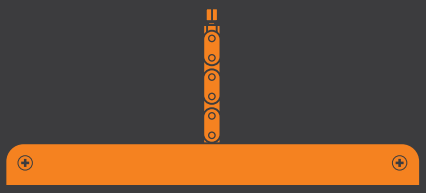
WINDOW CONTROL SYSTEMS

AOVs



STRAND HARDWARE LIMITED

THE BEST WAY OUT...

the best way to

open
&close

WINDOW CONTROL SYSTEMS

Strand Hardware Ltd supplies high quality Window and Door Hardware for commercial buildings sourced from top European manufacturers and from its own locally manufactured range.

Products are sold primarily through leading industry wholesalers and architectural ironmongers to whom Strand offers first class customer care and technical support from experienced industry professionals.

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Natural Ventilation	29-35
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STRAND HARDWARE LIMITED
THE BEST WAY OUT...

MANUAL WINDOW CONTROLS

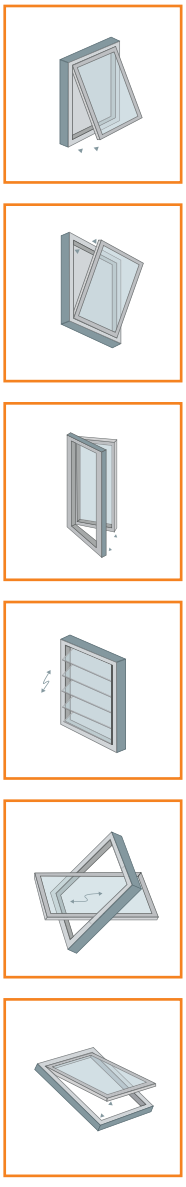
MANUAL WINDOW CONTROLS

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.

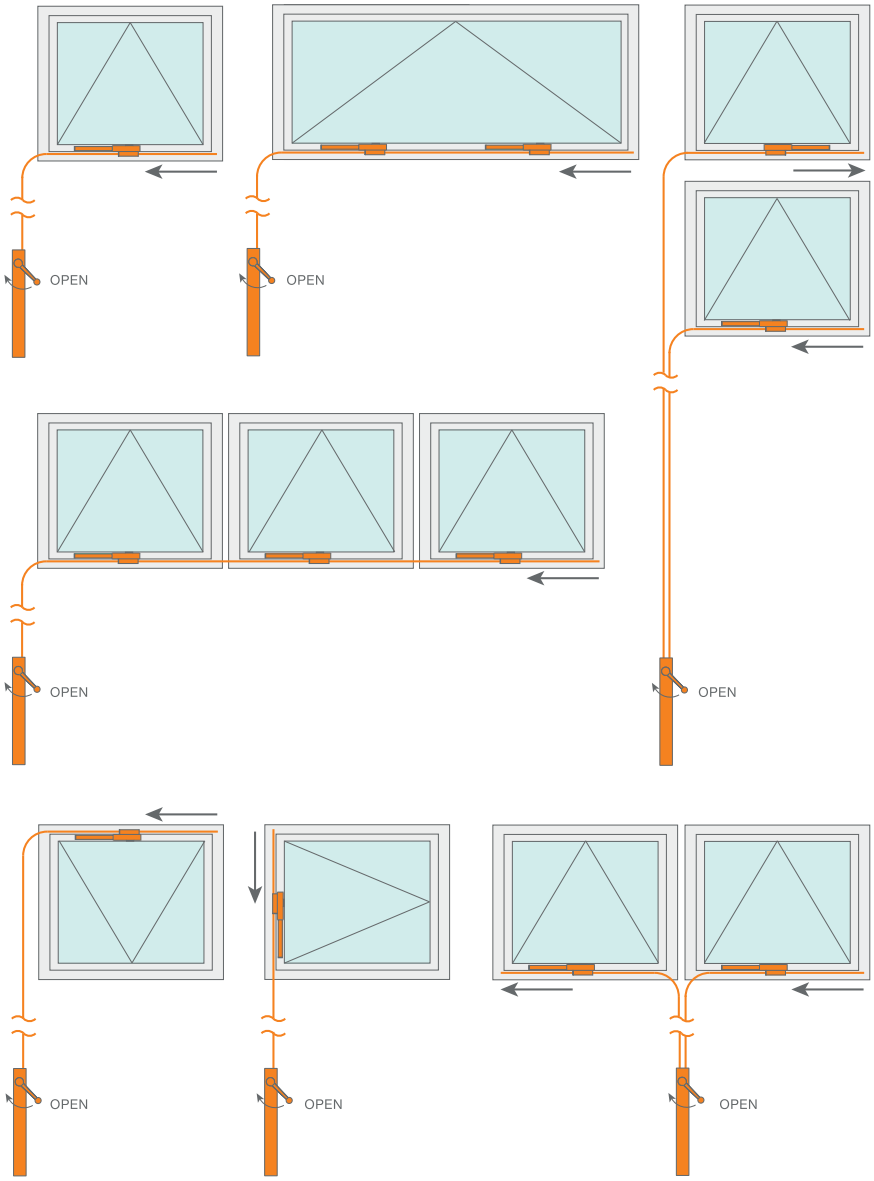
The system is very flexible, as the conduit can be bent around obstructions to allow the operating handle to be positioned at an easily reachable location.

