



TQPP
tecnologie del movimento

2018 Catalogue

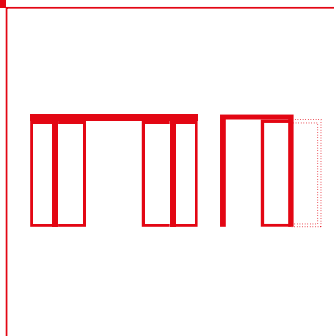
Door Automation
Window Automation



2018 Catalogue
Door Automation
Window Automation

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tecnologie del movimento

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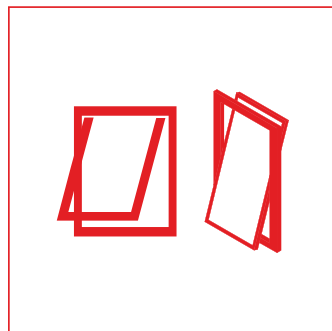
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who we are

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

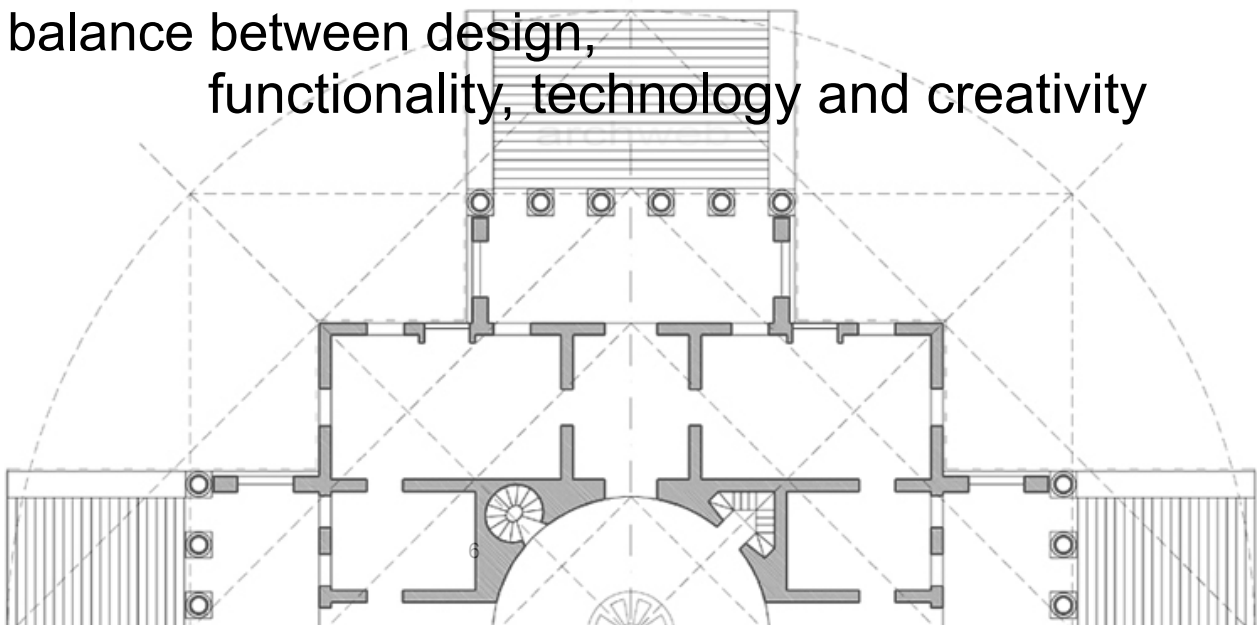




made in italy

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

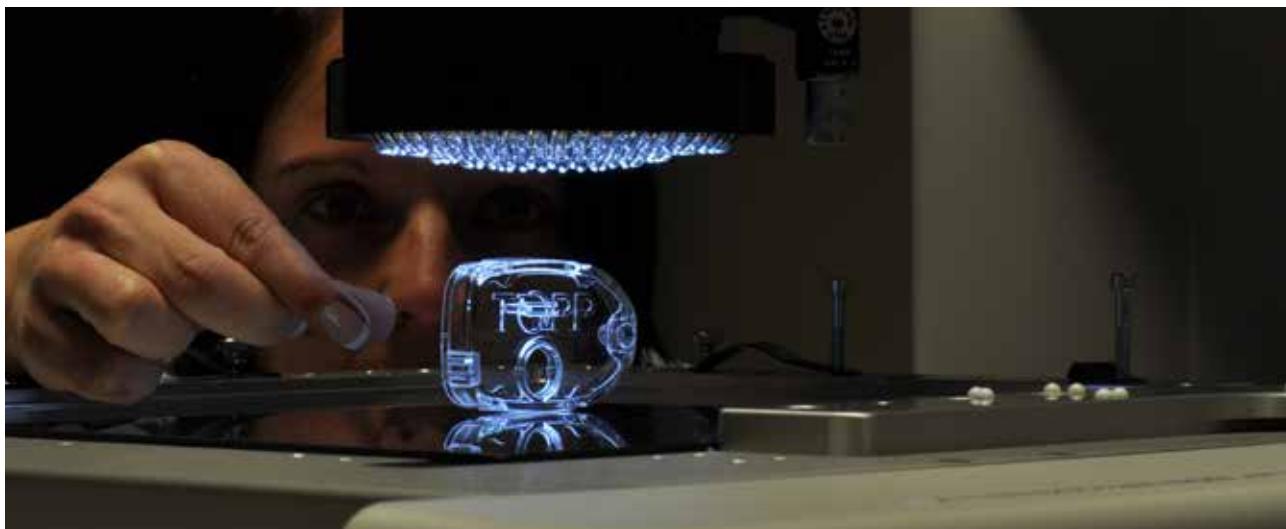




Innovation
is our tradition

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.

research and innovation

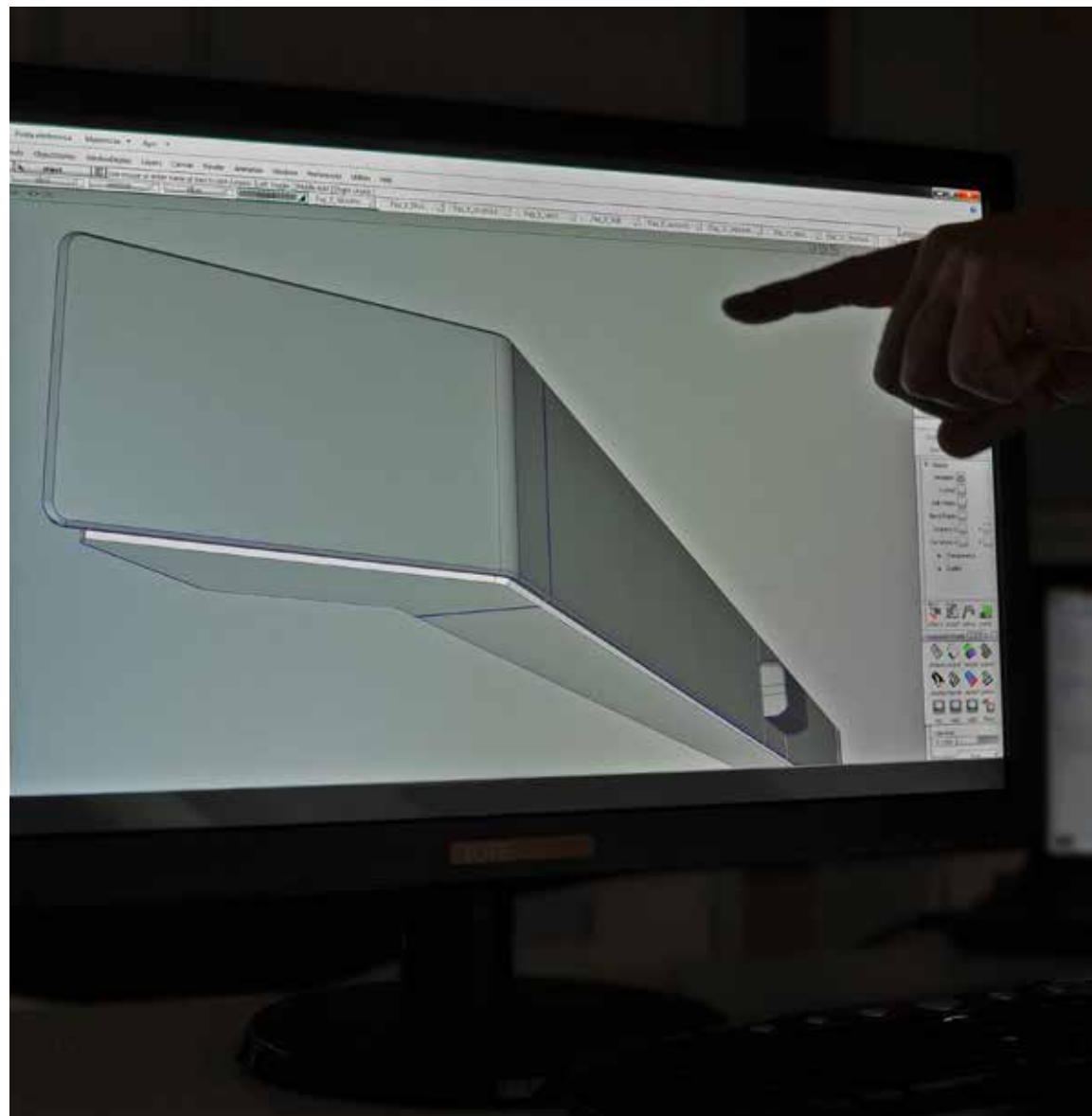




product quality

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 relationships with sales partners all over the world.

DOOR AUTOMATION

A line of devices for sliding pedestrian door automations, designed and produced on principles of quality, reliability and design. Innovative technological solutions, microprocessor control circuitry, maximum solidity and reliability; structural strength guaranteed by the choice of materials, suitable to withstand any effort or stress; harmonious, elegant minimalist design, appropriate for even the most demanding architectural solutions.

S200



V1



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DUEVILLE



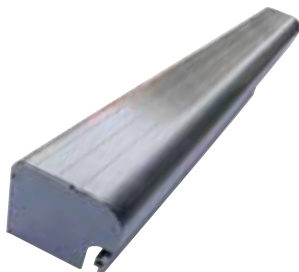
K140



K200



K280



K200R



T120



T240



T240R



K200T



K280T





S200

Electromechanical
Swing Door Operator
Max. capacity 250 Kg



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Electromechanical Swing Door Operator TOPP, model S200, for pedestrian swing doors. It may be used for door widths up to 700mm and 1200 and a maximum weight of 250kg and 130kg respectively. Power supply 230V~ 50 Hz. With a minimalist and sober design, covered by an elegant steel-painted cover, the S200 is the ideal solution for prestigious environments, both residential and commercial: shops, offices, hotels and other contests that require an automatic swing door to successfully creating spaces.

Simple and easy to install due to the fitting plate, the reduced weight, the adjustable settings on the electronic board and the side switches for both the power supply and the function and reset selection.

In compliance with the EN16005 Standard, the S200 functions in either Full Power and Low Energy modes, where the latter does not require safety sensors due to the electronic control of force and weight. Due to the combination of 3 different types of arm - slide track arm, push arm and elbow slide track arm - with extension systems, this mechanism is very easy to configure and adapt to any wall and door type. In case of a power failure, a long-life battery pack will assure the operator's functioning.



Fitting plate for an easy installation to the wall.



Full Power or Low Energy modes can be easily selected from the electronic board.



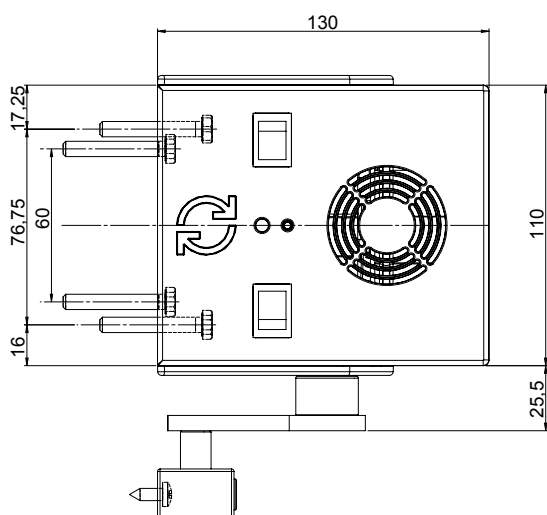
On-board batteries without automation changes on dimension.

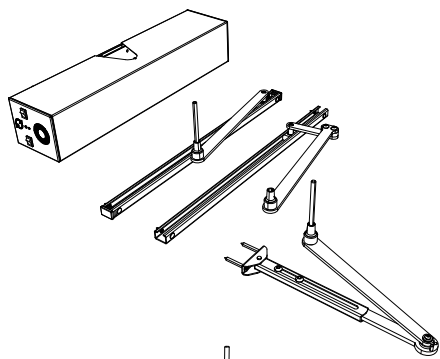
TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz
Operation modes:	Full Power or Low Energy
Working system:	Electronic opening by motor – Mechanical closing by spring
Power supply for external accessories:	24V - 500mA max
Absorption:	0,65 A
Power absorbed:	150W
Type of use:	continuous
Max. opening speed:	50°/second
Adjustment of automatic closing time:	from 0 to 60s
Max. door-leaf weight:	250kg for leaf of up to 700mm – 130kg for leaf of up to 1200mm
Clear passage width:	
with push arm	min 600mm – max 1600mm
with slide track arm	min 650mm – max 1600mm
with elbow slide track arm	min 700mm (overlap max 100); min 850mm (overlap > 100mm)max1600mm.
Max. opening angle of push arm:	115°
Max. opening angle of slide track arm:	95°
Dimensions:	580mm x 130mm x H110mm (117mm with arm fitting plates)



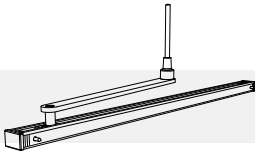
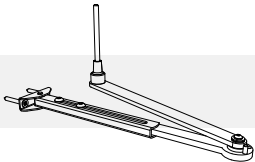
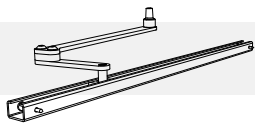
DIMENSIONS





S200 ELECTROMECHANICAL SWING DOOR OPERATOR

(Max. capacity: 250kg for leaf of up to 700mm – 130kg for leaf of up to 1200mm)

	CODE	PRODUCT DESCRIPTION
	3S10001	S200 - Electromechanical Swing Door Operator with spring and on-board battery (250kg for leaf of up to 700mm – 130kg for leaf of up to 1200mm)
	3S1020	SA1 Slide track arm (for lintel depths from 0 up to max. 30 mm)
	3S1010	AA1 Push arm (for lintel depths from 0 up to max. 100mm)
	3S1011	AA2 Push arm (for lintel depths from 101 up to max. 200mm)
	3S1012	AA3 Push arm (for lintel depths from 201 up to max. 300mm)
	3S1030	EA1 Elbow slide track arm (for lintel depths from 0 up to max. 100mm)
	3S1031	EA2 Elbow slide track arm (for lintel depths from 101 up to max. 220mm)
	3S1100	PS1 Extension arm 25mm
	3S1101	PS2 Extension arm 50mm
	3S1102	PS3 Extension arm 75mm

Note: Electronic board with on-board receiver and possibility to control through TS1S radio remote control selector (as an alternative to MS1S and KS1S selectors).



S200 ACCESSORIES

CODE PRODUCT DESCRIPTION



8E1725 WS6 Microwave unidirectional activation radar



8E1712 IS6 Safety sensor for swing doors (length 900mm - safety range from 340mm up to 900mm) – black. Certified according to EN16005



8E1771 BF1 2 pieces Bea Flatscan safety sensors – white



8E1772 BF1 2 pieces Bea Flatscan safety sensors – black



8E1042 MS1S Manual control functions selector for swing door automation



8E1043 KS1S Control functions key selector for swing door automation



8E1055 TS1S 4-functions remote control selector for swing door automation (open, close, exit only mode, automatic mode)



8E1832 DS2S digital program switch with display for swing door automation – white



8E1833 DS2S digital program switch with display for swing door automation – black



8E1094 HS3 Non-touch infrared switch



8E1091 PU1 Ultra-flat activation push pad



8E1142 TP1 Anti-entrapment system for automatic swing door hinges

V1

Automation for
interior sliding doors
Capacity max. 70Kg



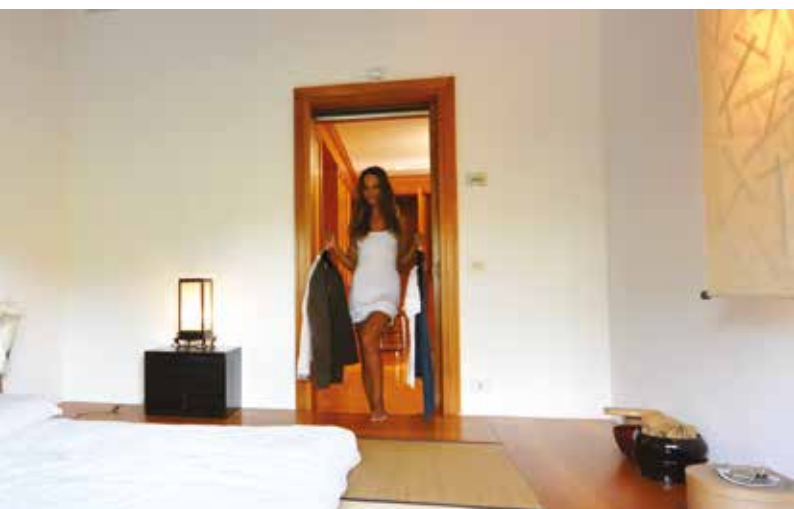
DESCRIPTION FOR TECHNICAL SPECIFICATIONS

TOPP door operator, model V1, for interior sliding doors, max. load 70kg. Power supply 230V~ 50 Hz.

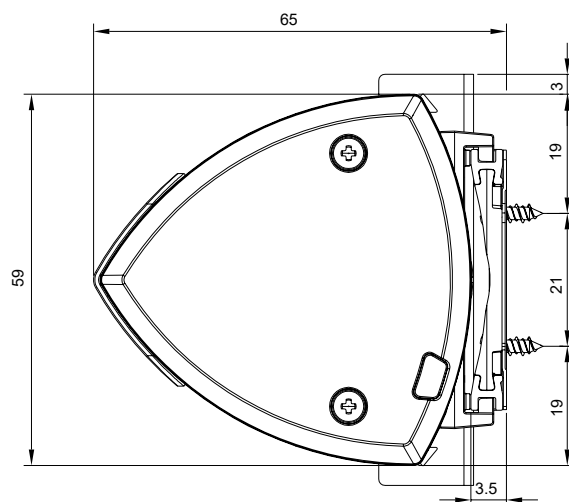
V1 allows:

- easy installation;
- simple adaptability to existing sliding doors;
- minimal dimensions and appealing design;

V1 can be easily installed on existing concealed sliding doors and complies with the EN16005 standard, "Low Energy Movement" section, that manages the door speed by a sophisticated electronic control with no need of sensors or safety photocells.



DIMENSIONS



TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz
Peripheral power output:	5 V 80mA / 24 V 110mA
Absorption:	100mA a 230 V
Power absorbed:	15W
Type of use:	continuous
Opening/closing speed:	in accordance with the EN16005 about "Low Energy Movement" in reference to panel weight
Control of panel weight:	from 150N to 700N adjustable every 35N by the installer
Maximum thrust force:	62N
Door open waiting time:	adjustable from 2 sec to 60 sec
Protection against electric shocks:	class II
Working temperature:	- 5°C + 50°C
Number of door panels:	1 PANEL
Maximum capacity:	700N
Size of opening*:	700 ÷ 1000 mm
Overall dimensions:	59x65 mm x variable length 700 - 1000 mm

*Operator for 1200mm opening available upon request



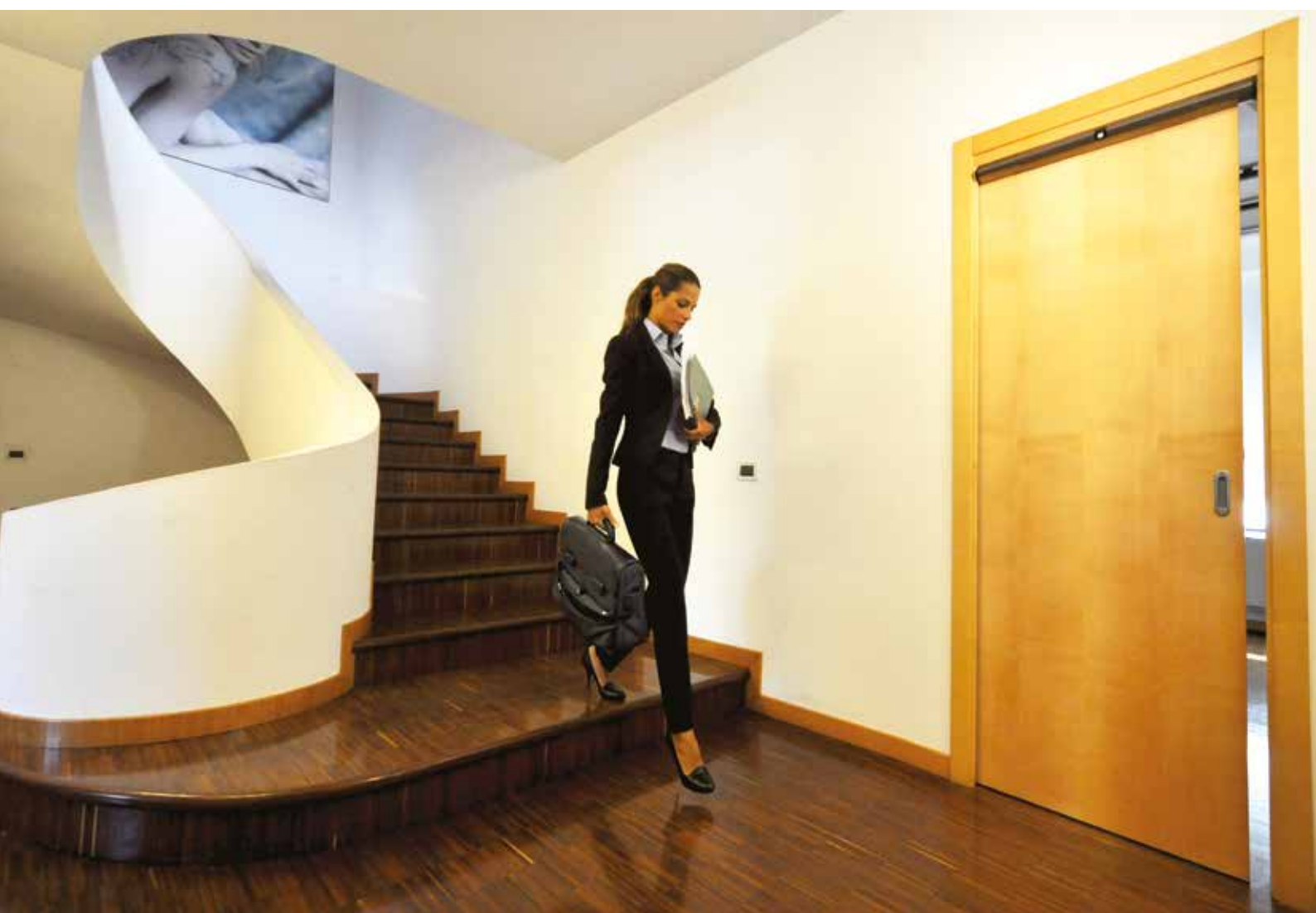


V1 AUTOMATION FOR INTERIOR SLIDING DOORS

Max. door panel weight 70kg

CODE	PRODUCT DESCRIPTION
3R20003	V1 Operator, grey colour (with infrared on-board sensor)
3R20004	V1 Operator, white colour (with infrared on-board sensor)
3R21001	V1E Door Operator, grey colour (with infrared on-board sensor) Not suitable for our TS8 radio remote selector
3R21002	V1E Door Operator, white colour (with infrared on-board sensor) Not suitable for our TS8 radio remote selector

1200mm door opening available.





V1 ACCESSORIES

V1 is available with infrared on-board sensor, microwave sensor or gesture activation key and remote control selector. In the basic version, functions by remote control selector cannot be selected.

Our remote control selector allows to select the following functions:

Opening/Closing
Door open or close
Slow speed mode
Entrance only mode
Exit only mode
Reset
Automatic mode

CE marked device.



	CODE	PRODUCT DESCRIPTION
	8E0313	TS8 8-functions radio remote selector (with magnetic wall-mounting stand)
	8E1075	WS2 Microwave activation sensor
	8E1150	HS1 External gesture activation key
	8E1151	HS2 Gesture activation key for the activation/deactivation of EB1 electric lock
	8E1105	EB1 Electric lock with emergency manual release (to be combined with two HS2 gesture activation keys)
	3R1905	GL1 double-sided tape for joining the track with glass panels
	3R2004	Glass panel stopper kit

DUEVILLE

Modular system
for access automation



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

TOPP DUEVILLE modular system for entrances with automatic sliding doors. Includes integrated entrance lighting (LED light diffused through the length of the automation and spot side LED lights) controlled by radio control, maximum 200 kg capacity, continuous use, electronic board with microprocessor of latest generation that allows the motion self-adjustment according to the weight and dimensions of the panels.

Built-in safety functions with thrust force control and obstruction detection system that automatically reverses the operation when an obstacle in the doorway is detected. Device with encoder for the automatic reading of stroke, position and slowdown of the panels.

Base parameters setting through push buttons on the electronic board and advanced user and installer settings via digital selector.

