



HIGHLINE

WINDOW CONTROLS

■ MANUAL ■ ELECTRIC ■ NATURAL ■ SMOKE



HIGHLINE

WINDOW CONTROLS

We are the UK's number one distributor of Manual and Electrically operated Window Control Systems. We offer an extensive range of proven, top quality products, from a variety of manufacturers worldwide to provide the perfect solution to virtually every Natural or Smoke Ventilation requirement. Full technical support and first class customer service ensure you are guaranteed the very best response from initial enquiry to installation.



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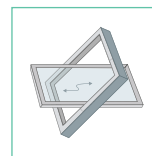
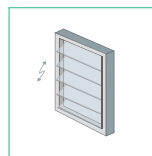
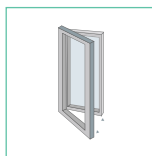
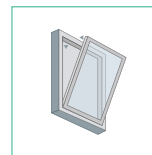
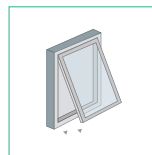
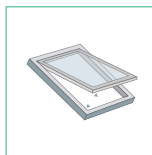


MANUAL WINDOW CONTROL

Manual window controls are used for operating high level or hard to reach windows. The system consists of a manual opener fitted to the opening vent linked via lengths of conduit and cable to a wall mounted operator. The system is very flexible, as the conduit can be bent around obstructions to allow the operating handle to be positioned at an easy to reach location. Multiple vents can be operated from a single operator. Various types of operators are available from the most popular Midi Operator to the Maxi Operator for heavier window loads. The system can be fitted to most styles of windows and even be used on rooflights when used with screwjack opener.

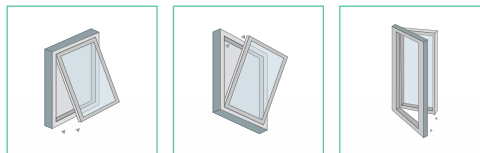


WINDOW TYPES:



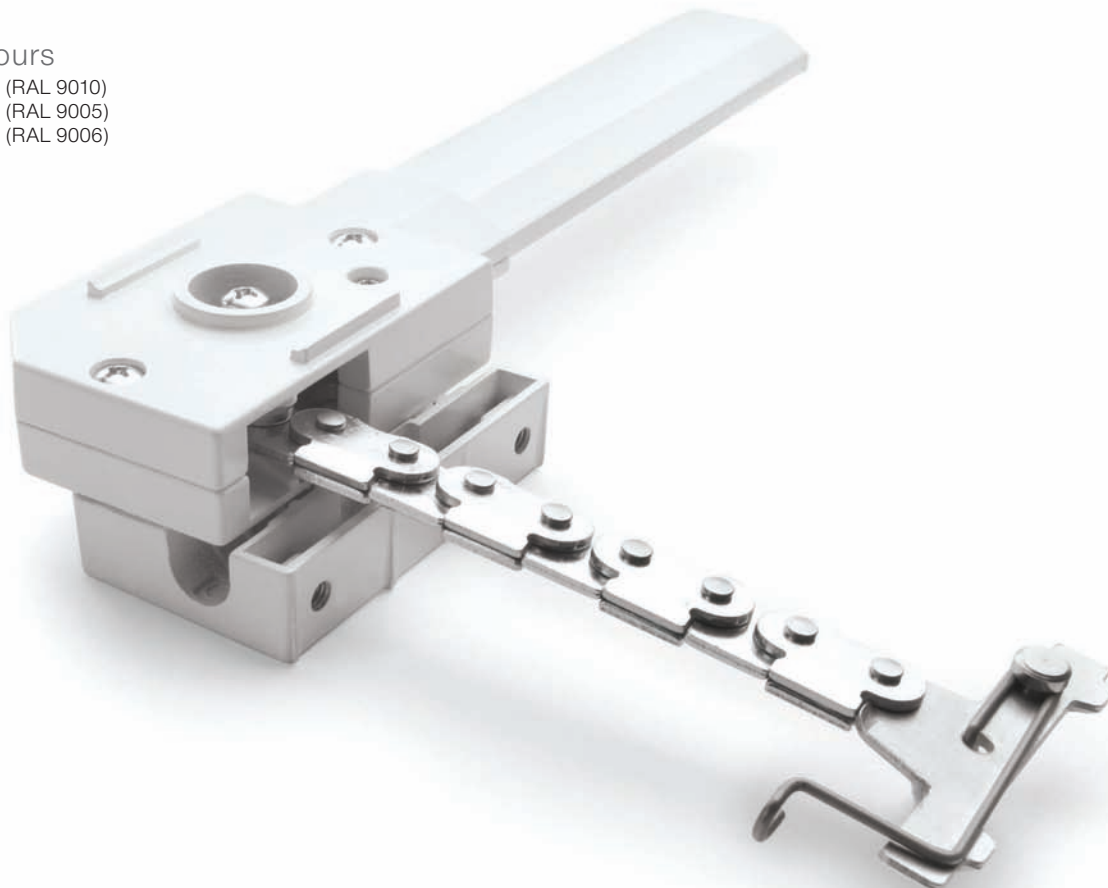
T100 / T150 OPENERS

MANUAL CHAIN OPENERS



- Applications
Manual Window Control

- Colours
White (RAL 9010)
Black (RAL 9005)
Grey (RAL 9006)



■ T100

- The most popular type of window opener with 250mm opening stroke.
- Can be used on most window types using the appropriate fixing bracket (see page 7).
- Individual or multiple T100 openers can be controlled from a single T250, T200, T210 or T300 operator (see page 17).

■ T150

- Similar to the T100 opener but with 380mm opening stroke.
- Can be used on most window types using the appropriate fixing bracket (see page 7).
- Individual or multiple T150 openers can be controlled from a single T260, T200, T210 or T300 operator (see page 17).

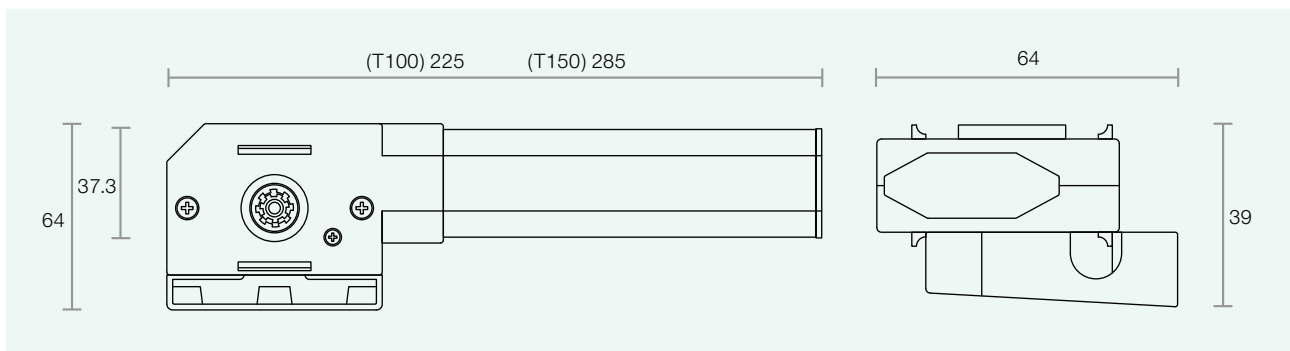


TECHNICAL DATA:

CODE	T100	T150
STROKE	250mm	380mm
COLOURS	WHITE / BLACK / GREY	WHITE / BLACK / GREY
MAX WINDOW WIDTH*	< 1.0m	< 1.0m

* For wider vents two or more chain openers must be fitted.

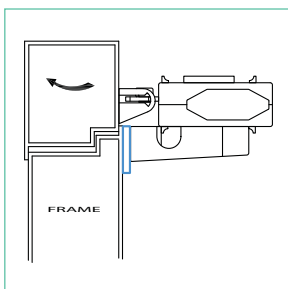
DIMENSIONS:



BRACKET TYPES:

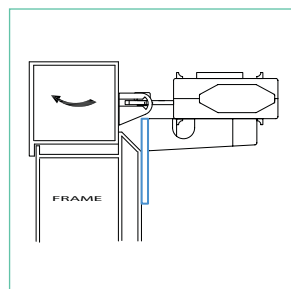
T740

Narrow Fixing Plate for Aluminium frames



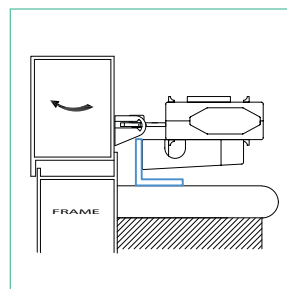
T750

Wide Fixing Plate for PVCU frames



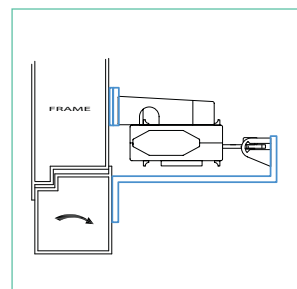
T760

Angled Fixing Plate for Timber frames



T850

Bottom-Hung Fixing Kit

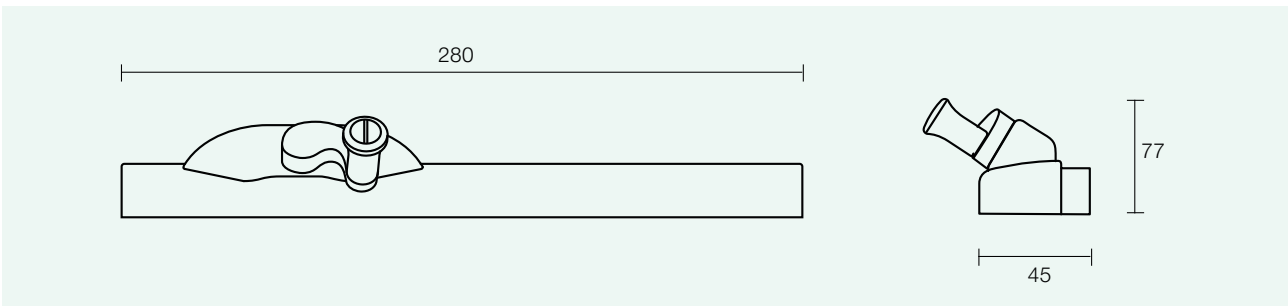
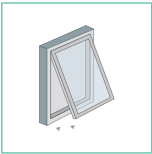


T125 / T175 OPENERS

MANUAL OPENERS

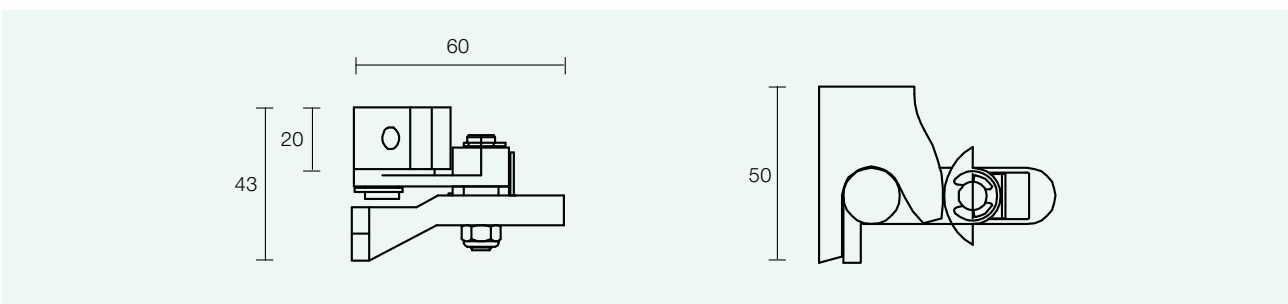
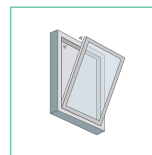
T125 CHAIN OPENER

- Manual chain opener for operation of lightweight low level top hung windows via winding handle.
- Maximum opening stroke 300mm, 19 handle turns to fully open.
- Foldable knob in handle reduces width preventing damage and interface with blinds.
- Available only in white.