Multiple vents can be operated from a single operator. Various types 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 on roof lights when used with screwjack opener.

Window Types



Installation examples



MANUAL - BEFORE ORDERING WE NEED TO KNOW THE FOLLOWING

LAYOUT INFORMATION - Please provide a sketch

Distance from operating handle location to the far end of last opening window ? .....mm

Number of windows ? .....

How are the sashes grouped ? Individually ☐
Pairs ☐
Other ☐
please specify

GENERAL INFORMATION - tick boxes below

1 Dimensions of opening sash? Width ..... mm
Height ..... mm

2 Window material? PVC-U ☐
Timber ☐
Metal ☐
Other ☐
please specify

3 Type of hinge? Butt ☐
Friction ☐

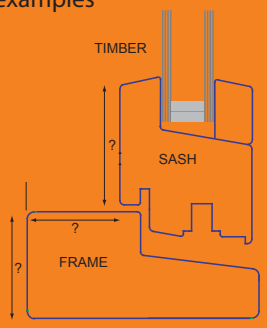
4 Position of hinges? Top ☐
Side ☐
Bottom ☐

5 Direction of opening? Inwards ☐
Outwards ☐

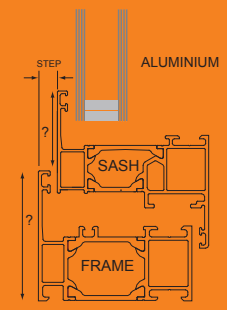
6 Are the windows? Vertical ☐
In a pitch of roof ☐

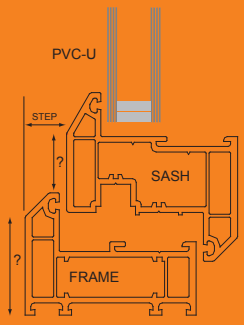
SASH & FRAME DETAIL

Typical examples



To help specify the correct brackets for fixing to materials Timber, Aluminium and PVC-U please mark dimensions onto the drawings shown here. For PVC-U and Aluminium, the step (distance between face of sash and frame) is very important





TYPICAL STYLES OF WINDOW

Side hung open out | Horizontal pivot window | Vertical pivot window | Top hung open out | Bottom hung open in

For safety reasons we recommend fitting side support stays to all bottom-hung windows

MANUAL WINDOW CONTROLS

S100 / S150 CHAIN OPENERS

Application

- Manual Window Control

Colours

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

S100

- The most popular type of window opener with 250mm opening stroke.
- Can be used on most window types using the appropriate fixing bracket.
- Individual or multiple S100 openers can be controlled from a single S200, S210, S250 or S300 operator.

