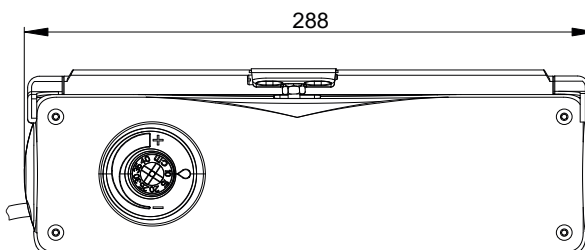
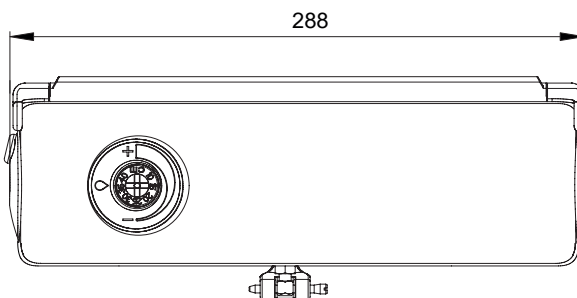
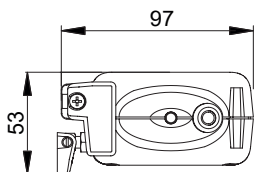
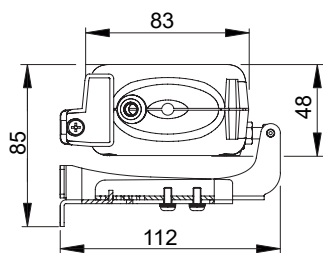
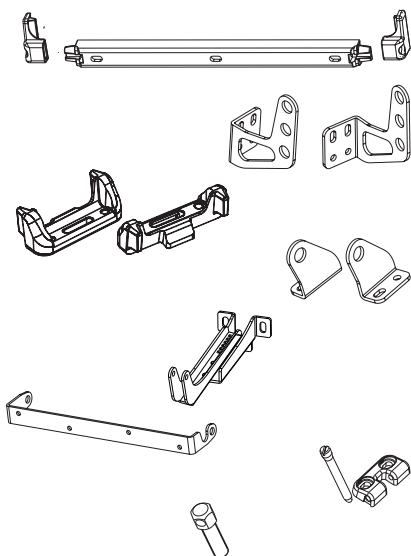
3A11#	ACK4 RWA chain actuator 24 V Frontal bracket for top/bottom hung windows (outwards opening) Hooking device to the frame and spare parts
-------	-----------------------------------------------------------------------------------------------------------------------------------------------

Description for 2 push points solution for bottom-hung outward opening application

3A13#	ACK4S 24V RWA actuator (silicon red cable)
3A13#	ACK4S 24V RWA actuator (silicon red cable)

Accessories and spare parts

3A1360	Frontal bracket for top/bottom hung windows - black
3A1362	Frontal bracket for top/bottom hung windows - silver
3A1361	Frontal bracket for top/bottom hung windows - white
3A1391	Large swivel brackets set frontal mounting - black
3A1393	Large swivel brackets set frontal mounting - silver
3A1392	Large swivel brackets set frontal mounting - white
3A1380	Fixed vertical mounting brackets set - black
3A1382	Fixed vertical mounting brackets set - silver
3A1381	Fixed vertical mounting brackets set - white
3A1396	Small vertical mounting brackets set - black
3A1398	Small vertical mounting brackets set - silver
3A1397	Small vertical mounting brackets set - white
3A1356	Upper bracket for bottom hung windows (RWA version) - black
3A1375	Single swivel bracket for bottom hung windows - black
3A1377	Single swivel bracket for bottom hung windows - silver
3A1376	Single swivel bracket for bottom hung windows - white
3A1001	Hooking device to the frame with pin and spare parts
0B0005	Extension pin h 37,5 (overlap 10-20mm)
0B0007	Extension pin h 47,5 (overlap 20-30mm)
0B0006	Extension pin h 57,5 (overlap 30-40mm)



C160 RWA

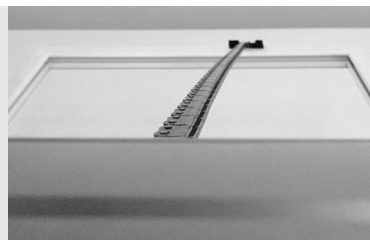


Chain actuator
Thrust force 300N
Stroke 360mm - 600mm - 1000mm

PRODUCT DESCRIPTION

Electric actuator Topp model C160 RWA with double-link chain, in an elegant die-cast aluminium profile, complete with brackets and accessories for bottom hung windows outward opening for smoke evacuation application. Operation at 24V DC. Max. thrust force 300N. Stroke 360 - 600 - 1000 mm. Electronic end of stroke in closing by current absorption control.

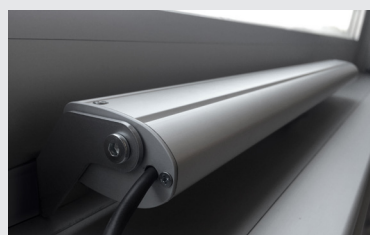
CE marked device, tested in accordance with the EN12101-2 Standard for smoke ventilation applications (360mm and 600mm strokes).



Elegant and attractive aluminium profile with swivel brackets for large openings.



Available also for installation on side hung windows.



Long chain up to 1 meter enclosed in a slim housing.



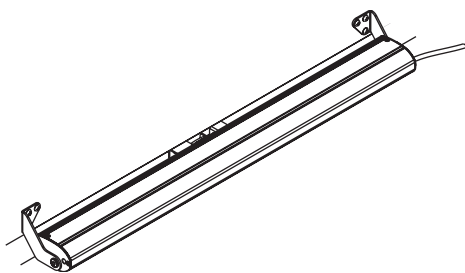
TECHNICAL SPECIFICATIONS

	C160 RWA stroke 360 mm	C160 RWA stroke 600 mm	C160 stroke 1000 mm
Power voltage	24V d.c.	24V d.c.	24V d.c.
Max applicable load in thrust	300 N	250 N	50 N
Max applicable load in traction	200 N	200 N	200 N
Stroke for top-hung application	360 mm	600 mm	1000 mm
Stroke for bottom-hung application	322 mm	562 mm	962 mm
Absorbed current	0,43 A	0,60 A	0,60 A
Idle translation speed	7,5 mm/s	10 mm/s	10 mm/s
Duration of the idle stroke *	48 s	60 s	100 s
Service type	S2 of 4 min	S2 of 4 min	S2 of 4 min
Operating temperature	-15°C + 50°C	-15°C + 50°C	-15°C + 50°C
Protection Class	IP 30	IP 30	IP 30
Stroke end regulation in closure	not necessary	not necessary	not necessary
Parallel connection option	YES	YES	YES
Possibility of installing double push point on the same window	YES	NO	NO

Stroke end

Electronic in opening, by amperometric absorption in closing

* For RWA application: max opening time required 60s.



C160 RWA 1 push point

3E22#	C160 chain actuator 230V stroke 360mm bottom-hung outward opening
3E22#	C160 chain actuator 230V stroke 360mm bottom-hung inward opening
3E22#	C160 chain actuator 230V stroke 360mm top-hung application*
3E22#	C160 chain actuator 230V stroke 360mm outward swinging application
3E22#	C160 chain actuator 230V stroke 360mm inward swinging application

3E21#	C160 chain actuator 230V stroke 360mm bottom-hung outward opening
3E21#	C160 chain actuator 230V stroke 360mm bottom-hung inward opening
3E21#	C160 chain actuator 230V stroke 360mm top-hung application*
3E21#	C160 chain actuator 230V stroke 360mm outward swinging application
3E21#	C160 chain actuator 230V stroke 360mm inward swinging application

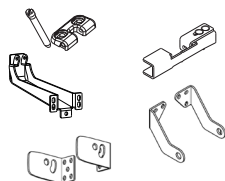
3E23#	C160 chain actuator 230V stroke 360mm bottom-hung outward opening
3E23#	C160 chain actuator 230V stroke 360mm bottom-hung inward opening
3E23#	C160 chain actuator 230V stroke 360mm outward swinging application
3E23#	C160 chain actuator 230V stroke 360mm inward swinging application

*CS1 chain anti-closing accessory for top-hung application included.