Operating modes selection with manual selector, digital selector or remote control.

Optional accessories to be installed concealed inside the automation cover: video surveillance kit, sound diffusion kit, tubular motor kit for standard roller blind.

Available leather cover treatments and different textures and colors.

Conforms to EN16005. CE marking.



Architectural and aesthetic integration thanks to the elegant design fully expressed by the lighting system..



Interchangeable lateral modulus that allow the realization of corner entrances and access control vestibules.



Full glass free-standing access vestibule that guarantees the highest elegance of aesthetic transparency, releasing the entrance from any disturbing framed structures.

TECHNICAL CHARACTERISTICS

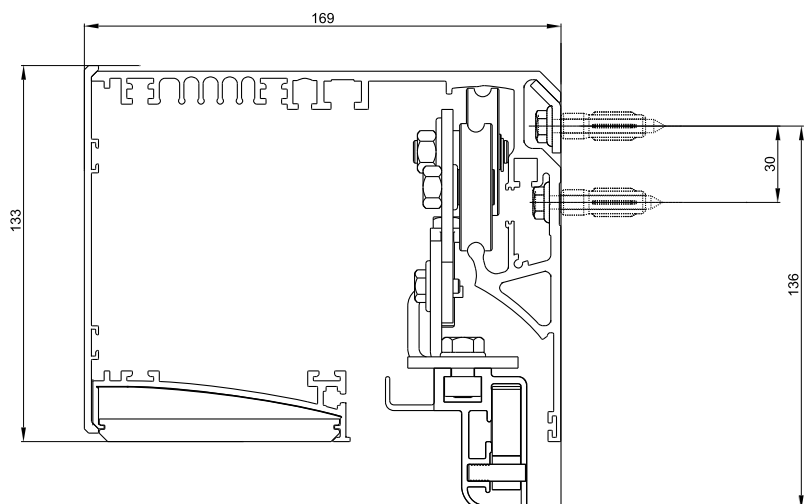
Power supply:	230V ~ 50 Hz	
Peripheral power output:	24 V 500mA max	
Absorption:	1,31 A*	
Power absorbed:	286 W*	
Type of use:	continuous use	
Opening/closing speed:	adjustable 100 ÷ 800 mm/s	
Opening/closing approach speed:	adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable 1 ÷ 12	
Automatic closing time:	adjustable 0 ÷ 60 s	
Mains voltage fuse 230V:	5 x 20 - T 800 delayed	
Protection against electric shocks:	IP X0	
Working temperature:	-20°C min +50°C max	
No. of door panels:	1 PANEL	2 PANEL
Maximum capacity:	140 kg	100 + 100 kg
Size of opening:	800 ÷ 2800 mm	1000 ÷ 2800 mm

***Data refers to a 6m length automation.**

To calculate the power consumption of smaller doors the following formula can be used: $P=90+(16)+(24 \times L)$, where L is the length of the automation.



DIMENSIONS



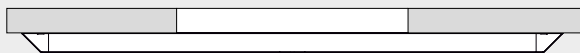
LED STRIP

Power supply	12 V
Power absorbed	24W/m
Color	6000 K

LED SPOT

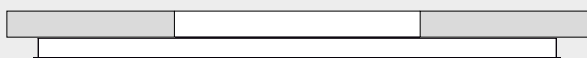
Power supply	12 V
Power absorbed	16W (8+8)
Color	2800 K

DUEVILLE SOLUTIONS



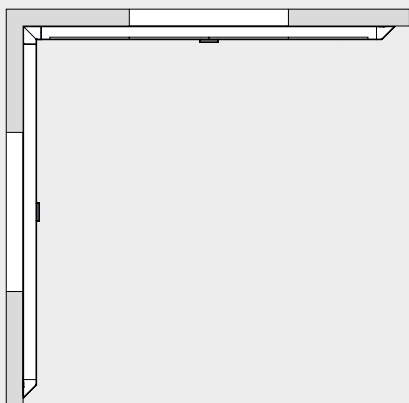
PL1

Linear automation, LED lighting located under the beam, elements with inclination of 45 degrees and side LED spot lights.



PL2

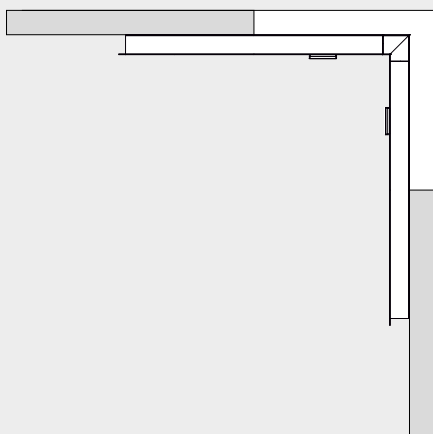
Linear automation, LED lighting located under the beam, elements with inclination of 90 degrees, without side LED spot lights.



PA1

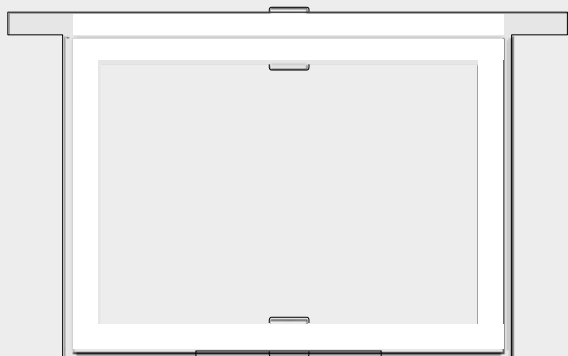
Corner automation system for two counterposed entrances, LED lighting located under the beam, angular module and elements inclined at 45° and side LED spot lights.





PA2

Automation system for corner entrances, LED lighting located under the beam, angular module and elements with inclination of 90 degrees and side LED spot lights.



PQ1

Automation system for access control vestibules for 2 counter-posed entrances, soft LED light all along the door beam, angular modules to frame the full glass load-bearing structure.

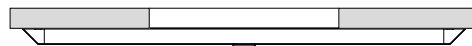


DUEVILLE FOR LINEAR SLIDING DOORS

(max capacity: 140kg 1 panel - 100kg+100kg 2 panels)

AUTOMATION KIT WITH LIGHT ALONG THE BEAM AND 45 DEGREES SIDE ELEMENTS WITH SPOT LIGHTS

motor kit + main beam + LED lighting located under the beam + on-board receiver
+ elements with inclination of 45 degrees and side LED spot lights
+ remote control for lighting system + IS2 activation and safety infrared sensor.



DUEVILLE 1 PANEL

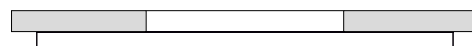
Clear passage width	Operator length
VPA mm	LT mm
800	2130
900	2330
1000	2530
1100	2730
1200	2930
1300	3130
1400	3330
1500	3530
1600	3730
1700	3930
1800	4130
1900	4330
2000	4530
2100	4730
2200	4930
2300	5130
2400	5330
2500	5530
2600	5730
2700	5930
2800	6130
2900	6330
3000	6530
3100	6730

DUEVILLE 2 PANELS

Clear passage width	Operator length
VPA mm	LT mm
800	2200
900	2400
1000	2600
1100	2800
1200	3000
1300	3200
1400	3400
1500	3600
1600	3800
1700	4000
1800	4200
1900	4400
2000	4600
2100	4800
2200	5000
2300	5200
2400	5400
2500	5600
2600	5800
2700	6000
2800	6200
2900	6400
3000	6600
3100	6800

AUTOMATION KIT WITH LIGHT ALONG THE BEAM AND FLAT SIDE ELEMENTS

motor kit + main beam + LED lighting located under the beam + on-board receiver
+ remote control for lighting system + IS2 activation and safety infrared sensor.



DUEVILLE 1 PANEL

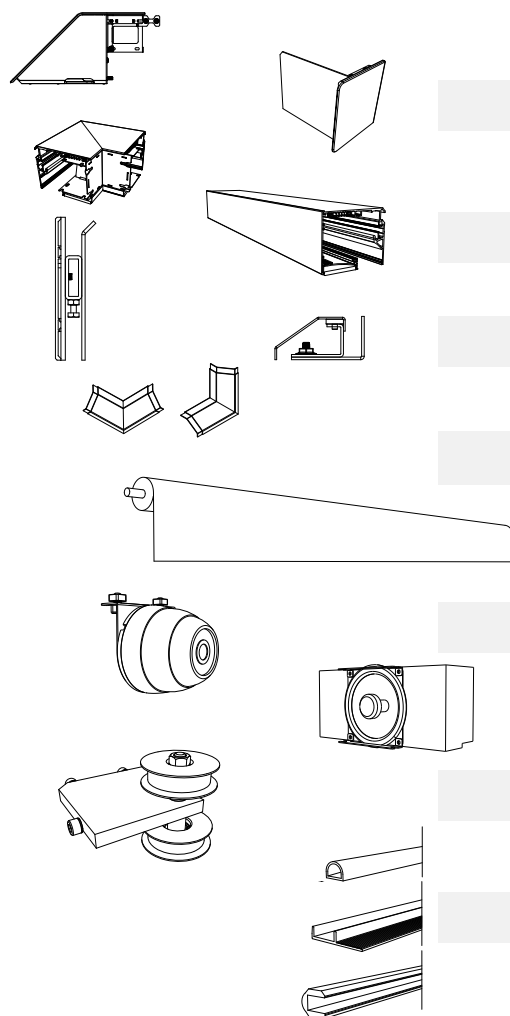
Clear passage width	Operator length
VPA mm	LT mm
800	1740
900	1940
1000	2140
1100	2340
1200	2540
1300	2740
1400	2940
1500	3140
1600	3340
1700	3540
1800	3740
1900	3940
2000	4140
2100	4340
2200	4540
2300	4740
2400	4940
2500	5140
2600	5340
2700	5540
2800	5740
2900	5940
3000	6140
3100	6340

DUEVILLE 2 PANELS

Clear passage width	Operator length
VPA mm	LT mm
800	1810
900	2010
1000	2210
1100	2410
1200	2610
1300	2810
1400	3010
1500	3210
1600	3410
1700	3610
1800	3810
1900	4010
2000	4210
2100	4410
2200	4610
2300	4810
2400	5010
2500	5210
2600	5410
2700	5610
2800	5810
2900	6010
3000	6210
3100	6410

Note: The operator's length includes elements with inclination of 45 degrees and side LED spot lights. If you use elements with inclination of 90 degrees and no LED spot lights, the crossbeam and the aluminium cover reduce by 230mm and by 195mm per each element, respectively.

ACCESSORIES



CODE

PRODUCT DESCRIPTION

3P60# End beam kit with inclination of 45 degrees and side LED spot lights

3P60# End beam kit with inclination of 90 degrees

3P6100 End beam kit with inclination of 90 degrees for access control vestibule

3P61# Metal cover kit with ceiling light 1 m long

3P69# Automation supporting structure 1 m long

3P69# Glass edge profiles 1 m long

3P69# Corner kit for glass edge profile

3P69# Ceiling for alluminium access control vestibule with fixing kit (€/square meter)

KMTU1 Tubular motor kit for standard roller blind (€/square meter)

KVIDS1 Video surveillance kit

KAUDI1 Sound diffusion kit

3P6101 Toothed transmission belt kit to realize a corner entrance DUEVILLE

8E1190 Sealing system for glass panel L=3000 m

8E1191 40mm diverting seal for glass panel L=3000 m

8E1173 P18 Sealing system for 10mm glass panel with flat gasket L=3000

DUEVILLE SURFACE TREATMENTS

KTPC1 Leather look finish - 1 m (refer to the below colour chart)

KTRC1 Covering kit in RAL/Coverx finish - 1 m (refer to the below colour chart)

LEATHER LOOK FINISH



Red

Sand

Mud

RAL FINISH



White
9016

Glossy Black
9005

Blue Navy
5003

COVERX FINISH



T1

T5

T6

G1

G2

H3

I2

I3

I9



J1



J2

K140

Pedestrian sliding door
automation
Max. capacity 140 Kg



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Door automation device TOPP, model K140, for pedestrian sliding doors, max. load 140 kg, with electronic board with microprocessor of latest generation that allows the motion selfadjustment according to the weight and dimensions of the panels. Builtin safety functions with thrust force control and obstruction detection system that automatically reverses the operation when an obstacle in the doorway is detected. Device with encoder for the automatic reading of stroke, position and slowdown of the panels.

CE marked device. Custom-made options: opening and closing speed; slowdown and approaching speed and space; pause closing time / automatic / partial / with key; partial opening; emergency operation mode with battery; operation mode with panel lock.



High quality materials and innovative technical solutions combined in a compact and small door opener



Electronic board with microprocessor, compliant with the EN16005 standard, providing direct basic programming via buttons or advanced programming via digital selector.



Easy installation due to the hook system for the pre-assembly of the transom to the wall.

TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz	
Peripheral power output:	24V - 500mA max	
Absorption:	0,32 A	
Power absorbed:	70W	
Type of use:	continuous use	
Opening/closing speed:	adjustable 100 ÷ 800 mm/s	
Opening/closing approach speed:	adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable 1 ÷ 12	
Automatic closing time:	adjustable 0 ÷ 60 sec	
Mains voltage fuse 230V:	5 x 20 - T800 delayed	
No. of door panels:	1 PANEL	2 PANELS
Maximum capacity:	140 kg	70 + 70 kg
Size of opening:	800 ÷ 2800 mm	1000 ÷ 2800 mm

K200

Pedestrian sliding door
automation
Max. capacity 200 Kg



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Door automation device TOPP, model K200, for pedestrian sliding doors, max. load 200 kg, intensive duty device, with electronic board with microprocessor of latest generation that allows the motion selfadjustment according to the weight and dimensions of the panels.

Built-in safety functions with thrust force control and obstruction detection system that automatically reverses the operation when an obstacle in the doorway is detected. Device with encoder for the automatic reading of stroke, position and slowdown of the panels. CE marked device. Custom-made options: opening and closing speed; slowdown and approaching speed and space; pause closing time /automatic / partial / with key; partial opening; emergency operation mode with battery; operation mode with panel lock.



High quality materials and innovative technical solutions combined in a compact and small door opener



Electronic board with microprocessor, compliant with the EN16005 standard, providing direct basic programming via buttons or advanced programming via digital selector.



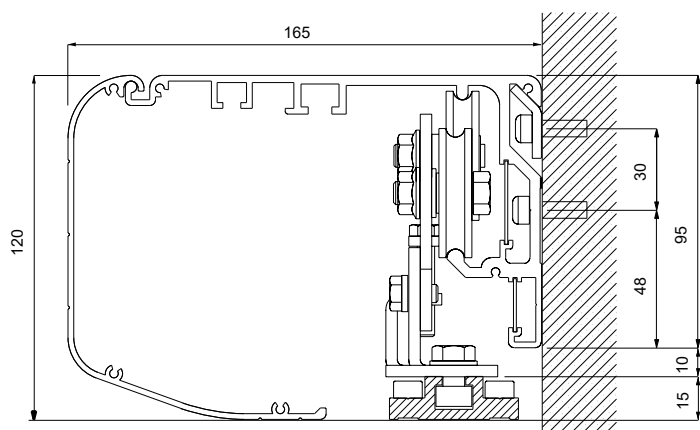
Easy installation due to the hook system for the pre-assembly of the transom to the wall.

TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz	
Peripheral power output:	24V - 500mA max	
Absorption:	0,41 A	
Power absorbed:	90W	
Type of use:	continuous and intensive use	
Opening/closing speed:	adjustable 100 ÷ 800 mm/s	
Opening/closing approaching speed:	adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable 1 ÷ 12	
Automatic closing time:	adjustable 0 ÷ 60 sec	
Mains voltage fuse 230V:	5x20 - T800 delayed	
No. of door panels:	1 PANEL	2 PANELS
Maximum capacity:	140 kg	100 + 100 kg
Size of opening:	800 ÷ 2800 mm	1000 ÷ 2800 mm



DIMENSIONS



K280

Pedestrian sliding door
automation
Max. capacity 280 Kg



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Door automation device TOPP, model K280, for pedestrian sliding doors, max. load 280 kg, intensive duty device, with electronic board with microprocessor of latest generation that allows the motion self-adjustment according to the weight and dimensions of the panels. Builtin safety functions with thrust force control and obstruction detection system that automatically reverses the operation when an obstacle in the doorway is detected. Device with encoder for the automatic reading of stroke, position and slowdown of the panels. CE marked device.

Custom-made options: opening and closing speed; slowdown and approaching speed and space; pause closing time/automatic/partial/with key); partial opening; emergency operation mode with battery; operation mode with panel lock.



High quality materials and innovative technical solutions combined in a compact and small door opener



Electronic board with microprocessor, compliant with the EN16005 standard, providing direct basic programming via buttons or advanced programming via digital selector.



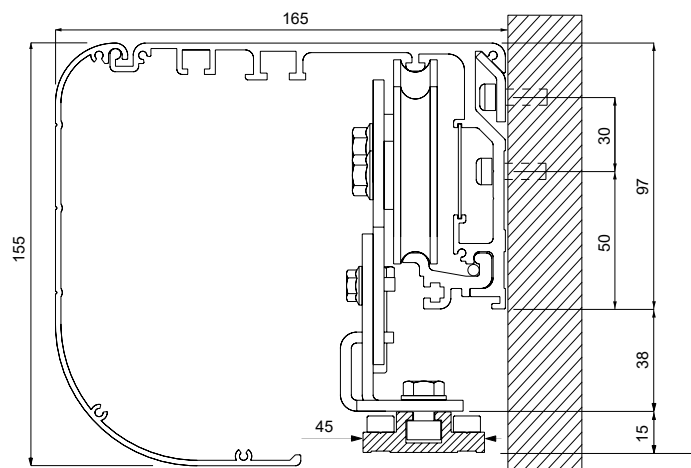
Easy installation due to the hook system for the pre-assembly of the transom to the wall.

TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz	
Peripheral power output:	24V - 500mA max	
Absorption:	0,41 A	
Power absorbed:	90W	
Type of use:	continuous and intensive use	
Opening/closing speed:	adjustable 10 ÷ 800 mm/s	
Opening/closing approaching speed:	adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable 1 ÷ 12	
Automatic closing time:	adjustable 0 ÷ 60 s	
Mains voltage fuse 230V:	5 x 20 - T800 delayed	
No. of door panels:	1 PANEL	2 PANELS
Maximum capacity:	280 kg	140 + 140 kg
Size of opening:	800 ÷ 3200 mm	1000 ÷ 3200 mm



DIMENSIONS



K200R

Pedestrian redundant sliding
door automation
Max. capacity 200 Kg



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Door automation devices TOPP, models K200R for pedestrian redundant sliding doors, max. capacity 200Kg, intensive duty device, electronic board with microprocessor of latest generation that allows the motion self-adjustment according to the weight and dimensions of the panels. Integrated safety functions control the thrust force and reveal the presence of obstacles in the doorway to automatically reverse the door opening. Device with encoder providing the automatic reading of stroke, position and panel slowdown. Direct basic programming via buttons on the electronic board and operating mode choice via key selector. TOPP redundant automatic door systems are alternative escape- and emergency route solutions to the S10 break-out system that provides for manual emergency opening. They can be used in specific cases only and when the S10 antipanic system may cause danger to people and/or transport means in the adjacent areas due to the pivoted side panels. EN16005 compliant. CE marked device.



High quality materials and innovative technical solutions combined in a compact and small door opener.



Double motor and electronics providing control and monitoring of safety and movement during the emergency opening in exit routes.



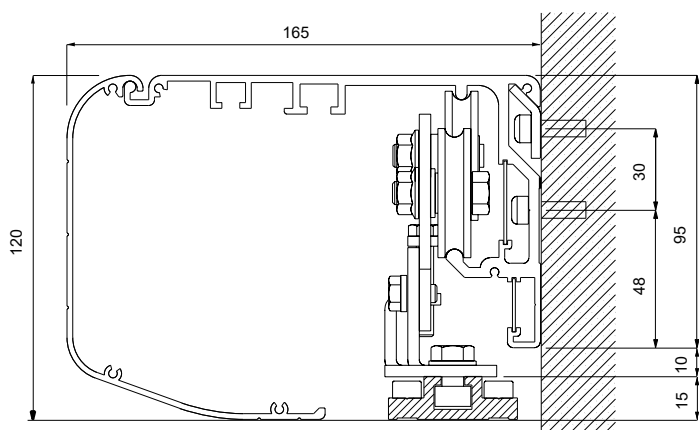
An alternative solution to the anti-panic break-out system, which can be installed in emergency exits, even with glass doors.

TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz	
Peripheral power output:	24V - 500mA max	
Absorption:	0,7 A	
Power absorbed:	200 W	
Type of use:	continuous and intensive use	
Opening/closing speed:	adjustable 10 ÷ 800 mm/s	
Opening/closing approaching speed:	adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable 1 ÷ 12	
Automatic closing time:	adjustable 0 ÷ 60 s	
Mains voltage fuse 230V:	5 x 20 - T1200 delayed	
No. of door panels:	1 PANEL	2 PANELS
Maximum capacity:	140 kg	100 + 100 kg
Size of opening:	800 ÷ 1900 mm	1000 ÷ 2800 mm



DIMENSIONS



T120-T240 T240R

Pedestrian sliding door automation
Max. capacity 120Kg (T120)
and 240Kg (T240 and T240R-redundant
automation for emergency exit)

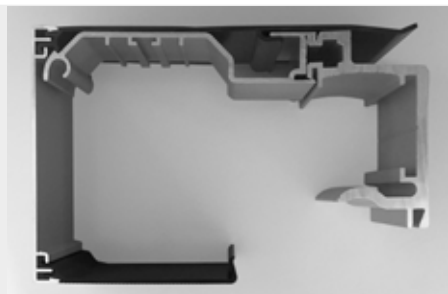


DESCRIPTION FOR TECHNICAL SPECIFICATIONS

TOPP automatic door system, models T120, T240 and T240R (redundant) for pedestrian sliding doors, max. load 120 kg (T120) and 240 kg (T240 and T240R), intensive duty device, with electronic board with microprocessor of latest generation that allows the motion self-adjustment according to weight and dimension of the door panels. Built-in safety functions with thrust force control and automatic reverse on obstruction in the threshold. Device with encoder for the automatic reading of stroke, position and door panels slowdown. Programming of the basic parameters from the electronic board and of the advanced functions for user and installer via digital selector. Operation modes selectable from the functions selector, the key lock switch, the digital selector or the remote control.

T240R redundant automatic door system is alternative escape and emergency route solution to the S10 break-out system that provides for manual emergency opening. It can be used in specific cases only and when the S10 antipanic system may cause danger to people and/or transport means in the adjacent areas due to the pivoted side panels.

CE certified automation in compliance with the EN16005.



Max capacity inside a compact frame profile. Door operator's dimensions: W 150mm X H100mm. Max. capacity 240kg.



Elegant and streamline look. Absence of visible fixing and closing screws. Rapid fastening and unfastening beam cover.

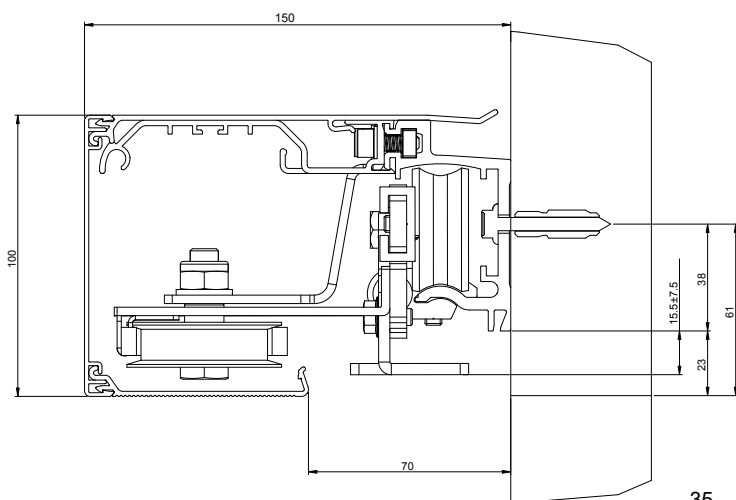


Silent operation. Aluminium and PVC housing. Simplified push-in carriages with wheels that can be replaced without removing the door panel, auto-aligning with anti-derailment system built integrated into the main beam, without additional wheel.

TECHNICAL CHARACTERISTICS	T120		T240		T240R	
Power supply:	230V ~ 50/60 Hz		230V ~ 50/60 Hz		230V ~ 50/60 Hz	
Peripheral power output:	24V - 500mA max		24V - 500mA max		24V - 500mA max	
Absorption:	0,32 A		0,41 A		0,7 A	
Power absorbed:	70W		90W		200 W	
Type of use:	continuous		continuous and intensive use		continuous and intensive use	
Opening/closing speed:	adjustable 100 ÷ 800 mm/s		adjustable 100 ÷ 800 mm/s		adjustable 100 ÷ 800 mm/s	
Opening/closing approaching speed:	adjustable 1 ÷ 50		adjustable 1 ÷ 50		adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable 1 ÷ 12		adjustable 1 ÷ 12		adjustable 1 ÷ 12	
Automatic closing time:	adjustable 0 ÷ 60 s		adjustable 0 ÷ 60 s		adjustable 0 ÷ 60 s	
Mains voltage fuse 230V:	5 x 20 - T800 delayed		5 x 20 - T800 delayed		5 x 20 - T1200 delayed	
No. of door panels:	1 PANEL	2 PANELS	1 PANEL	2 PANELS	1 PANEL	2 PANELS
Maximum capacity:	120Kg	60 + 60 Kg	120Kg	120 + 120 Kg	120 kg	120 + 120 kg
Size of opening:	800 ÷ 2800 mm	1000 ÷ 2800 mm	800 ÷ 2800 mm	1000 ÷ 2800 mm	800 ÷ 1900 mm	1000 ÷ 2800 mm



DIMENSIONS



AUTOMATIC DOORS K LINE

K140 max load: 140 kg 1 panel - 70 kg+70 kg 2 panels

K280 max load: 280 kg 1 panel - 140 kg+140 kg 2 panels

K200 max load: 140 kg 1 panel - 100 kg+100 kg 2 panels

K200R (Redundant) max load: 140kg 1 panel - 100kg+100kg 2 panels

DOOR OPERATORS

Automation + main beam + emergency battery + on-board receiver (double motor, double electronic board, powerful battery for K200R)

Clear passage width Operator length

VPA mm	LT mm
800	1750
900	1950
1000	2150
1100	2350
1200	2550
1300	2750
1400	2950
1500	3150
1600	3350
1700	3550
1800	3750
1900	3950
2000	4150
2100	4350
2200	4550
2300	4750
2400	4950
2500	5150
2600	5350
2700	5550
2800	5750
2900	5950
3000	6150
3100	6350

K140

K200

K280

K200R

Note: Electronic board with onboard receiver and possibility to control through TS1 or TS2 radio remote control selectors (as an alternative to MS1 and KS1 selectors).