S150

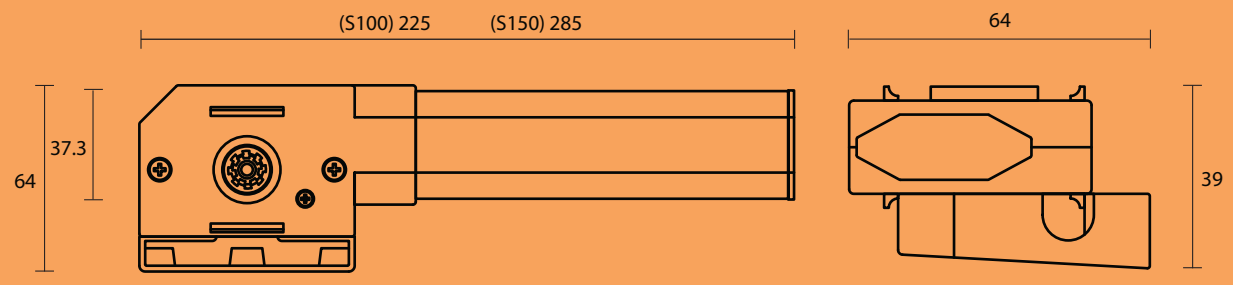
- Similar to the S100 opener but with 380mm opening stroke.
- Can be used on most types of windows using the appropriate fixing bracket.
- Individual or multiple S150 openers can be controlled from a single S200, S210, S260 or S300 operator.

TECHNICAL DATA

CODE	S100	S150
STROKE	250mm	380mm
COLOUR	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

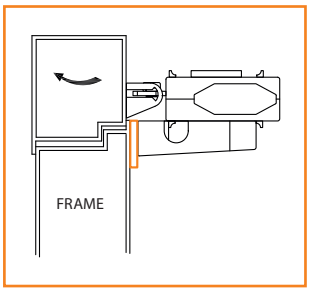


BRACKET OPTIONS

Plates available in White / Black /Grey.

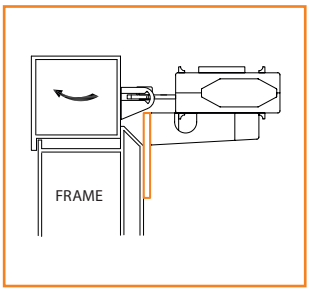
S740

Narrow fixing plate for Aluminium frames.



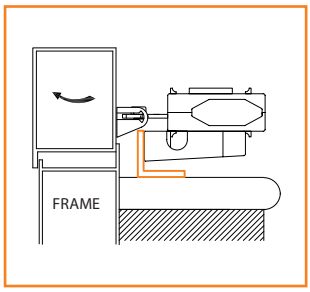
S750

Wider fixing plate for PVCu frames.



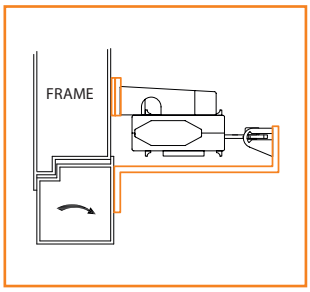
S760

Angled fixing plate for Timber frames.



S850

Bottom-hung fixing plate.

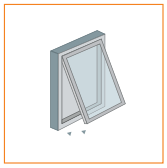


MANUAL WINDOW CONTROLS

S125 / S175 OPENERS

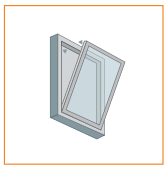
S125

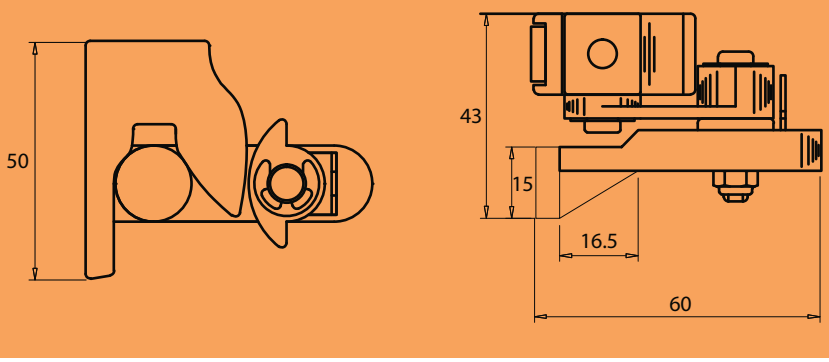
- Manual chain opener for operation of lightweight low level top hung windows via winding handle.
- Maximum opening stroke 300mm.
- Folding knob in handle reduces width preventing damage and interface with blinds.
- Available only in white.



S175

- Manual locking opener for use with S250 or S300 operator on bottom hung open in windows.
- Maximum opening stroke 250mm.
- Available in white, black and grey.