Description of the standard pattern, 1 push point

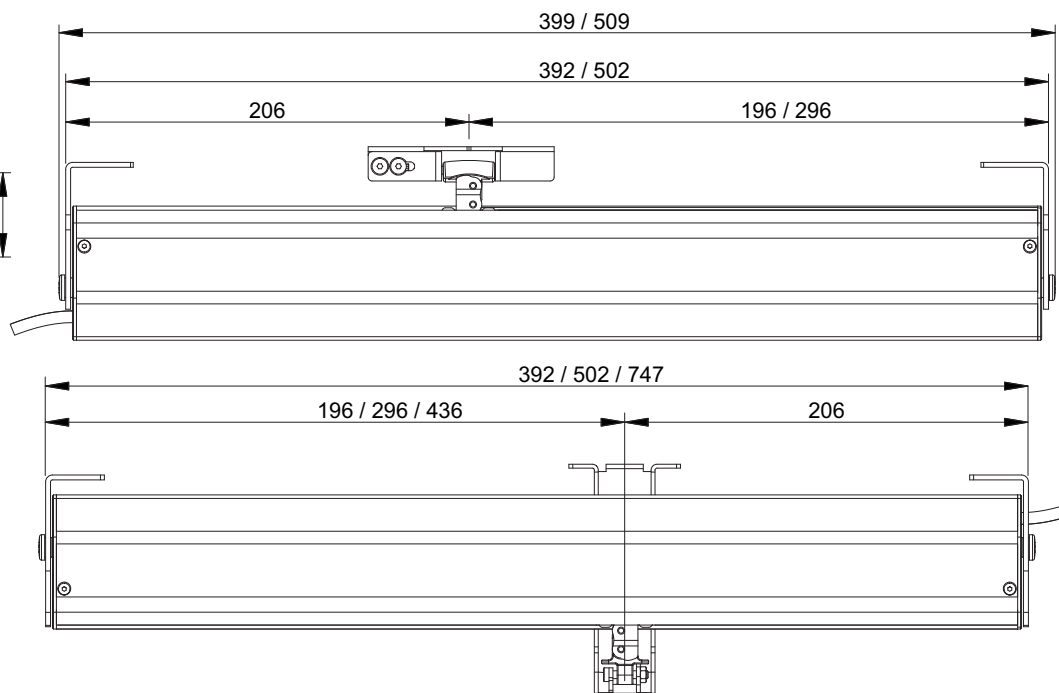
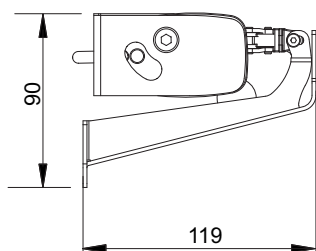
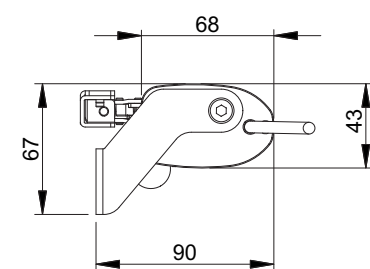
Application bottom hung windows outward opening

3E21#	C160 chain actuator 230V stroke 600mm
	Iron hooking device for top-hung and bottom hung (outwards opening) for C160 600/1000 mm stroke
	Couple of swivel frontal brackets C160



Accessories and spare parts

3E2012	Hooking device for top-hung and bottom hung (outwards opening) for C160 360 stroke
3E3100	Iron hooking device for top-hung and bottom hung (outwards opening) for C160 600/1000 stroke
1E2804	C160 bottom-hung bracket for single push point
3E2100	Brackets for top-hung/bottom-hung outwards opening application
3E2101	Brackets for bottom-hung fallback application



C160 RWA DOUBLE CHAIN



Dual push points chain actuator

Thrust force max. 600N

Stroke 360mm - 600mm

PRODUCT DESCRIPTION

Electric actuator Topp model C160 RWA with 2 double-link chains, in an elegant die-cast aluminium profile, complete with brackets and accessories for bottom hung windows outward opening for smoke evacuation application. Operation at 24V DC. Max. thrust force 300N. Stroke 360 - 600 mm. Electronic end of stroke in closing by current absorption control.

CE marked device, tested in accordance with the EN12101-2 Standard for smoke ventilation applications.



Tailored profile lengths according to the window frame width.
(International patent)



Special hooking of chain to window to guarantee very high resistance with a long stroke even on top hung windows.

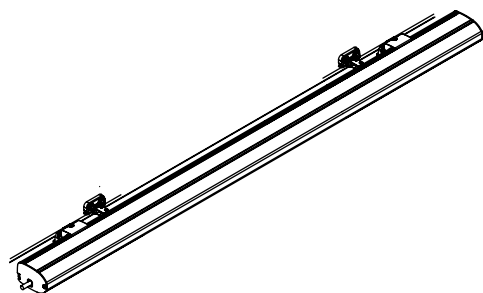


Innovatory and original design.



TECHNICAL SPECIFICATIONS

	C160 RWA double chain stroke 360 mm	C160 RWA double chain stroke 600 mm
Power supply voltage	24V d.c.	24V d.c.
Max applicable load in thrust	400N	600N
Max applicable load in traction	300N	600N
Stroke	360mm	600mm
Absorbed current	0,75A	2,10A
Idle translation speed	7,5 mm/sec	13 mm/sec
Duration of the idle stroke	48s	45s
Service type	S2 of 4min	S2 of 4min
Operating temperature	-15°C + 50°C	-15° + 50°C
Protection Class	IP30	IP30
Stroke end regulation in closure	not necessary	not necessary
Parallel connection option	YES	YES
Stroke end	Electronic in opening, by amperometric absorption in closing	



Stroke
360mm

Stroke
600mm

C160 RWA dual push point (from 1200mm to 1500mm)

C160 24V RWA dual push point for bottom-hung (outwards opening)	3E12#	
C160 24V RWA dual push point for bottom-hung (inwards opening)	3E12#	
C160 24V RWA dual push point for top-hung application*	3E12#	
C160 24V RWA dual push point for outward swinging application	3E12#	
C160 24V RWA dual push point for inward swinging application	3E12#	

C160 RWA dual push point (from 1510mm to 2000mm)

C160 24V RWA dual push point for bottom-hung (outwards opening)	3E12#	3E11#
C160 24V RWA dual push point for bottom-hung (inwards opening)	3E12#	3E11#
C160 24V RWA dual push point for top-hung application*	3E12#	3E11#
C160 24V RWA dual push point for outward swinging application	3E12#	3E11#
C160 24V RWA dual push point for inward swinging application	3E12#	3E11#

C160 RWA dual push point (from 2010mm to 2500mm)

C160 24V RWA dual push point for bottom-hung (outwards opening)	3E12#	3E11#
C160 24V RWA dual push point for bottom-hung (inwards opening)	3E12#	3E11#
C160 24V RWA dual push point for top-hung application*	3E12#	3E11#
C160 24V RWA dual push point for outward swinging application	3E12#	3E11#
C160 24V RWA dual push point for inward swinging application	3E12#	3E11#