* For panels between 240kg and 280kg an additional carriage wheel is necessary.

PLUG&PLAY DOOR OPERATORS

Automation + main beam + emergency battery + Plug&Play power + 2 Plug&Play IS2 sensors + on-board receiver + TS1 4-functions remote control selector (for K200R 1 WS3 radar + 1 WS4 radar + KS1R Key selector for redundant automation)



Clear passage width Operator length

VPA mm	LT mm
800	1750
900	1950
1000	2150
1100	2350
1200	2550
1300	2750
1400	2950
1500	3150
1600	3350
1700	3550
1800	3750
1900	3950
2000	4150
2100	4350
2200	4550
2300	4750
2400	4950
2500	5150
2600	5350
2700	5550
2800	5750
2900	5950
3000	6150
3100	6350

K140 PLUG&PLAY Kit

K200 PLUG&PLAY Kit

K280 PLUG&PLAY Kit

K200R PLUG&PLAY Kit

* For panels between 240kg and 280kg an additional carriage wheel is necessary.

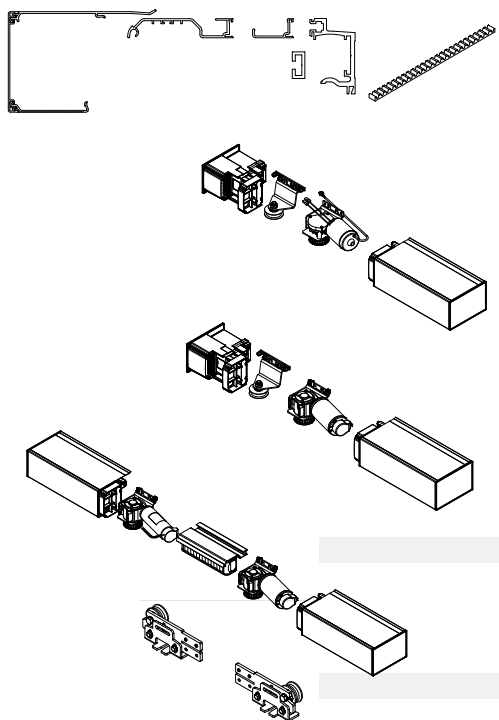
SLIDING DOOR OPERATOR KITS T LINE

T120 max load: 120kg 1 panel - 60kg+60kg 2 panels

T240 max load: 120kg 1 panel - 120kg+120kg 2 panels

T240R (Redundant) max load: 120kg 1 panel - 120kg+120kg 2 panels

ASSEMBLY KITS

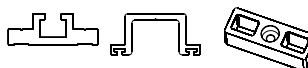


CODE	PRODUCT DESCRIPTION
3T3010	T120 - T240 - Profiles Kit - Silver L= 2900mm + 4000mm belt
3T3011	T120 - T240 - Profiles Kit - Silver L= 4400mm + 6255mm belt
3T3012	T120 - T240 - Profiles Kit - Silver L= 6500mm + 9405mm belt
3T3013	T120 - T240 - Profiles Kit - Silver L= 5800mm + 9405mm belt Includes: main beam, mechanism box, raceway, carriage junction bar and belt
3T3031	T120 Motor & Electronics Includes: motor group and control unit, battery, pulley, tension adjustment belt kit, safety door limit stop switches, black side terminal, spare parts; onboard receiver. * Electronic board with onboard receiver and possibility to control through TS1 or TS2 radio remote control selectors (as an alternative to MS1 and KS1 selectors).
3T4031	T240 Motor & Electronics Includes: motor group and control unit, battery, pulley, tension adjustment belt kit, safety door limit stop switches, black side terminal, spare parts; onboard receiver. * Electronic board with onboard receiver and possibility to control through TS1 or TS2 radio remote control selectors (as an alternative to MS1 and KS1 selectors).
3T4130	T240R (redundant) Motor & Electronics Redundant motor and control unit with greater battery; pulley; tension adjustment belt kit; safety door stop limit switches; black side terminal with redundant control board; spare parts;
3T3070	T120 - T240 Carriage (1 panel)

PANEL ADAPTER KIT:

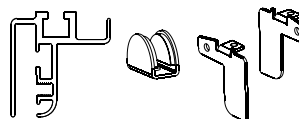
framed panels

T10 - includes: adapter + track + accessories + runner on floor



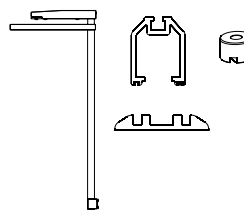
glass panels

A10 - adapter kit for glass panels
Includes: adapter + track + accessories for 10mm glass panels.

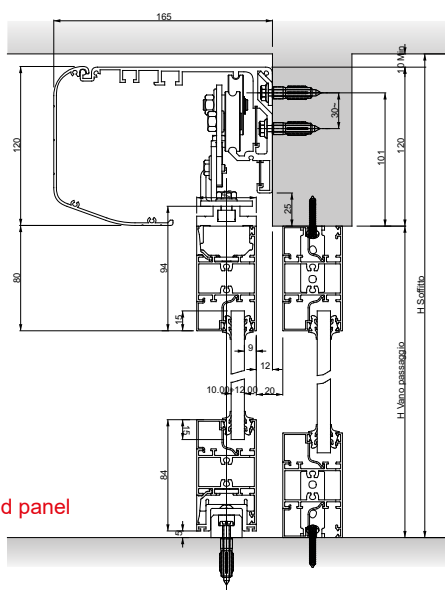


panels with anti-panic system

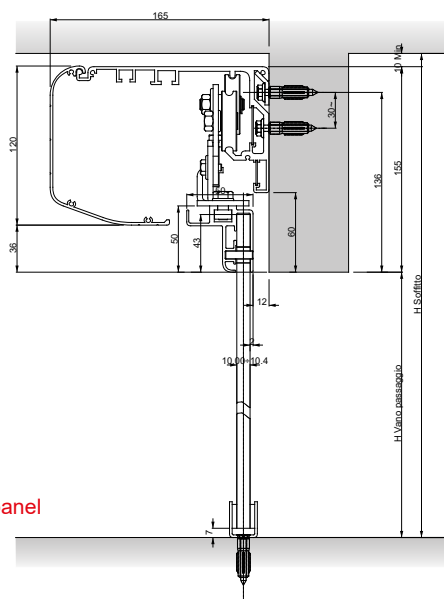
S10 - adapter kit for panels with anti-panic device
Includes: adapter, track, accessories, runner on floor and simple anti-panic kit.



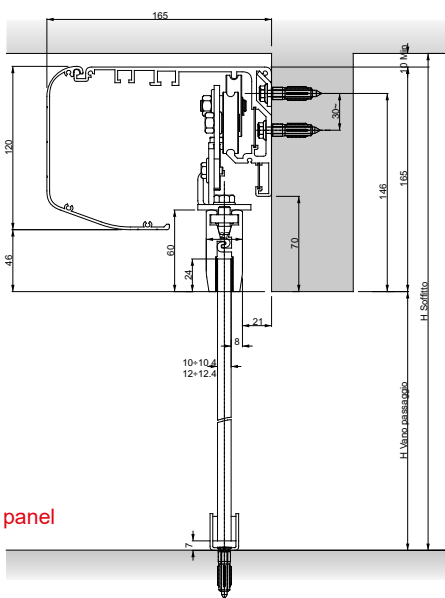
K140 - K200 DIMENSIONS



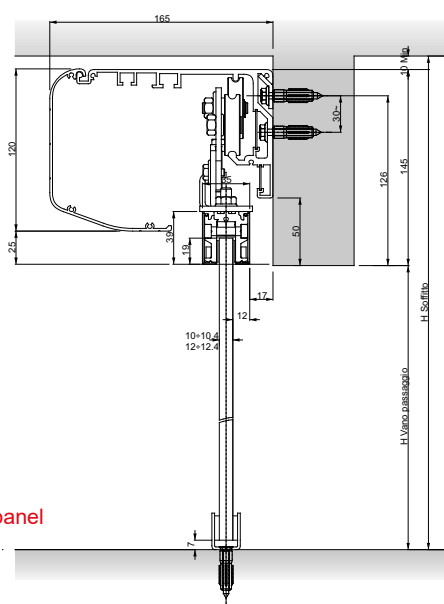
T10_Framed panel



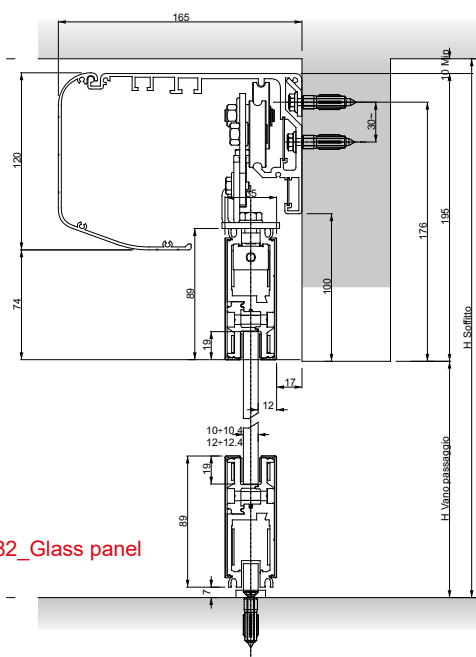
A10_Glass panel



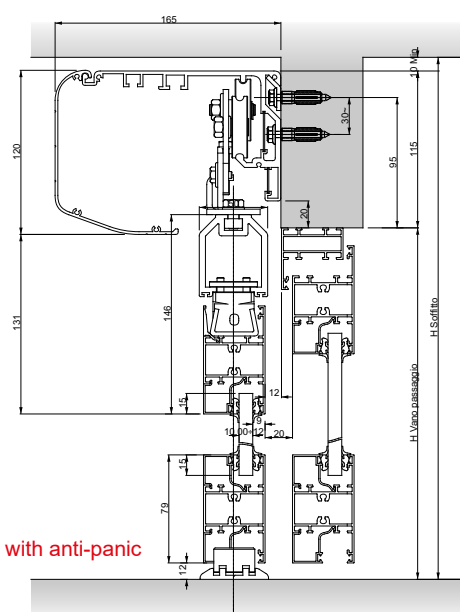
G60_Glass panel



G38_Glass panel



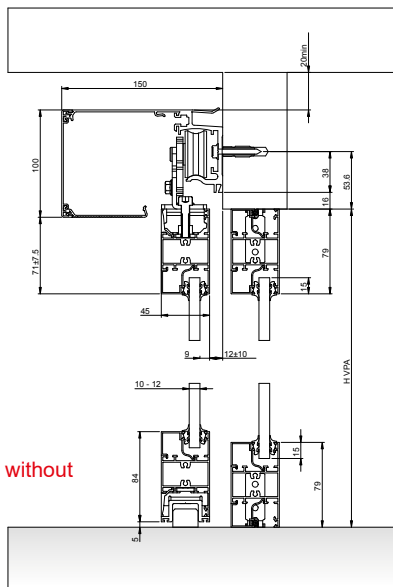
G82 - Z82_Glass panel



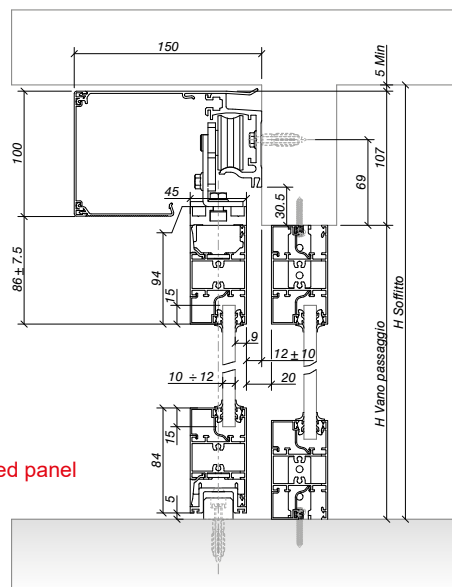
S10_Panel with anti-panic

T120 – T240 DIMENSIONS

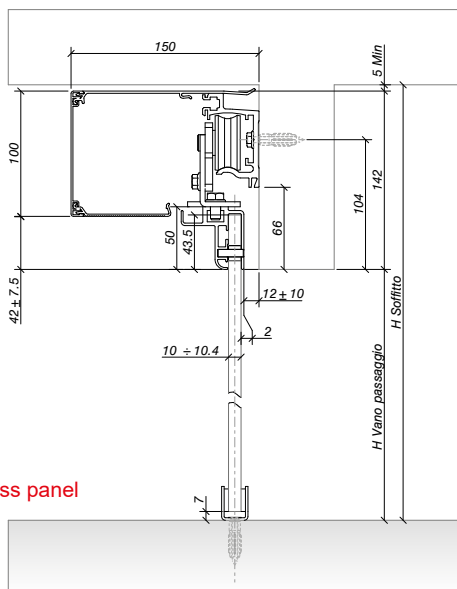
Framed panel without adapter



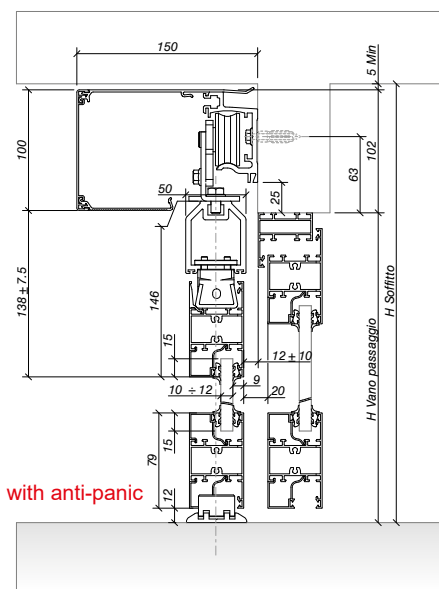
T10_Framed panel



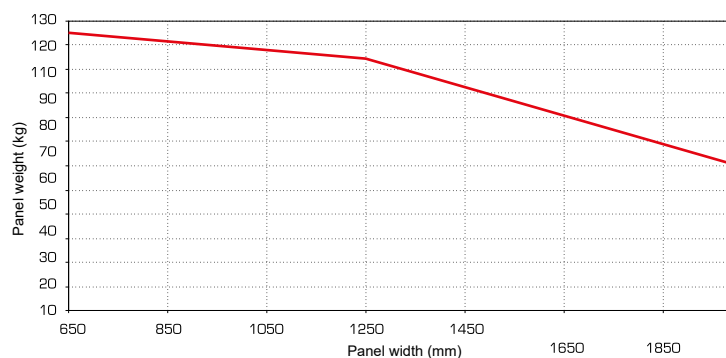
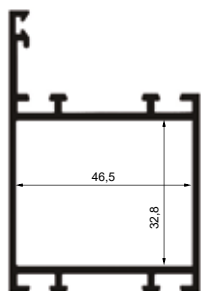
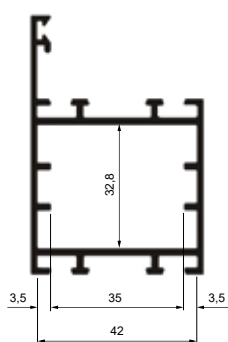
A10_Glass panel



S10_Panel with anti-panic



anti-panic kit - profiles section and capacity



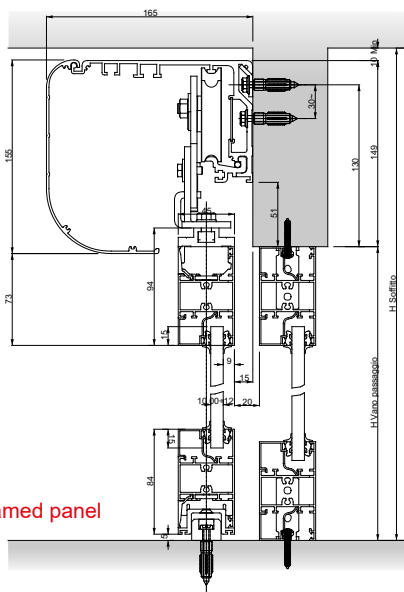
profile's minimum internal dimensions for the antipanic kit installation

Note: The mechanical break-through anti-panic system can be used with panels that are max 2000 mm wide and that weigh max 70 kg each (for narrower panels, please refer to the relevant diagrams).

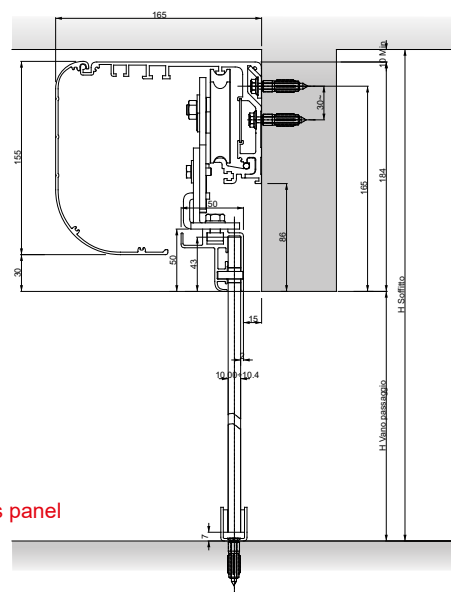
Attention: add the anti-panic kit (15 kg) to the panel's weight.

N.B.: The images of the shown profiles are indicative only for the analysis of space for the assembly of the TOPP anti-panic system.

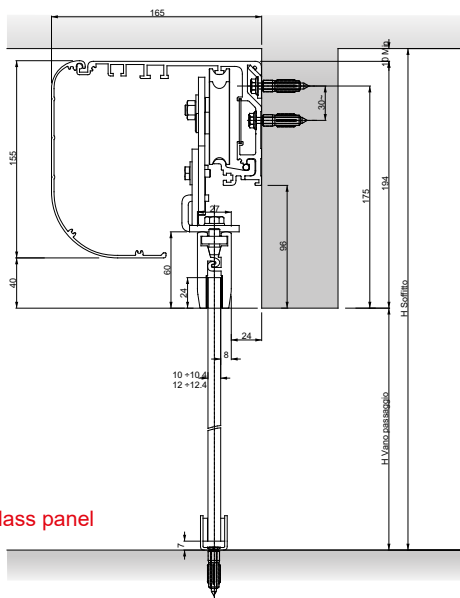
K280 DIMENSIONS



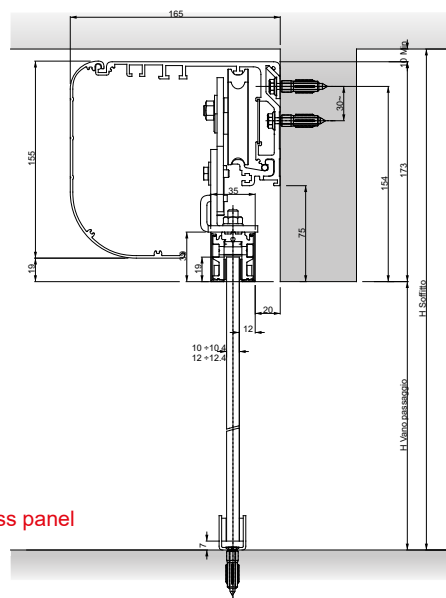
T10_Framed panel



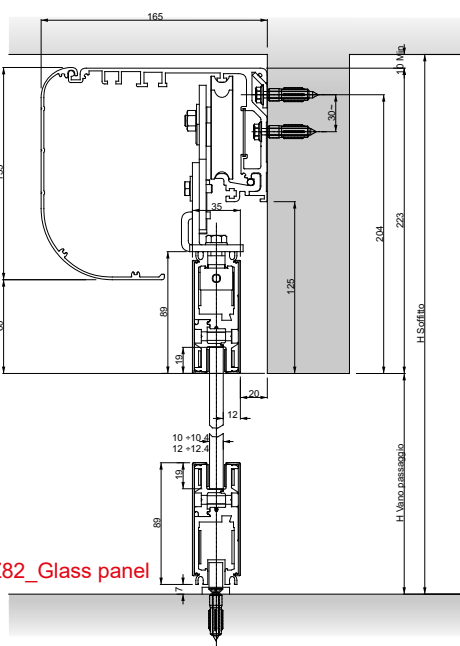
A10_Glass panel



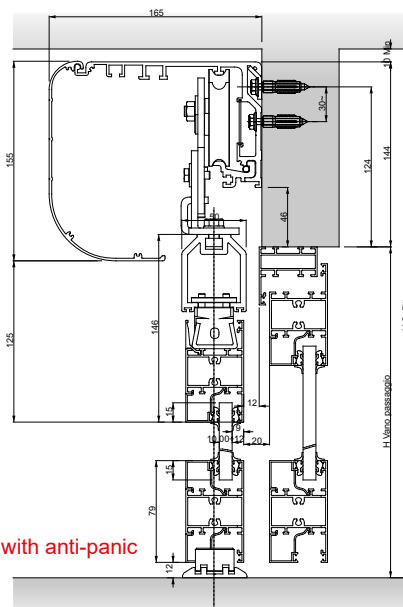
G60_Glass panel



G38_Glass panel



G82 - Z82_Glass panel

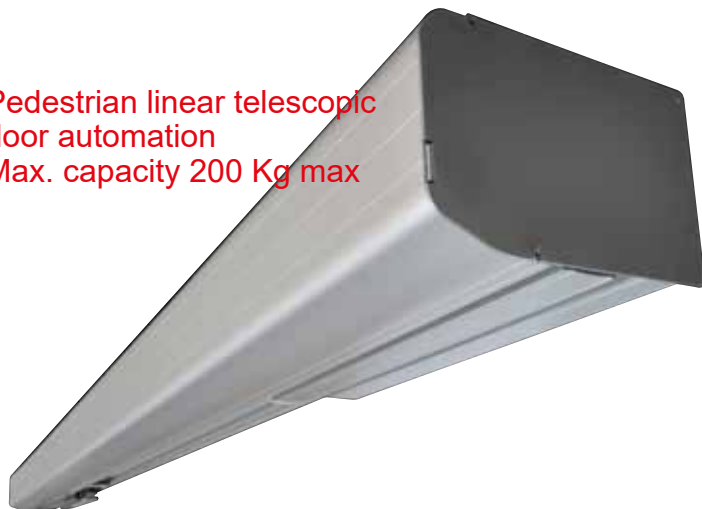


S10_Panel with anti-panic



K200T

Pedestrian linear telescopic
door automation
Max. capacity 200 Kg max



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Door automation device TOPP, model K200T, for pedestrian sliding telescopic doors, max. capacity 200 kg, with electronic board with microprocessor of latest generation that allows the motion self-adjustment according to the weight and dimensions of the panels.

Built-in safety functions with thrust force control and obstruction detection system that automatically reverses the operation when an obstacle in the doorway is detected. Device with encoder for the automatic reading of stroke, position and slowdown of the panels. CE marked device. Custom-made options: opening and closing speed; slowdown and approaching speed and space; pause closing time (automatic/partial/with key); partial opening; emergency operation mode with battery; operation mode with panel lock.



High quality materials and innovative technical solutions combined in a compact and small door opener



Electronic board with microprocessor, EN16005 compliant, providing direct basic programming via buttons and advanced programming via digital selector



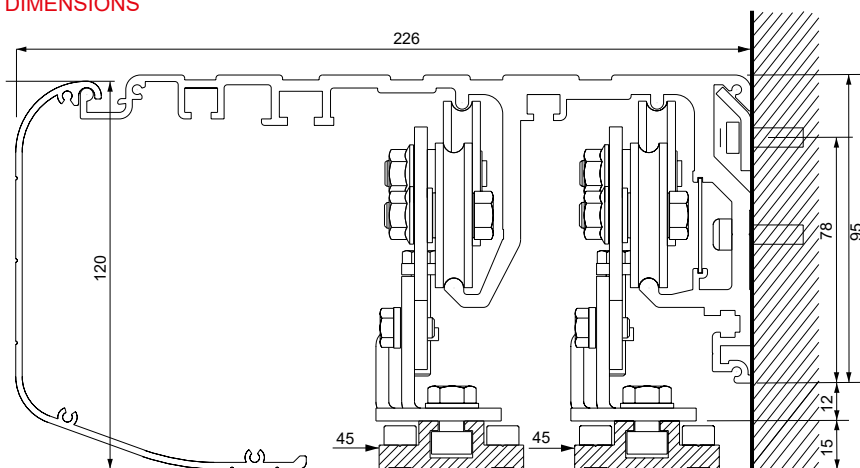
Top solidity, reliability and resistance due to high quality materials, resulting in the capacity to withstand any stress and strain.

TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz	
Peripheral power output:	24V - 500mA max	
Absorption:	0,32 A	
Power absorbed:	70W	
Type of use:	continuous use	
Opening/closing speed:	adjustable 100 ÷ 800 mm/s	
Opening/closing approaching speed:	adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable 1 ÷ 12	
Automatic closing time:	adjustable 0 ÷ 60 sec	
Mains voltage fuse 230V:	5 x 20 - T800 delayed	
No. of door panels:	2 PANELS	4 PANELS
Maximum capacity:	2 x 100 kg	4 x 50 kg
Size of opening:	900 ÷ 4200 mm	1800 ÷ 4200 mm



DIMENSIONS



K280T

Pedestrian linear telescopic
door automation
Max. capacity 280 Kg



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Door automation device TOPP, model K280T, for pedestrian sliding telescopic doors, max. capacity 280 kg, intensive duty device, with electronic board with microprocessor of latest generation that allows the motion self-adjustment according to the weight and dimensions of the panels. Built-in safety functions with thrust force control and obstruction detection system that automatically reverses the operation when an obstacle in the doorway is detected. Device with encoder for the automatic reading of stroke, position and slowdown of the panels. CE marked device. Custom-made options: opening and closing speed; slowdown and approaching speed and space; pause closing time (automatic/partial/with key); partial opening; emergency operation mode with battery; operation mode with panel lock.



High quality materials and innovative technical solutions combined in a compact and small door opener.



Electronic board with microprocessor, EN16005 compliant, providing direct basic programming via buttons and advanced programming via digital selector



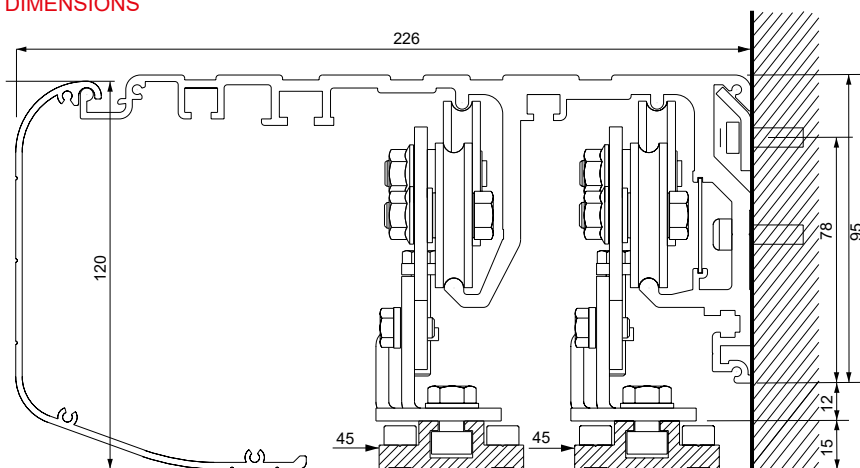
Top solidity, reliability and resistance due to high quality materials, resulting in the capacity to withstand any stress and strain.

TECHNICAL CHARACTERISTICS

Power supply:	230V ~ 50/60 Hz	
Peripheral power output:	24V - 500mA max	
Absorption:	0,41 A	
Power absorbed:	90W	
Type of use:	continuous and intensive use	
Opening/closing speed:	adjustable 100 ÷ 800 mm/s	
Opening/closing approaching speed:	adjustable 1 ÷ 50	
Opening/closing acceleration:	adjustable da 1 ÷ 12	
Automatic closing time:	adjustable da 0 ÷ 60 s	
Mains voltage fuse 230V:	5 x 20 - T800 delayed	
No. of door panels:	2 PANELS	4 PANELS
Maximum capacity:	2 x 140 kg	4 x 70 kg
Size of opening:	900 ÷ 4200 mm	1800 ÷ 4200 mm



DIMENSIONS



K200T max. load: 100kg+100kg 2 panels - 50kg+50kg+50kg+50kg 4 panels
K280T max. load: 140kg+140kg 2 panels - 70kg+70kg+70kg+70kg 4 panels

K280T max. load: 140kg+140kg 2 panels - 70kg+70kg+70kg+70kg 4 panels

motor kit + main beam + mechanism box + emergency battery + on-board receiver

K200T - K280T DIMENSIONS



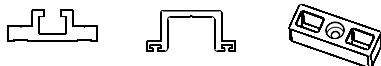
Note: Special main beam, glass panel, max length 3m.

K200T - K280T WING ADAPTER KIT

ADAPTER KIT FOR:

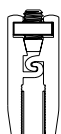
framed panels

T10 - Adapter kit for framed panels:
Adapter + Track + Accessories + Runner
on floor



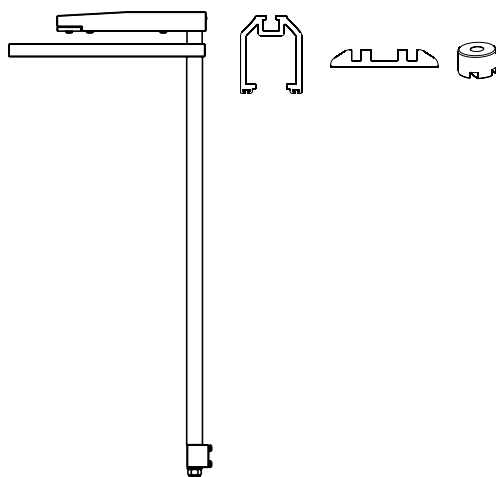
glass panels

G60 - Adapter kit for glass panels:
Adapter + Track + 10/12mm Glass
panels accessories + Runner on floor


















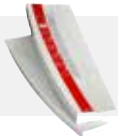
















full anti-panic system

S10 - adapter kit for panels with anti-panic device Includes: adapter, track, accessories, runner on floor and simple anti-panic kit.



ACCESSORIES

	CODE	PRODUCT DESCRIPTION
	8E1011	IS1 Infrared active sensor - Black
	8E1013	IS1 Infrared active sensor - Silver
	8E1704	IS2 Activation and safety infrared sensor (in compliance with EN16005 and DIN 18650) - Black
	8E1705	IS2 Activation and safety infrared sensor (in compliance with EN16005 and DIN 18650) - Grey
	8E1708	IS5 Infrared sensor for lateral safety (in compliance with EN16005 and DIN 18650) - Black
	8E1709	IS5 Infrared sensor for lateral safety (in compliance with EN16005 and DIN 18650) - Grey
	8E1009	IS3 Built-in infrared active sensor
	8E1711	IS7 Activation and safety infrared sensor - Black
	8E1075	WS2 microwave radar for M1 - V1 - White
	8E1720	WS3 Dual technology, automatic door activation and safety sensor (in compliance with EN16005) – Black
	8E1721	WS3 Dual technology, automatic door activation and safety sensor (in compliance with EN16005) – Grey
	8E1722	WS4 Dual technology, automatic door activation and safety sensor for redundant automatic doors (in compliance with EN16005)- black
	8E1723	WS4 Dual technology, automatic door activation and safety sensor for redundant automatic doors (in compliance with EN16005)- grey
	8E1724	WS5 microwave activation radar– black
	8E1725	WS6 microwave unidirectional activation radar– black
	8E1790	Universal rain protection cover for sensors
	8E1791	Device for concealed fitting for WS3-WS4 sensors
	8E1792	Bracket for roof fitting for IS2-WS3-WS4 sensors
	8E1793	Device for concealed fitting for IS2 sensors
	8E1034	DS2 digital program switch with display End user/installer advanced functions - white
	8E1035	DS2 digital program switch with display End user/installer advanced functions - black
	8E1830	DS2R digital program switch with display for redundant door automation – white
	8E1831	DS2R digital program switch with display for redundant door automation – black
	8E1030	MS1 Control functions selector
	8E1040	KS1 Control functions key selector
	8E1041	KS1R Control functions key selector for redundant door automation

	CODE	PRODUCT DESCRIPTION
	8E1050	TS1 4-functions remote control selector (open, close, exit only mode, automatic mode)
	8E1052	TS2 8-functions remote control selector for Plug&Play automatic doors with on-board receiver (open, close, exit only, partial, partial with lock - automatic mode - reset)
	8E1060	F1 Single range photocell kit
	8E1061	F2 Double range photocell kit
	8E1064	Photocell accessory kit for anti-panic system - silver (to combine with F1 photocells)
	8E1081	KC1 Key lock switch
	8E1086	KC10 Key lock switch for redundant sliding door automation (opening only)
	8E1091	PU1 Ultra-flat activation push pad
	8E1093	PU2 Mini wall switch
	8E0125	PU3 Push button (pull release)
	8E1150	HS1 External gesture activation key
	8E1094	HS3 Non-touch infrared switch
	8E1710	KT1 Electronic keypad
	8E1095	SA2 Proximity card and tag reader
	8E0482	TE1 Proximity card with serial number
	8E0483	TG1 ABS tag device with serial number
	8E1160	LL1 LED lamp kit 24V L=1200
	8E1100	EB2 Panel locking system for K140 - K200 - K200T - K280T with intergrated manual unlock
	8E1101	EB3 Panel locking system for K280 with integrated manual unlock
	8E1106	EB4 Panel locking system for DUEVILLE with integrated manual unlock
	8E1108	EB5 Kit Bi-stable panel locking system for K200R with integrated manual unlock
	8E1109	EB6 Bi-stable panel locking system for T120-T240 with integrated manual unlock
	8E1110	EB2 - EB3 Extra panel unlock system with knob

DS2

Digital program switch with display and user/installer advanced functions



The DS2 digital selector allows you to programme all the user-installer functions directly from the digital selector.

User functions:

- User password (if enabled, the password is required to change the user functions).
- Hour ranges (i.e. exit function only from 19.45 to 20.00).
- Free wings (i.e. for door maintenance and cleaning).
- Alarms reset (i.e. in case of repeated obstacles and door lock, the reset clears all alarms and restarts the door).
- Courtesy light (i.e. connection to a light that switches on when the door opens).
- Working history (number of cycles performed, covered meters, number of radar activations, maintenance information, errors history).
- Back-light level setting in standby mode.

Installer functions:

- Installer password (if enabled, the password is required to change the installer functions).
- Speed, acceleration, braking and approach speed.
- Partial and automatic reclosing time.
- Closing tightness.
- Electric lock activation mode and logic (i.e. it could be activated in exit only mode).
- Partial opening value.
- Battery setting (i.e. the door closes in case of power outage on mains).
- Interlock.
- Multiple doors numbering (4 automations can be connected to the same switch).
- Pharmacy mode.
- Output for air curtains.
- Input for fire alarm.
- Inputs/outputs diagnostic.
- Reset.

DS2 digital program switch with display and user/installer advanced functions

Code	Product description
8E1034	DS2 digital program switch with display and user/installer advanced functions - white
8E1035	DS2 digital program switch with display and user/installer advanced functions - black

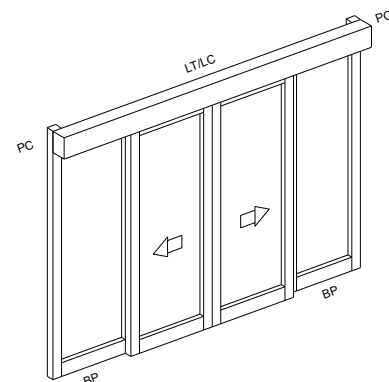
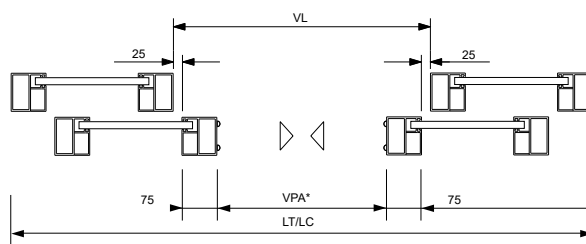




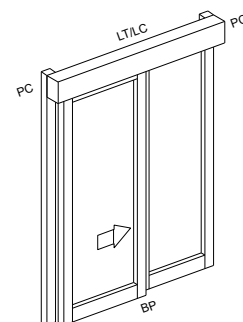
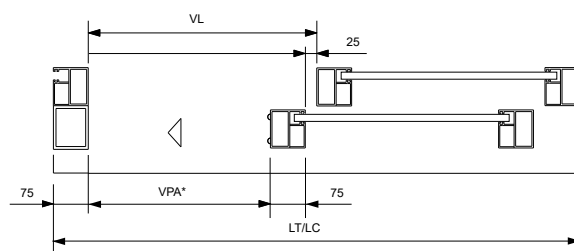


INSTALLATION TYPES- AUTOMATION FOR LINEAR SLIDING DOORS

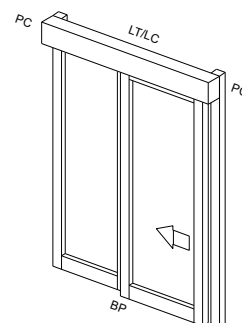
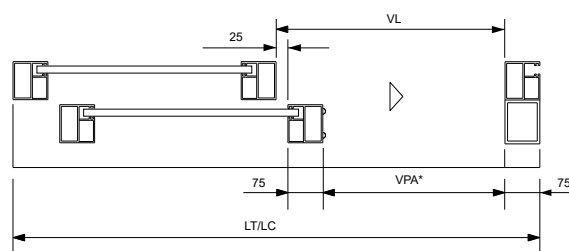
2 Panels



1 Panel opening to the right



1 Panel opening to the left

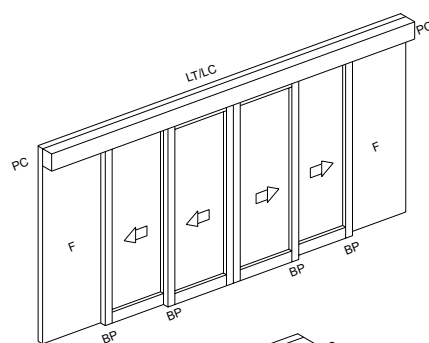
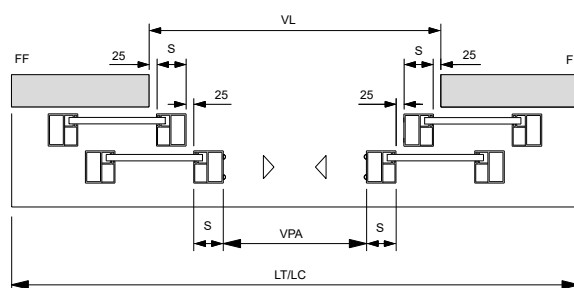


Two models of automatic door are available: Door automation with 2 panels which allows a pair of panels to slide simultaneously in the opposite direction; door automation with 1 panel which allows a single panel to slide in one direction.

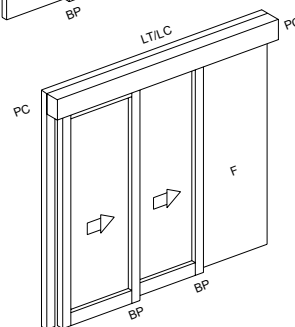
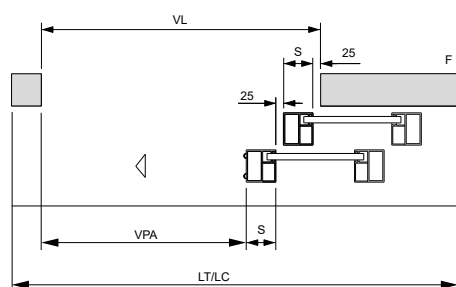


INSTALLATION TYPES – AUTOMATION FOR TELESCOPIC SLIDING DOORS

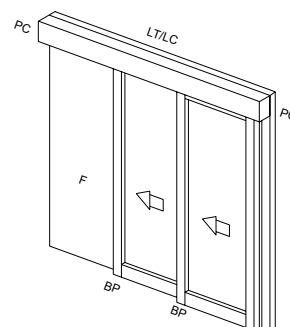
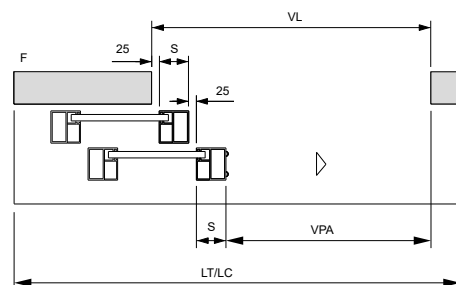
4 Panels telescopic door automation



2 Panels telescopic door automation opening to the right



2 Panels telescopic door automation opening to the left



* When ordering a 1-panel door automation, always indicate the panel opening direction by referring to the automation front view.

* To comply with the safety regulations, the net clear passage width (VPA) must be less than the gross clear passage width (VL). The net clear passage width (VPA) is equal to the gross clear passage width (VL) when the doorpost shows no blunt and/or protrusion that may cause the shearing effect.

F = fix panel - S = profile thickness - VPA = net clear passage width - VL = gross clear opening width - LT/LC = door length/ mechanism box length - BP = rail + runner on floor - PC = electric wire raceway.

* The drawings are referred to the K line. For the T line, consider a longer LT / LC of 226 mm for the same clear passage.

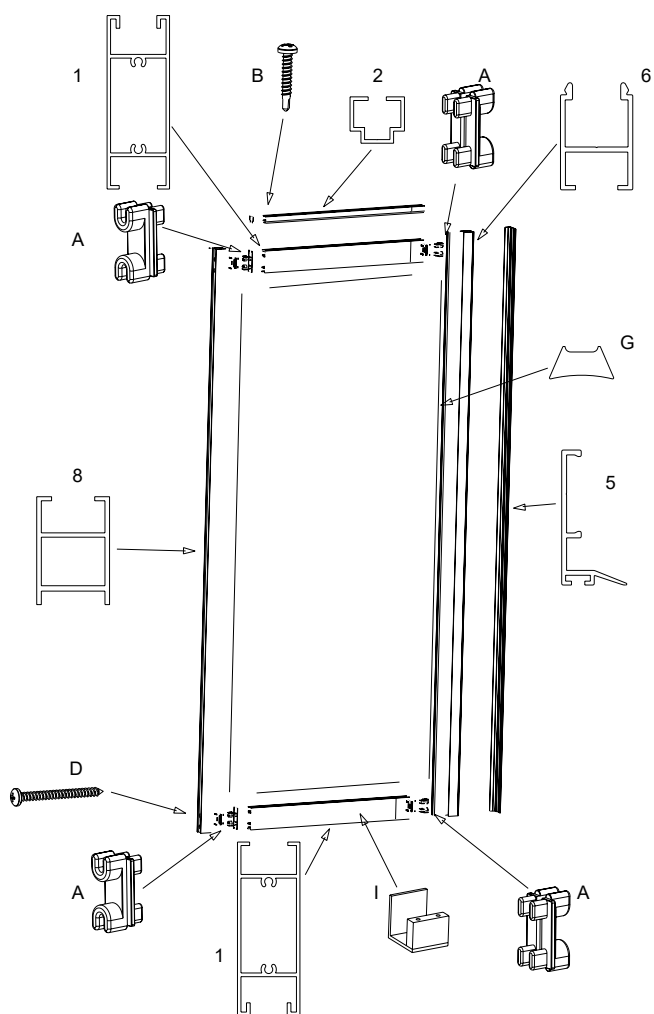
P27

Profile for TOPP
automatic sliding doors

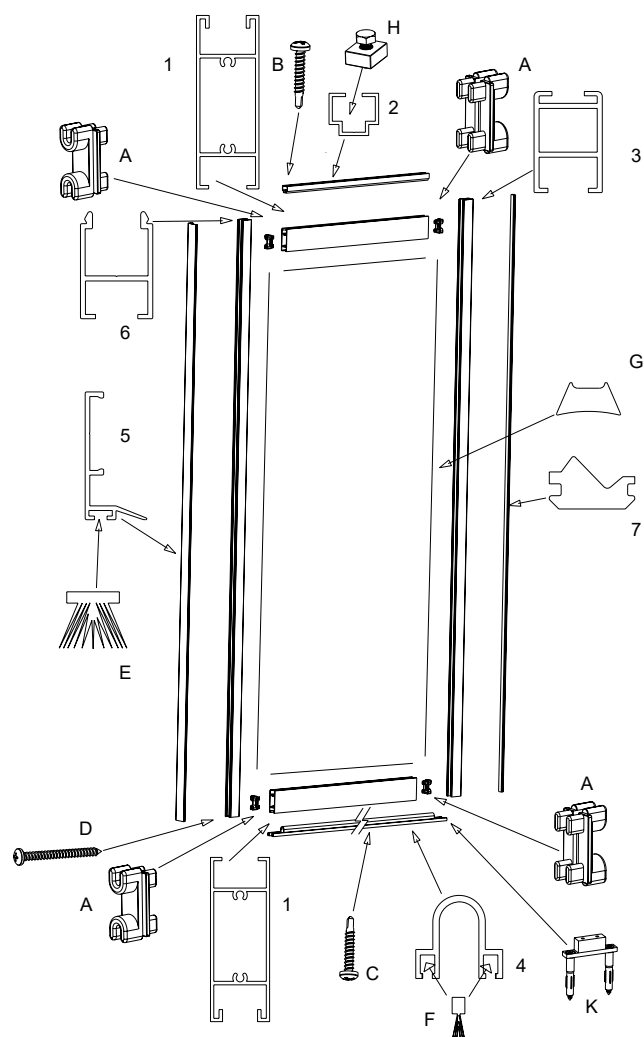
The profile is 27mm thick, the bottom and upper base is 75mm high and the side profiles are 40mm wide.
It is supplied with seals and accessories to fit laminated 3+3/4+4/5+5 or tempered 6/8/10 glasses.



Fixed panel



Active panel

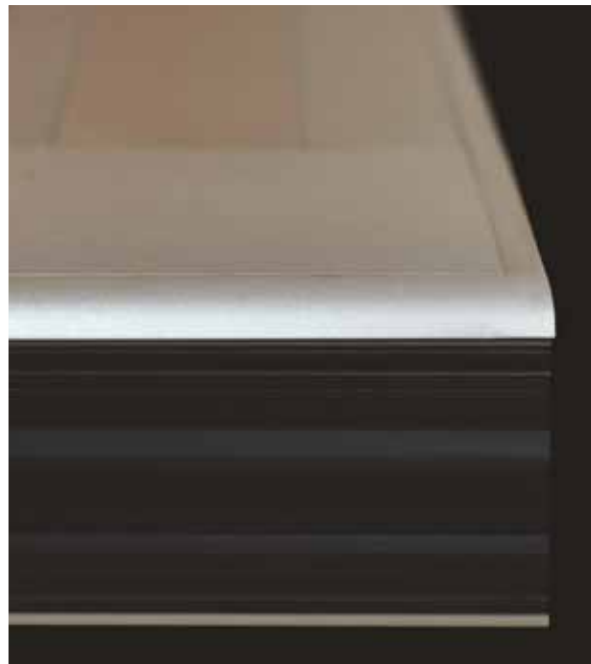


P27 PROFILE FOR AUTOMATIC DOORS

DRAWINGS	DRAWING REF.	CODE	PRODUCT DESCRIPTION	REMARKS
PANEL KIT		3Q4#000002744	P27 kit for 1 active panel L 1000 - H 2600	
		3Q4#000002711	P27 kit for 1 active panel L 1500 - H 2600	
		3Q4#000003004	P27 kit for 1 fixed panel + 1 active panel L 1000 - H 2600	
		3Q4#000003662	P27 kit for 1 fixed panel + 1 active panel L 1500 - H 2600	
		3Q4#000002870	P27 kit for 2 active panels L 1000/H 2600	
		3Q4#000003663	P27 kit for 2 active panels L 1500/H 2600	
		3Q4#000002856	P27 kit for 2 fixed panels + 2 active panels L 1000 - H 2600	
		3Q4#000003664	P27 kit for 2 fixed panels + 2 active panels 1500 - H 2600	
COMPONENTS	1	8E2001	P27 Horizontal Profile for Active & Fixed panel	6 m bar
	2	8E2002	P27 Horizontal Upper Profile for Active & Fixed panel	6 m bar
	4	8E2003	P27 Horizontal Guide Profile for Active panel	3 m bar
	8	8E2004	P27 Vertical Profile for Fixed panel	5,2 m bar
	6	8E2005	P27 Vertical Profile for Active & Fixed panel	5,2 m bar
	3	8E2006	P27 Vertical Connection Profile for Active panel	2,6 m bar
	5	8E2007	P27 Clamp Profile for Active & Fixed panel	5,2 m bar
	I	8E2031	P27 Runner on floor for 1 Active/Fixed panel	for 1 panel
	K	8E2032	P27 Runner on floor for 1 Active panel	for 1 panel
	K+L	8E2033	P27 Kit Runner on floor for 1 Telescopic panel	for 1 panel
	A+B+D	8E2040	P27 Spare parts kit for 1 Fixed panel	for 1 panel
	A+B+C+D+H	8E2041	P27 Spare parts kit for 1 Active panel	for 1 panel
	A+B+C+D+J	8E2042	P27 Spare parts kit for 1 Active Teles. panel	for 1 panel
	G	8E2070	P27 Gasket (6mm thick) for glass Active and Fixed panel	60m
	G	8E2071	P27 Gasket (8mm thick) for glass Active and Fixed panel	60m
	G	8E2072	P27 Gasket (10mm thick) for glass Active and Fixed panel	60m
	7	8E2073	P27 Connection Gasket for Active panel	12m
	E	8E2074	P27 Connection Brush for Active panel	12m
	F	8E2075	P27 Base Brush for Active panel	1 m bar

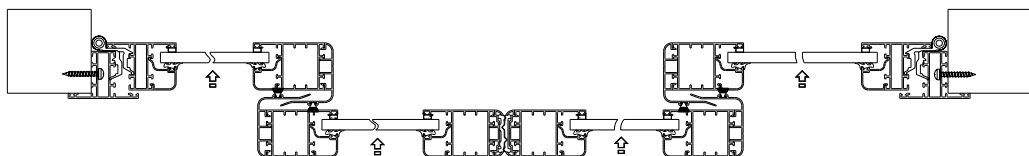
P45

Adjustment profile for the common R40 system

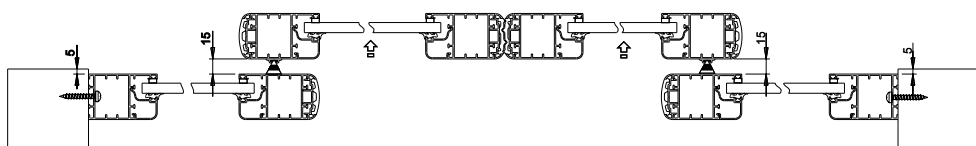


Adjustment profile for the common R40 system with rounded anti-crushing, anti-cutting and anti-grazing corners complying with the EN 16005 standard about safety for motorized pedestrian doors. Custom-cut panel kit supplied with brushes, gaskets and glass-holders for 10 to 12mm glass or, alternatively, with the necessary components to complete the panel assembly with the R40 system.