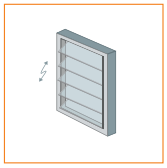


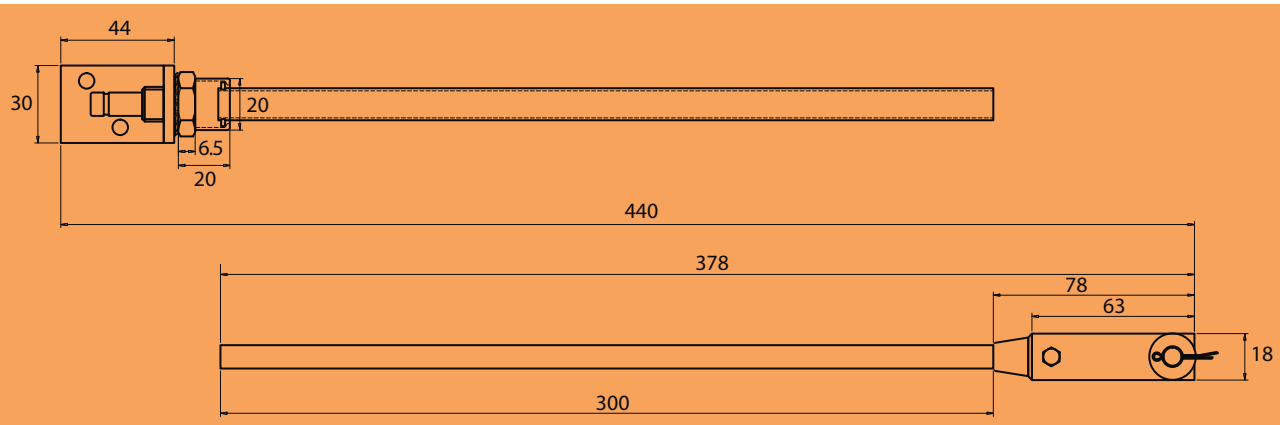


S190 / SJ138600 OPENERS

S190 FORK AND SWIVEL OPENER

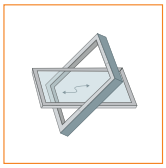
- Manual fork and swivel opener for use with S250 or S300 operator on louvre blades.
- Maximum opening stroke 250mm.
- Available only in stainless steel.

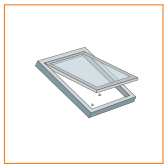


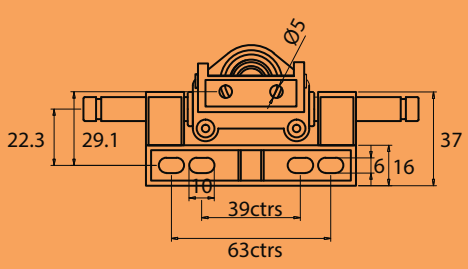


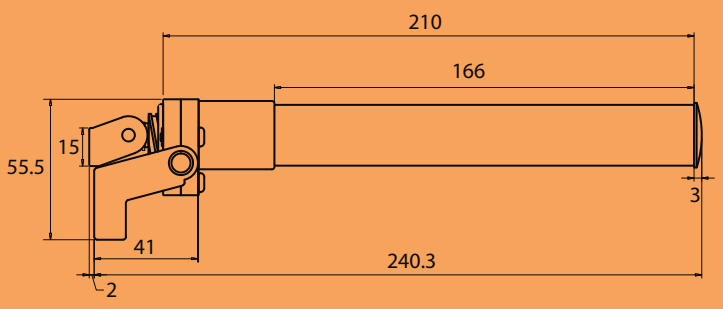
SJ138600 SCREWJACK OPENER

- Sill mounted screwjack to use with S200 or S210 operators to control pitched roof vents.
- Maximum opening stroke 380mm.
- Available only in white.