C160 RWA dual push point (from 2510mm to 3000mm)

C160 24V RWA dual push point for bottom-hung (outwards opening)	3E12#	3E11#
C160 24V RWA dual push point for bottom-hung (inwards opening)	3E12#	3E11#
C160 24V RWA dual push point for top-hung application*	3E12#	3E11#
C160 24V RWA dual push point for outward swinging application	3E12#	3E11#
C160 24V RWA dual push point for inward swinging application	3E12#	3E11#

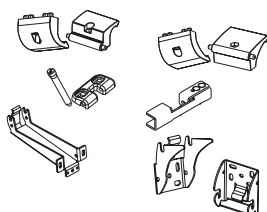
C160 RWA dual push point (from 3010mm to 4000mm)

C160 24V RWA dual push point for bottom-hung (outwards opening)	3E12#	3E11#
C160 24V RWA dual push point for bottom-hung (inwards opening)	3E12#	3E11#
C160 24V RWA dual push point for top-hung application*	3E12#	3E11#
C160 24V RWA dual push point for outward swinging application	3E12#	3E11#
C160 24V RWA dual push point for inward swinging application	3E12#	3E11#

*CS1 chain anti-closing accessories for top-hung application (2pcs) included.

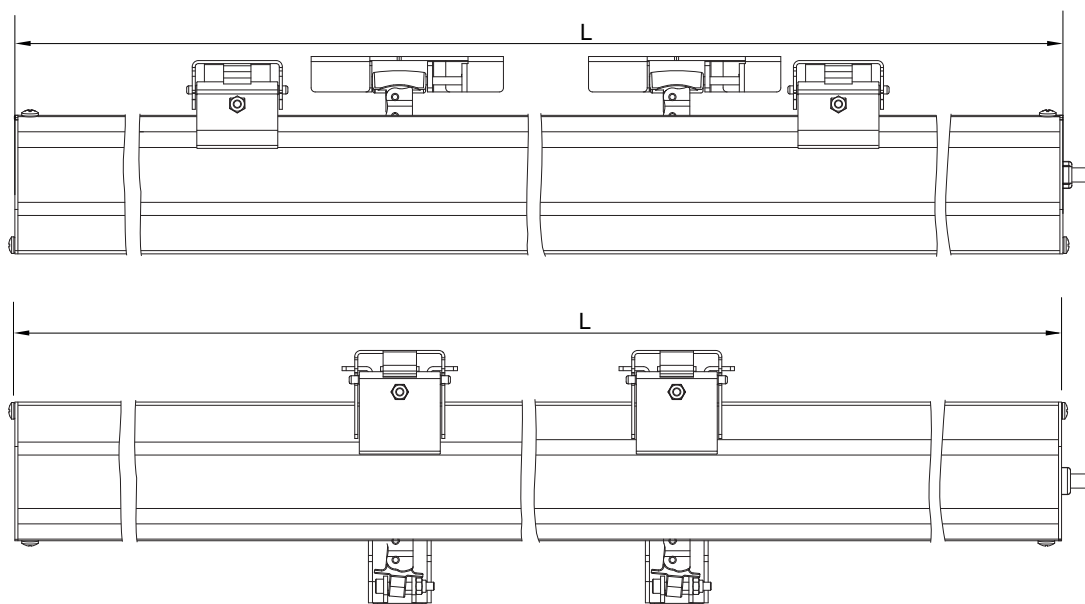
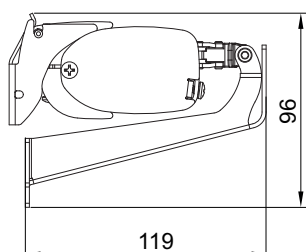
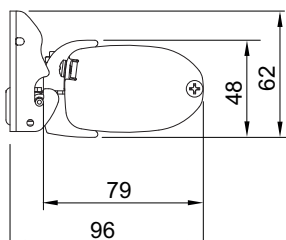
Description for dual push point solution bottom-hung outward opening application (from 1510mm to 2000mm)

3E11#	C160 24V RWA dual push point chain actuator stroke 600mm
	Bracket for bottom-hung outward opening application (window opening min 1500mm) for C160 dual push point (2pz)
	Clamps for top hung and bottom hung outwards opening windows for C160 dual push point (2pz)
	Iron hooking device for top/bottom hung outwards opening for C160 stroke 600 and 1000 mm (2pz)



Accessories and spare parts

3A5005	Clamps for top hung and bottom hung outwards opening windows
3A5006	Clamps for bottom hung windows
3A5051	Hooking device for top/bottom hung (outwards opening) for C160 RWA double chain stroke 360mm
3E3100	Iron hooking device for top-hung and bottom hung outwards opening for C160 stroke 600 mm
1A5800	Bottom-hung bracket
1A5832	Bracket for bottom hung application for C160 dual push point
1A5831	Bracket for bottom-hung outward opening application for C160 dual push point



S80 RWA

Linear stem actuator

Thrust force 800N

Adjustable stroke max.400 mm

PRODUCT DESCRIPTION

Linear electric actuator Topp model S80 with self-aligning tilting movement, complete with support and fitting accessory for top hung windows or sun blades and louvers. Operation at 24V DC. Max. traction and thrust force 800N. Preset for the synchronous operation of two actuators on the same window. Available strokes: 200 - 400 mm. IP65 protection degree. CE marked device, tested in accordance with the EN12101-2 Standard for smoke ventilation applications.



High degree of protection against dust and water IP65.



Stem highly resistant to heavy loads.



Millimetrically adjustable stroke.



TECHNICAL SPECIFICATIONS

S80 RWA

Power Supply voltage *	24V d.c.
Maximum load applicable in thrust	800 N
Maximum applicable load in traction	800 N
Strokes	200 - 400 mm
Absorbed current	1A
Idle translation speed	6,5 mm/s
Duration of the idle stroke	(stroke/idle translation speed)
Double insulated	YES
Service type	S2 of 3 min
Operating temperature	-20°C + 60°C
Protection class	IP 65
Parallel connection	YES
Synchronous operation of more actuators on the same window	YES
Stroke end	mechanical / electronic

* power supply cable not included



S80 standard 1 push point

3B20020	S80 linear stem actuator 24V RWA stroke 200mm
3B20022	S80 linear stem actuator 24V RWA stroke 200mm (louvers)
3B20021	S80 linear stem actuator 24V RWA stroke 400mm
3B20023	S80 linear stem actuator 24V RWA stroke 400mm (louvers)