T175 LOCKING OPENER

- Manual locking opener for use with T250 or T300 operator on bottom hung open in windows.
- Maximum opening stroke 250mm.
- Available in white, black or grey.

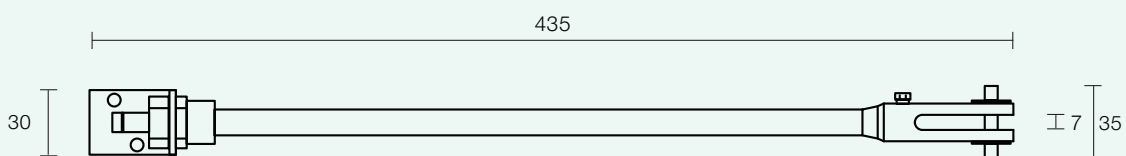
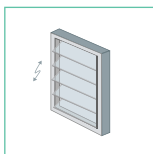


T190 / SJ138600 OPENERS

MANUAL OPENERS

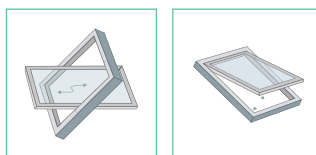
■ T190 FORK AND SWIVEL OPENER

- Manual fork and swivel opener for use with T250 or T300 operator on louvre blades.
- Maximum opening stroke 250mm.
- Available only in stainless steel.



■ SJ138600 SCREWJACK OPENER

- Sill mounted screwjack to use with T200 or T210 operators to control pitched roof vents.
- Maximum opening stroke of 380mm.
- Available only in white.



T250 / T260 OPERATORS

MANUAL MIDI OPERATORS

- Applications
Manual Window Control

- Colours
White (RAL 9010)
Black (RAL 9005)
Grey (RAL 9006)



■ T250

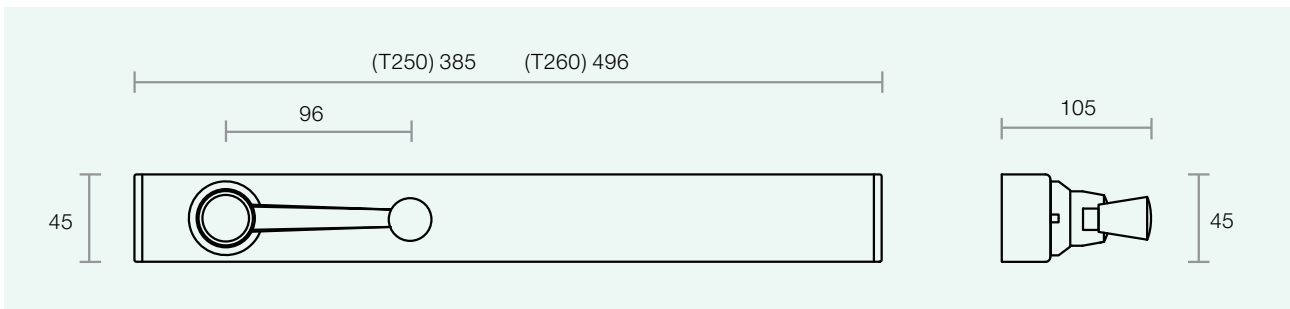
- Midi handle operator for use with the T100, T175 and T190 manual openers to allow for a maximum opening of 250mm.
- Complete with T275 Handle, T410 Spent Travel Tube and T720 Brass Stop.
- T720 Brass Stop is used to adjust maximum opening anywhere from 0-250mm.

■ T260

- Midi handle operator for use with the T150 manual openers to allow for a maximum opening of 380mm.
- Complete with T275 Handle, T411 Spent Travel Tube and T720 Brass Stop.
- T720 Brass Stop is used to adjust maximum opening anywhere from 0-380mm.



DIMENSIONS:



COMPATIBLE WITH:

T100
Chain Opener



T150
Chain Opener



T175
Locking Opener



T190
Fork and Swivel Opener



T200 / T210 / T300 OPERATORS

MANUAL HANDLE OPERATORS

- Applications
Manual Window Control

- Colours
White (RAL 9010)
Black (RAL 9005)
Grey (RAL 9006)



T200



T210



T300

■ T200

- Heavy duty metal cased operator designed for multiple window operation beyond the capability of the standard T250, T260 or T300 operators.
- Complete with handle and fixings.

■ T210

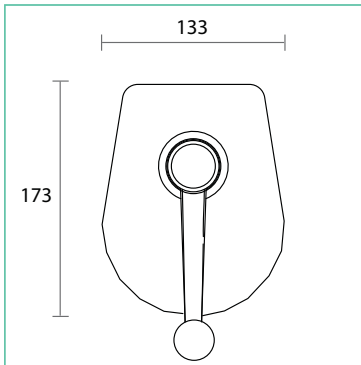
- Heavy duty metal cased operator designed for multiple window operation beyond the capability of the standard T250, T260 or T300 operators.
- Complete with T275 handle and fixings.

■ T300

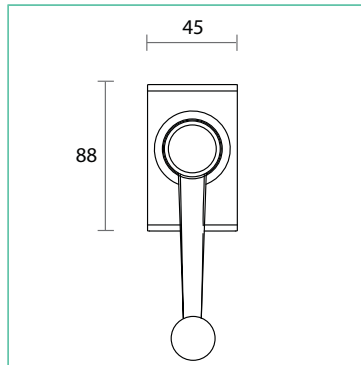
- Compact metal cased operator for use on single or light multiple window control.
- Complete with T275 handle and fixings.

DIMENSIONS:

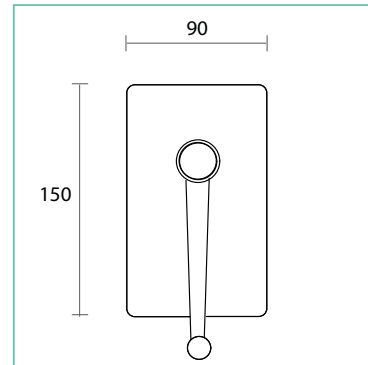
T210



T300



T200



COMPATIBLE WITH:

T100

Chain Opener



T150

Chain Opener



T175

Locking Opener



T190

Fork and Swivel Opener



ACCESSORIES

MANUAL ACCESSORIES

■ T270

Large Grip Operator Handle

Large-grip operator handle to suit all operators except T200.

Available only in white.



■ T275

Operator Handle

Replacement handle to suit all operators except T200.

Available in white, black, or grey.



■ T350

Rotary Junction Box

Used to connect satellite drive system to main control.

Available in white, black, or grey.



■ T400

Conduit

Plastic covered metal tube with nylon inner liner. Used to connect operator to chain opener.

Available in white, black, or grey.
Supplied in 3 metre lengths.



■ T410/T411

Square Conduit

Mill finished aluminium spent travel to use with the T720 brass stop when both drives of the T250 (T410) or T260 (T411) operator are used.



■ T420

End Cap

Plastic moulded plug to seal end of conduit run.

Available in white, black, or grey.



■ T450

Cable

Helical steel cable which fits inside conduit to drive the gearbox of operator or opener.

Supplied per metre



■ T600

Saddle

Frame Fix - Moulded plastic saddle bracket to fix conduit to window frame.

Available in white, black, or grey.



■ T620

Saddle

Conduit saddle bracket to fix conduit to wall or window frame.

Available in white, black, or grey.



■ **T650**
Saddle

Wall Fix - Moulded plastic saddle bracket to fix conduit to wall.

Available in white, black, or grey.



■ **T700**
Spring Stop

Helical spring stop that can be threaded onto the end of the cable to adjust the opening stroke.



■ **T720**
Brass Stop

Brass stop used in conjunction with T410/T411 square conduit when both ports of T250/T260 operator are used.



■ **T800**
Conduit Connector

Metal collar and sleeve used to connect two lengths of conduit together.

Available in white, black, or grey.



■ **T900**
Conduit Tool

Tool used to form groove in the end of the conduit, enabling it to be located securely in the collar of the operator or opener.



■ **T950**
Bending Tool

Tool used to bend conduit to the correct radius.



TECHNICAL DATA

Minimum window height for full 250mm travel of T100 - 500mm

Minimum window height for full 380mm travel of T150 - 900mm

Chain openers fitted on windows less than recommended height must have opening restricted to 30% of the vent height using the T700 spring stop or T720 brass stop nuts to shorten the cable run. Use only T200, T210, T260 or T300 operator with the T150 (380mm) chain opener.

For safety reasons we recommend fitting side support stays to all bottom-hung, open-in windows. For bottom-hung applications you must fit the T850 fixing kit (sold separately see page 7).

MAXIMUM CONTROL RUN

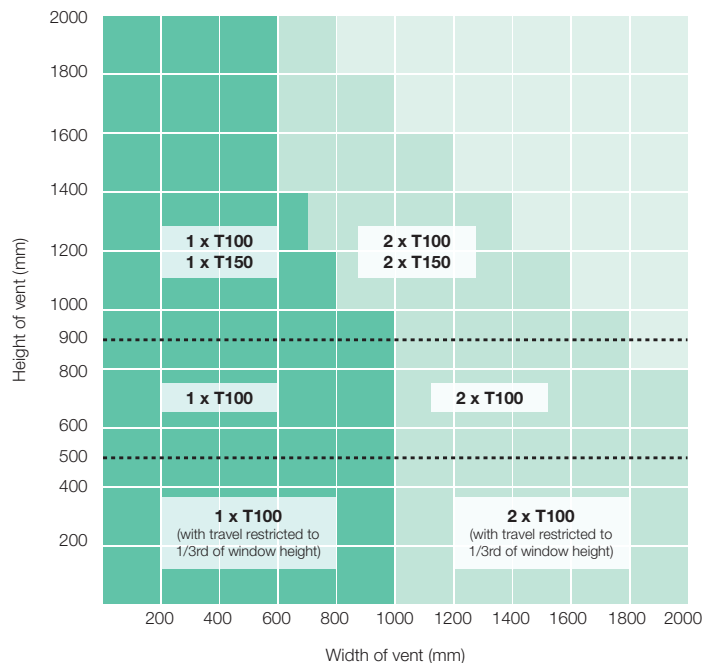
OPERATOR	MAXIMUM CONTROL RUN
T200	30 metres
T210	30 metres
T250/260	18 metres
T300	18 metres

SPENT TRAVEL CONDUIT

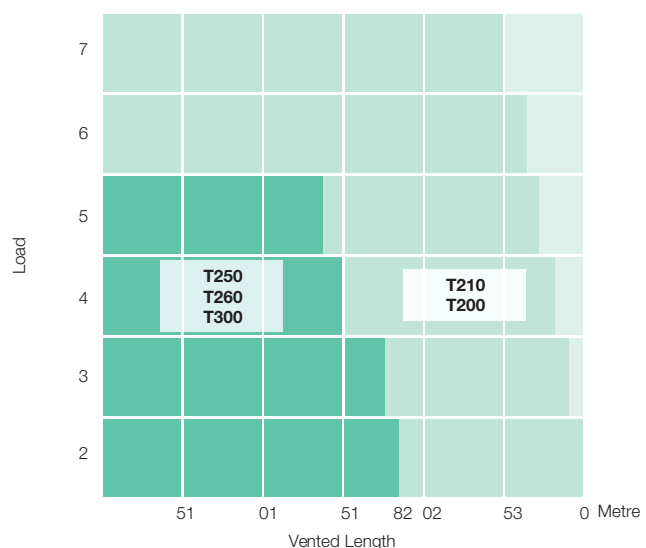
To allow for the forward/backward movement of the inner cable a length of "spent travel" conduit must be fitted at either end of the control path i.e. past the last chain/screwjack and below the operator (except the T250 & T260 operators which have an integral "spent travel" tube).