MANUAL WINDOW CONTROLS

S250 / S260 OPERATORS

Application

- Manual Window Control

Colours

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

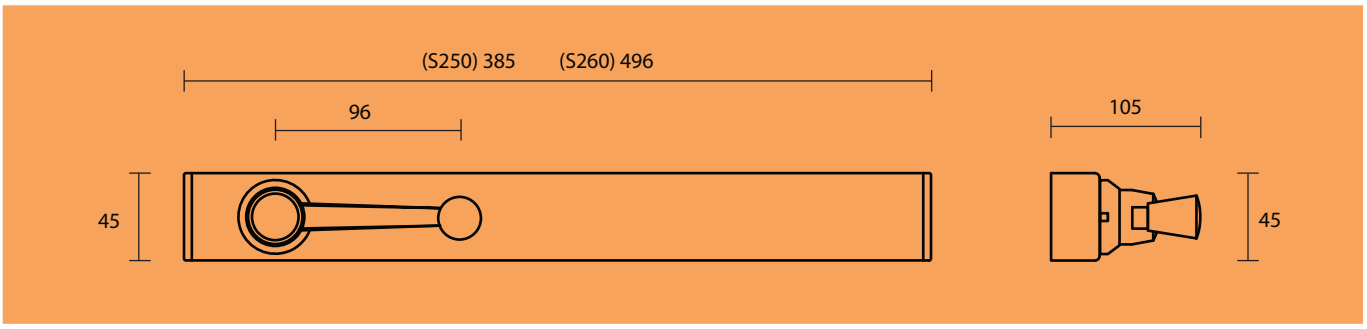
S250

- Midi handle operator for use with the S100, S175 and the S190 manual openers to allow for a maximum opening of 250mm.
- Complete with S275 handle, S410 spent travel tube and S720 Brass stop.
- S720 Brass stop is used to adjust maximum opening anywhere from 0-250mm.

S260

- Midi handle operator for use with the S150 manual openers to allow for a maximum opening of 380mm.
- Complete with S275 handle, S411 spent travel tube and S720 Brass stop.
- S720 Brass stop is used to adjust maximum opening anywhere from 0-380mm.

DIMENSIONS



COMPATIBLE WITH

S100
Chain Opener

S150
Chain Opener

S175
Locking Opener

S190
Fork and Swivel Opener

MANUAL WINDOW CONTROLS

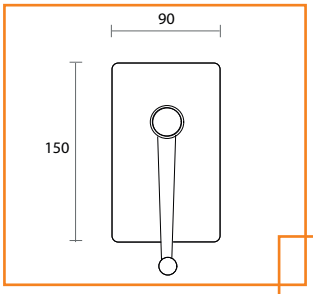
S200/S210/S300 OPERATORS

Application

- Manual Window Control

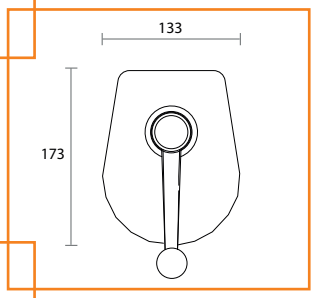
Colours

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



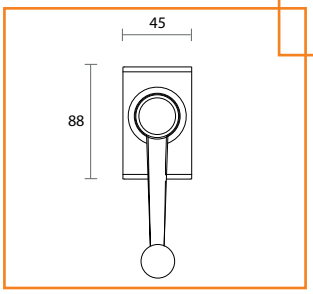
S200

- Heavy duty metal cased operator designed for multiple window operation beyond the capability of the standard S250, S260 or S300 operators.
- Complete with handle and fixings.



S210

- Heavy duty metal cased operator designed for multiple window operation beyond the capability of the standard S250, S260 or S300 operators.
- Complete with S275 handle fixings.



S300

- Compact metal cased operator designed for use on single or light multiple window control.
- Complete with S275 handle and fixings.

S100

S150

S190

S175

ACCESSORIES

S270

Large Grip Operator Handle
To suit all operators except S200

S275

Operator Handle
Replacement handle to suit all operators except S200

S350

Rotary Junction Box
Used to connect satellite drive system to main control.

S400

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

S410

Square Conduit
Mill finished aluminium spent travel tube to use with the S720 brass stop when both drives of the S250 (S410) or S260 (S411) operator are used.

S420

End Cap
Plastic moulded plug to seal end of conduit run.

S450

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

S600

Saddle
Frame Fix - Moulded plastic saddle bracket to fix conduit.

MANUAL WINDOW CONTROLS

ACCESSORIES

S700
Spring Stop
Helical spring stop that can be threaded onto the end of the cable to adjust the opening stroke.

S720
Brass Stop
Brass stop used in conjunction with S410/S411 square conduit when both ports of the S250/S260 operator are used.

S800
Conduit Connector
Metal collar and sleeve to connect two lengths of conduit together.

S900
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.

S950
Bending Tool
Tool used to bend conduit to the correct radius.