Note: feeding cable not included

Description for top-hung windows application

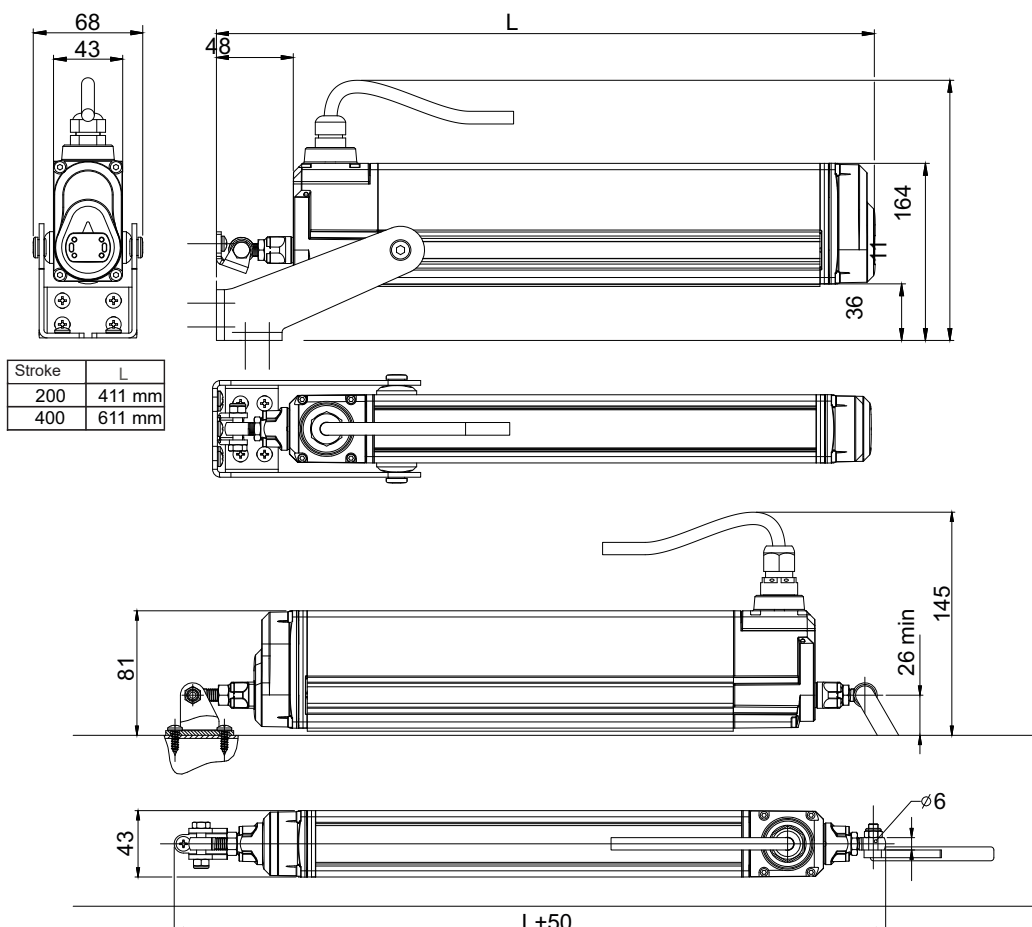
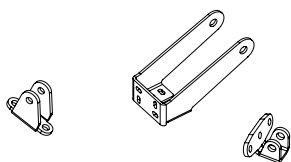
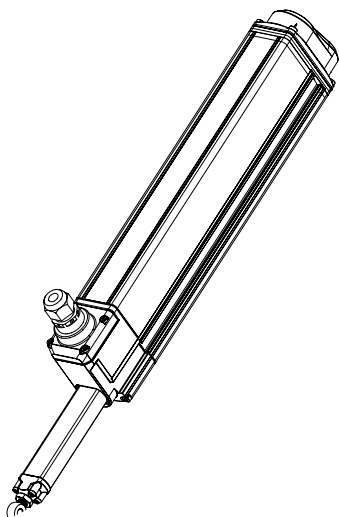
3B20021	S80 linear stem actuator 24V RWA stroke 400mm
	Actuator supporting bracket for top hung windows
	Standard connector
	Fitting and spare parts for top hung windows

Description for louvers application

3B20022	S80 linear stem actuator 24V RWA stroke 200mm
	Actuator supporting bracket for louvers
	Standard connector
	Fitting and spare parts for louvers application

Accessories and spare parts

1B2801	Actuator supporting bracket
1B2802	Actuator supporting bracket for louvers
1S1604	Fitting bracket to the frame
3B2001	Spare parts for top hung windows
3B2002	Spare parts for louvers
3B2011	Standard connector
3B2015	90° connector
1B2121	RWA feeding cable for synchronization (2m)



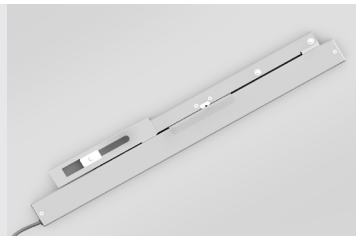
A90 RWA



Actuator for swing opening Maximum angle 90°

PRODUCT DESCRIPTION

Electric actuators, models A90 and A90 RWA, with double-link articulated chain, contained in special aluminum casing, complete with accessories and special chain guide for 90-degree swing opening. Operation at 230V 50Hz or 24V operation. The actuator can be installed for both outward and inward swing opening. Available version for synchronization and simultaneous operation of two actuators installed on one window. The actuator or pair of actuators can also be combined with the M01 electro-lock, to ensure that the window is hermetically sealed. CE-marked device and RWA 24V version verified according to EN12101-2 for smoke and heat evacuation systems.



Available with accessories for inward opening application



Available with accessories for outward opening application



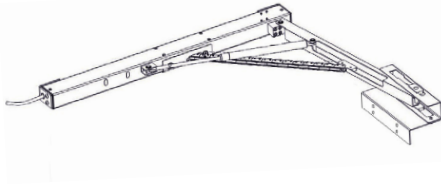
Available with accessories for use on free sash via scrolling wheel



TECHNICAL SPECIFICATIONS

	A90 RWA 24V	A90 230V
Power voltage	24V d.c	230V ~ 50Hz
Max. initial force in thrust	400 N	400 N
Max. final force in traction	400 N	400 N
Maximum opening angle	100°	100°
Idle translation speed	13.3 mm/s	13.3 mm/s
Opening time (opening at 100°)	30 sec	30 sec
Absorbed current	1.2A	0.2A
Service type	S2 of 4 min	S2 of 4 min
Operating temperature	-5°C + 50°C	-5°C + 50°C
Protection Class	IP 30	IP 30
Synchronous operation of 2 actuators on the same window	YES	YES
Parallel connection option	YES	YES
Overlap from 0 to 50 mm with automatic learning	YES	YES
Dimensions	673 x 43 x 93 mm	673 x 43 x 93 mm

A90 Actuator for swing opening linked to the sash

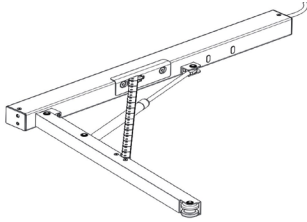


3E46#000010641 A90 actuator 230V inward 90 degrees swing opening
3E46#000010657 A90 actuator 230V outward 90 degrees swing opening

3E47#000010610 A90 RWA actuator 24V inward 90 degrees swing opening
3E47#000010629 A90 RWA actuator 24V outward 90 degrees swing opening

Note: Version for stnchronized installation of 2 actuators on the same window available on request.

A90 Actuator for swing opening free from the sash (via scrolling wheel)



3E46#000010660 A90 RWA actuator 24V inward 90 degrees swing opening
3E46#000010658 A90 actuator 230V outward 90 degrees swing opening

3E47#000010664 Attuatore A90 24V RWA apertura battente a 90 gradi verso interno
3E47#000010662 A90 RWA actuator 24V outward 90 degrees swing opening