TYPE OF OPERATOR	SPENT TRAVEL CONDUIT
SJ138600 Screwjack	2.5m (for full 380mm travel)
T100 Chain Opener	0.3m
T150 Chain Opener	0.45m

NUMBER OF OPENERS PER VENT



TYPE OF OPERATOR

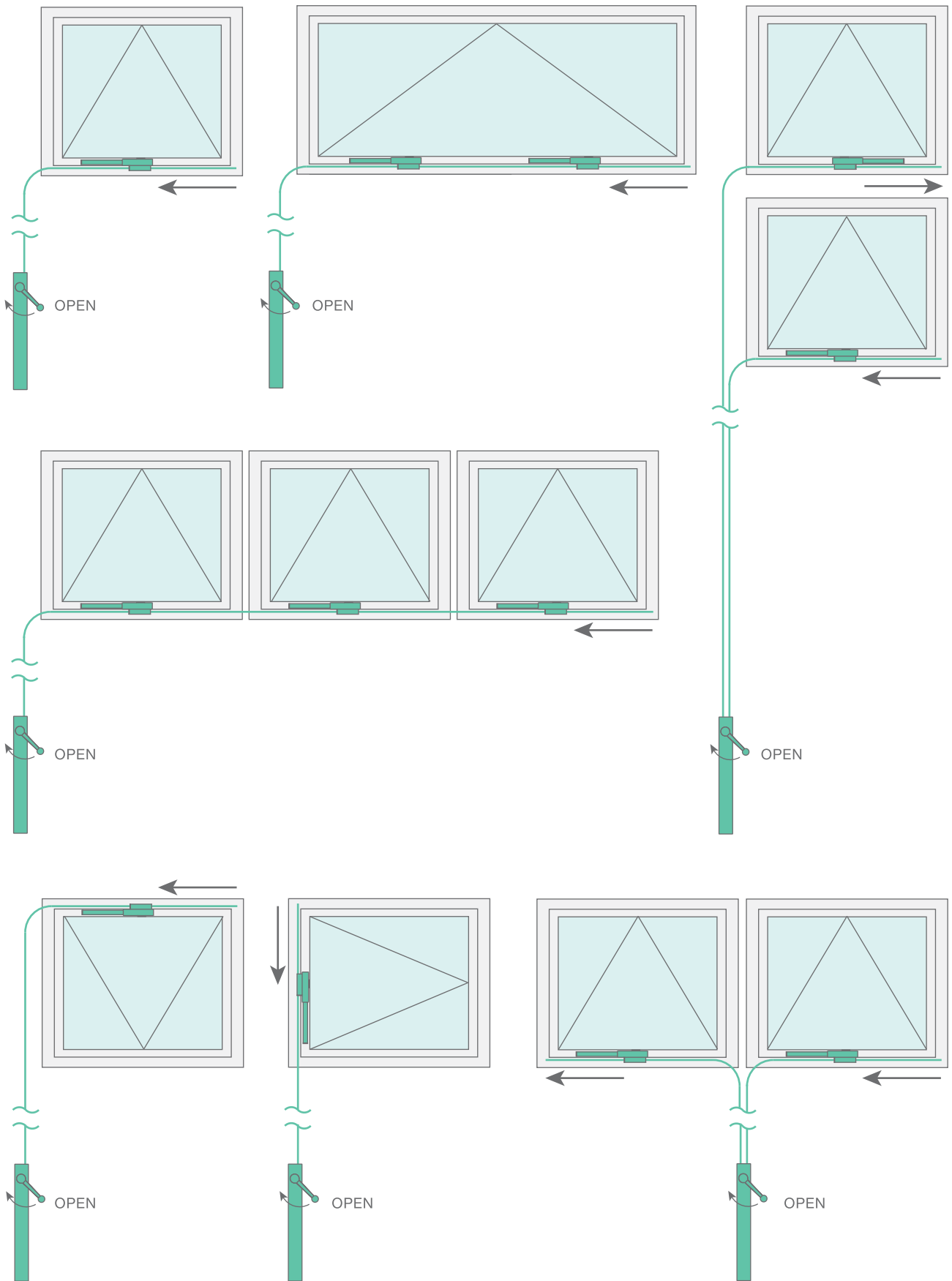


LOAD = No. of chain openers + No. of bends in conduit

The above figures are based on a single bend in the conduit path. For each additional bend deduct 1 metre from the Vented Length total.

The figures used in these charts are based on windows with 4mm double glazed units fitted to butt hinges or free pivots, not friction stays. Please refer to our sales or technical department for advice if friction stays are fitted.

INSTALLATION EXAMPLES



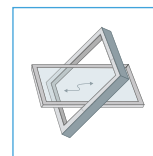
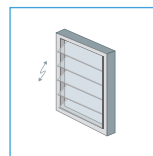
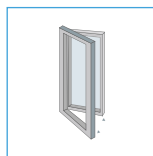
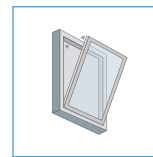
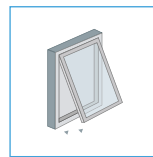
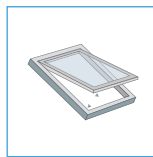


ELECTRIC WINDOW ACTUATORS

Electric actuators are used for automating opening vents for Natural and Smoke Ventilation. There are two types of actuators available, Chain and Linear. Chain actuators are used on vertical vents and small, lightweight rooflights. Linear actuators are used for heavy rooflights and domes where a greater force is required to lift the vents. Bother types are available in 24V dc and 230V ac and are available in a variety of opening sizes.

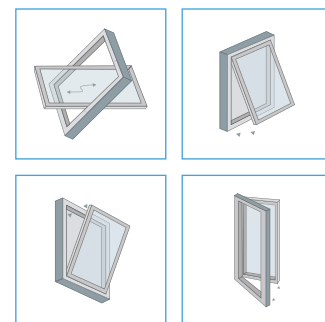


WINDOW TYPES:



L25 / L35 ACTUATOR

ACTUATORS CHAIN ACTUATORS



■ Applications



■ Colours

White (RAL 9010)
Black (RAL 9005)
Grey (RAL 7035)



* Radio control version also available

■ L25 ACTUATOR

- Chain type actuator with adjustable opening stroke.
- 3 opening strokes from 200mm, 250mm or 380mm.
- Supplied complete with standard bracket for aluminium frames.
- All electrical parts are double insulated and supplied with 1.5m cable.
- Available in white (RAL 9010), grey (RAL 7035) or black (RAL9005).
- Up to 30 actuators can be operated in parallel.

■ L35 ACTUATOR

- Chain-type actuator with adjustable opening stroke.
- 9 opening strokes from 50mm to 420mm.
- Supplied complete with standard bracket for aluminium frames.
- All electrical parts are double insulated and supplied with 1.5m cable.
- Available in white (RAL9010), grey (RAL7035) or black (RAL9005).
- Up to 30 actuators can be operated in parallel.



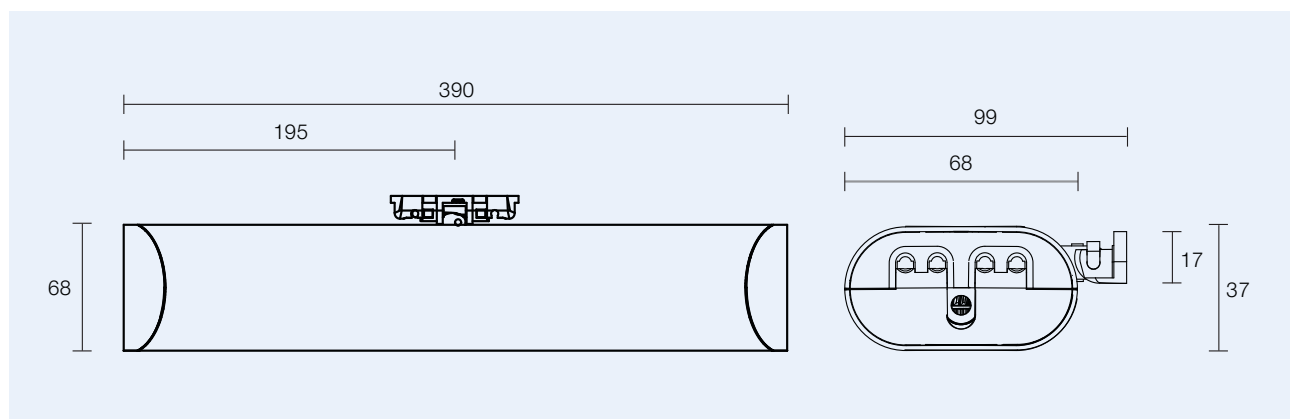
230V

24V

TECHNICAL DATA:

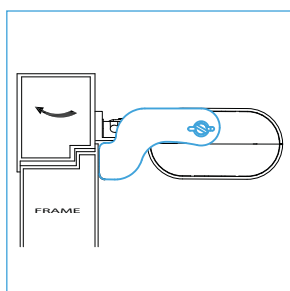
CODE	L25	L35230	L3524
VOLTAGE	230VAC	230VAC	24VDC
STROKE	200-250-380mm	50-420mm	50-420mm
THRUST FORCE	250N	350N	350N
ABSORBED CURRENT	0.19A	0.19A	1A
SPEED	18mm/s	18mm/s	18mm/s
PROTECTION CLASS	IP44	IP44	IP44
FLEX	1.5m (3 CORE)	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	WHITE / BLACK / GREY	WHITE / BLACK / GREY	WHITE / BLACK / GREY
LIMIT STOP	ELECTRONIC	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	<1.25m	<1.25m	<1.25m

DIMENSIONS:

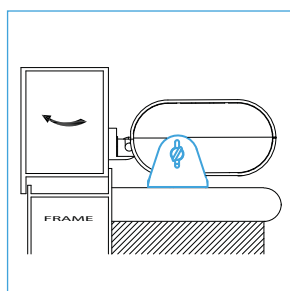


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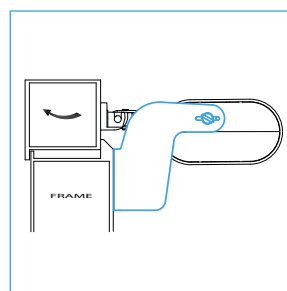
L25/35/SB*
Standard Bracket



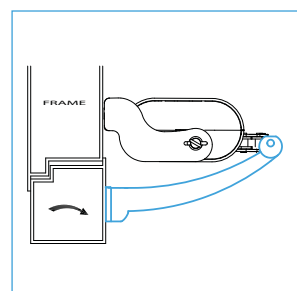
L25/35/SPB
Small Pivot Bracket



L25/35/LPB
Large Pivot Bracket



L25/35/BHB*
Bottom Hung Bracket



* Supplied complete with actuator

L35 DUO ACTUATOR

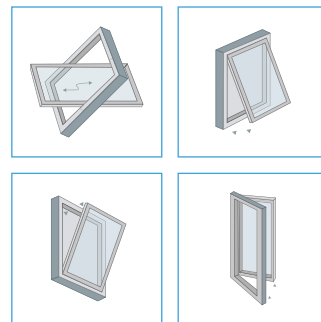
ACTUATORS CHAIN ACTUATORS

■ Applications



■ Colours

White (RAL 9010)
Black (RAL 9005)
Grey (RAL 7035)



* Radio control version also available

■ L35 DUO ACTUATOR

- Pair of Chain-type actuators programmed to work in sync for wider vents.
- 9 opening strokes from 50mm to 420mm.
- Supplied complete with standard bracket for aluminium frames.
- All electrical parts are double insulated and supplied with 1.5m cable.
- Available in white (RAL9010), grey (RAL7035) or black (RAL9005).
- Up to 30 actuators can be operated in parallel.