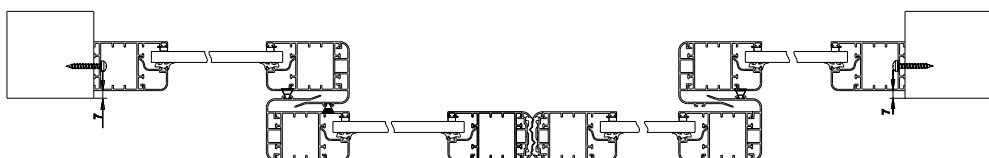
Double panel door with full anti-panic system



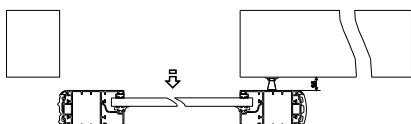
Double panel door with simple anti-panic system



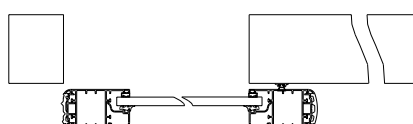
Double panel door without anti-panic system



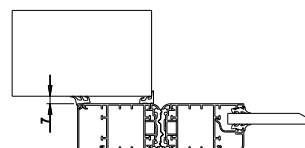
Moving panel with simple anti-panic system



Moving panel with simple anti-panic system



Door stop

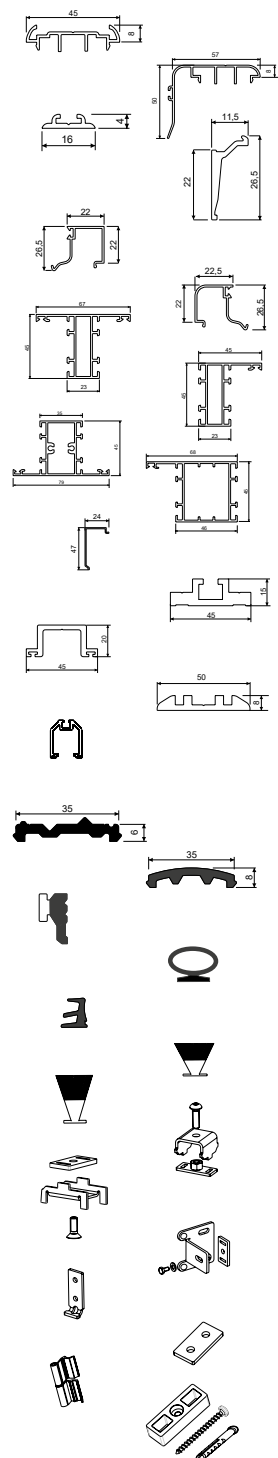


P45 PROFILES for AUTOMATIC DOORS

DRAWINGS

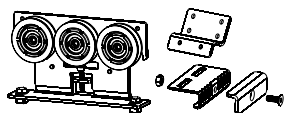
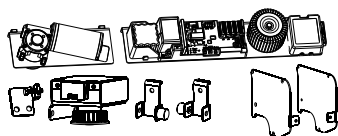
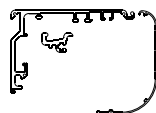
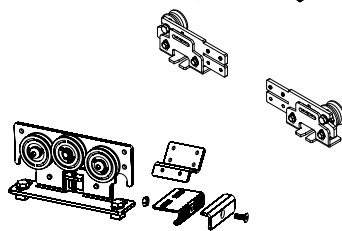
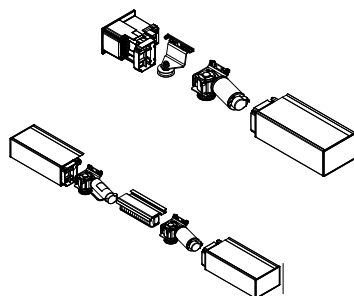
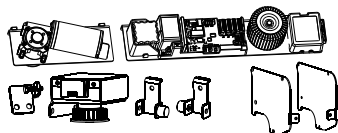
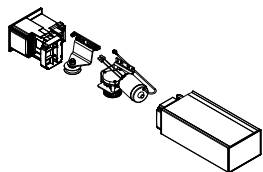
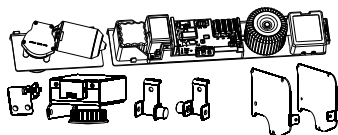
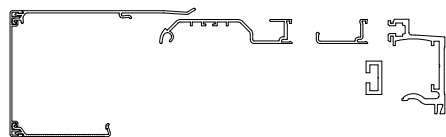
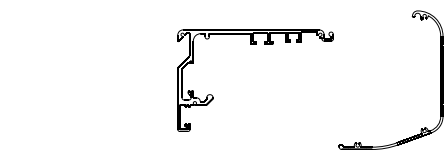
PANEL KIT

COMPONENTS



CODE	PRODUCT DESCRIPTION	REMARKS
3Q8001	P45 kit active panel S10 full anti-panic 1500X3000H	
3Q8002	P45 kit semi-fixed panel S10 full anti-panic 1500X3000H	
3Q8003	P45 kit active panel S10 simple anti-panic 1500X3000H	
3Q8004	P45 kit fixed panel S10 simple anti-panic 1500X3000H	
3Q8005	P45 kit active panel 1500X3000H	
3Q8006	P45 kit fixed panel 1500X3000H	
3Q8007	P45 kit single active panel 1500X3000H	
3Q8008	P45 kit vertical frame for matching with single active panel 3000H	
8E2200	P45 Vertical profile, frame and matching part	6 meter bar
8E2201	P45 Maze Vertical profile	6 meter bar
8E2202	P45 Brush profile-holder	6 meter bar
8E2203	P45 Glass holder 2mm (profile to complete the assembly of panel adapter and track)	6,5 meter bar
8E2204	P45 Glass holder 22mm (profile to complete of active and fixed panel track)	6 meter bar
8E2205	P45 Rounded glass holder 22,5mm	6 meter bar
8E2206	P45 Frame profile Fixed/Active	6 meter bar
8E2207	P45 "L"-shaped frame Fixed and Active	6 meter bar
8E2208	P45 Vertical profile/Beam	6,5 meter bar
8E2209	P45 Increased "L"-shaped frame Fixed	6 meter bar
8E2210	P45 covering facing profile (Covering profile for anti-panic passage width frame)	6 meter bar
8E2215	P45 Panels adapter profile Silver	6,5 meter bar
8E2216	P45 Panels track profile Silver	6,5 meter bar
8E2217	P45 Bottom track	6,5 meter bar
8E1290	Anti-panic adapter kit	6,5 meter bar
0E0047	P45 Screw TCAF d4,8x32 UNI6954 Zn	for 1 panel (12 pcs)
8E2250	P45 Panel connection seal	1 meter
8E2251	P45 Connection seal for panels matching part	1 meter
8E2252	P45 Seal External Glass Thickness = 1.5	1 meter
8E2253	P45 Internal Panel connection seal	1 meter
8E2254	P45 Seal 7mm for 10mm glass	1 meter
8E2260	P45 Brush	1 meter
8E2261	P45 Increased brush	1 meter
8E2270	P45 Adapter bracket kit	for 1 panel (4 pcs)
8E2271	P45 Track bracket kit	for 1 panel (3 pcs)
8E2272	P45 "L"-shaped bracket, wall fixing	3 pcs
8E2280	Base fixing bracket kit	for 1 panel (2 pcs)
8E2281	R40 Profiles reinforcement plate kit	for 1 panel (4 pcs)
8E2282	Semi-fixed panel opening hinge kit	for 1 panel (2 pcs)
3Q1030	T10 Guide for linear door	kit for 1 panel

ASSEMBLY KITS



CODE

PRODUCT DESCRIPTION

3P1004	K140 - K200 Profiles Kit - Silver L= 3100
3P1005	K140 - K200 Profiles Kit - Silver L= 4400
3P1006	K140 - K200 Profiles Kit - Silver L= 6500

Includes: Main Beam, Mechanism Box, Raceway;

3T3001	T120 - T240 Profiles Kit - Silver L= 3100
3T3002	T120 - T240 Profiles Kit - Silver L= 4400
3T3003	T120 - T240 Profiles Kit - Silver L= 6500
3T3004	T120 - T240 Profiles Kit - Silver L= 5800

Includes: main beam, mechanism box, raceway, carriage junction bar;

3P1235	K140 Motor & Electronics
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Includes: Motor and control unit; Pulley with encoder; Tension adjustment belt kit; Safety door stop limit switches; on-board receiver; Black caps; Spare parts;

3T3031	T120 Motor & Electronics
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Includes: motor group and control unit, battery, pulley, tension adjustment belt kit, safety door limit stop switches, on-board receiver; black side terminal, spare parts;

3P5235	K200 Motor & Electronics
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Includes: Motor and control unit; Pulley with encoder; Tension adjustment belt kit; Safety door stop limit switches; on-board receiver; Black caps; Spare parts;

3T4031	T240 Motor & Electronics
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Includes: motor group and control unit, battery, pulley, tension adjustment belt kit, safety door stop limit switches, on-board receiver; black side terminal, spare parts;

3T4130	T240R (redundant) Motor & Electronics
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Redundant motor and control unit with greater battery; pulley; tension adjustment belt kit; safety door stop limit switches; on-board receiver; black side terminal with redundant control board; spare parts;

3T3070	T120 - T240 Carriage (1 panel)
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3P1070	K140 -K200 Carriage & Belt connector kit for 1 panel (2pcs)
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3P2004	K280 Profiles Kit - Silver L=3100
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3P2005	K280 Profiles Kit - Silver L=4400
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3P2006	K280 Profiles Kit - Silver L=6500
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Includes: Main Beam, Mechanism Box, Raceway

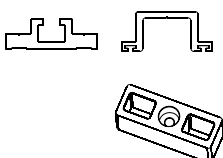
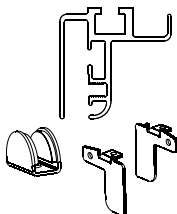
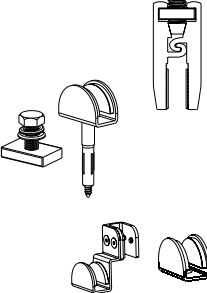
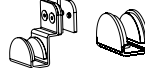
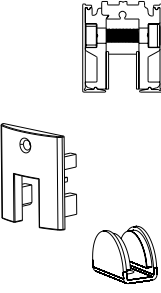
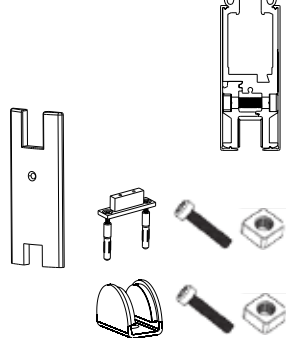


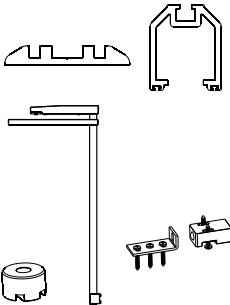
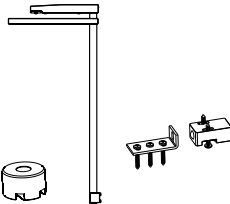
3P2235	K280 Motor & Electronics
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Includes: Motor and control unit; Pulley with encoder; Tension adjustment belt kit; Safety door stop limit switches; on-board receiver; Black caps; Spare parts

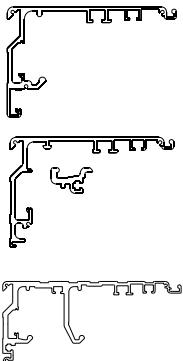
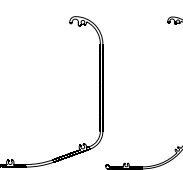
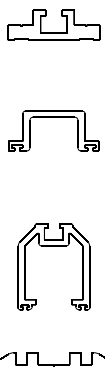
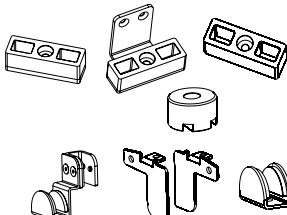
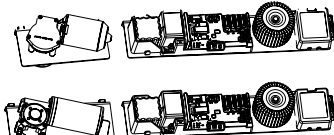
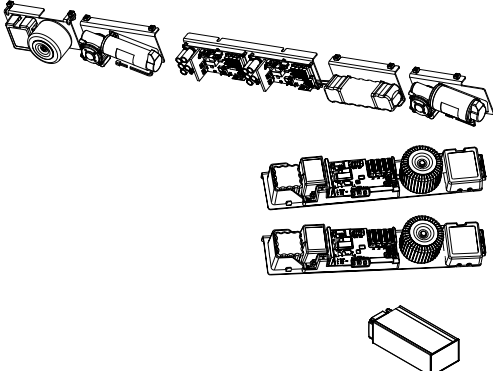
3P2070	K280 Carriage & Belt connector kit for 1 panel (2pcs)
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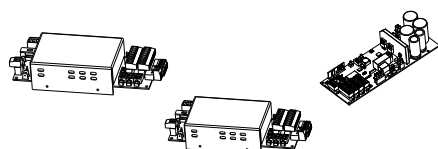
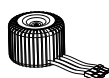
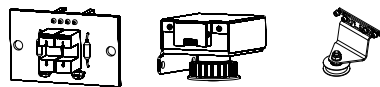
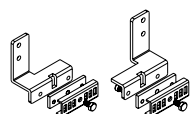
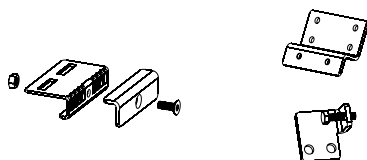
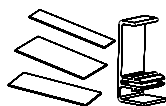
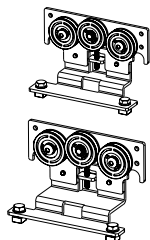
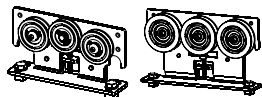
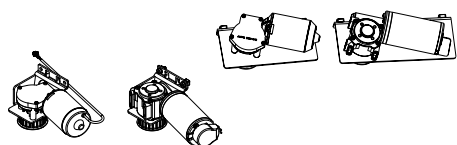
8E1181	Toothed transmission belt kit - 100 m
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0C3100	Toothed transmission belt - 1 m
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	CODE	PRODUCT DESCRIPTION
	3Q1004	Kit T10Adapter and Track Kit - Silver L=1900
	3Q1005	Kit T10 Adapter and Track Kit - Silver L=3200
	3Q1006	Kit T10 Adapter and Track Kit - Silver L=6500
	3Q1030	T10 Runner on floor kit for framed panel - Adapter and track for framed doors - 1 panel (K140 o K240)
	3Q2004	A10 Adapter kit L= 1900
	3Q2005	A10 Adapter kit L= 3200
	3Q2006	A10 Adapter kit L= 6500
	3Q2030	- A10 Adapter kits for glass panels A10 Runner on floor kit and components - for A10 Adapter (for 1 Glass panel)
	3Q5001	G60 Glass door adapter (glass 10 mm) L=1700
	3Q5002	G60 Glass door adapter (glass 10 mm) L=3400
	3Q5003	G60 Glass door adapter (glass 12 mm) L=1700
	3Q5004	G60 Glass door adapter (glass 12 mm) L=3400
	3Q5030	G60 Runner on floor kit (for 1 Glass panel - glass 10 mm)
	3Q5031	G60 Runner on floor kit (for 1 Glass panel - glass 12 mm)
		- G60 Runner on floor kit and components
	3Q5034	G60 Track kit for glass 10mm, double telescopic panel, right
	3Q5035	G60 Track kit for glass 12mm, double telescopic panel, right
	3Q5036	G60 Track kit for glass 10mm, double telescopic panel, left
	3Q5037	G60 Track kit for glass 12mm, double telescopic panel, left
		- The kits include: runner on floor for slow and fast panels and carriage fastening plates
	3Q6003	G38 Glass door adapter (glass 10 mm) L=1500
	3Q6004	G38 Glass door adapter (glass 10 mm) L=3000
	3Q6005	G38 Glass door adapter (glass 12 mm) L=1500
	3Q6006	G38 Glass door adapter (glass 12 mm) L=3000
		- Includes: adapters, screws for glass fixing, seals, carriage fixing blocks
	3Q6030	G38 End caps kit - End caps + screws (for 1 panel)
	3Q6031	G38 Runner on floor kit (for 1 Glass panel - glass 10 mm)
	3Q6032	G38 Runner on floor kit (for 1 Glass panel - glass 12 mm)
	3Q7003	G82 / Z82 Adapter kit for glass panels 10mm L=1500
	3Q7004	G82 / Z82 Adapter kit for glass panels 10mm L=3000
	3Q7005	G82 / Z82 Adapter kit for glass panels 12mm L=1500
	3Q7006	G82 / Z82 Adapter kit for glass panels 12mm L=3000
		- Consist of: adapters, screws and gaskets
	3Q7030	G82 End Caps Kit - End caps, screws (for 1 panel)
	3Q7031	G38/G82_Z82 Runner on floor kit and components - Runner on floor, carriage fixing blocks (for 1 panel)
	3Q7032	G82 Runner on floor kit for glass 10
	3Q7033	G82 Runner on floor kit for glass 12 - Runner on floor, carriage fixing blocks (for 1 panel)
	8E1190	Jamb gasket for glass panels L=3000
	8E1191	Diverting gasket 40mm for glass panel L=3000
	8E1173	P18 Jamb gasket for 10mm glass panels with flat gasket L=3000
	3Q3004	S10 Profiles Kit - Silver L= 1900
	3Q3005	S10 Profiles Kit - Silver L= 3200
	3Q3006	S10 Profiles Kit - Silver L= 6500
	3Q3030	- Adapter and track for anti-panic system S10 Simple anti-panic system kit for active panels - S10 Anti-panic system kit for 1 active panel with sticker
	3Q3040	S10 Full anti-panic system accessory - S10 Anti-panic system kit for 1 active panel
	3Q8070	P45 Micro switch for full anti-panic system

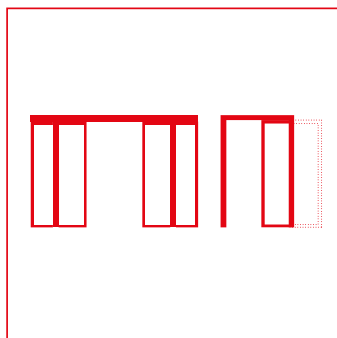
SPARE PARTS

	CODE	PRODUCT DESCRIPTION
	8E1306	K140 - K200 Main Beam L=3100 Silver
	8E1307	K140 - K200 Main Beam L=4400 Silver
	8E1308	K140 - K200 Main Beam L=6500 Silver
	8E1316	K280 Main Beam L=3100 - Raw
	8E1317	K280 Main Beam L=4400 - Raw
	8E1318	K280 Main Beam L=6500 - Raw
	8E1319	K280 Wheel glide profile L=3100 Silver
	8E1320	K280 Wheel glide profile L=4400 Silver
	8E1321	K280 Wheel glide profile L=6500 Silver
	8E1325	K200T - 280T Main Beam Kit L=3100
	8E1327	K200T - 280T Main Beam Kit L=6500
	8E1300	K140-K200-K200T-K280T Mechanism Box L=3100 Silver
	8E1301	K140-K200-K200T-K280T Mechanism Box L=4400 Silver
	8E1302	K140-K200-K200T-K280T Mechanism Box L=6500 Silver
	8E1310	K280 Mechanism Box L=3100 Silver
	8E1311	K280 Mechanism Box L=4400 Silver
	8E1312	K280 Mechanism Box L=6500 Silver
	8E1365	Adapter kit for framed panels L=1900 Silver
	8E1369	Adapter kit for framed panels L=3200 Silver
	8E1361	Adapter kit for framed panels L=6500 Silver
	8E1366	Track kit for framed panels L=1900 Silver
	8E1370	Track kit for framed panels L=3200 Silver
	8E1362	Track kit for framed panels L=6500 Silver
	8E1294	S10 - Adapter kit for anti-panic system L=1900 Silver
	8E1286	S10 - Adapter kit for anti-panic system L=3200 Silver
	8E1290	S10 - Adapter kit for anti-panic system L=6500 Silver
	8E1295	S10 - Track kit for anti-panic system L=1900 Silver
	8E1287	S10 - Track kit for anti-panic system L=3200 Silver
	8E1291	S10 - Track kit for anti-panic system L=6500 Silver
	3Q1030	T10 Runner on floor kit for framed panel – Linear door
	8E1373	K200T-K280T Runner on floor kit – Telescopic door (fast and slow panels)
	0B4507	Runner on floor for anti-panic door operator
	8E1234	Lower pivot with spring for anti-panic door operator
	1T6004	Runner kit on floor for glass panels (1 wing)
	1T6003	Fastener components kit for glass panels
	1T6005	Fastener components kit for glass panels VPA>2000
	1T6075	K200T-K280T Runner on floor kit for fast glass panel
	8E1605	K140 - K200T Motor unit Includes Gearmotor, Electronic board with on-board receiver, Transformer, Emergency battery
	8E1607	K200 - K280 - K280T Motor unit Includes Gearmotor, Electronic board with on-board receiver, Transformer, Emergency battery
	8E1615	K200R Motor unit 2 panels
	8E1616	K200R Motor unit 1 panel Redundant motoreducer with encoder - Redundant Electronic board - Trasformer - Emergency battery
	8E1655	K140 - K200T Electronic parts kit Includes Electronic board, Transformer, Emergency battery
	8E1657	K200 - K280 - K280T Electronic parts kit Includes Electronic board, Transformer, Emergency battery
	8E1660	K200R Electronic parts kit Redundant Elelctronic board - Trasformer - Emergency battery
	8E3600	T120 Electronic parts kit Electronic board with on-board receiver, Transformer, Emergency battery
	8E3601	T240 Electronic parts kit Electronic board with on-board receiver, Transformer, Emergency battery
















CODE PRODUCT DESCRIPTION

8E1610	K140 - K200T Reduction gearbox kit 24V
8E1611	K200 - K280 - K280T Reduction gearbox kit 24V
8E3620	T120 Reduction gearbox kit 24V - encoder
8E3621	T240 Reduction gearbox kit 24V - encoder
8E1500	K140 - K200 Carriage kit
8E1501	K280 Carriage kit
8E1502	K200T-280T
8E1503	Carriage unit for slow panel - Profile 40+45 (2pcs) K200T-280T
8E1504	Carriage unit for fast panel - Profile 30+35 (2pcs) K200T-280T
8E1505	Carriage unit for slow panel - Profile 30+35 (2pz) K200T-280T
8E1506	Carriage unit for fast wing - Profile 20+25 (2pcs) K200T-280T
	Carriage unit for slow wing - Profile 20+25 (2pcs)
8E1474	K140 - K200 Main beam raceway kit
8E1475	K280 Main beam raceway kit
8E1477	Main beam spare parts
8E1186	Main beam aluminium raceway kit L=2 meter
8E1476	Belt/carriage transmission bracket
8E1471	Belt connector unit for 1 panel
8E1472	Tension adjustment belt kit
8E1478	K200T-280T Belt connector kit for 1 slow panel (right)
8E1479	K200T-280T Belt connector kit for 1 slow panel (left)
8E1480	K200T-280T Belt connector kit to the main beam (for 1 slow panel)
1T5300	K200T/K280T hanging Kit Right slow panel Profiles 40 ÷ 45
1T5301	K200T/K280T hanging Kit Left slow panel Profiles 40 ÷ 45
1T5202	K200T/K280T hanging Kit Right slow panel reduced profiles 20 ÷ 25/30 ÷ 35
1T5203	K200T/K280T hanging Kit Left slow panel reduced profiles 20 ÷ 25/30 ÷ 35
8E1381	K140 - K200 Black caps set (2pcs)
8E1384	K280 Black caps set (2pcs)
8E1387	K200T-280T Black caps set (2pcs)
8E1620	K140-K200-K280 Belt transmission unit with encoder
8C5001	K140-K200-K280 Encoder
8E3640	T120-T240 Belt transmission unit
8E1470	K Line - Safety door stop limit switch (2pcs)
8E3330	T Line - Safety door stop limit switch (2pcs)
8E1458	F1-F2 Photocells kit (without electronic board)
8E1459	Electronic board for F1-F2 photocells
8E1640	Anti-interference filter PCB
8E1645	K140-K200-K280 Emergency battery pack 19,2V 600mA
8E1646	K200R-S200 Emergency battery pack 19,2V 3000mA
8E3680	T120-T240 Emergency battery pack 19,2V 600mA
8E0224	K200 - K280 Toroidal transformer 150VA
8E1632	K140 Electronic board with on-board receiver
8E1633	K200 - K280 Electronic board with on-board receiver
8E3650	T120 Electronic board with on-board receiver
8E3651	T240 Electronic board with on-board receiver
8E1634	K200R Primary electronic board
8E1635	K200R Secondary electronic board