Accessories and spare parts

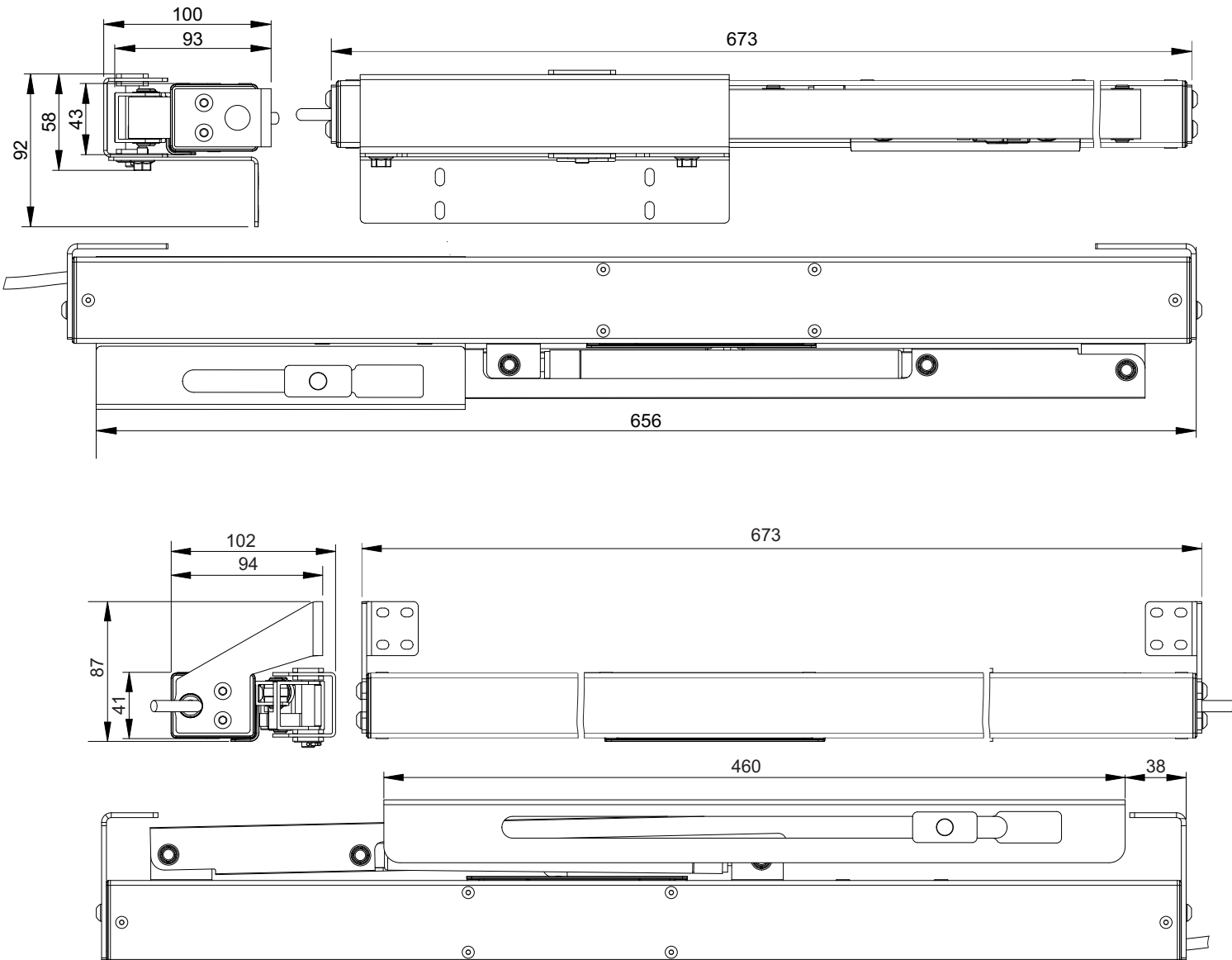
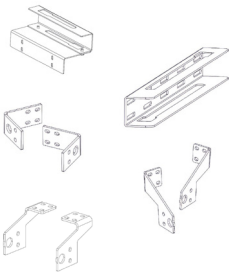
3E4601 Sash bracket for inward opening

3E4602 Sash bracket for outward opening

3E4603 Actuator brackets kit for inward opening

3E4604 Actuator brackets kit for outward opening

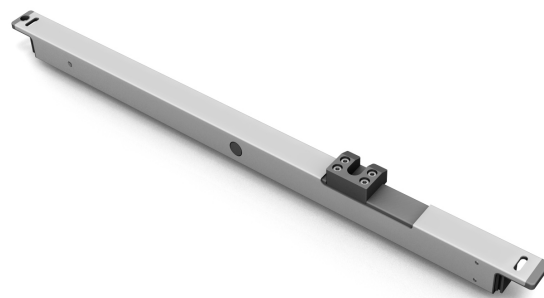
3E4605 Actuator brackets kit for ceiling mounting



M00



Multi-point lock drive
Max. load 600N
adjustable stroke 18-36 mm



PRODUCT DESCRIPTION

TOPP electric actuator M00 for window's multi-point lock movement, with minimum overall dimensions to allow an installation concealed inside the profile or exposed on the frame. Operation at 24V DC. Maximum applicable load 600N. Multi-point pin movement stroke 18 and 36mm (the drive horizontally moves the pin of the frame hardware to allow the hermetic locking of the window in multiple points). It can be combined with TOPP chain actuators. CE-marked device verified according to EN12101-2 for smoke and heat evacuation systems.



Multi-point lock drive concealable inside the frame profile.



Pin movement adjustable to 18 mm or 36 mm stroke.



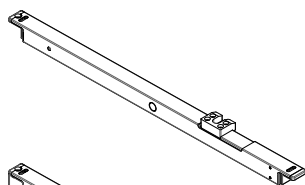
Emergency release



TECHNICAL SPECIFICATIONS

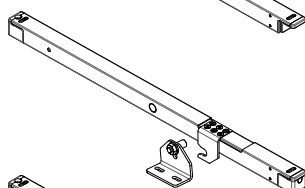
M00

Power supply voltage	24V d.c.
Multi-point maximum load	600 N
Strokes	n.d.
Locking pin stroke	18 mm / 36 mm
Absorbed current	1,5 A with chain actuator combined (C20)
Locking pin speed at max. load	1,0 mm/s
Protection against electric shock	Class III
Service Type	S2 of 2 min
Operating temperature	-10°C +60°C
Protection Class	IP 32



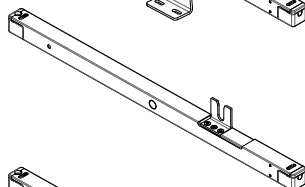
**M00 Concealed multi-point lock drive for inward or outward opening
(for windows with hardware - milling required)**

3E10# M00 Concealed multi-point lock drive



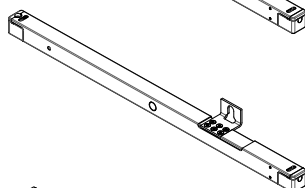
**M00-1 Electric lock exposed on the frame for inward opening
(for windows without hardware - milling not required)**

3E10# M00-1 Exposed electric lock for windows without hardware



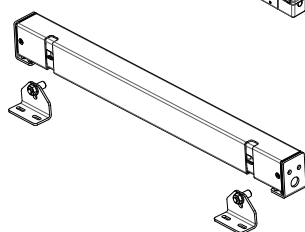
M00-2 Multi-point lock drive exposed on the sash to open inwards or on the frame to open outwards (for windows with hardware - milling necessary)

3E10# M00-2 Multi-point lock drive exposed on the sash to open inwards or on the frame to open outwards



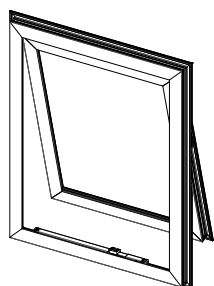
**M00-3 Multi-point lock drive exposed on the frame for inward opening
(for windows with hardware - milling not required)**

3E10# M00-3 Multi-point lock drive exposed on the frame for inward opening

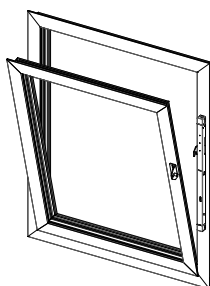


**M00-4 Double electric lock exposed on the frame for inward opening
(for windows without hardware - milling not required)**