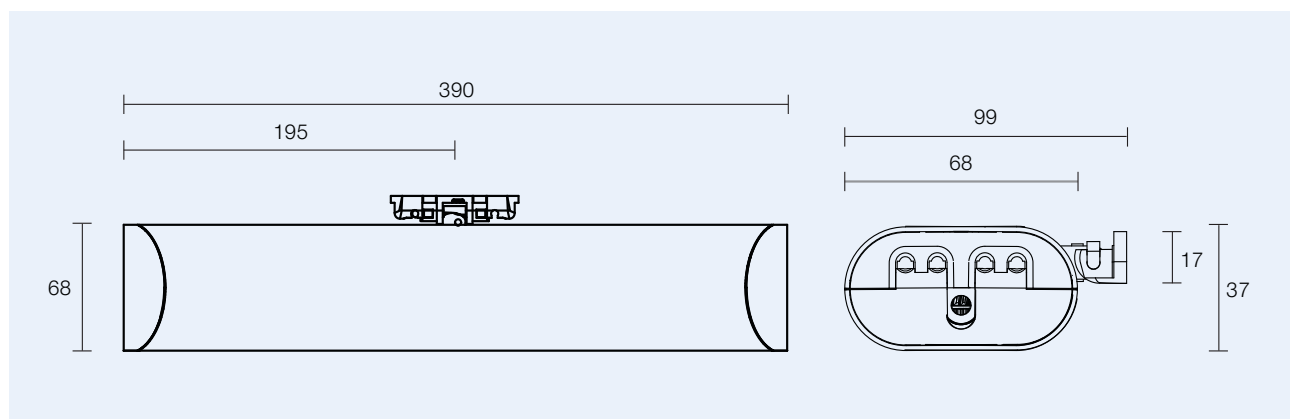
230V

24V

TECHNICAL DATA:

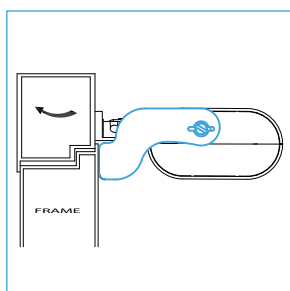
CODE	L35DUO230	L35DUO24
VOLTAGE	230VAC	24VDC
STROKE	50-420mm	50-420mm
THRUST FORCE	700N (2 x 350N)	700N (2 x 350N)
ABSORBED CURRENT	0.38A	2A
SPEED	18mm/s	18mm/s
PROTECTION CLASS	IP44	IP44
FLEX	1.5m (2 x 3 CORE)	1.5m (2 x 2 CORE)
COLOURS	WHITE / BLACK / GREY	WHITE / BLACK / GREY
LIMIT STOP	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	1.25m <2.5m	1.25m <2.5m

DIMENSIONS:

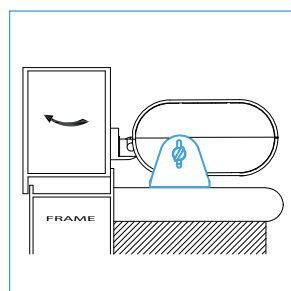


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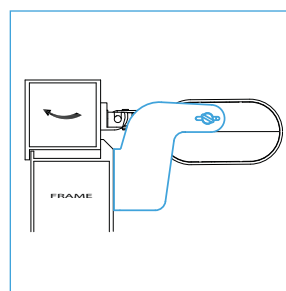
L25/35/SB*
Standard Bracket



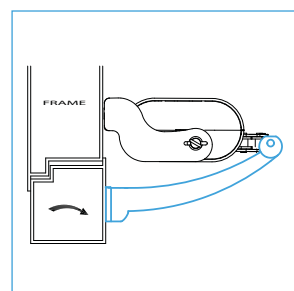
L25/35/SPB
Small Pivot Bracket



L25/35/LPB
Large Pivot Bracket



L25/35/BHB*
Bottom Hung Bracket



* Supplied complete with actuator

ACK4 ACTUATOR

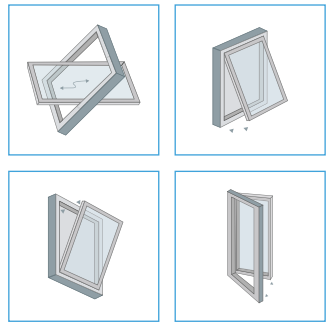
ACTUATORS CHAIN ACTUATORS

■ Applications



■ Colours

White (RAL 9010)
Black (RAL 9005)
Grey (RAL 9006)



■ ACK4 ACTUATOR

- Chain type actuator with adjustable travel (7 positions from 100-400mm).
- Strong die-cast aluminium body.
- Brackets and fixings to suit most applications (all sold separately).
- High protection degree IP55.
- A robust stainless steel chain with an acoustic device that warns of incorrect installation.
- All electrical parts are double insulated and supplied with 1.5m cable.
- Available in white, black or grey.



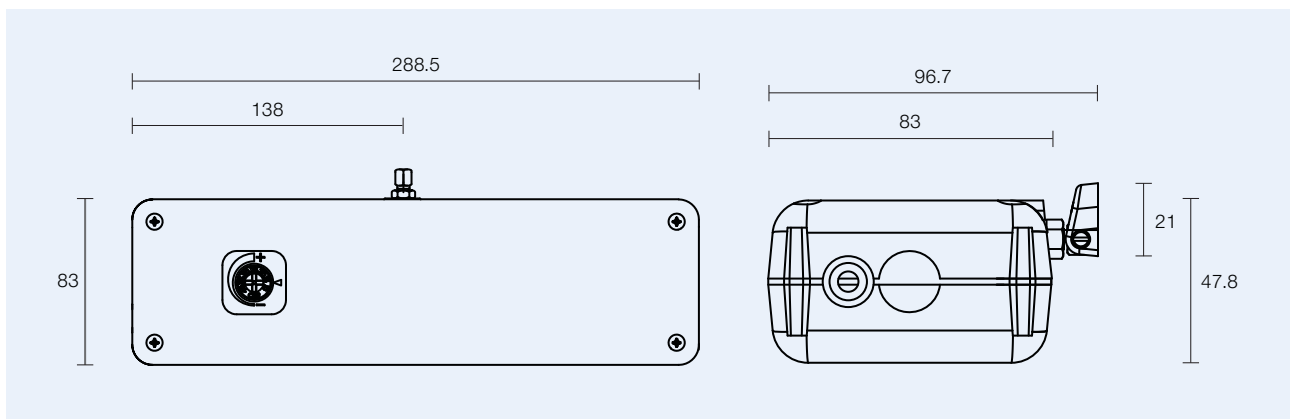
230V

24V

TECHNICAL DATA:

CODE	ACK4230	ACK424
VOLTAGE	230VAC	24VDC
STROKE	100-400mm	100-400mm
THRUST FORCE	300N	300N
ABSORBED CURRENT	0.32A	1.35A
SPEED	27mm/s	17mm/s
PROTECTION CLASS	IP55	IP55
FLEX	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	WHITE / BLACK / GREY	WHITE / BLACK / GREY
LIMIT STOP	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	<1.5m	<1.5m

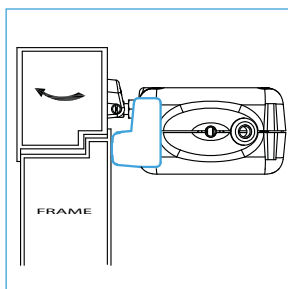
DIMENSIONS:



BRACKET TYPES:

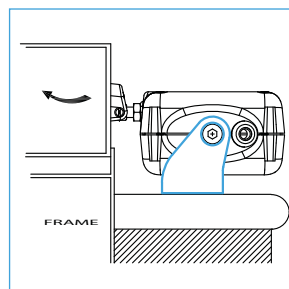
ACK4/SB

Standard Bracket



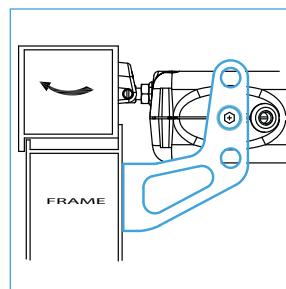
ACK4/SPB

Small Pivot Bracket



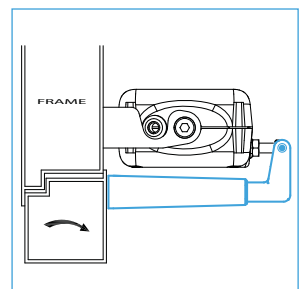
ACK4/LPB

Large Pivot Bracket



ACK4/BHB

Bottom Hung Bracket



C30 ACTUATOR

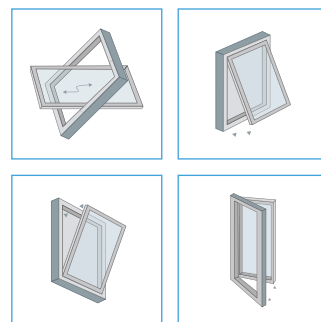
ACTUATORS CHAIN ACTUATORS

■ Applications



■ Colours

White
Black
Grey



■ C30 ACTUATOR

- Chain type actuator with adjustable travel (2 positions 200 or 380mm).
- Strong composite casing.
- Supplied complete with C30/SB standard bracket and C30/BHB bottom hung brackets.
- Also available with C30/SPB small pivot bracket.
- High protection degree IP30.
- A robust, centrally positioned double link stainless steel chain with an acoustic device that warns of any eventual incorrect installations.
- All electrical parts are double insulated and supplied with 1.5m cable.



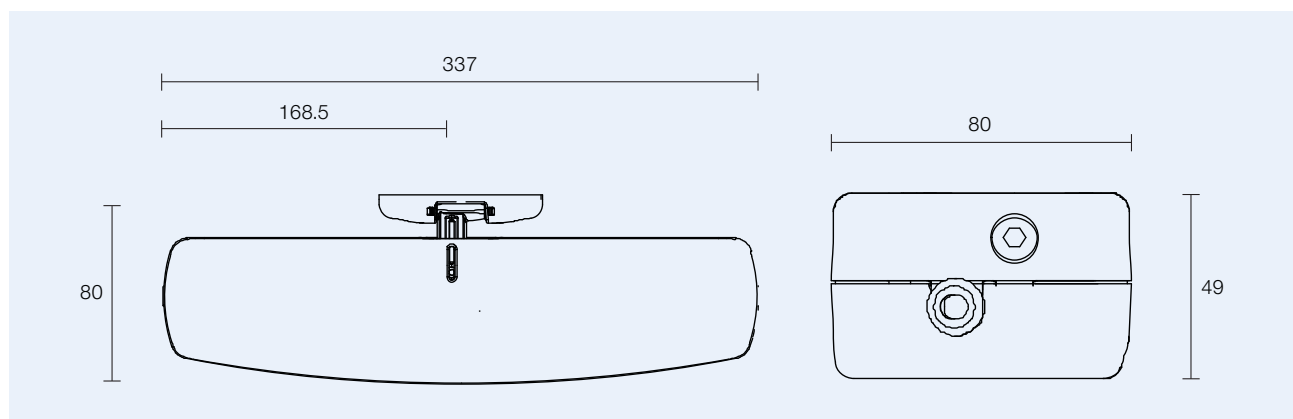
230V

24V

TECHNICAL DATA:

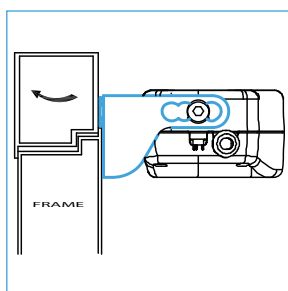
CODE	C30230	C3024
VOLTAGE	230VAC	24VDC
STROKE	200-380mm	200-380mm
THRUST FORCE	300N	300N
ABSORBED CURRENT	0.26A	1.3A
SPEED	27mm/s	17mm/s
PROTECTION CLASS	IP30	IP30
FLEX	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	WHITE / BLACK / GREY	WHITE / BLACK / GREY
LIMIT STOP	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	<1.5m	<1.5m