DOOR AUTOMATION

	V1	V1E	K140	K200	K200R	K280	T120	T240	T240R	K200T	K280T	DUEVILLE	S200
													
Single opening max. weight KG	70	70	140	140	140	280	120	120	120	50 x 2	70 x 2	140	250
Double opening max. weight KG	-	-	70 x 2	100 x 2	100 x 2	140 x 2	60 x 2	120 x 2	120 x 2	50 x 4	70 x 4	100 x 2	○
Telescopic	-	-	-	-	-	-	-	-	-	●	●	-	-
EN16005	●	●	●	●	●	●	●	●	●	●	●	●	●
Low Energy	●	●	-	-	-	-	-	-	-	-	-	-	●
Full Energy	-	-	●	●	●	●	●	●	●	●	●	●	●
Intensive use	-	-	-	●	●	●	-	●	●	-	●	●	●
1.000.000 cycles test	-	-	●	-	-	-	●	-	-	●	-	-	●
2.000.000 cycles test	-	-	-	●	●	●	-	●	●	-	●	●	-
Redundant	-	-	-	-	●	-	-	-	●	-	-	-	-
Plug & Play	●	●	○	○	○	○	-	-	-	-	-	-	-
Compliant with CO48 standard	-	-	-	○	-	-	-	○	-	-	○	○	-
Fail secure electric-lock	-	-	○	○	-	○	-	-	-	○	○	○	○
Bi-stable electric-lock	○	○	-	-	○	-	○	○	○	-	-	-	○
Built in receiver	●	-	●	●	●	●	●	●	●	●	●	●	●
Wireless selector	○	-	○	○	○	○	○	○	○	○	○	○	○
Wired selector	-	-	○	○	○	○	○	○	○	○	○	○	○
Digital selector	-	-	○	○	○	○	○	○	○	○	○	○	○
Fire alarm input	-	-	●	●	●	●	●	●	●	●	●	●	●
Emergency input	●	●	●	●	●	●	●	●	●	●	●	●	●
Battery backup	-	-	●	●	●	●	●	●	●	●	●	●	●
Anti-panic breakout system	-	-	○	○	-	○	○	○	-	○	○	○	○
Quick access to electronic board	●	●	-	-	-	-	●	●	●	-	-	-	-
Min. VPA mm	700	700	800	800	800	800	800	800	800	900	900	800	600
Max. VPA mm	1200	1200	2800	2800	2800	3200	2800	2800	2800	4200	4200	2800	1600
Automation height mm	59	59	120	120	120	155	100	100	100	120	120	133	110
Automation depth mm	65	65	165	165	165	165	150	150	150	226	226	169	130
Automation max. width mm	1200	1200	6500	6500	6500	6500	6500	6500	6500	6500	6500	6500	580
Legend	<ul style="list-style-type: none"> ● Included - Not Available ○ Optional 												



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



C30



C40



C60



C130



C160



C240



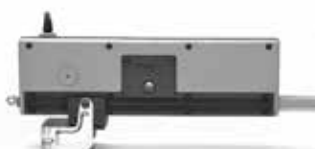
ACK4



SL60



T50



T80



SMOKE EVACUATION

ACK4 RWA



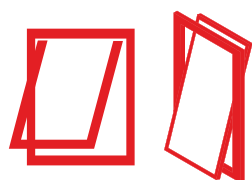
C160 RWA



T80 RWA



TOPP
tecnologie del movimento





C20

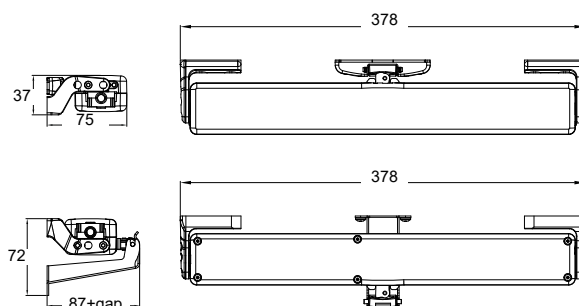
Chain actuator
Thrust force 300 N
Max stroke 360 mm

TANDEM



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

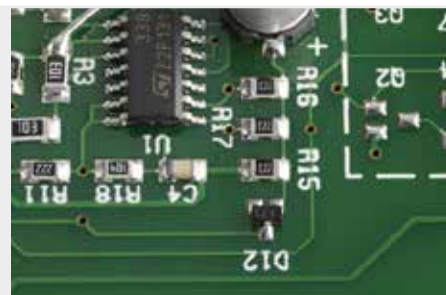
Electric C20 actuator with double link articulated chain, enclosed in a special casing, with different mounting accessories for top and bottom hung windows. Operation at 230V 50Hz or, as an alternative, at 24V DC. Maximum applicable load 300N. Fast hooking and unhooking system of the chain to the window. Adjustment of the stroke at 240 or 360mm by an external knob. CE marked device.



Double link chain with very high resistance on top loads



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

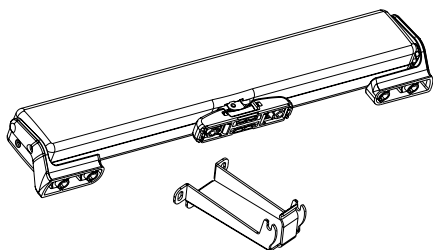


Stroke end by amperometric absorption in closing to avoid chain adjustments in closing and any possible installation mistake.

TECHNICAL CHARACTERISTICS

	C20 230V	C20 24V
Power supply voltage	230V ~ 50Hz	min 21V ~ max 28V DC
Max applicable load in thrust	300 N	
Max applicable load in traction	200 N	
Stroke	240 and 360mm	
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	
Operating temperature	-5°C +50°C	
Protection Class	IP 30	
Stroke end regulation in closing	not necessary	
Parallel connection option	YES	
Stroke end	Electronic in opening, by amperometric absorption in closing	
Dimensions	362x48x34 mm	
Weight*	0,970 kg	0,940 kg

* The weight may vary according to the chosen accessories



CODE

PRODUCT DESCRIPTION

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



C20 Tandem standard 2 push points - Stroke 360 mm

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#000001018	Kit C20 chain actuator - tandem version - 24V black
3A7#000001020	Kit C20 chain actuator - tandem version - 24V grey
3A7#000001019	Kit C20 chain actuator - tandem version - 24V white

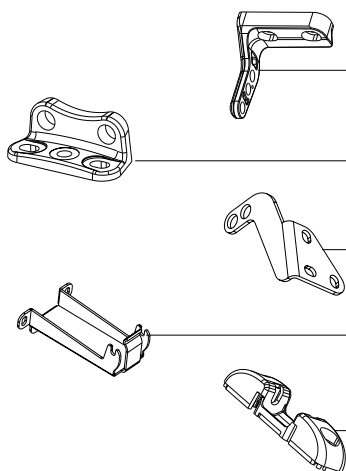
Min. inter axis between the 2 actuators: 1000mm

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 - 230V - Stroke 360 mm

3A7#	C20 chain actuator 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 frame (2 pcs)
	Spare parts (2 pcs)



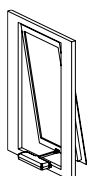
Accessories and spare parts

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 frame - black
1UA003	ARS Rapid hooking device to the frame - grey
1UA002	ARS Rapid hooking device to the frame - white

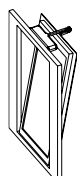
3A3000 Standard spare parts

Special strokes < 360 mm for C20 available.

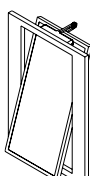
Special strokes < 360 mm for C20 tandem available.



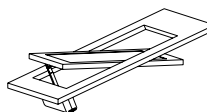
Top-hung
windows



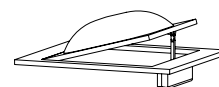
Bottom-hung
windows



Bottom-hung
windows



Skylights, roof
windows



Cupolas

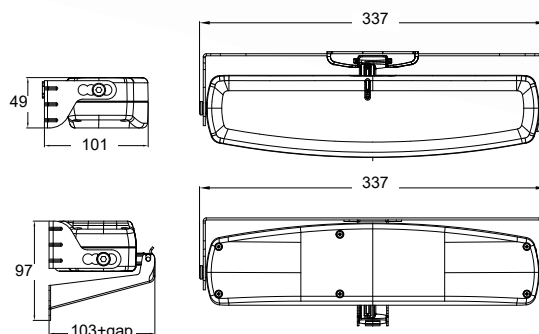
C30

Chain actuator
Thrust force 300 N
Max stroke 380 mm



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Electric C30 actuator with double link articulated chain, enclosed in a special 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 more actuators on the same window is available. CE marked device.



Telescopic chain end providing a rapid adjusting 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 top loads.

TECHNICAL CHARACTERISTICS

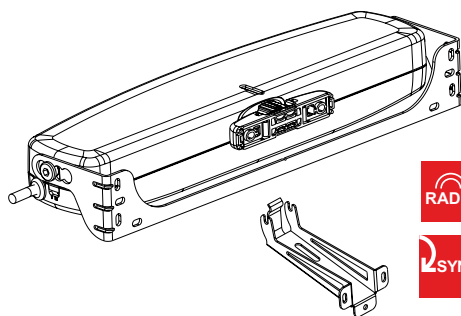
	C30 230V	C30 24V
Power supply voltage	230V ~ 50Hz	24V DC
Maximum applicable load in thrust	300 N	
Maximum applicable load in traction	300 N	
Strokes	200 and 380 mm	
Absorbed current	0,26 A	1,3 A
Idle translation speed	27 mm/s	17 mm/s
Duration of the idle stroke	14 s	22 s
Double insulated	YES	-
Service Type	S2 of 4 min	
Operating temperature	-5°C +50°C	
Protection Class	IP 30	
Adjustment of the window frame connection	15 mm	
Adjustment of pins for the swivel brackets	15 mm	
Parallel connection option	YES	
Synchronous operation of more actuators on the same window	with S version	
Chain position control	YES	
Stroke end	encoder	
Electronic device with acoustic warning to signal erroneous installation (Buzzer)	YES	
Dimensions	337,2x80x49 mm	
Weight**	1,1 kg	

** The weight indicated may vary according to the chosen accessories

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.



C30 synchronised for more push points on the same window frame

3A42#000005537	C30S Chain actuator 230V black
3A42#000005562	C30S Chain actuator 230V grey
3A42#000005561	C30S Chain actuator 230V white

3A42#000005563	C30S Chain actuator 24V black
3A42#000005564	C30S Chain actuator 24V grey
3A42#000005565	C30S Chain actuator 24V grey

Description of the standard pattern for 1 push point

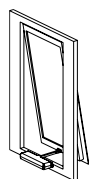
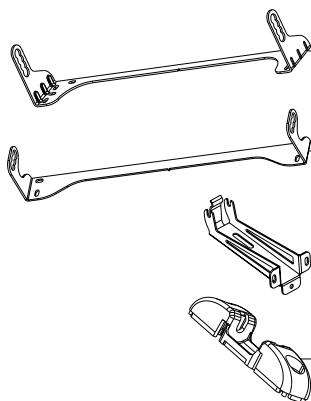
3A4#	C30 chain actuator 230V (spare parts included)
	Swivel frontal bracket for top/bottom hung windows
	Upper bracket for bottom hung windows
	ARS Rapid hooking device to the frame

Description of the standard pattern for 2 push points

3A42#000005537	C30S chain actuator 230V black 5mt cable
3A42#000005537	C30S chain actuator 230V black 5mt cable

Accessories and spare parts

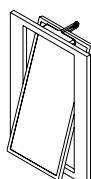
1A4810	Swivel frontal bracket for top/bottom hung windows - black
1A4812	Swivel frontal bracket for top/bottom hung windows - grey
1A4811	Swivel frontal bracket for top/bottom hung windows - white
1A4815	Swivel brackets set for vertical mounting - black
1A4817	Swivel brackets set for vertical mounting - 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 frame - black
1UA003	ARS Rapid hooking device to the frame - grey
1UA002	ARS Rapid hooking device to the frame - white



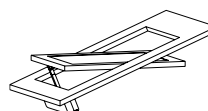
Top-hung windows



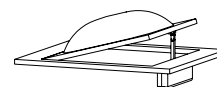
Bottom-hung windows



Bottom-hung windows



Skylights, roof windows



Cupolas

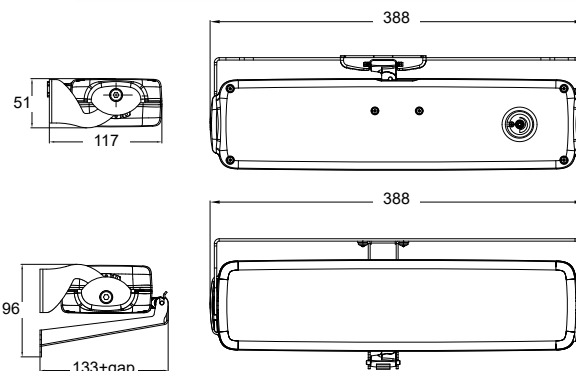
C40

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

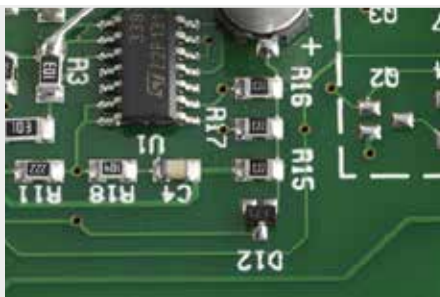


DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Electric C40 actuator with double link articulated chain, enclosed in a special 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, 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 to the user. Electronic traction control 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 more actuators on the same window is available. CE marked device.



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



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

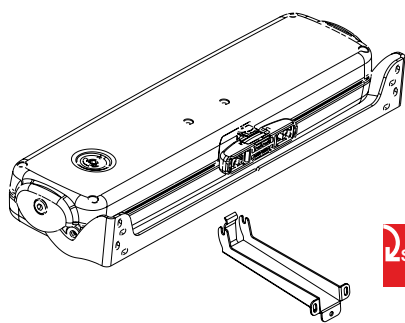


High protection IP 55 rated

TECHNICAL CHARACTERISTICS

	C40 230V	C40 24V
Power supply voltage	230V ~ 50Hz	24V DC
Maximum applicable load in thrust	400 N	
Maximum applicable load in traction	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	
Protection Class	IP 55	
Adjustment of the window frame hooking system	not necessary	
Parallel connection option	YES	
Synchronous operation of more actuators on the same window	with S version	
Chain position control	YES	
Stroke end	Electronic in opening, by amperometric absorption in closing	
Electronic device with acoustic warning to signal erroneous installation (buzzer)	YES	
Dimensions	387,6x95x50 mm	
Weight**	1,9 kg	

** The weight indicated may vary according to the chosen accessories



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



C40 synchronised for more push points on the same window frame

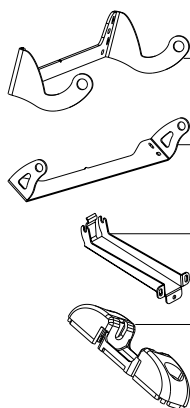
3A22#000005566	C40S Chain actuator 230V black
3A22#000005567	C40S Chain actuator 230V grey
3A22#000005568	C40S Chain actuator 230V white
3A22#000005569	C40S Chain actuator 24V black
3A22#000005570	C40S Chain actuator 24V grey
3A22#000005571	C40S Chain actuator 24V white

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 frame - black

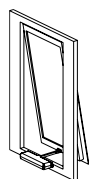
Description of the standard pattern for 2 push points

3A22#000005566	C40S chain actuator 230V black 5mt cable
3A22#000005566	C40S chain actuator 230V black 5mt cable



Accessories and spare parts

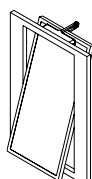
1A2600	Swivel frontal bracket for top/bottom hung windows - black
1A2602	Swivel frontal bracket for top/bottom hung windows - grey
1A2601	Swivel frontal bracket for top/bottom hung windows - white
1A2610	Swivel bracket for vertical mounting - black
1A2612	Swivel bracket for vertical mounting - grey
1A2611	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 frame - black
1UA003	ARS Rapid hooking device to the frame - grey
1UA002	ARS Rapid hooking device to the frame - white



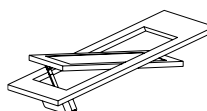
Top-hung windows



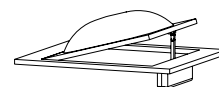
Bottom-hung windows



Bottom-hung windows



Skylights, roof windows



Cupolas

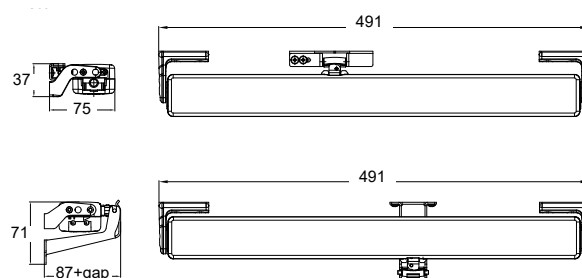
C60

Chain actuator
Thrust force 300N
Max stroke 600 mm



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Electric C60 actuator with double link articulated chain, enclosed in a special 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. Adjustment of the stroke at 510 or 600mm by an external knob. CE marked device.



High 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 high stroke even on top hung windows.

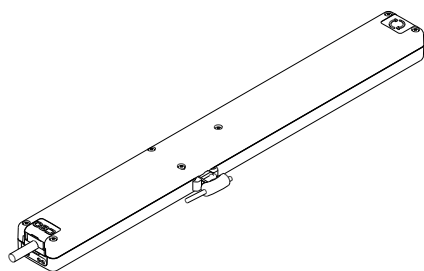


Simple swivel bracket for fast installation.

TECHNICAL CHARACTERISTICS

	C60 230V	C60 24V
Power supply voltage	230V ~ 50Hz	24V DC
Max applicable load in thrust	300N (max. stroke 510) - 250N (max. stroke 600)	
Max applicable load in traction	200N	
Strokes	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
Double insulated	YES	-
Service Type	S2 of 4 min	
Operating temperature	-5°C +50°C	
Protection Class	IP 30	
Parallel connection option	YES	
Synchronous operation of more actuators on the same window	with S version	
Stroke end	Electronic in opening, by amperometric absorption in closing	
Dimensions	470x48x34 mm	
Weight	1,5 kg	

CODE	PRODUCT DESCRIPTION
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C60 chain actuator with accessories for application on top hung windows

3E30#000004711	C60 chain actuator 230V - black
3E30#000005016	C60 chain actuator 230V - grey
3E30#000005017	C60 chain actuator 230V - white
3E30#000005018	C60 chain actuator 24V - black
3E30#000005019	C60 chain actuator 24V - grey
3E30#000005020	C60 chain actuator 24V - white

C60 chain actuator with accessories for application on bottom hung windows

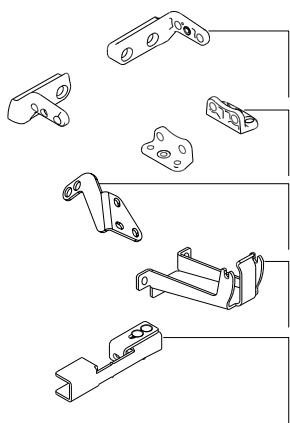
3E30#000005021	C60 chain actuator 230V - black
3E30#000005022	C60 chain actuator 230V - grey
3E30#000005023	C60 chain actuator 230V - white
3E30#000005024	C60 chain actuator 24V - black
3E30#000005025	C60 chain actuator 24V - grey
3E30#000005026	C60 chain actuator 24V - white

C60 chain actuator with accessories for application on vertical mounting windows

3E30#000005027	C60 chain actuator 230V - black
3E30#000005028	C60 chain actuator 230V - grey
3E30#000005029	C60 chain actuator 230V - white
3E30#000005030	C60 chain actuator 24V - black
3E30#000005031	C60 chain actuator 24V - grey
3E30#000005032	C60 chain actuator 24V - white

Description of the standard pattern for application on top hung windows

3E30#000004711	C60 chain actuator 230V with sash bracket for top hung windows - 1,5mt lead
	Frontal swivel brackets set for top/bottom hung windows
	ARS Rapid hooking device to the frame

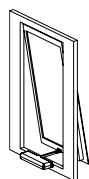


Accessories and spare parts

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
1E3301	Hooking device to the frame for application on top hung windows - black
1E3300	Hooking device to the frame for application on vertical mounting windows - black

3A3000	Standard spare parts
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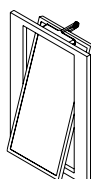
Special stroke < 600 mm available.



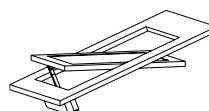
Top-hung windows



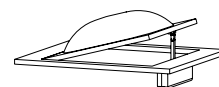
Bottom-hung windows



Bottom-hung windows



Skylights, roof windows



Cupolas

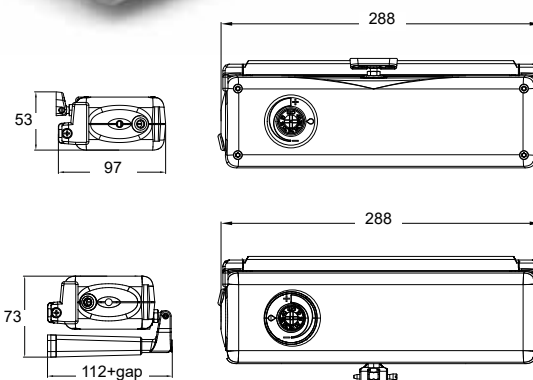
ACK4

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



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Electric actuator Topp 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. 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 more actuators on the same window is available. High protection IP 55 rated. CE marked device.



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

Double link articulated stainless steel chain

High protection IP 55 rated

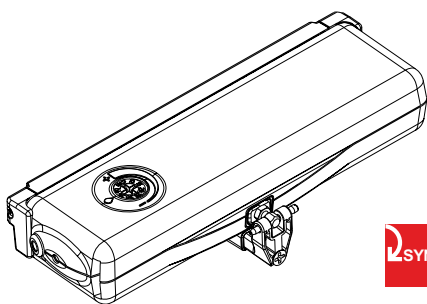
TECHNICAL CHARACTERISTICS

ACK4 230V

ACK4 24V

Power supply voltage	230V ~ 50Hz	24V DC
Maximum applicable load in thrust	300 N	
Maximum applicable load in traction	300 N	
Strokes		
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	
Protection Class	IP 55	
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	288,5x83x47,8 mm	
Weight**	1,9 kg	

** Weight may vary according to the chosen accessories



CODE PRODUCT DESCRIPTION

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 version for the synchronous operation of more ACK4 on the same window frame available.

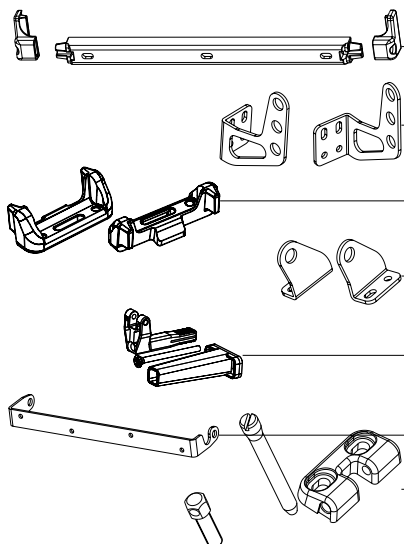
Description of the standard pattern for 1 push point

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

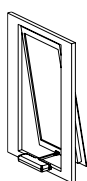
3A12#000005572	ACK4S chain actuator 230V - black
3A12#000005572	ACK4S chain actuator 230V - black

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)

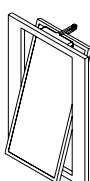
Special lead max. 6mt long available.



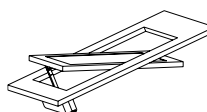
Top-hung
windows



Bottom-hung
windows



Bottom-hung
windows



Skylights, roof
windows



Cupolas

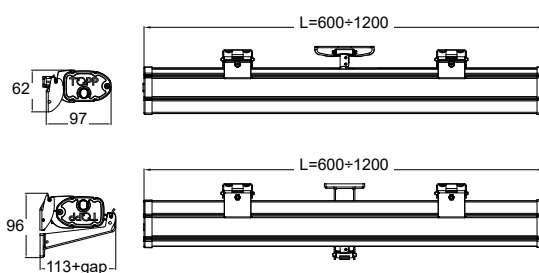
C130

Chain actuator
Thrust force 300N
Max stroke 360mm



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

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 and 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. CE marked device.