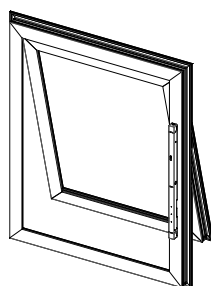
3E10# M00-4 Double electric lock exposed on the frame for inward opening



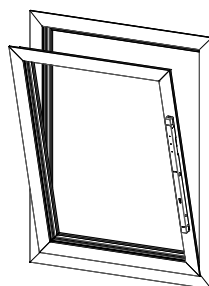
M00
Concealed multi-point lock drive for inward or outward opening



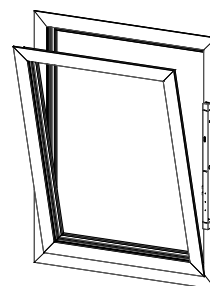
M00-1
Electric lock exposed on the frame for inward opening



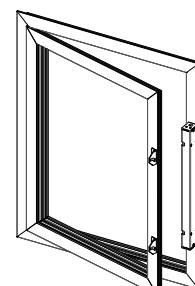
M00-2
Multi-point lock drive exposed on the frame for outward opening



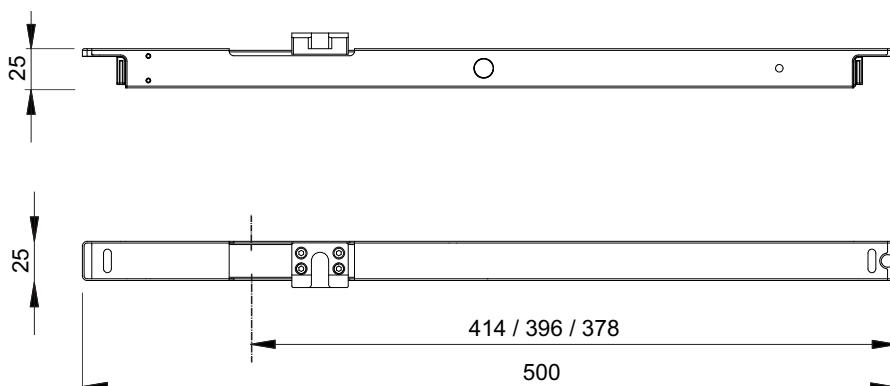
M00-2
Multi-point lock drive exposed on the sash for inward opening



M00-3
Multi-point lock drive exposed on the frame for inward opening



M00-4
Double electric lock exposed on the frame for inward opening



RWA Control units

RWZ control units for smoke and heat evacuation systems.



PRODUCT DESCRIPTION

The control units for smoke and heat evacuation have the following specifications and meet the following requirements (some technical characteristics may vary according to the RWZ control unit model):

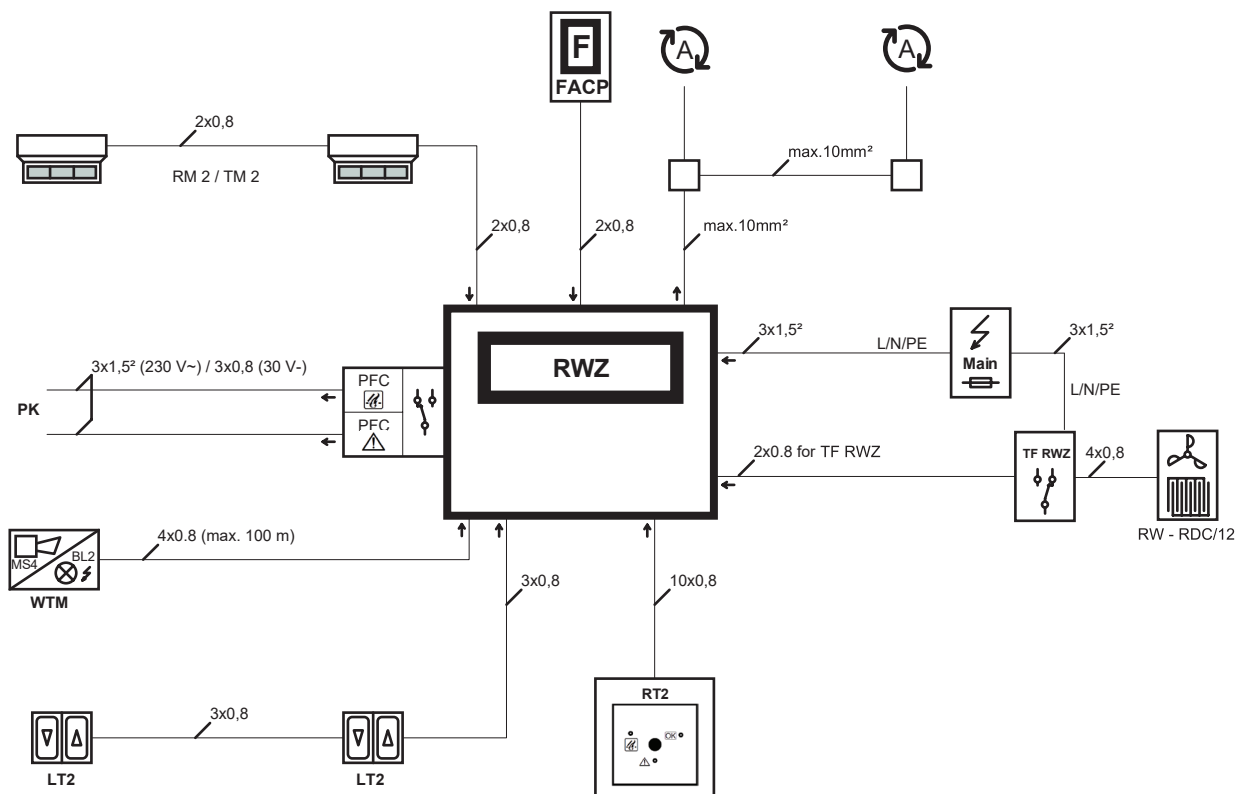
- Output for the connection of 24V actuators.
- VdS approved according to the VdS 2581 and VdS 2593 directives.
- Internal power supply certified according to DIN EN 12101-10.
- Control unit tested according to ISO 21927-9.
- 3 signal lines:
 - Automatic fire detector
 - RT2 manual emergency push button with indicators for operation, alarm, malfunction and reset button
 - Connection to a fire alarm control panel or additional automation fire detectors
- Alarm Reset using the RT2 button or in the control centre.
- Selectable functions:
 - "Auto-close" (automatic closure after resetting an alarm)
 - "Malfunction = Alarm" (alarm upon malfunction of a signal line)
 - "Automatic OFF" (the automatic commands - apart from the alarm - are disabled)
 - "Thermal alarm" (alarm on exceeding temperature of 70 °C inside the enclosure)
- Possibility of connecting ventilation buttons
- Adjustable ventilation and time positions
- Possibility of connecting an external wind and rain control
- Normal operation, alarm and malfunction displayed on the emergency push button
- Internal service display showing detailed status information for installation and maintenance.
- Plug-in connection terminals (apart from actuator output).
- Upon direct reverse of travel, actuators are briefly stopped before changing the sense.
- Sheet steel enclosure, light grey (RAL 7035).