TECHNICAL DATA

Minimum window height for full 250mm travel of S100 - 500mm.

Minimum window height for full 380mm travel of S150 - 900mm.

Chain openers fitted on windows less than recommended height must have opening restricted to 30% of the vent height using the S700 spring stop or S720 brass stop nuts to shorten the cable run. Use only S200, S210, S260 or S300 operator with the S150 (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 S850 fixing kit (sold separately).

MAXIMUM CONTROL RUN

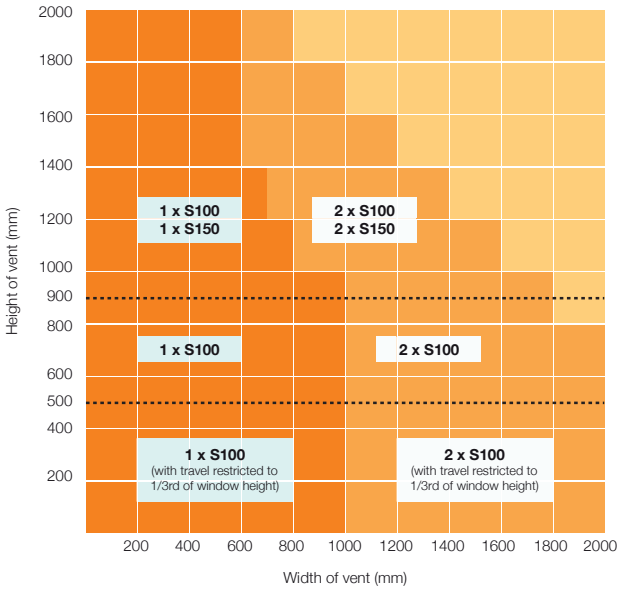
OPERATOR	MAXIMUM CONTROL RUN
S200	30 metres
S210	30 metres
S250 / 260	18 metres
S300	18 metres

SPENT TRAVEL CONDUIT

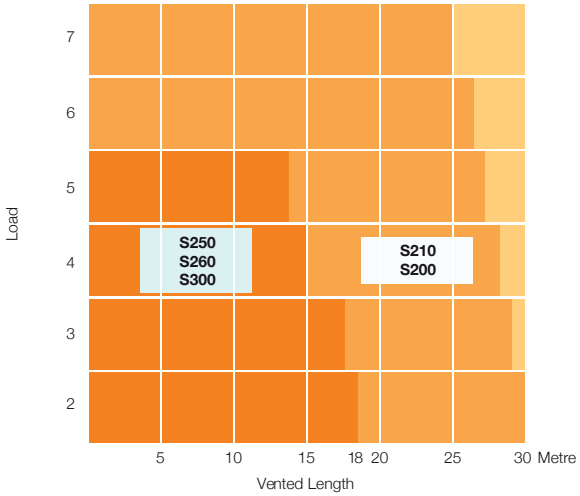
To allow for the forward / backward movement of the inner cable a length of "spent travel " conduit must be fitted at either end of the control path i.e. past the last chain / screwjack and below the operator (except the S250 & S260 operators which have an integral "spent travel " tube).

TYPE OF OPERATOR	SPENT TRAVEL CONDUIT
SJ138600 Screwjack	2.5m (for full 380mm travel)
S100 Chain Opener	0.3m
S150 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 /technical department for advice if friction stays are fitted.

ELECTRIC WINDOW ACTUATORS

ELECTRIC WINDOW ACTUATORS

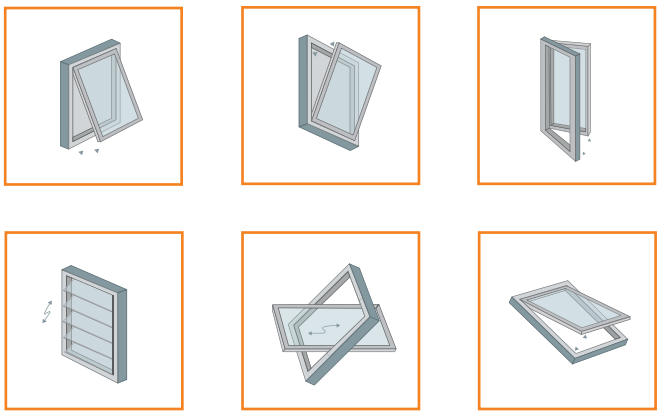
Electric actuators are used for automating opening of vents for Natural and Smoke Ventilation.