DIMENSIONS:

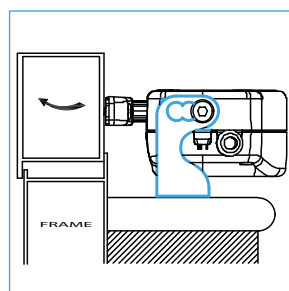


BRACKET TYPES:

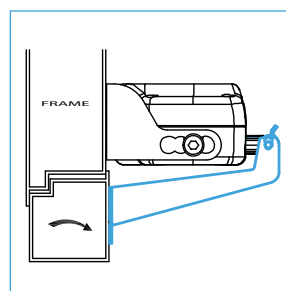
C30/SB*
Standard Bracket



C30/SPB
Small Pivot Bracket



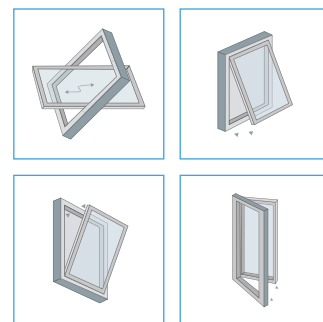
C30/BHB*
Bottom Hung Bracket



* Supplied complete with actuator

WMX 804 / 826 ACTUATOR

ACTUATORS CHAIN ACTUATORS



■ Applications



■ Colours

White (RAL 9010)
Grey (RAL 9006)



■ WMX 804 / 826 ACTUATOR

- Programmable single chain actuator.
- Actuator can be programmed to required opening speed and opening stroke.
- Available as a single, double, triple or quad synchro actuator.
- The risk of entrapment is reduced as the actuators are programmed to reverse if they encounter obstacles when closing.
- All brackets supplied separately.

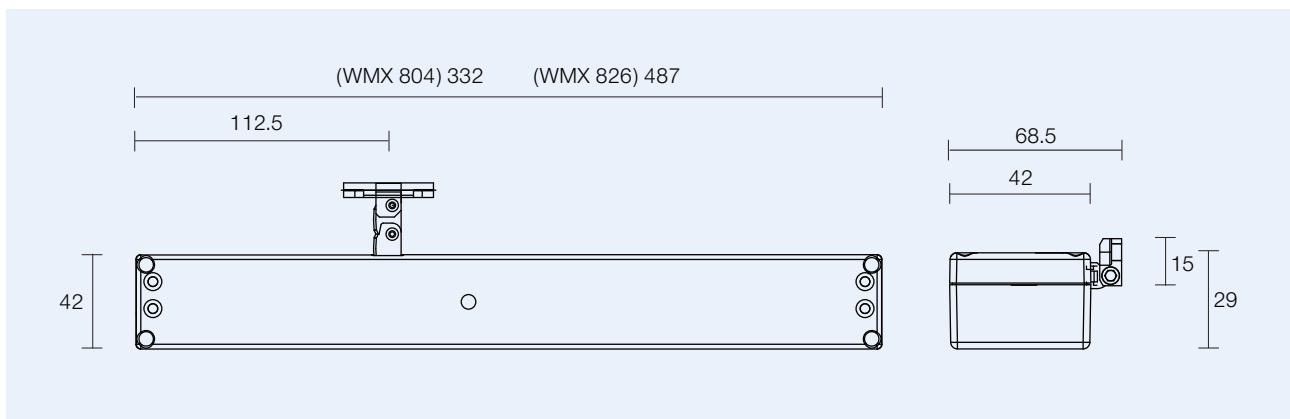


24V

TECHNICAL DATA:

CODE	WMX804	WMX826
VOLTAGE	24VDC	24VDC
STROKE	250mm	500mm
THRUST FORCE	200N	200N
ABSORBED CURRENT	1A	1A
SPEED	7mm/s	9mm/s
PROTECTION CLASS	IP20	IP20
FLEX	1.9m (3 CORE)	1.9m (3 CORE)
COLOURS	WHITE / GREY	WHITE / GREY
LIMIT STOP	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	<1.2m	<1.2m

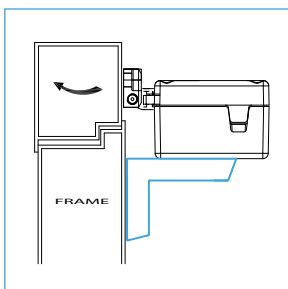
DIMENSIONS:



BRACKET TYPES:

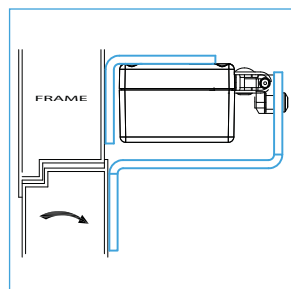
WAB804

Standard Bracket



WAB805

Bottom Hung Bracket



WMU 836 ACTUATOR

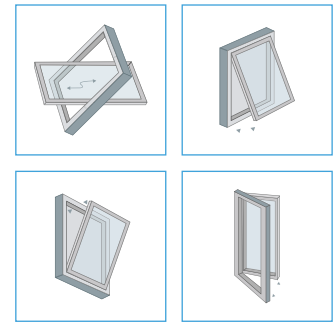
ACTUATORS CHAIN ACTUATORS

■ Applications



■ Colours

Silver Anodised



■ WMU 836 ACTUATOR

- Programmable single chain actuator.
- Actuator can be programmed to required opening speed and opening stroke.
- Available as a single, double, triple or quad synchro actuator.
- The risk of entrapment is reduced as the actuators are programmed to reverse if they encounter obstacles when closing.
- Approved according to EN 12101-2 with selected profiles.
- All brackets supplied separately.

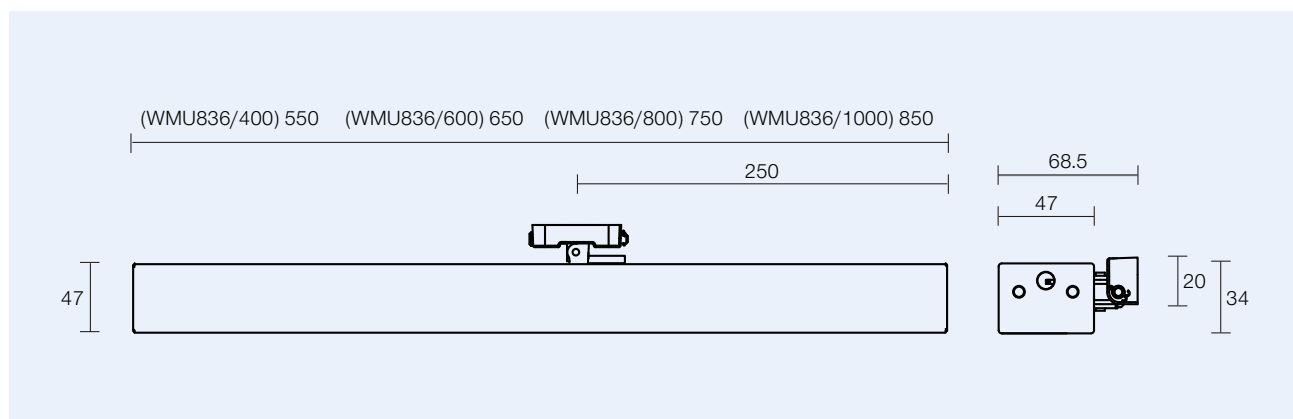


24V

TECHNICAL DATA:

CODE	WMU836
VOLTAGE	24VDC
STROKE	400 / 600 / 800 / 1000mm
THRUST FORCE	300N
ABSORBED CURRENT	1A
SPEED	11 - 14mm/s
PROTECTION CLASS	IP32
FLEX	5m (3 CORE)
COLOURS	SILVER ANODISED
LIMIT STOP	ELECTRONIC
SAFETY STOP	ELECTRONIC
MAX WINDOW WIDTH	<1.5m

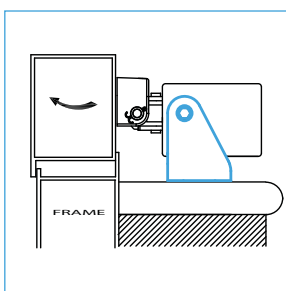
DIMENSIONS:



BRACKET TYPES:

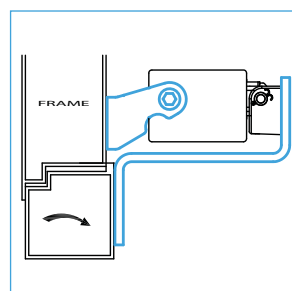
WAB836A

Small Pivot Bracket



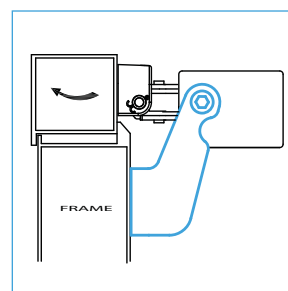
WAB825

Bottom Hung Bracket



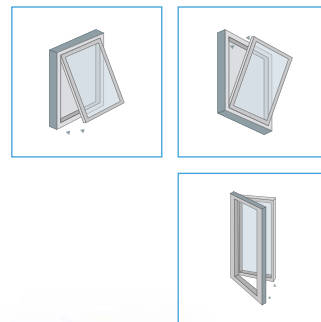
WAB836B

Large Pivot Bracket



POWERMMASTER ACTUATOR

ACTUATORS CHAIN ACTUATORS



■ Applications



■ Colours

Silver Anodised



■ POWERMASTER ACTUATOR

- 200N thrust 230Vac or 24Vdc chain actuator.
- Strong double link chain.
- Choice of 380mm, 660mm or 860mm (24Vdc only) strokes.
- Supplied complete with PMSB standard pivot brackets.
- PMBHB bottom hung, PMSPB small pivot and PMLPB large pivot brackets also available.
- Supplied complete with 1.5m cable.



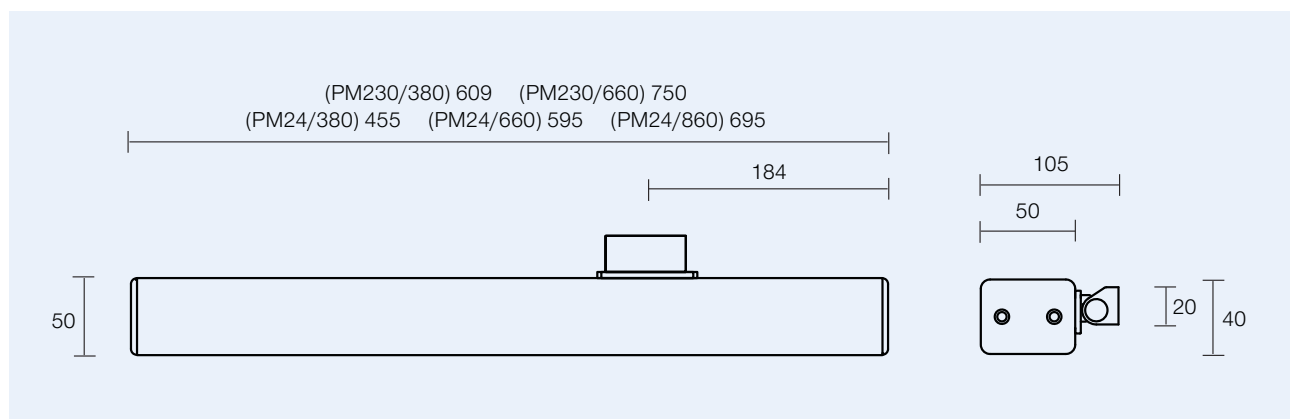
230V

24V

TECHNICAL DATA:

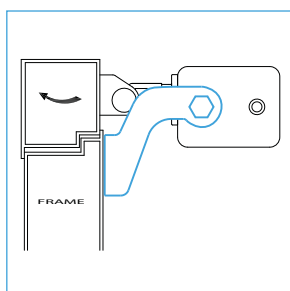
CODE	PM24	PM230
VOLTAGE	24VDC	230VAC
STROKE	380 / 660 / 860mm	380 / 660mm
THRUST FORCE	200N	200N
ABSORBED CURRENT	1A	0.6A
SPEED	18mm/s	18mm/s
PROTECTION CLASS	IP32	IP32
WIRING	1.5m (2 CORE)	1.5m (4 CORE)
COLOURS	SILVER ANODISED	SILVER ANODISED
LIMIT STOP	MICRO SWITCH	MICRO SWITCH
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	<1.5m	<1.5m

DIMENSIONS:

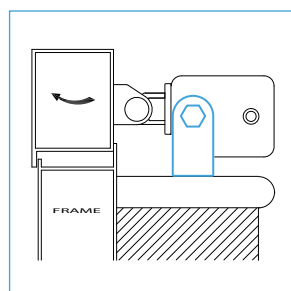


BRACKET TYPES:

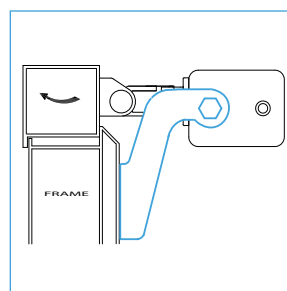
PMSB*
Standard Bracket



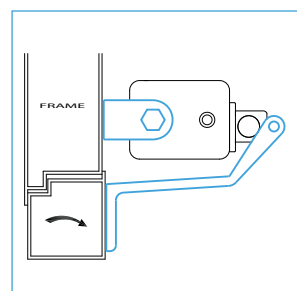
PMSPB
Small Pivot Bracket



PMLPB
Large Pivot Bracket



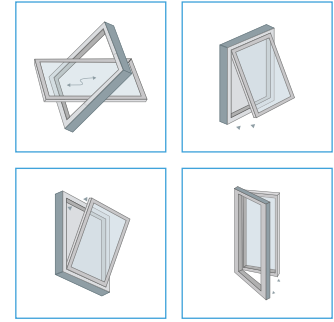
PMBHB
Bottom Hung Bracket



* Supplied complete with actuator

SUPERMASTER ACTUATOR

ACTUATORS CHAIN ACTUATORS



■ Applications



■ Colours

White (RAL 9010)
Dark Brown Anodised
Silver Anodised



■ SUPERMASTER ACTUATOR

- Heavy duty actuator with powerful thrust and strong, double link stainless steel chain.
- Ideal for heavy windows or windows requiring large opening.
- Choice of 450mm, 600mm, 800mm or 1000mm travel.
- High speed and virtually noiseless operation.
- All types of fixing brackets supplied seperately.



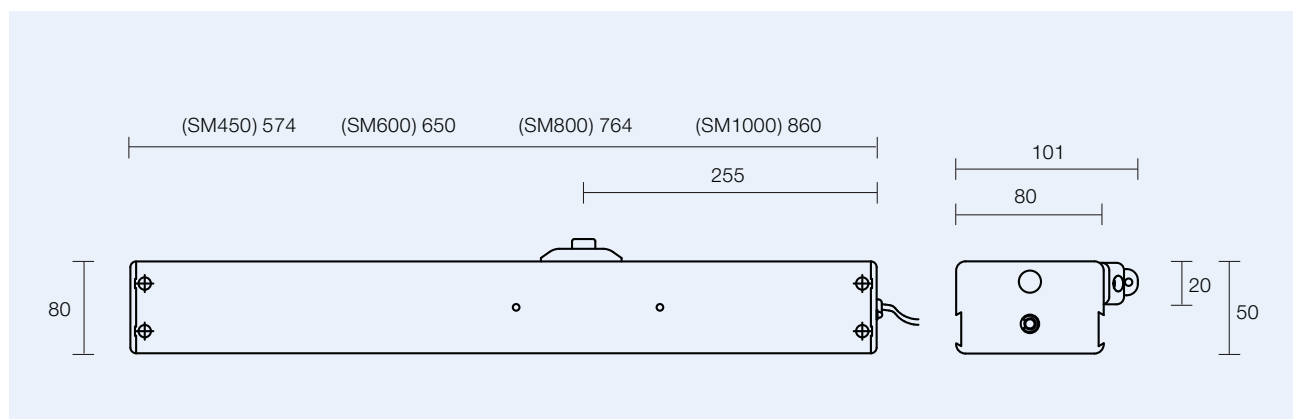
230V

24V

TECHNICAL DATA:

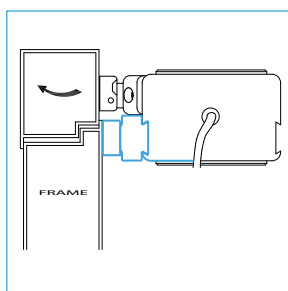
CODE	SMD	SMA
VOLTAGE	24VDC	230VAC
STROKE	450 / 600 / *800 / *1000mm	450 / 600 / *800 / *1000mm
THRUST FORCE	400N (*300N)	400N (*300N)
ABSORBED CURRENT	2A	0.8A
SPEED	20mm/s	23mm/s
PROTECTION CLASS	IP20	IP20
WIRING	1.5m (3 CORE)	1.5m (4 CORE)
COLOURS	WHITE / DARK BROWN / SILVER	WHITE / DARK BROWN / SILVER
LIMIT STOP	MICRO SWITCH	MICRO SWITCH
SAFETY STOP	THERMIC	THERMIC
MAX WINDOW WIDTH	< 1.5m	< 1.5m

DIMENSIONS:

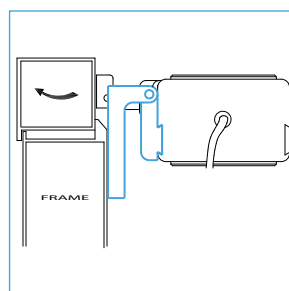


BRACKET TYPES:

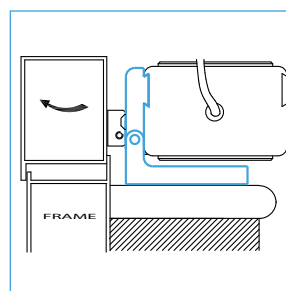
SM40460
Slide Bracket



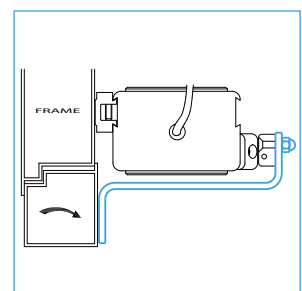
SM40560
Pivot Bracket



SM40560
Pivot Bracket

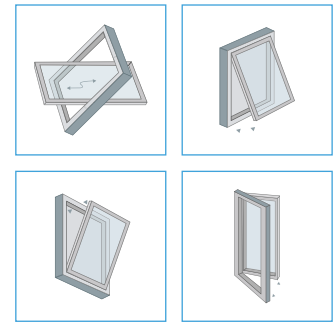


SM40472
Bottom Hung Bracket



WMU 86/88 ACTUATOR

ACTUATORS CHAIN ACTUATORS



■ Applications



■ Colours

Silver Anodised



■ WMU 86/88 ACTUATOR

- Elegant alternative to linear type actuators on heavy rooflights and domes.
- Programmable single chain actuator.
- Actuator can be programmed to required opening speed and opening stroke.
- Available as a single, double, triple or quad synchro actuator.
- The risk of entrapment is reduced as the actuators are programmed to reverse if they encounter obstacles when closing.
- Soft close function.
- Approved according to EN 12101-2 with selected profiles.
- All brackets supplied separately.



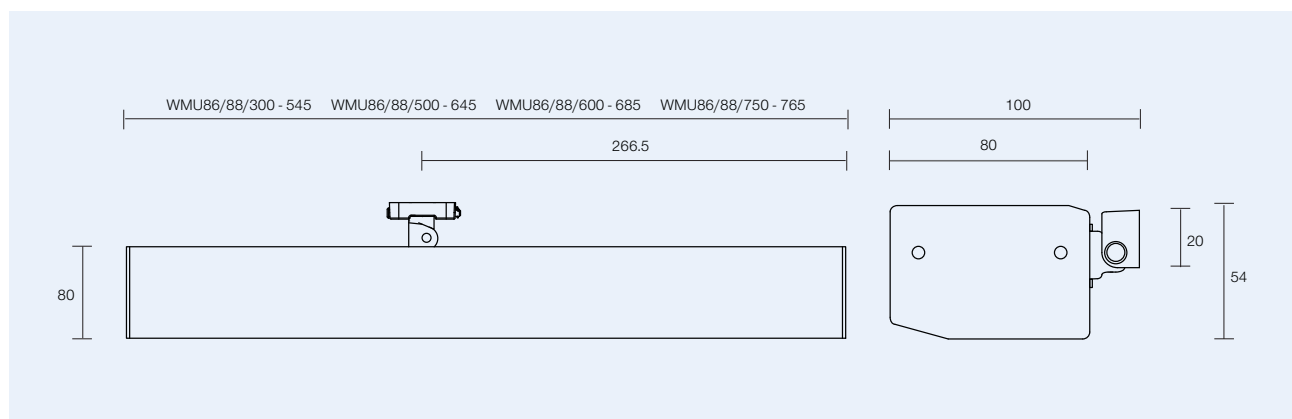
24V

TECHNICAL DATA:

CODE	WMU86	WMU88
VOLTAGE	24VDC	24VDC
STROKE	300/500/600/750mm	300/500/600/750mm
THRUST FORCE	600N	1000N
ABSORBED CURRENT	1A-4A*	2A-5A*
SPEED	4-13mm/s*	4-13mm/s*
PROTECTION CLASS	IP54	IP54
FLEX	5m (3 CORE)	5m (3 CORE)
COLOURS	SILVER ANODISED	SILVER ANODISED
LIMIT STOP	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	< 1.5m	< 1.5m

*Programmable

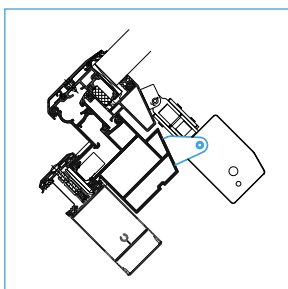
DIMENSIONS:



BRACKET TYPES:

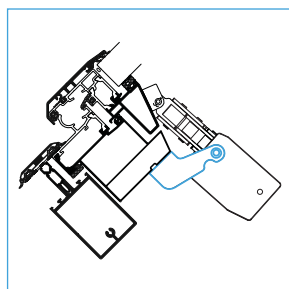
WAB836A

Small Pivot Bracket



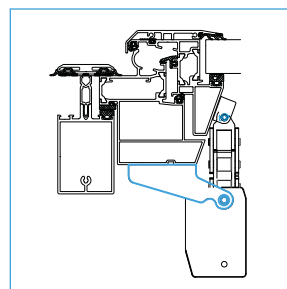
WAB836B

Large Pivot Bracket



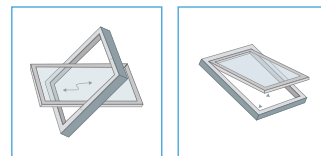
WAB836H

XL Pivot Bracket



FAST ACTUATOR

ACTUATORS LINEAR ACTUATORS



■ Applications



■ Colours

Silver Anodised



■ FAST ACTUATOR

- Linear actuator for roof vents and domes.
- High speed and virtually noiseless operation.
- High protection degree IP55.
- Supplied complete with FASTSLIDE/B slide bracket.
- Supplied complete with 1.5m cable.