TECHNICAL SPECIFICATIONS	RWZ 1-4b	RWZ 4-8d	RWZ 5-20f	RWZ 5-40f
Power supply voltage	230V~50Hz.			
Output voltage	24 v			
Max absorbed current	0,7 A	1,1 A	2,5 A	5,0 A
Max output current	4 A	8 A	20 A	40 A
Battery	2 x 2Ah/12V	2 x 7Ah/12V	2 x 12Ah/12 V	2 x 17Ah/12V
Service type	S1 - continuous			
Pre-set for	wind sensor, rain detector, push button			
Operating temperature	- 5°C + 40°C			
Dimensions (mm)	337x337x113	400x400x135	430x525x185	430x525x185
Connectable number of actuators:				
C50 RWA	3	6	15	30
C160 RWA stroke 360mm	9	18	45	90
C160 RWA stroke 600mm	6	12	30	60
C160 RWA double chain stroke 360mm	5	10	25	50
C160 RWA double chain stroke 600mm	1	3	4	8
ACK4 RWA	2	5	12	24
ACK4S RWA	3	6	15	30
S80 RWA	3	6	15	30
A90	3	6	15	30
M00	9	18	45	90



Rwa control units

8C0040	RWZ 1-4b Control and power unit for the connection of 24V actuators max 4A - 2,0Ah Batteries included EN 12101-10 / ISO 21927-9 certified
8C0041	RWZ 4-8d Control and power unit for the connection of 24V actuators max 8A - 7,0Ah Batteries included EN 12101-10 / ISO 21927-9 certified
8C0047	RWZ 5-20f Control and power unit for the connection of 24V actuators max 20A - 12,0Ah Batteries included EN 12101-10 / ISO 21927-9 certified
8C0048	RWZ 5-40f Control and power unit for the connection of 24V actuators max 40A - 17,0Ah Batteries included EN 12101-10 / ISO 21927-9 certified
8C0044	TF RWZ connection unit for wind and rain detectors
8C0255	PK dry contact for alarm / malfunction forwarding (for RWZ control units)
8C0256	PK-SA dry contact for open status forwarding (for RWZ control units)
8C0045	WTM Output for controlling external warning devices in case of alarm or malfunction (i.e. MS4 multi-tone sound alarm and BL4 strobe - for RWZ control units except 1-4b)



RW RDC RM2 TM2 RT2 MS4 BL4

Detectors and emergency devices

RW Wind sensor

The wind sensor, connected to TOPP control units, closes the windows when the wind speed exceeds a preset value. Contained in weatherproof plastic housing, with rotating blade system sensing wind speed.



RDC/12 Rain sensor

The RDC/12 rain sensor, like the wind sensor, must be placed outside, exposed to rainfalls. It can be connected to the TOPP control units TF23R, TF33R, TF24R, TF44R, RR and TF RWZ to operate the windows automatic closure when the sensor is wet. Insensitive to dew and humidity.



RM2 Smoke detectors

The RM2 optical smoke detectors, for the connection to the RWZ control panels, are devices for indoor smoke detection complying with the UNI 54 standard.



TM2 Thermovelocimetric detectors

The TM2 thermovelocimetric detectors, for the connection to the RWZ control panels, are made of a static element set at 75° and provides an immediate response to rapid increases in temperature. Certified according to UNI EN 54 standard.



RT2 Emergency push button

The RT2 emergency push button, for the connection to the RWZ control panels, is an emergency push button that displays normal operation, alarm and malfunction.



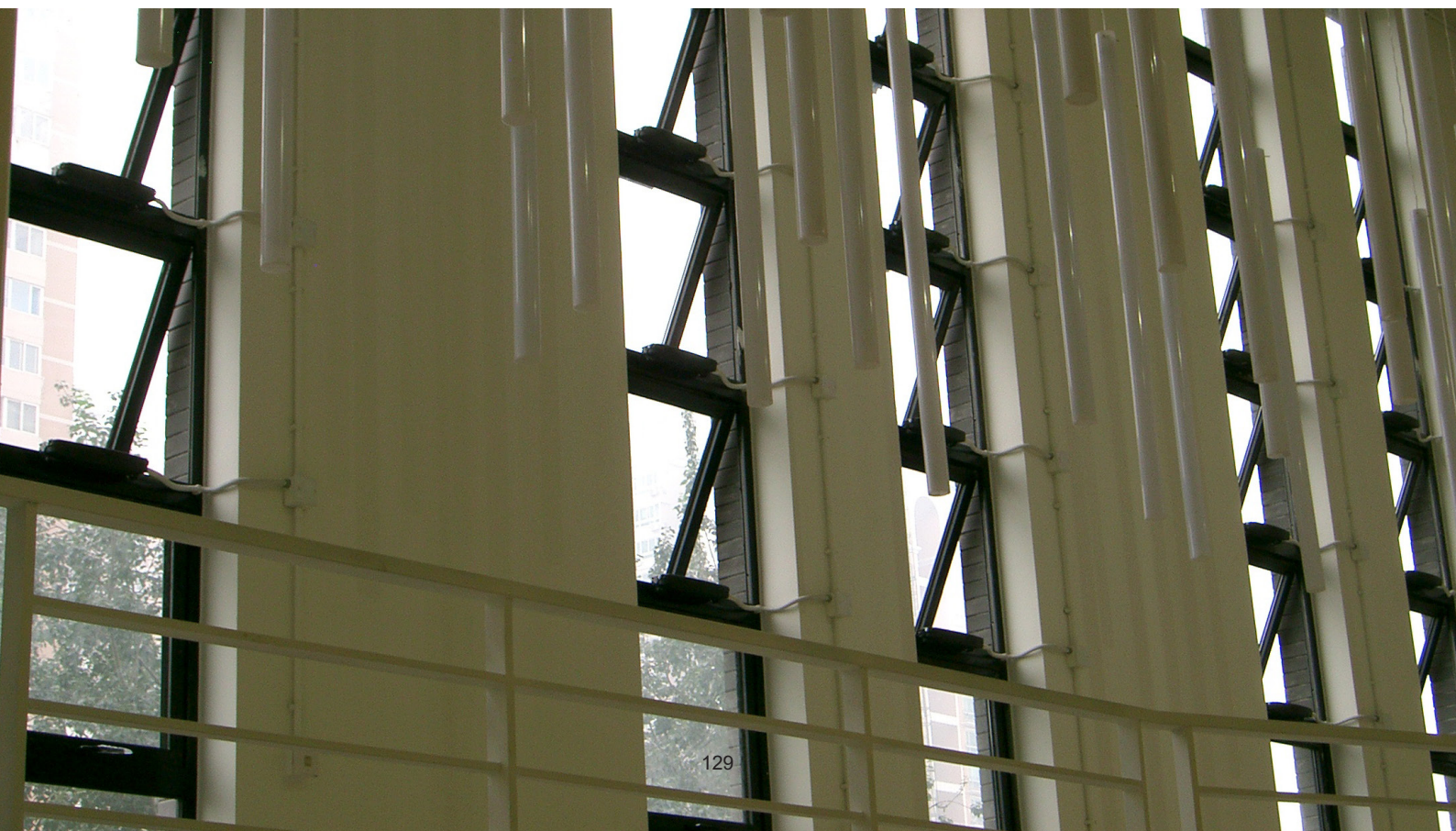
MS-BL4 Sound alarm and strobe

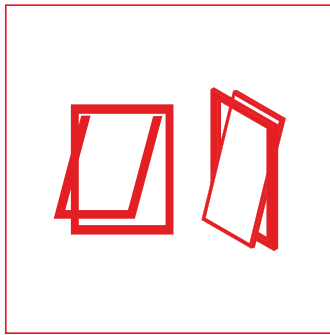
MS-BL4 is a multiple-tone sounder with strobe light (for RWZ control panels)