There are two types of actuators available, Chain and Linear Chain actuators are used on vertical vents and small, lightweight rooflights.

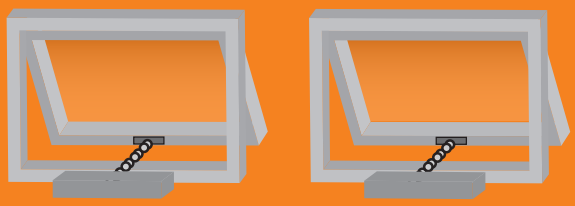
Linear actuators are used for heavy rooflights and domes where a greater force is required to lift the vents.

Both types are available in 24V dc and 230V ac and are available in a variety of opening sizes.

Window Types



ELECTRICAL - BEFORE ORDERING WE NEED TO KNOW THE FOLLOWING



Please note: Ancilliary items such as electrical cable, fused spurs etc. are to be supplied by others

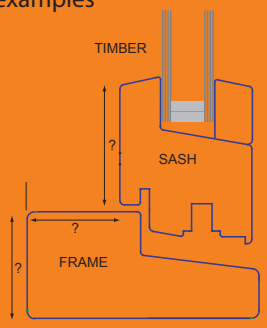
GENERAL INFORMATION - tick boxes below

1	Number of windows ?	.....	
2	Do you require ?	230v AC normal	☐
		24v DC low voltage	☐
3	Operation ?	Switch	☐
		Wireless remote (fob)	☐
		Control unit c/w thermostat and rain sensor	☐
		Other (please specify)	☐
4	How are the sashes grouped ?	Individually	☐
		in pairs	☐
		Other (please specify)	☐
5	Dimensions of opening sash ?	width .....mm	
		height .....mm	
6	Window material ?	PVC-U	☐
		Timber	☐
		Metal	☐
		Other	☐
7	Type of hinge ?	Butt	☐
		Friction	☐
8	Position of hinges ?	Top	☐
		Side	☐
		Bottom	☐
9	Direction of opening ?	Inwards	☐
		Outwards	☐
10	Are the windows ?	Vertical	☐
		In a pitch of roof	☐

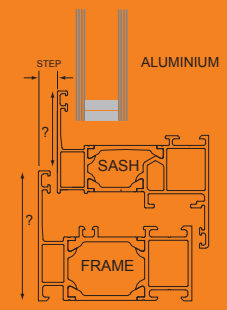
Please note: These details are designed as a guide only and no responsibility can be accepted for errors or omissions

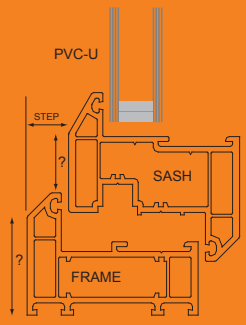
SASH & FRAME DETAIL

Typical examples

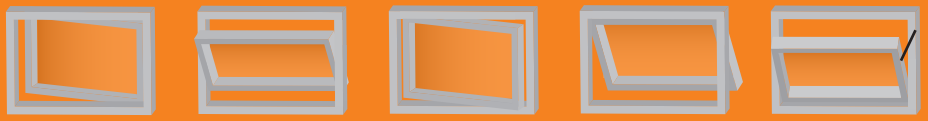


To help specify the correct brackets for fixing to materials Timber, Aluminium and PVC-U please mark dimensions onto the drawings shown here. For PVC-U and Aluminium, the step (distance between face of sash and frame) is very important





TYPICAL STYLES OF WINDOW

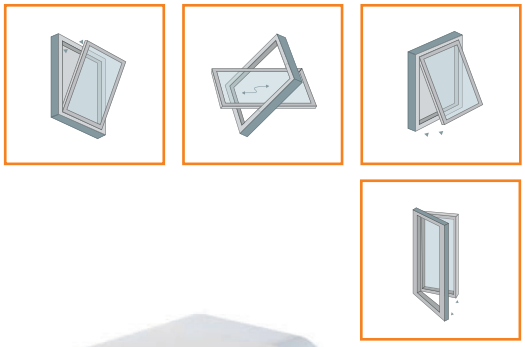


Side hung open out | Horizontal pivot window | Vertical pivot window | Top hung open out | Bottom hung open in