Tailored profile lengths according to the window frame width



Cable exit on both sides for the profile



Innovative and original design

TECHNICAL CHARACTERISTICS

	C130 230V	C130 24V
Power supply voltage	230V ~ 50Hz	min 21V ~ max 28V DC
Max applicable load in thrust	300 N	
Max applicable load in traction	200 N	
Stroke	360 mm	
Absorbed current	0,12 A	0,43 A
Idle translation speed	8 mm/s	
Duration of the idle stroke	46 s	48 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	
Connection of two or more actuators in parallel	YES	
Stroke end	Electronic in opening, by amperometric absorption in closing	

CODE	PRODUCT DESCRIPTION
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C130 chain actuator (profile's length: 600 mm - 900 mm), stroke 360 mm, application on top hung windows

3A6#000005752	C130 chain actuator 230V
3A6#000005596	C130 chain actuator 24V

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

3A6#000005753	C130 chain actuator 230V
3A6#000005597	C130 chain actuator 24V

C130 chain actuator with on-board receiver

3A6#000005598	C130 chain actuator 230V RR (profile's length: 600 mm - 900 mm)
3A6#000005599	C130 chain actuator 230V RR (profile's length: 910 mm - 1200 mm)

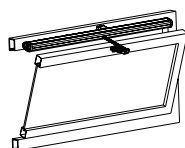
Description of the standard pattern, profile 600 mm - 900 mm, application on top hung windows

3A6#000005752	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 frame

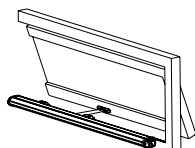
Accessories and spare parts

	3A5005	Clamps for top hung windows (zinc-plated)
	3A5006	Clamps for bottom hung windows (zinc-plated)
	1A5822	Slim frontal bracket for top hung windows (zinc-plated) (window opening min 400mm)
	1A5827	Frontal bracket for top hung windows (zinc-plated) (window opening min 700mm)
	1A5823	Bracket for vertical mounting (zinc-plated) (window opening >350mm)
	1A5832	Bracket for installation on bottom hung windows
	1A5829	Bracket for top hung reversed assembly (zinc-plated) (window opening min 250mm)
	1A5828	Fallback bracket for bottom hung windows (zinc-plated)
	1UA003	ARS Rapid hooking device to the frame - grey

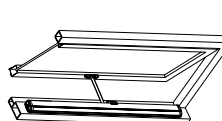
Special stroke < 360 mm available.



Bottom-hung windows



Top-hung windows



Cupolas and skylights

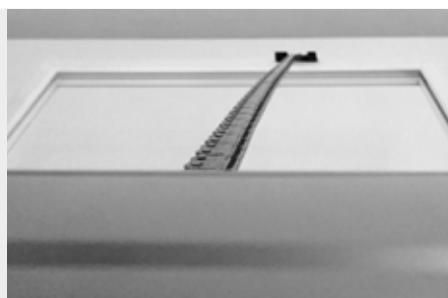
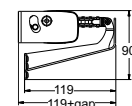
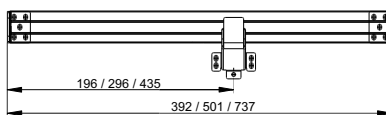
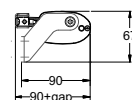
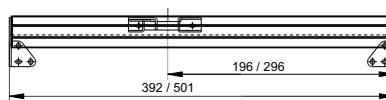
C160

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



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Electric actuator Topp model C160 with double-link chain, complete with brackets and accessories for top or bottom hung windows. Operation at 230V ~ 50Hz. Max. thrust force 300N. Stroke 360 - 600 - 1000 mm. CE marked device.



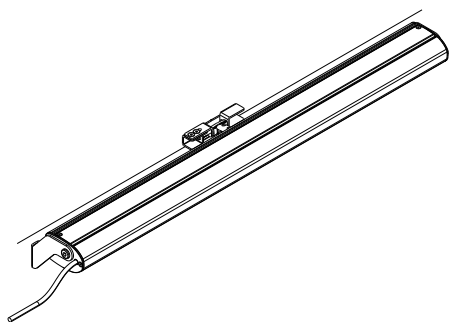
Elegant and attractive aluminium profile with swivel brackets versatile and easy to install.

Available also for installation on side hung windows.

Long chain up to 1 meter enclosed in a slim housing (actuator 656mm wide).

TECHNICAL CHARACTERISTICS

	C160 360	C160 600	C160 1000
Power voltage:	230V ~ 50Hz		
Max applicable load in thrust	300 N	250 N	50 N
Max applicable load in traction	200 N	200 N	185 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	0,12 A	0,14 A	0,14 A
Idle translation speed	8 mm/s	8 mm/s	8 mm/s
Duration of the idle stroke *	46 s	75 s	125 s
Double insulated	YES		
Service type	S2 of 4 min		
Operating temperature	-5° +50°		
Protection Class	IP30		
Stroke end regulation in closure	not necessary		
Parallel connection option	YES		
Possibility of installing double push point on the same window	YES	NO	NO
Stroke end	Electronic in opening, by amperometric absorption in closing		



CODE PRODUCT DESCRIPTION

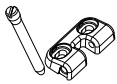
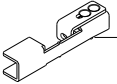
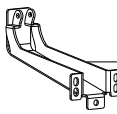

C160 standard 1 push point

3E26#000006872	C160 chain actuator 230V stroke 360mm Top-hung application
3E26#000006873	C160 chain actuator 230V stroke 360mm Bottom-hung application
3E25#000006874	C160 chain actuator 230V stroke 600mm Top-hung application
3E25#000006875	C160 chain actuator 230V stroke 600mm Bottom-hung application
3E27#000006985	C160 chain actuator 230V stroke 1000mm Bottom-hung application

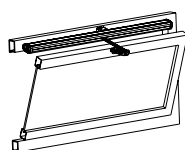
Description of the standard pattern, 1 push point. Application on top hung windows

3E25#000006874	C160 chain actuator 230V stroke 600mm Iron hooking device for top-hung and bottom hung (outwards opening) for C60 and C160 600/1000 stroke Couple of swivel frontal brackets C160
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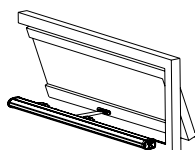
Accessories and spare parts

	3A3050	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 C60 and C160 600/100 stroke
	1E2804	C160 bottom-hung bracket for single push point
	1UA003	ARS Rapid hooking device to the frame - grey

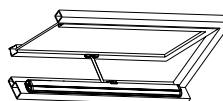
Special stroke < 1000 mm



Bottom-hung windows



Top-hung windows



Cupolas and skylights

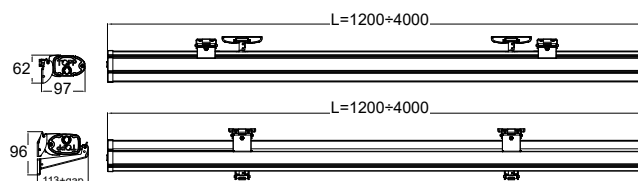
C240

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



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

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 and 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. CE marked.



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



Cable exit on both sides for the profile



Innovatory and original design

TECHNICAL CHARACTERISTICS

	C240 230V	C240 24V
Power supply voltage	230V ~ 50Hz	min 21V ~ max 28V DC
Max applicable load in thrust	400 N	
Max applicable load in traction	300 N	
Stroke	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	
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	



CODE PRODUCT DESCRIPTION

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

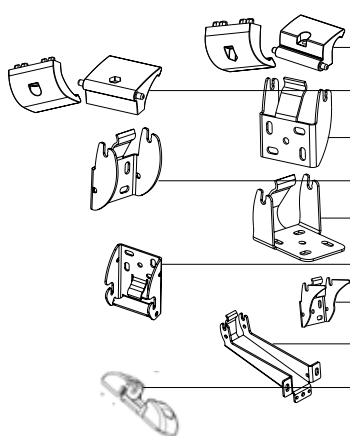
3A5#	Dual push points actuator C240 230 V
3A5#	Dual push points actuator C240 24 V

C240 dual push points actuator (profile's length: 3010 - 4000 mm), stroke 360 mm, application on 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 1200 - 1500 mm, stroke 360 mm, application on top hung windows

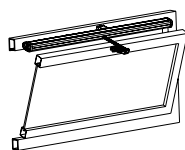
3A5#	Dual push points actuator C240 230 V
	Frontal bracket for top hung windows (2 pcs)
	Clamps set for top hung brackets (2 pcs)
	ARS Fast hooking device to the frame (2 pcs)



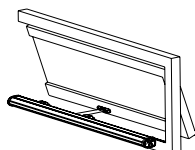
Accessories and spare parts

3A5005	Clamps for top hung windows (zinc-plated)
3A5006	Clamps for bottom hung windows (zinc-plated)
1A5822	Slim frontal bracket for top hung windows (zinc-plated) (window opening min. 400mm)
1A5827	Frontal bracket for top hung windows (zinc-plated) (window opening min. 700mm)
1A5823	Bracket for vertical mounting (window opening >350mm)
1A5829	Bracket for top hung reversed assembly (window opening 550mm)
1A5832	Bracket for installation on bottom hung windows
1A5828	Fallback bracket for bottom hung windows (zinc-plated)
1UA003	ARS Rapid hooking device to the frame - grey

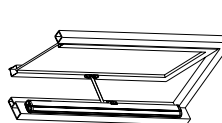
Special strokes < 360 mm available.



Bottom-hung windows



Top-hung windows



Cupolas and skylights

SL60

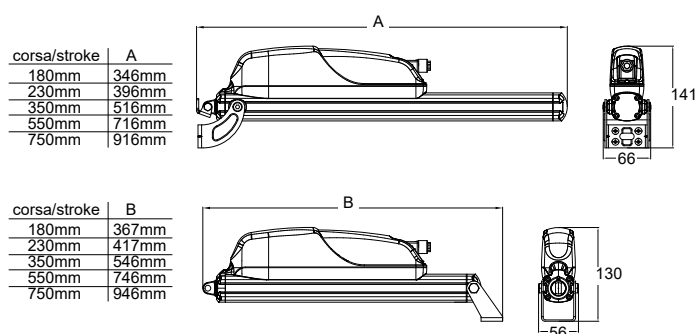
Linear stem actuator
Thrust force 600N
Max. stroke 750mm



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Linear electric actuator Topp model SL60 with self-aligning tilting movement, complete with support and fitting accessory for top hung windows. Operation at 230V 50Hz, or, as an alternative, at 24V DC. Max. traction and thrust force 600N. Preset for the parallel connection of two or more actuators, with stroke end microswitches. Available strokes: 180 - 230 - 350 - 550 - 750 mm. CE marked device.

UNTIL EXHAUSTION.



Easy and fast installation due to the coupling railways along the shaft in support of the robust stainless steel mounting bracket



Rapid coupling system between housing and motor-gear unit

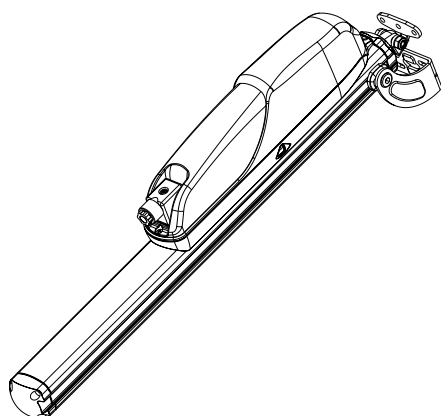


High protection IP 55 rated

TECHNICAL CHARACTERISTICS

	SL60 230V	SL60 24V
Power supply voltage	230V ~ 50Hz	24V DC
Maximum applicable load in thrust	600 N	
Maximum applicable load in traction	450 N	500 N
Stroke	180 - 230 - 350 - 550 - 750 mm	
Absorbed current	0,33 A	1,35 A
Idle translation speed	12 mm/s	7 mm/s
Duration of the idle stroke	(stroke/idle translation speed)	
Double insulated	YES	-
Service Type	S2 of 3 min	
Operating temperature	-5°C +50°C	
Protection Class	IP 55	
Parallel connection option	YES	
Stroke end	micro switch	
Dimensions	from 337 up to 907x47x104 mm	

CODE	PRODUCT DESCRIPTION
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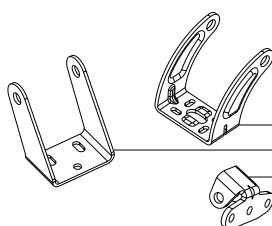


SL60 standard 1 push point

3B1#	SL60 linear stem actuator 230V stroke 180 mm
3B1#	SL60 linear stem actuator 230V stroke 180 mm (louvers)
3B1#	SL60 linear stem actuator 230V stroke 230 mm
3B1#	SL60 linear stem actuator 230V stroke 350 mm
3B1#	SL60 linear stem actuator 230V stroke 550 mm
3B1#	SL60 linear stem actuator 230V stroke 750 mm
3B1#	SL60 linear stem actuator 24V stroke 180 mm
3B1#	SL60 linear stem actuator 24V stroke 180 mm (louvers)
3B1#	SL60 linear stem actuator 24V stroke 230 mm
3B1#	SL60 linear stem actuator 24V stroke 350 mm
3B1#	SL60 linear stem actuator 24V stroke 550 mm
3B1#	SL60 linear stem actuator 24V stroke 750 mm

Description of the standard pattern

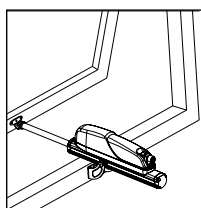
3B1#	SL60 linear stem actuator 230V stroke 350 mm
	Actuator supporting bracket
	Fitting bracket to the frame
	Spare parts



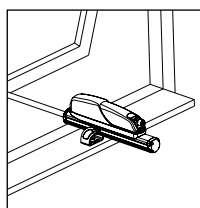
Accessories and spare parts

1B1580	Stroke restrictor kit
1B1813	Actuator supporting bracket
1S1603	Actuator supporting bracket for louvers
1S1604	Fitting bracket to the frame
3B1001	Spare parts
3B1002	Spare parts for louvers

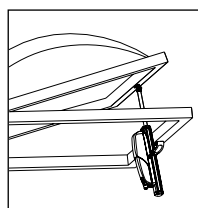
Special strokes available.



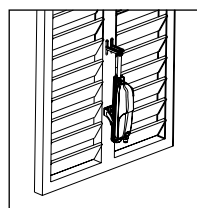
Top-hung windows



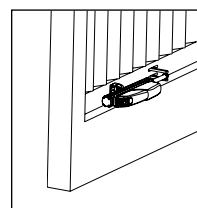
Top-hung windows



Cupolas



Louvers



Louvers

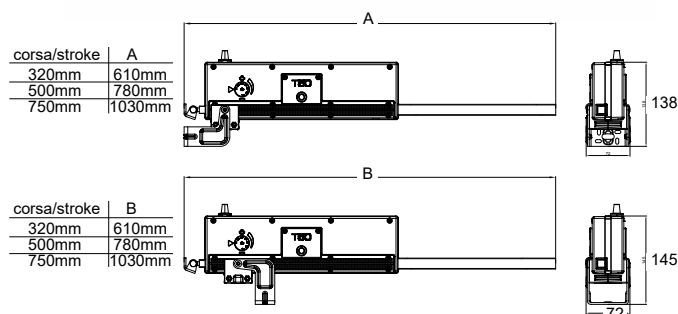
T50

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



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Linear electrical actuator, model T50, with self-aligning swivel movement, with stroke, 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 more actuators installed on a single window (without connecting bar) available on demand. CE marked device.



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



Rapid coupling system even when disconnected from the power supply due to the easy adjustment of the self-aligning sliding bracket that provides for the adjustment of the end of stroke every 2mm.



High protection IP 55 rated.

TECHNICAL CHARACTERISTICS

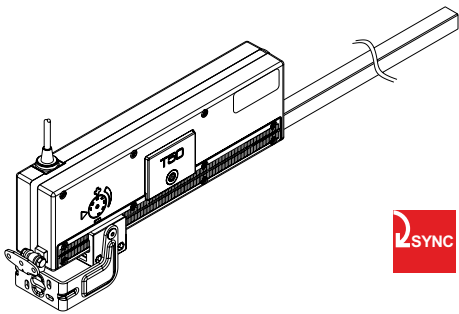
T50 230V

T50 24V

Power supply voltage	230V ~ 50Hz	24 V DC
Max. applicable load	500 N	
Max. applicable load tandem version (1 master + 1 slave)	500 N	
Max. applicable load tandem version (1 master + 1 master)	700 N	
Max. applicable load tandem version (1 master + 2 slaves)*	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	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	
Adjustment of stroke end and strokes	encoder	
Dimensions	from 610 up to 1030x62x94 mm	

* 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.

CODE	PRODUCT DESCRIPTION
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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 more T50 on the same window frame available.



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

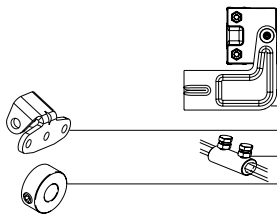
1C2505	T50 connecting rod - Length 1500 mm (interaxis max. 1400 mm)
1C2509	T50 connecting rod - Length 3000 mm (interaxis max. 2400 mm)

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

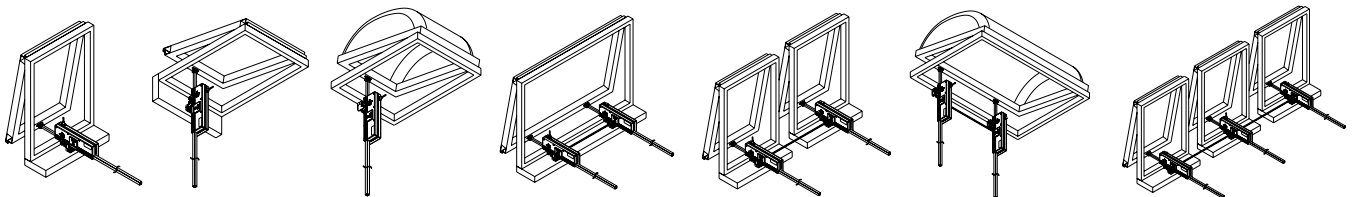
Description of the standard pattern for 3 push points

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



Accessories and spare parts

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



Top-hung windows

Skylights

Cupolas

T80

Rack actuator
Thrust force 800N
Max. stroke 1000mm

TANDEM

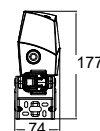
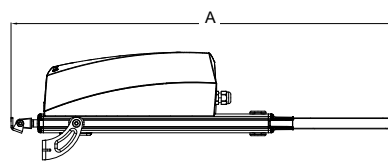


DESCRIPTION FOR TECHNICAL SPECIFICATIONS

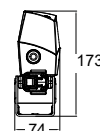
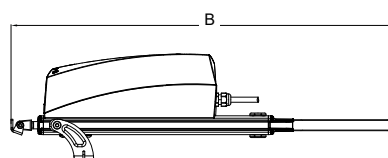
Powerful electric rack actuator with tilting self-aligning movement, with brackets and accessories for top hung windows. Operation at 230V~50Hz. Max. recommended load 800N. Max stroke 1000 mm. Pre-set for the mechanical connection of two or more push-points by transmission rod. Limit switch by Diodo hall. CE marked device.

UNTIL EXHAUSTION.

corsa/stroke	A
180mm	636mm
230mm	686mm
350mm	806mm
550mm	1006mm
750mm	1206mm
1000mm	1456mm



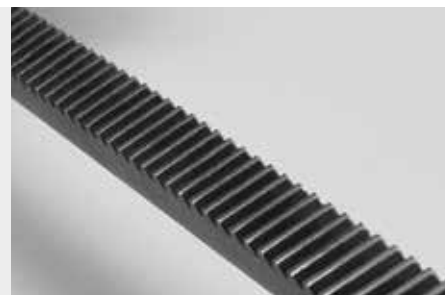
corsa/stroke	B
180mm	636mm
230mm	686mm
350mm	806mm
550mm	1006mm
750mm	1206mm
1000mm	1456mm



Rapid coupling system even when disconnected from the power supply provided by the easy dovetail of the stainless steel bracket on the side tracks



High protection IP 55 rated



Special rack with very high resistance on top loads

TECHNICAL CHARACTERISTICS

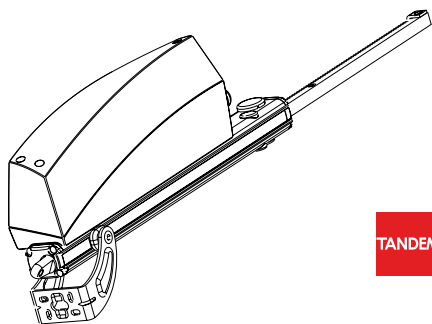
	T80 230V
Power supply voltage	230V ~ 50Hz
Max recommended load	800 N
Max recommended load 2 push points (1 master + 1 slave)	750 N
Max recommended load 2 push points (1 master + 1 master)	1200 N
Max recommended load 3 push points (1 master + 2 slaves)*	700 N
Distance between 2 push points	max 3 m - min 1 m
Strokes	180 - 230 - 350 - 550 - 750 - 1000 mm
Absorbed current	0,3 A
Idle translation speed	12 mm/s
Double insulated	YES
Service type	S2 of 4 min
Operating temperature	- 5°C + 55°C
Protection Class	IP 55
Parallel connection option	YES
Connection and synchronisation possibility on the same window	mechanical, by transmission rod
End of stroke	electronic
Dimensions	from 571,6 up to 1391,6x68,7x137,4 mm

* 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.

T80 standard 1 push point

3C10#000005600	T80 rack actuator 230V stroke 180 mm
3C10#000005601	T80 rack actuator 230V stroke 230 mm
3C10#000005380	T80 rack actuator 230V stroke 350 mm
3C10#000005252	T80 rack actuator 230V stroke 550 mm
3C10#000005423	T80 rack actuator 230V stroke 750 mm
3C10#000005276	T80 rack actuator 230V stroke 1000 mm

Bracket and fitting accessories for several push points available.



T80 rack assembly with vertical mounting brackets (for 2 push points application)

3C11#000005607	T80 rack assembly stroke 180 mm
3C11#000005608	T80 rack assembly stroke 230 mm
3C11#000005493	T80 rack assembly stroke 350 mm
3C11#000005609	T80 rack assembly stroke 550 mm
3C11#000005522	T80 rack assembly stroke 750 mm
3C11#000005269	T80 rack assembly stroke 1000 mm

T80 Transmission rod

1C1040	Transmission rod L=872mm (interax 1,0 mt)
1C1041	Transmission rod L=1372mm (interax 1,5 mt)
1C1042	Transmission rod L=1872mm (interax 2,0 mt)
1C1043	Transmission rod L=2372mm (interax 2,5 mt)
1C1044	Transmission rod L=2872mm (interax 3,0 mt)

T80 Connection accessories for 2 or more push points

3C1010	T80 Transmission accessories for 2 push points
3C1011	T80 Transmission accessories for 3 push points
3C1012	T80 Transmission accessories for 4 push points
3C1013	T80 Transmission accessories for 5 push points

Description of the standard pattern T80 standard 1 push point with vertical mounting brackets

3C10#000005380	T80 rack actuator 230V stroke 350 mm
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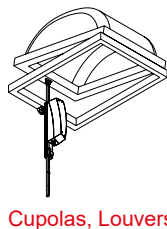
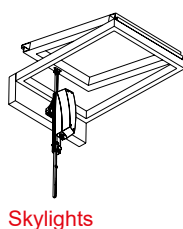
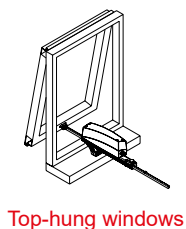
Description of the standard pattern T80 standard 2 push points with vertical mounting brackets

3C10#000005380	T80 rack actuator 230V stroke 350 mm
3C11#000005493	T80 rack assembly stroke 350 mm
1C1042	Transmission rod L=1872 mm (interax 2,0 mt)
3C1010	Transmission accessories for 2 push points

Bracket and fitting accessories for several push points available.

Accessories and spare parts

	3C1200	Brackets set for 1 push point
	3C1201	Brackets set for 2 push points - vertical mounting
	3C1203	Brackets set for 2 push points - frontal mounting
	3C1001	Spare parts for 1 push point
	3C1002	Spare parts for more push points



TF23R AC8 TF33R MEM/AL TF24R TF44R RR

Control and power
units for actuators



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

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/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.

AC8_MEM/AL - The AC8 is a modular smoke and heat control unit for 24V DC actuators. A versatile and customisable product that meets the exact needs of the client while offering a large variety of bespoke options.

By means of a RS485 serial line, the AC8 control unit can be used alone or with other units according to the number of zones: the SINGLE system (one AC8 control unit) controls one area (max. 16A for 24V DC actuators), the Multiple System (more AC8 control units) controls different zones (max. 31).

Control panel with 24V battery backup power supply designed to ensure smoke vent actuators can be used in the event of mains power failure. This smoke ventilation control system, flexible and modular to manage a large number of window actuators, can work in conjunction with our MEM/AL power pack for max. 16A for 24V DC actuators: this module just feeds the actuators whereas the AC8 operates them.

The AC8 can take inputs from a variety of signals including smoke detectors (max. 30), acoustic siren, blinking light and alarm dialer. The alarm produced by smoke detectors overrides any other active function of the control unit. The control unit is housed in anti-shock plastic enclosure in grey finish, IP55 rated.

TECHNICAL CHARACTERISTICS	TF23R_TF33R	TF24R	TF44R	RR
Power supply voltage	230 V~50 Hz.			
Output voltage	24 V - 230 V	24 V DC	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			
Pre-set for	wind sensor, rain detector, push button		rain detector or push button	
Operating temperature	-5 +50 °C			
Dimensions	150x80x55 mm 150x80x28 mm	160x120x75 mm		87x53x32 mm
Connectable C20 actuators	3	4	16 *	6
Connectable C20 tandem actuators	-	2	8 *	3
Connectable C30 tandem actuators	-	4	16 *	4
Connectable C40 actuators	-	4	20 *	5
Connectable C60 actuators	1	2	8 *	3
Connectable ACK4 actuators	-	-	16 *	4
Connectable C130 actuators	3	4	16 *	6
Connectable C160 actuators	1	2	8 *	3
Connectable C240 actuators	-	2	8 *	3
Connectable SL60 actuators	-	4	16 *	4
Connectable T50 actuators	-	1	16 *	4
Connectable T80 actuators	-	1	8 *	3

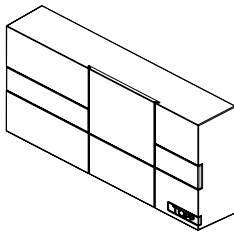
*Motors must be equally located on the four feeding unit inputs, which implies a 1 minute delay between 2 consecutive commands.