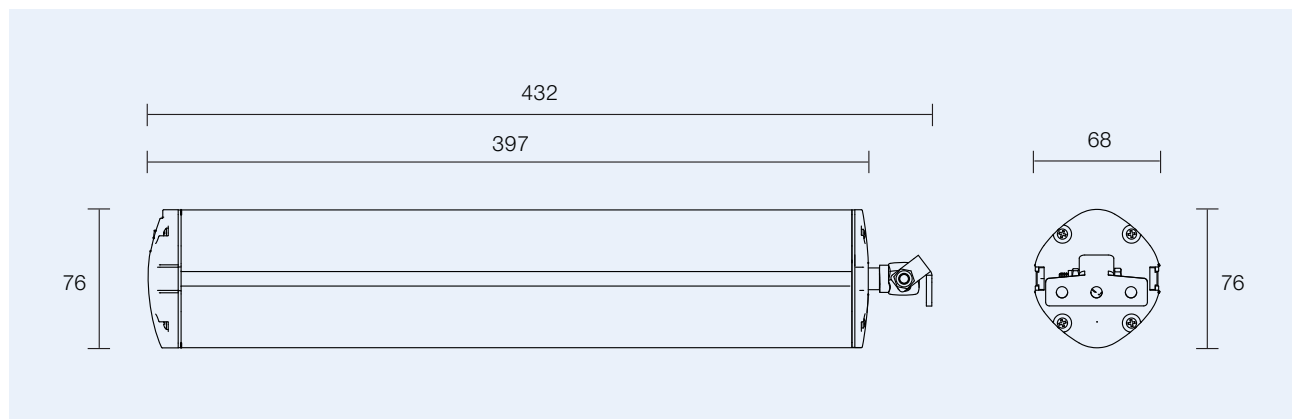


230V

TECHNICAL DATA:

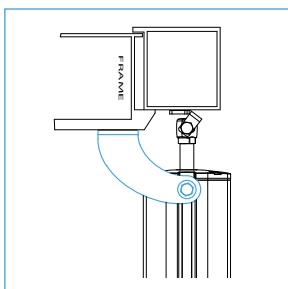
CODE	FAST ACTUATOR
VOLTAGE	230VAC
STROKE	300mm
THRUST FORCE	500N
ABSORBED CURRENT	0.7A
SPEED	19mm/s
PROTECTION CLASS	IP55
WIRING	1.5m (4 CORE)
COLOURS	SILVER ANODISED
LIMIT STOP	ELECTRONIC
SAFETY STOP	ELECTRONIC
MAX WINDOW WIDTH	< 1.25m

DIMENSIONS:

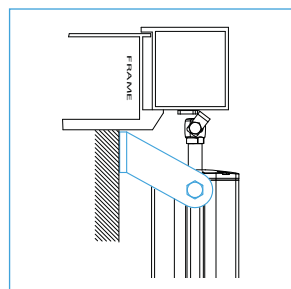


BRACKET TYPES:

FASTSLIDE/A
Slide Bracket

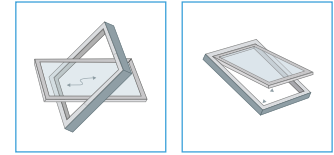


FASTSLIDE/B
Slide Bracket



A65 ACTUATOR

ACTUATORS LINEAR ACTUATORS



■ Applications



■ Colours

Silver Anodised



■ A65 ACTUATOR

- Linear-type actuator for use on roof vents or domes.
- Low noise operation.
- Supplied complete with slide bracket.
- High protection degree IP44.
- All electrical parts are double insulated and supplied with 1.5m cable.
- Choice of 180mm, 350mm, 550mm, 750mm, or 1000mm travel.



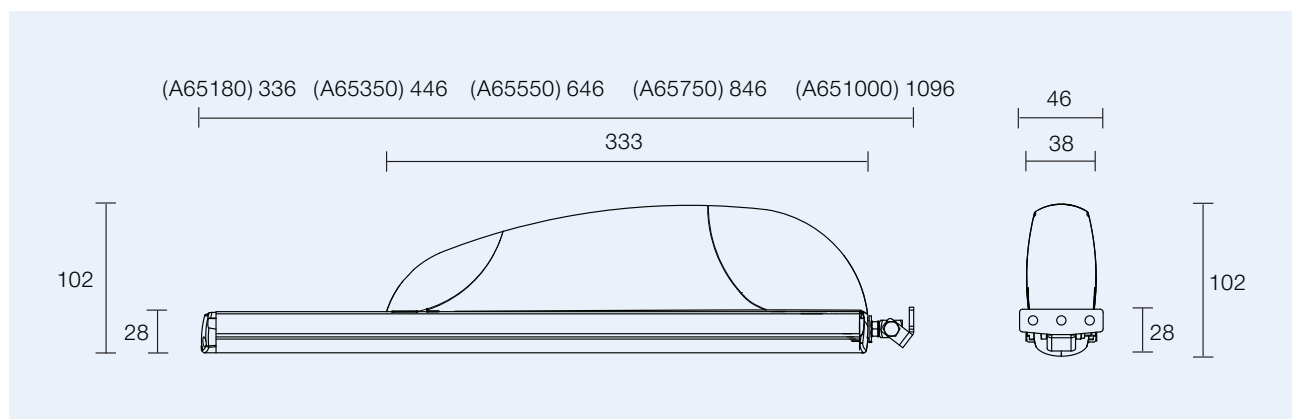
230V

24V

TECHNICAL DATA:

CODE	A65230	A6524
VOLTAGE	230VAC	24VDC
STROKE	180/350/550/750/1000mm	180/350/550/750/1000mm
THRUST FORCE	650N	650N
ABSORBED CURRENT	0.29A	1.5A
SPEED	10mm/s	10mm/s
PROTECTION CLASS	IP44	IP44
FLEX	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	SILVER ANODISED	SILVER ANODISED
LIMIT STOP	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	< 1.25m	< 1.25m

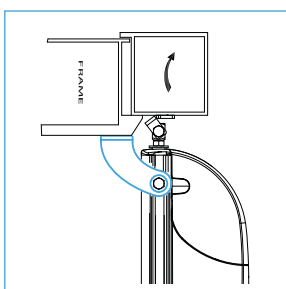
DIMENSIONS:



BRACKET TYPES:

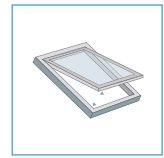
A45/65/SLIDE

Slide Bracket



A65 DUO ACTUATOR

ACTUATORS LINEAR ACTUATORS



■ Applications



■ Colours

Silver Anodised



■ A65 DUO ACTUATOR

- Programmed pair of linear actuators for larger heavy roof vents.
- Low noise operation.
- Supplied complete with slide bracket.
- High protection degree IP44.
- All electrical parts are double insulated and supplied with 1.5m cable.
- Choice of 180mm, 350mm, 550mm, 750mm, or 1000mm travel.



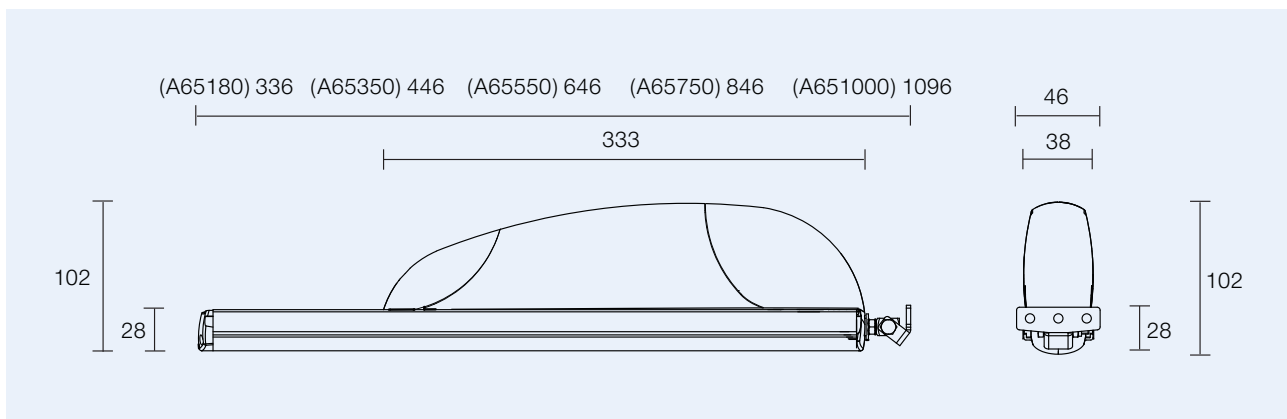
230V

24V

TECHNICAL DATA:

CODE	A65DUO230	A65DUO24
VOLTAGE	230VAC	24VDC
STROKE	180/350/550/750/1000mm	180/350/550/750/1000mm
THRUST FORCE	1300N (2 x 650N)	1300N (2 x 650N)
ABSORBED CURRENT	0.58A (2 x 0.29A)	3A (2 x 1.5A)
SPEED	10mm/s	10mm/s
PROTECTION CLASS	IP44	IP44
WIRING	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	SILVER ANODISED	SILVER ANODISED
LIMIT STOP	ELECTRONIC	ELECTRONIC
SAFETY STOP	ELECTRONIC	ELECTRONIC
MAX WINDOW WIDTH	1.25 < 2.5m	1.25 < 2.5m

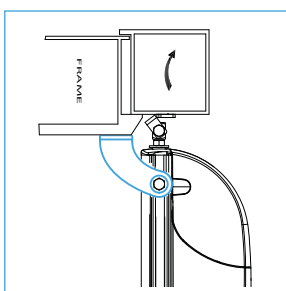
DIMENSIONS:



BRACKET TYPES:

A45/65/SLIDE

Slide Bracket





NATURAL VENTILATION

Naturally ventilate your building environment for improved air quality with our advanced control systems. Systems can be linked to a variety of climate sensors including; rain sensors, wind sensors, internal and external temperature sensors, and CO² sensors. Manual inputs can also be wired to the system such as switches and remote controls.



CCU1 CONTROL UNIT

CONTROLS NATURAL VENTILATION

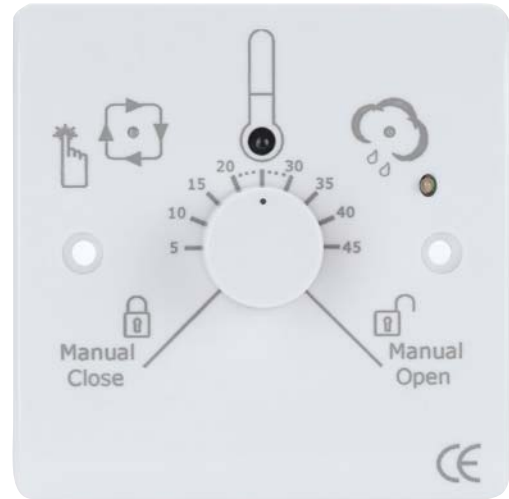


■ Applications



■ CCU1 CONTROL UNIT:

- Compact control unit as large as a standard dimmer switch.
- Complete with built in temperature sensor and external rain sensor.
- Dimmer control allows you to automatically ventilate the room to the desired temperature.
- Dimmer control also allows for manual operation of the window(s).
- Maximum current output of 8 amp to operate 230VAC actuators.
- Can be fitted flush in your wall or surface mounted in plastic back box (not supplied with unit).



TECHNICAL DATA:

CODE	CCU1
VOLTAGE	230VAC
OUTPUT CURRENT	8A
PROTECTION CLASS	IP4X
COLOURS	WHITE
DIMENSIONS	86 x 86 x 28mm
INPUTS	CCURS1, TEMPERATURE PROBE (BUILT IN)

INPUTS:

CCURS1*
Rain Sensor



Built in
temperature
probe

* Supplied complete with unit

CCU2 CONTROL UNIT

CONTROLS NATURAL VENTILATION



■ Applications



■ CCU2 CONTROL UNIT:

- Compact digital control unit perfect for conservatories or stuffy environments.
- Complete with external temperature sensor and rain sensor.
- Digital display to program the desired room temperature.
- Manual open/close buttons on front of control panel.
- Maximum current output of 8 amp to operate 230VAC actuators.
- Can be fitted flush in your wall or surface mounted in plastic back box (not supplied with unit).