Detectors and emergency devices

8E0030	RW Wind sensor
8E0054	RDC/12 12V Rain sensor, incl. roof fixing adhesive tape (for TF23R/TF33R/TF24R/TF44R/RR/TFRWZ)
0B0020	Special adjustable bracket RDC/12
8C0240	RT2 Emergency push button with indication of working, alarm and malfunction (for RWZ control panels)
8C0242	RT2-K Emergency push button with indication of working, alarm, open status and malfunction (for RWZ control panels)
8C0249	LT2-A Ventilation push button with indication open status (for RWZ control panels)
8C0257	KE-2a Contact for command extension (for RWZ control panels)
8C0248	RM2 Optical smoke detector (for RWZ control panels)
8C0247	TM2 75° Thermovelocimetric detector (for RWZ control panels)
8E0500	MS-BL4 Multiple-tone sounder with strobe light (for RWZ control panels)





WINDOW AUTOMATION

	C15	C20	C25	C30	C40	C50	C60	ACK4-ACK4 RNA	C130	C160-C160 RNA	C240	C280-C180 RNA DOUBLE CHAIN	S80-S80 RNA	T50
Max. load in thrust (N)	300	300	200	300	400	500	300	300	300	300	400	600	800	500
Max. load in traction (N)	200	200	200	300	400	500	200	300	200	200	300	600	800	500
Max. stroke (mm)	240	360	380	380	500	1000	600	400	360	1000	360	360	1000	1000
Stroke selection (positions)	2	2	2	2	7	-	2	7	-	-	-	-	●	7
Frame adjustment range (mm)	>100	>100	30	30	100	>100	>100	10 (+30)	>100	>100	>100	>100	>100	>100
Self-learning adjustment in closing	●	●	○	○	●	-	●	○	●	●	●	●	-	○
2 push points on same window	-	○	○	○	○	○	-	○	○	○	●	●	○	○
Synchronization by microprocessor	-	-	○	○	○	○	-	○	-	-	-	-	○	○
Quick hooking to the window frame	-	●	●	●	●	-	-	-	●	-	●	-	-	-
Central chain	●	●	●	●	●	-	-	●	●	○	○	○	-	-
Swivel brackets	●	●	●	●	●	●	●	○	●	●	●	●	●	●
Brackets for top hinged windows	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Brackets for bottom hinged windows	●	●	●	●	●	○	●	●	○	○	○	○	-	-
Brackets for roof windows/skylights	○	○	-	○	○	○	○	○	○	○	○	○	●	●
Brackets for swing windows	○	○	-	-	-	○	○	-	○	○	○	○	●	●
Brackets for louvers	-	-	-	-	-	-	-	-	-	-	-	-	○	-
Wrong installation warning device	-	-	●	●	●	-	-	●	-	-	-	-	-	●
Double insulation	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.5 meter power cable	●	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5 meter power cable	-	●	●	●	●	●	●	●	●	●	●	●	○	●
Above 1.5 meter power cable	-	○	○	○	○	○	○	○	○	○	○	○	○	○
RWA	-	-	-	-	-	○	-	○	-	○	-	○	○	-
On board receiver	-	-	○	○	-	-	-	-	○	○	○	○	-	-
IP 55 or higher	-	-	-	-	●	-	-	●	-	-	-	-	●	●
Stainless steel chain	-	-	-	-	-	-	-	●	-	-	-	-	-	-
Customizable width of the actuator	-	-	-	-	-	-	-	-	●	○	●	●	-	-
Automation height (mm)	34	34	49	49	50	40	34	48	46	46	46	46	128	94
Automation depth (mm)	48	48	80	80	95	55	48	83	80	80	80	80	43	62
Automation max. width (mm)	362	362	337	337	388	1011	470	288	1200	735	4000	4000	1271	1030

Legend

- Included
- Optional
- Not available



TECHNICAL REMARKS

How to choose the right actuator

The selection of the right window actuator is very important and should allow to get maximum results.

The following technical details are to guide you in your final choice of actuator and should be considered before any decision is made.

There are mainly two types of actuators: linear / rack actuators (rigid rod) and chain actuators (flexible chain).

The linear / rack actuator can offer great performance and push high loads, but has a requirement both physical and aesthetic which is not always acceptable. The actuator body has to move in a pivoting motion from its brackets, therefore it is necessary to verify that there are no obstacles to its rotational movement. If a rod actuator is unsuitable, a chain actuator must be used, subject to weight restrictions.

The chain actuator operates generally at lower thrust power and requires a limited space, as well as being aesthetically pleasing.

For windows having a width larger than 1500-2000 mm, a single actuator is not enough.

With this size the window and the safety of the installation require the application of more than one actuator, usually linked to a synchronization device.

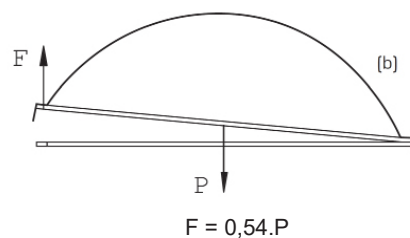




FORMULAS TO CALCULATE TRACTION AND THRUST FORCE (kg)

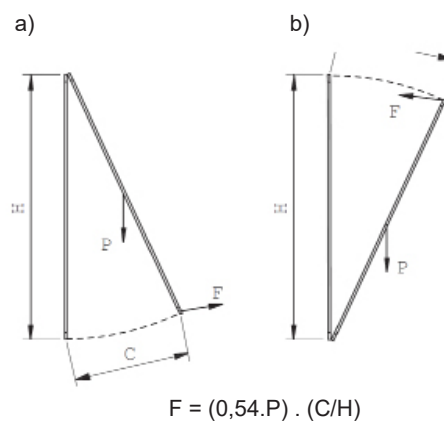
Horizontal windows

F = Required force for opening and closing (kg)
P = Window sash weight (kg)



Top hug windows (a) or bottom hung windows (b)

F = Required force for opening and closing (kg)
P = Window sash weight (kg)
C = Window opening stroke (mm)
H = Window height (mm)



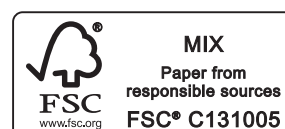


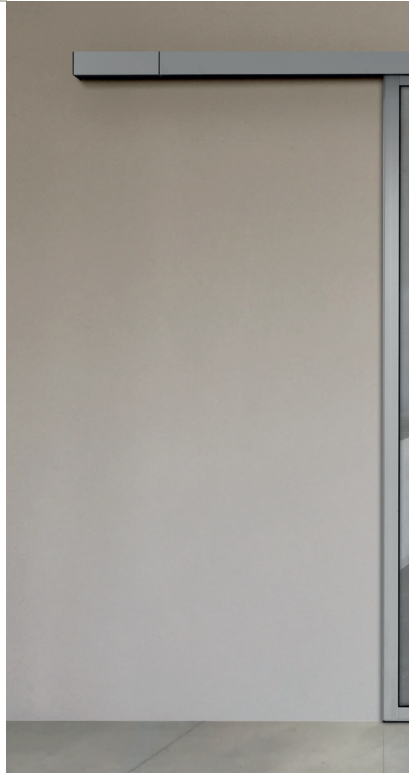


TOPP SRL
Società a socio unico soggetta a direzione e coordinamento di 2 Plus 3 Holding S.p.a.
via Galvani 59, 36066 Sandrigo (VI) tel. +39 0444 656700 fax +39 0444 656701
www.topp.it info@topp.it

Rev.2, July 1, 2024

The prices are subject to changes without notice due to sudden variations in the cost
of raw materials, semi-finished products, processing and transport.





TOPP SRL

Società a socio unico soggetta a direzione e coordinamento
di 2 Plus 3 Holding S.p.a.
via Galvani 59, 36066 Sandrigo (VI)
tel. +39 0444 656700 fax +39 0444 656701
info@topp.it **www.topp.it**