TECHNICAL CHARACTERISTICS	AC8	MEM/AL
Power supply voltage	230 V~50 Hz.	
Output voltage	24 V	
Max power consumption	0,22W	0,30W
Max absorbed current	16 A	
Service type	S1 – continuous	
Pre-set for	wind sensor, rain detector, push button	
Operating temperature	-5 °C +50 °C	
Dimensions	320x360x135 mm	234x315x190 mm
Connectable C20 actuators	30	
Connectable C20 tandem actuators	15	
Connectable C30 actuators	12	
Connectable C40 actuators	12	
Connectable C60 actuators	15	
Connectable ACK4 actuators	10	
Connectable C130 actuators	30	
Connectable C160 actuators	15	
Connectable C240 actuators	15	
Connectable SL60 actuators	10	
Connectable T50 actuators	10	
Connectable T80 actuators	10	

CODE

PRODUCT DESCRIPTION

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

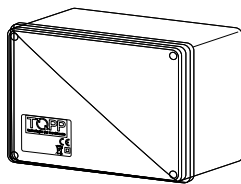


8C0070

TF23R Control and power pack, 3 outputs for 24V DC actuators (C20), 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 infra-red/radio remote control.

8C0071

TF33R Control and power pack, 2 outputs for 24V DC actuators (C20) 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 infra-red/radio remote control.



8C0072

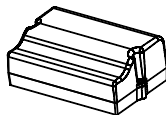
TF33R Control and power pack, 2 exits at 24V (C20) and 1 exit at 24V, with 433 MHz remote control receiver and infra-red LED. Box for wall fixing with sliding opening to programm remote control and emergency closure. Can be used with TR8 infra-red/radio remote control.

8C0054

TF24R Control and power unit 24V (4 outputs) with 433MHz receiver. Can be used with TR8 infra-red/radio remote control.

8C0066

TF44R Control and power unit 230V (4 outputs) with 433MHz receiver. Can be used with TR8 infra-red/radio remote control.



8C0120

RR Control and feeding unit 230V, max. 1,3A (1 outputs) with 433 MHz on-board receiver. Can be used with TR8 infra-red/radio remote control.

8D0008

AL/TF power pack 230/24V (for TF24R) - battery backup not included

8K0001

Battery set for AL/TF feeder unit (2x12V 7Ah)

8D0004

AL2/SW electronic feeder board for 24V DC actuators, max 1,6A (max. 2 C20)

8C0104

AC8 smoke and heat control unit for 24V DC actuators (max. 16A)

8K0002

Battery set for AC8 (2x12V 10Ah)

8C0091

MEM/AL Expanding Module - max. 16A

8K0001

Battery set for MEM/AL (2x12V 7Ah)

8C0090

MEM module for local operation

ACK4RWA



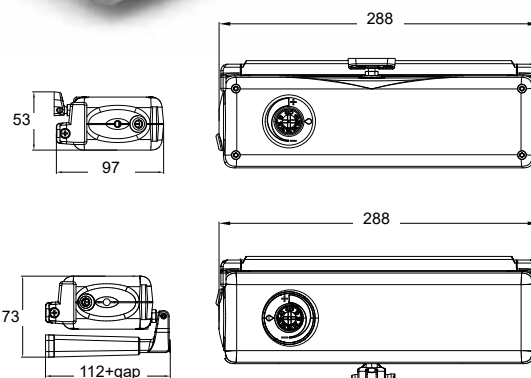
Chain actuator
Thrust force 300N
Adjustable stroke max. 400mm



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

Electric actuator Topp 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 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 more actuators on the same window is available. High protection IP 55 rated. CE marked device, tested in accordance with the EN12101-2 Standard for smoke ventilation applications.



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



Double link articulated stainless steel chain.



High protection IP 55 rated.

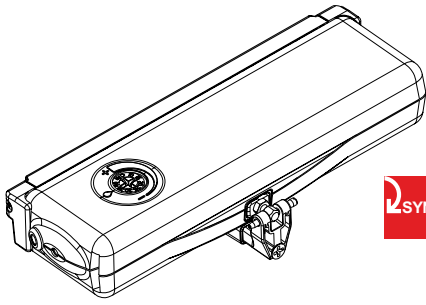
TECHNICAL CHARACTERISTICS

ACK4 24V

Power supply voltage	24V
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
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	288,5x83x47,8 mm
Weight**	1,9 kg

** Weight may vary according to the chosen accessories

CODE	PRODUCT DESCRIPTION
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ACK4 RWA version 1 push point (without upper bracket for bottom hung windows)

3A11#000003993	ACK4 chain actuator 24V RWA version - black RAL 9005 3mt silicon cable
3A11#000004017	ACK4 chain actuator 24V RWA version - silver RAL 9006 3mt silicon cable
3A11#000003992	ACK4 chain actuator 24V RWA version - white Euro-White 3mt silicon cable



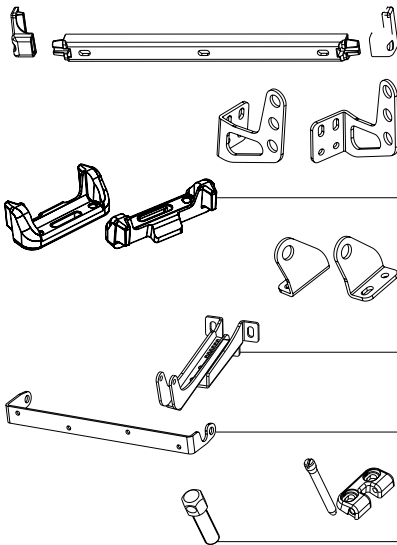
ACK4S version for the synchronous operation of more ACK4 on the same window frame available.

Description of the standard pattern for 1 push point in bottom-hung outward opening application

3A11#000003993	ACK4 chain actuator 24 V Frontal bracket for top/bottom hung windows (outwards opening) Hooking device to the frame and spare parts
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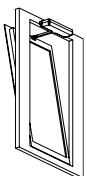
Description for dual push point solution in bottom-hung outward opening application

3A13#000006700	ACK4S 24V RWA actuator (silicon red cable)
3A13#000006700	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
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)



Bottom-hung outward opening application

C160 RWA

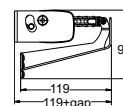
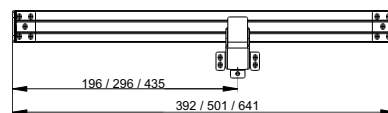
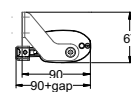
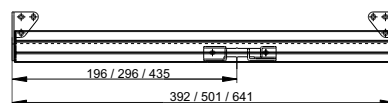


Chain actuator
Thrust force 300N
Stroke 360mm - 600mm - 1000mm



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

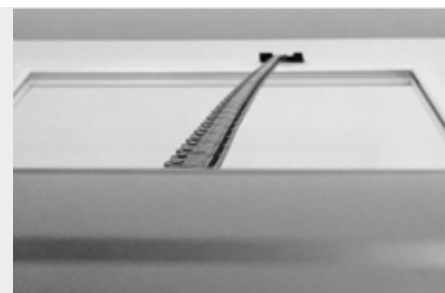
Electric actuator Topp model C160 RWA with double-link chain, enclosed in an elegant die-cast aluminium profile, complete with brackets and accessories for bottom hinged windows opening outside for smoke evacuation systems. Operation at 24V tested in accordance with the EN12101-2 European Standard about smoke and heat evacuation systems. Max applicable load 300N. Available strokes: 360mm – 600mm – 1000mm. CE marked.



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



Available also for installation on side hung windows.

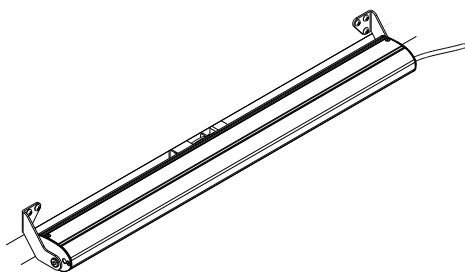


Long chain up to 1 meter enclosed in a slim housing (actuator 656mm wide).

TECHNICAL CHARACTERISTICS

	C160 360	C160 600	C160 1000
Power voltage:		24V	
Max applicable load in thrust	300 N	250 N	50 N
Max applicable load in traction	200 N	185 N	185 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	9,5 mm/s	9,5 mm/s
Duration of the idle stroke *	48 s	60 s	105 s
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	
Possibility of installing double push point on the same window	YES	NO	NO
Stroke end	Electronic in opening, by amperometric absorption in closing		

* Version for RWA application: max opening time 60s.



CODE	PRODUCT DESCRIPTION	CURRENT PRICE
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C160 standard 1 push point

3E22#000006488	C160 24V RWA stroke 360mm Bottom-hung (outwards opening)	€ 153,00
3E22#000006986	C160 24V stroke 360mm Bottom-hung	€ 164,00
3E21#000006434	C160 24V RWA stroke 600mm Bottom-hung (outwards opening)	€ 220,00
3E21#000006421	C160 24V stroke 600mm Bottom-hung	€ 212,00
3E23#000006610	C160 24V RWA stroke 1000mm Bottom-hung (outwards opening)	€ 295,00
3E23#000006715	C160 24V stroke 1000mm Bottom-hung	€ 287,00

C160 standard dual push point (from 1200mm to 1500mm) stroke 360mm

3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung	€ 350,00
3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung (outwards opening)	€ 330,00

C160 standard dual push point (from 1510mm to 2000mm) stroke 360mm

3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung	€ 368,00
3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung (outwards opening)	€ 348,00

C160 standard dual push point (from 2010mm to 2500mm) stroke 360mm

3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung	€ 386,00
3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung (outwards opening)	€ 366,00

C160 standard dual push point (from 2510mm to 3000mm) stroke 360mm

3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung	€ 404,00
3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung (outwards opening)	€ 384,00

C160 standard dual push point (from 3010mm to 4000mm) stroke 360mm

3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung	€ 433,00
3E12#	C160 24V RWA dual push point stroke 360mm Bottom-hung (outwards opening)	€ 413,00

Description of the standard pattern for 1 push point.

Bottom-hung outward opening application

3E21#	C160 chain actuator 24V - RWA version stroke 600mm	€ 184,00
	Iron hooking device for top-hung and bottom hung (outwards opening) for C60 and C160 RWA 600/100 stroke	€ 24,00
	Couple of swivel frontal brackets C160 RWA	€ 12,00
	Total amount	€ 220,00

Description for dual push point solution

Bottom-hung outward opening application

	C160 chain actuator 24V - RWA version stroke 360 mm	€ 317,00
	Frontal bracket for top hung windows (window opening min 1500mm) for C160 dual push point stroke 360mm (2pcs)	€ 14,00
	Clamps for top hung windows (zinc-plated) for C160 dual push point stroke 360mm (2pcs)	€ 9,00
	Hooking device for top-hung and bottom hung (outwards opening) for C160 360 stroke (2pcs)	€ 8,00
	Total amount	€ 348,00

Additional services

	Additional cost for profile painting in standard RAL finishes black, grey, white)	€ 40,00
	Min. quantity: 12 pcs.	
	Lead time: min. 25 working days from receipt of the order	
	Extra charge for less than 12 pcs or for special RAL finishes (subject to availability)	€ 90,00 net

Accessories and spare parts

3A3050	Hooking device for top-hung and bottom hung (outwards opening) for C160 stroke 360mm	€ 4,00
3E3100	Iron hooking device for top-hung and bottom hung (outwards opening) for C60 and C160 600/100 stroke	€ 24,00
1E2804	Bottom-hung bracket C160 single push point	
1A5800	Bottom-hung bracket C160 dual push point stroke 360mm	€ 16,00
1A5832	Bracket for bottom hung application C160 dual push point stroke 360mm	€ 10,00
1A5829	Bracket for bottom-hung outward opening application C160 dual push point 360mm	€ 14,00

	Special stroke < 1000 mm	+ € 15,00
	Additional cost for special stroke for less than 12pcs	€ 50,00 net



Bottom-hung outward opening application

T80 RWA

Rack actuator
Thrust force 800N
Max. stroke 1000mm

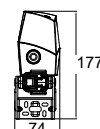
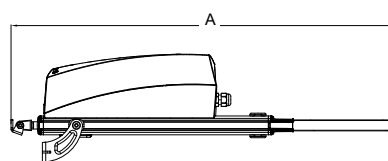


DESCRIPTION FOR TECHNICAL SPECIFICATIONS

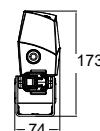
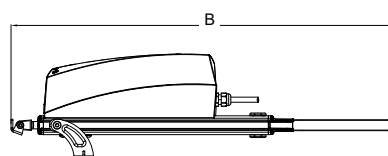
Powerful electric rack actuator with tilting self-aligning movement, with brackets and accessories for top hung windows. Operation at 24V DC. Max. recommended load 800N. Max. stroke 1000mm. Pre-set for the mechanical or electronic connection of two or more push-points by transmission rod. Limit switch by Diodo hall. CE marked device, tested in accordance with the EN12101-2 standard for smoke ventilation applications.

UNTIL EXHAUSTION.

corsa/stroke	A
180mm	636mm
230mm	686mm
350mm	806mm
550mm	1006mm
750mm	1206mm
1000mm	1456mm



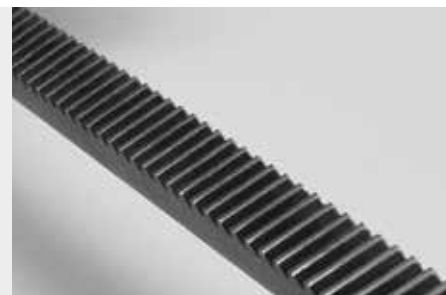
corsa/stroke	B
180mm	636mm
230mm	686mm
350mm	806mm
550mm	1006mm
750mm	1206mm
1000mm	1456mm



Rapid coupling system even when disconnected from the power supply provided by the easy dovetail of the stainless steel bracket on the side tracks.



High protection IP 55 rated



Special rack with very high resistance on top loads.

TECHNICAL CHARACTERISTICS

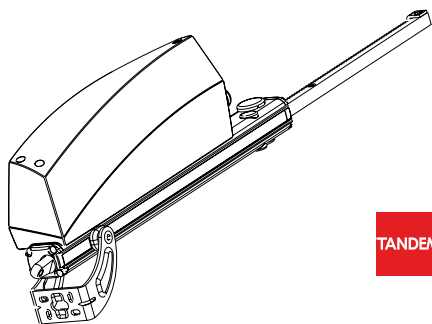
	T80 24V
Power supply voltage	24V
Max recommended load	800 N
Max recommended load 2 push points (1 master + 1 slave)	750 N
Max recommended load 2 push points (1 master + 1 master)	1200 N
Max recommended load 3 push points (1 master + 2 slaves)*	700 N
Distance between 2 push points	max 3 m - min 1 m
Strokes	180 - 230 - 350 - 550 - 750 - 1000 mm
Absorbed current	1,4 A
Idle translation speed	14 mm/s
Duration of the idle stroke	(stroke/idle translation speed)
Double insulated	YES
Service type	S2 of 4 min
Operating temperature	- 5°C + 50°C
Protection Class	IP 55
Parallel connection option	YES
Connection and synchronisation possibility on the same window	mechanical, by transmission rod
End of stroke	electronic
Dimensions	from 571,6 up to 1391,6x68,7x137,4 mm

* 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.

T80 standard 1 push point

3C10#000005602	T80 RWA rack actuator 24V stroke 180 mm
3C10#000005603	T80 RWA rack actuator 24V stroke 230 mm
3C10#000005243	T80 RWA rack actuator 24V stroke 350 mm
3C10#000005604	T80 RWA rack actuator 24V stroke 550 mm
3C10#000005605	T80 RWA rack actuator 24V stroke 750 mm
3C10#000005606	T80 RWA rack actuator 24V stroke 1000 mm

Bracket and fitting accesories for several push points available.



T80 rack assembly with vertical mounting brackets (for 2 push points application)

3C11#000005888	T80 rack assembly stroke 180 mm
3C11#000005911	T80 rack assembly stroke 230 mm
3C11#000006683	T80 rack assembly stroke 350 mm
3C11#000006098	T80 rack assembly stroke 550 mm
3C11#000005860	T80 rack assembly stroke 750 mm
3C11#000005763	T80 rack assembly stroke 1000 mm

T80 Transmission rod

1C1040	Transmission rod 872 mm (interax 1,0 mt)
1C1041	Transmission rod 1372 mm (interax 1,5 mt)
1C1042	Transmission rod 1872 mm (interax 2,0 mt)
1C1043	Transmission rod 2372 mm (interax 2,5 mt)
1C1044	Transmission rod 2872 mm (interax 3,0 mt)

T80 Connection accessories for 2 or more push points

3C1010	T80 Transmission accessories for 2 push points
3C1011	T80 Transmission accessories for 3 push points
3C1012	T80 Transmission accessories for 4 push points
3C1013	T80 Transmission accessories for 5 push pointsa

Description of the standard pattern T80 standard 1 push point

3C10#000005243	T80 rack actuator 24 V stroke 350 mm
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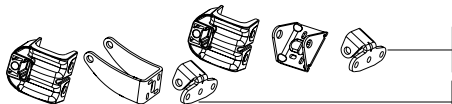
Description of the standard pattern T80 standard 2 push points with vertical mounting brackets

3C10#000005243	T80 rack actuator 24 V stroke 350 mm
3C11#000006683	T80 rack assembly stroke 350 mm
1C1042	Transmission rod L=1872 mm (interax 2,0 mt)
3C1010	Transmission accessories for 2 push points

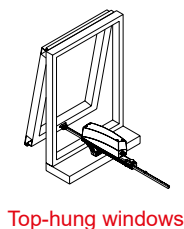
Bracket and fitting accesories for several push points available.



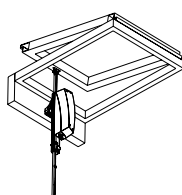
Accessories and spare parts



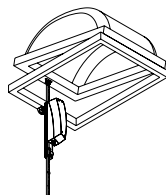
3C1200	Brackets set for 1 push point
3C1201	Brackets set for 2 push points - vertical mounting
3C1203	Brackets set for 2 push points - frontal mounting
3C1001	Spare parts for 1 push point
3C1002	Spare parts for more push points



Top-hung windows



Skylights



Cupolas, Louvers

RWA Control units

RWZ control units for smoke and heat evacuation systems.



DESCRIPTION FOR TECHNICAL SPECIFICATIONS

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 prEN 12101-9.
- 3 signal lines:
 - Automatic fire detector
 - RT 2 manual emergency push button with indicators for operation, alarm, malfunction and reset button
 - Connection to a fire alarm control panel or additional automatic 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 CHARACTERISTICS	RWZ 1-4b	RWZ 4-8d	RWZ 5-16e	RWZ 5-24e
Power supply voltage:	230V~50Hz.			
Output voltage	24 v			
Max power consumption	0,7 A	1,1 A	2,2 A	3,3 A
Max absorbed current	4 A	8 A	16 A	24 A
Battery	2 x 2Ah/12V	2 x 7Ah/12V	2 x 12Ah/12V	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)	330x330x110	400x400x135	500x500x210	600x600x210
Connection and synchronisation possibility on the same window:				
C160 RWA c.360	9	19	38	57
C160 RWA c.600	6	13	26	39
C160 RWA c.360 tandem	4	9	18	27
ACK4 RWA	2	4	10	12
ACK4S RWA	3	6	12	18
T80 RWA	2	4	10	12

CODE	PRODUCT DESCRIPTION
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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 / prEN 12101-9 certified
8C0041	RWZ 4-8d Control and power unit for the connection of 24V actuators max 8A 7,0Ah Batteries included, EN 12101-10 / prEN 12101-9 certified
8C0042	RWZ 5-16e Control and power unit for the connection of 24V actuators max 16A 12,0Ah Batteries included, EN 12101-10 / prEN 12101-9 certified
8C0043	RWZ 5-24e Control and power unit for the connection of 24V actuators max 24A 17,0Ah Batteries included, EN 12101-10 / prEN 12101-9 certified
8C0044	TF RWZ connection unit for wind and rain detectors
8C0255	PK dry contact for alarm / malfunction forwarding (for RWZ control units)
8C0045	WTM Output for controlling external warning devices in case of alarm or malfunction (i.e. MS multi-tone sound alarm and BL strobe) (for RWZ control units)

**RW
RDC
RF911
RF913
EA
RT2**

**RM2
TM2
MS
BL
TR8**

Detectors and
Remote control

RW Wind sensor

The wind sensor, connected to TOPP control units, closes the windows when the wind speed exceeds a preset value. Contained in weather-proof 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 and RR to operate the windows automatic closure when the sensor is wet. Insensitive to dew and humidity.



RF911_RM2 Smoke detectors

The RF911 and the RM2 optical smoke detectors, for the connection to our AC8 and RWZ control panels respectively, are devices for indoor smoke detection complying with the UNI 54 standard.



RF913_TM2 Temperature detectors

The RF913 and the TM2 rise thermal detectors, for the connection to our AC8 and RWZ control panels respectively, are made of a static element set at 60° (RF913) and 75° (TM2) and provide an immediate response to rapid increases in temperature. Certified according to UNI EN 54.



EA_RT2 Emergency push buttons

The EA and the RT2 emergency push buttons, for the connection to our AC8 and RWZ control panels respectively, are manual devices that indicate an alarm of the control unit and activate the windows opening. The RT2 is an emergency push button that displays normal operation, alarm and malfunction.



MS_BL Sound alarm and strobe

MS is a multiple-tone sounder (for RWZ control panel) and BL is a strobe light (for RWZ control panel)

TR8 Radio/IR remote control

Remote control available as radio at 433,92 Mhz and as infra-red, with 8 silicon rubber buttons, blue backlit, battery-operated by two 3V CR2032 batteries. Device equipped with wall mount holder; operating range <20m; dimensions 51,5x159,5 mm.



CODE	PRODUCT DESCRIPTION
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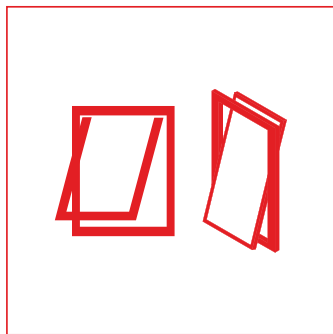
Detectors

8E0030	RW wind sensor
8E0054	RDC/12 12V Rain sensor, incl. roof fixing adhesive tape (for TF23R/TF33R/TF24R/TF44R/RR)
0B0020	special adjustable bracket RDC/12
8E0055	RDC/24 Rain sensor 24V (for AC8)
8E0010	RF911 Optical smoke detector incl. base
8E0020	RF913 Thermo-electric temperature gauges sensor
8E0120	EA emergency push button
8C0240	RT2 Alarm button with indication of working, alarm and malfunction (for RWZ control panel)
8C0407	RM2 Optical smoke detector (for RWZ control panel)
8C0420	TM2 75° Temperature detector (for RWZ control panel)
8E9019	Standard base for RM2 and TM2 detectors
8E0500	MS4 Multiple-tone sounder (for RWZ control panel)
8E0510	BL2 Strobe light (for RWZ control panel)

TR8 Radio/IR remote control

8E0314	TR8 Radio/IR remote control with wall mount holder
8E0330	TR4 Remote control for C30R chain actuator





WINDOW AUTOMATION



	C20	C30	C40	C80	ACK4	C130	C160	C240	SL60	T50	T80
Max. load in thrust (N)	300	300	400	300	300	300	300	300	600	500	800
Max. load in traction (N)	200	300	400	200	300	200	200	200	500	500	800
Max. stroke (mm)	360	380	500	600	400	360	1000	360	750	1000	1000
User stroke selection (positions)	2	2	7	2	7	-	-	-	-	7	-
Adjustment range to the frame (mm)	>100	30	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	-	-	●	-	●	-	-	-	●	●	●
Stainless steel chain	-	-	-	-	●	-	-	-	-	-	-
Customizable width of the actuator	-	-	-	-	-	●	○	●	-	-	-
Automation height (mm)	34	49	50	34	48	46	46	46	104	94	137
Automation depth (mm)	48	80	95	48	83	80	80	80	47	62	69
Automation max. width (mm)	362	337	388	470	288	1200	735	4000	907	1030	1392

Legend

- Included
- Not Available
- Optional



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.

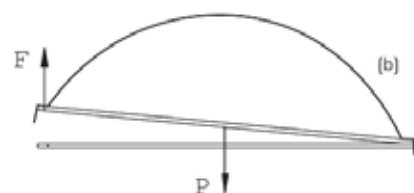




FORMULAS TO CALCULATE TRACTION AND THRUST FORCE (kg)

Horizontal windows

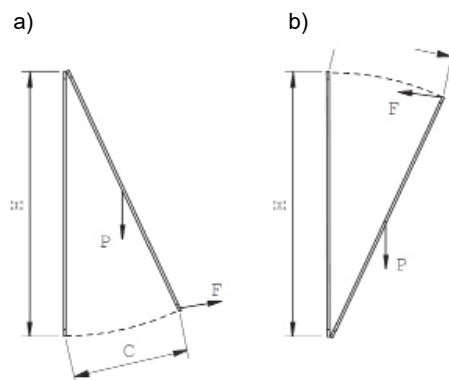
F = Required force for opening and closing (kg)
P = Window sash weight (kg)



$$F = 0,54.P$$

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)



$$F = (0,54.P) . (C/H)$$

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