TECHNICAL DATA:

CODE	CCU2
VOLTAGE	230VAC
OUTPUT CURRENT	8A
PROTECTION CLASS	IP4X
COLOURS	WHITE
DIMENSIONS	146 x 86 x 28mm
INPUTS	CCURS1, CCUTS1

INPUTS:

CCURS1*
Rain Sensor



CCUTS1*
Temperature Probe



* Supplied complete with unit

MCU1 CONTROL UNIT

CONTROLS NATURAL VENTILATION



■ Applications



■ MCU1 CONTROL UNIT:

- Electronic control unit to automate most windows & vent applications.
- Standard & radio remote control versions available.
- Can be used as a stand-alone unit with switch or linked to Wind sensor, Rain sensor or Thermostat.
- Maximum current output of 12 amp to operate 230VAC actuators.



TECHNICAL DATA:

CODE	MCU1
VOLTAGE	230VAC
OUTPUT CURRENT	12A
PROTECTION CLASS	IP54
COLOURS	WHITE
DIMENSIONS	115 x 110 x 50mm
INPUTS	MCU1RS1, MCU1WS1,S50-1, TS1, TIMER, CO2, L25/35RC1, L25/35RC6

INPUTS:

MCU1RS1
Rain Sensor



MCU1WS1
Wind Sensor



S50-1
Rocker Switch



L25/35RC1*
Remote Control



Additional inputs available, please contact a member of staff to find out more.
* Radio version (MCU1RC) only

PS24 - 24VDC POWER SUPPLY



CONTROLS POWER SUPPLIES

■ Applications



■ PS24 - 24VDC POWER SUPPLY

- 24VDC transformer for use with 24VDC actuators.
- Unit can be linked to S50-1 and RRTKEY for manual operation.
- Or linked to MCU1 / MCU1RC for natural ventilation- wind, rain and temperature.
- Available in 2amp, 5amp and 8amp versions.



TECHNICAL DATA:

CODE	PS24
VOLTAGE (INPUT)	230VAC
VOLTAGE (OUTPUT)	24VDC
OUTPUT CURRENT	2A / 5A / 8A
PROTECTION CLASS	IP43
COLOURS	WHITE
DIMENSIONS	180 x 120 x 80mm (2 Amp) / 220 x 150 x 65mm (5 & 8 Amp)
INPUTS	MCU1, MCU1RC, S50-1, RRTKEY

INPUTS:

MCU1
Control Unit



S50-1
Rocker Switch



RRTKEY
Key Switch



RRT230 REMOTE CONTROL PANEL

CONTROLS REMOTE CONTROL



■ Applications



■ RRT230 REMOTE CONTROL PANEL

- 230VAC radio receiver for the remote control operation of 230VAC actuators.
- Supplied complete with 2 x single channel remote controls.
- Plug included for domestic installation.
- Can be used with PS24 transformer to operate 24VDC actuators.



TECHNICAL DATA:

CODE	RRT230
VOLTAGE	230VAC
OUTPUT CURRENT	6.3A
PROTECTION CLASS	IP54
COLOURS	GREY
DIMENSIONS	180 x 140 x 75mm
INPUTS	S50-1, RRTKEY

INPUTS:

RRTKEY1*
1 - Channel Remote



RRTKEY2
2 - Channel Remote



RRTKEY12
12 - Channel Remote



S50-1
Rocker Switch



*Supplied Complete With Unit (2x).

ACCESSORIES

CONTROLS NATURAL INPUTS / ACCESSORIES

■ MCU1RS1

Rain sensor for the detection of heavy rain or water.

210 x 50 x 60mm



■ MCU1WS1

Wind sensor for the detection of strong wind speeds.

250 x 100 x 120mm



■ TS1

Temperature sensor to ventilate warm environments.

85 x 85 x 35mm



■ Timer

Mechanical timer to send a close/open signal to control unit at a specific time of day.

90 x 90 x 65mm



■ CO2

Electronic device for the detection of Carbon Dioxide.

75 x 110 x 30mm



■ S50-1

Rocker switch to control the open/close movement of window actuator.

86 x 86 x 30mm



■ RRTKEY

Key switch to control the open/close movement of window actuator.

70 x 80 x 70mm



■ L25/35RC

Radio transmitter to control MCU1RC and L35RC actuators.

51 x 120 x 20mm



■ TP230/TP24

Tandem control unit to operate a pair of actuators on the same window (230VAC and 24VDC versions available)

150 x 80 x 50mm





SMOKE VENTILATION

Ventilate your building environment in the event of smoke detection via automatic opening vents (AOV). Systems are normally integrated into staircase AOVs and end of corridor AOVs to provide the free area necessary for safe escape routes. Systems can be linked to a range of inputs including; smoke sensors, manual call points and fire alarm systems. All controls are tested to current European EN standards.



VCS-S1 CONTROL UNIT

CONTROLS SMOKE CONTROL



■ Applications



■ VCS-S1 CONTROL UNIT

- Single zone 2amp or 10amp 24VDC control panel.
- When installed correctly unit is compliant with EN12101-10.
- Complete with 72 hour battery back up on mains failure.
- Complete with lead acid batteries.
- Auto shut down to protect batteries (open vents to fail safe condition first).
- Relay to provide volt free indication (when not used for auto-reset feature).
- Can be supplied with daily ventilation power supply for linking to natural ventilation inputs (switch, rain sensor etc).
- Open circuit cable detects power supply failures, removal of batteries etc.
- Auto-test front of panel key switch enables testing and opening / closing of actuators connected.
- Facility for smoke heads to be automatically reset.
- Multi-zone versions available upon request.

COMPATIBLE ACTUATORS:

Powermaster



Supermaster



ACK4



A65



Other actuators compatible, please contact a member of staff for further information.

TECHNICAL DATA:

CODE	VCS-S1
VOLTAGE (INPUT)	230VAC
VOLTAGE (OUTPUT)	24VDC
OUTPUT CURRENT	2A / 10A
IP RATING	IP44
COLOURS	GREY
DIMENSIONS	230 x 310 x 120mm
INPUTS	BG1/S, BG1/FOS, BG2/FOS, SSR, FIRE ALARM

INPUTS:

BG1/S

Break Glass Call Point



BG2/FOS

Key Switch Call Point



SSR

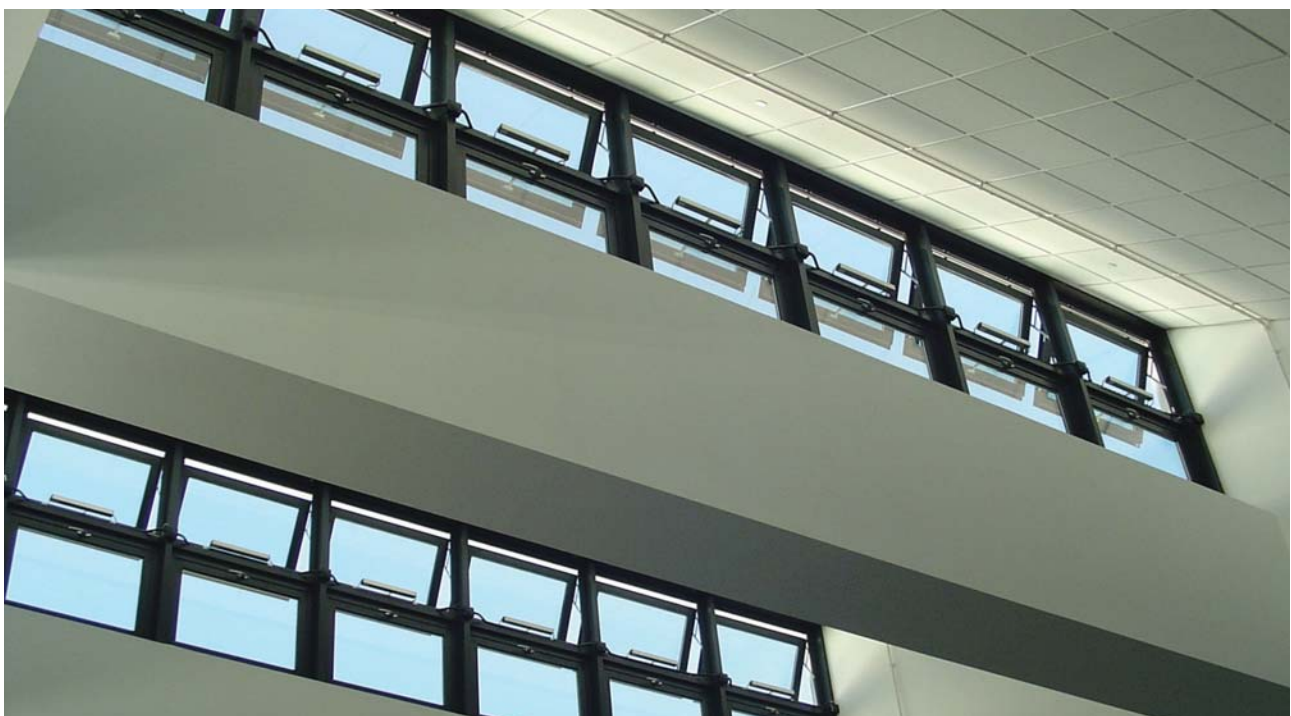
Smoke Sensor



Fire Alarm



Additional inputs available, please contact a member of staff to find out more.



WSC 204 CONTROL UNIT

CONTROLS SMOKE CONTROL



■ Applications



■ WSC 204 CONTROL UNIT

- Single zone 4.8amp 24VDC smoke control panel.
- Complete with inputs for natural ventilation (switch, rain sensor etc).
- When installed correctly unit is compliant with EN12101-10.
- Complete with 72 hour battery back up on mains failure.
- Complete with lead acid batteries.
- Open circuit cable detects power supply failures, removal of batteries etc.
- Facility to link several panels to for larger buildings.
- Steel enclosure also available.

COMPATIBLE ACTUATORS:

WMU 86/88



WMU 836



WMX 804



WMX 826



Other actuators compatible, please contact a member of staff for further information.

TECHNICAL DATA:

CODE	WSC 204
VOLTAGE (INPUT)	230VAC
VOLTAGE (OUTPUT)	24VDC
OUTPUT CURRENT	4.8A
IP RATING	IP20
COLOURS	WHITE
DIMENSIONS	368 x 353 x 97mm
INPUTS	SSR, FIRE ALARM, WSK 320, WSK 100

INPUTS:

SSR

Smoke Sensor



Fire Alarm



WSK 320

Break Glass Call Point



WSK 100

Manual Switch



Additional inputs available, please contact a member of staff to find out more.



ACCESSORIES

CONTROLS SMOKE INPUTS /ACCESSORIES



■ BG1/S

Manual call point (Breakglass) for manual activation of smoke system.
89 x 93 x 60mm



■ BG2/FOS

Manual call point (Keyswitch) for manual override of AOV system.
87 x 87 x 52mm



■ BG1/FOS

Manual call point (Switch) for manual override of AOV system.
87 x 87 x 52mm



■ SSR

Optical smoke sensor to trigger control panel in the event of smoke detection.
100 x 100 x 42mm



■ VCS-Battery

Lead acid battery 12V 2.1Ah supplied complete with VCS-S1 and WSC204.
178 x 35 x 60mm



■ WSK 320

Manual call point (Breakglass) for manual activation of smoke system.
125 x 125 x 36mm





HIGHLINE
WINDOW CONTROLS

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