For safety reasons we recommend fitting side support stays to all bottom-hung windows

ELECTRIC WINDOW ACTUATORS

SCA01/SCA02 ACTUATORS



Application

Colours

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

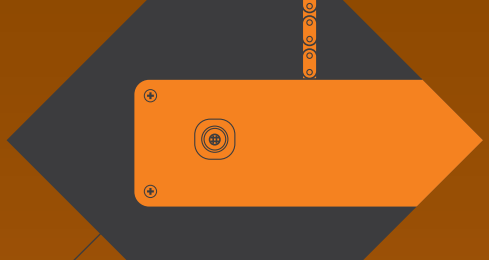
SCA01 ACTUATOR

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

SCA02 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.
- Up to 30 actuators can be operated in parallel.

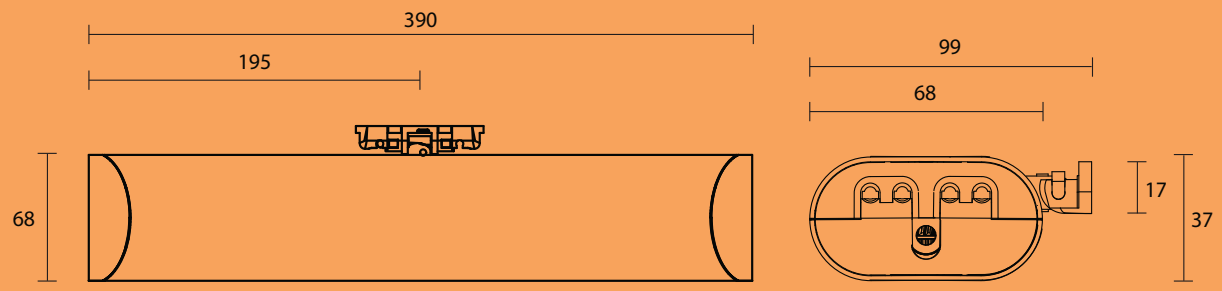
230V 24V



TECHNICAL DATA

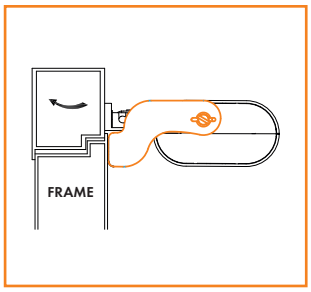
CODE	SCA01	SCA02	SCA0224
VOLTAGE	230VAC	230VAC	24VDC
STROKE	200-250-380mm	50-420mm	50-420mm
THRUST FORCE	250N	350N	350N
ABSORBED CURRENT	0.19A	0.19A	1A
SPEED	18mm/s	18mm/s	18mm/s
PROTECTION CLASS	IP44	IP44	IP44
FLEX	1.5m (3 CORE)	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	White / Black / Grey	White / Black / Grey	White / Black / Grey
LIMIT STOP	Electronic	Electronic	Electronic
SAFETY STOP	Electronic	Electronic	Electronic
MAX WINDOW WIDTH	<1.25m	<1.25m	<1.25m

DIMENSIONS

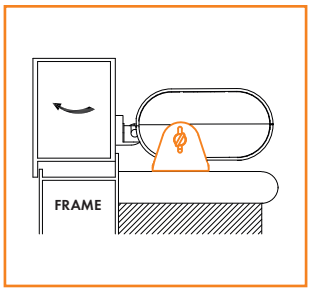


BRACKET TYPES

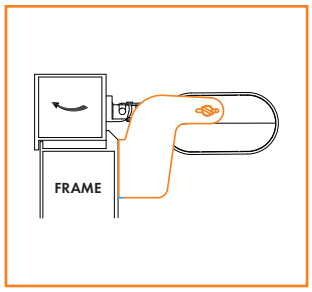
SCA01/02 SB *
Standard Bracket



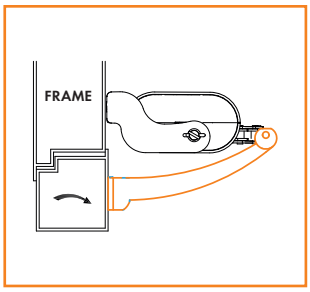
SCA01/02 SPB
Small Pivot Bracket



SCA01/02 LPB
Large Pivot Bracket



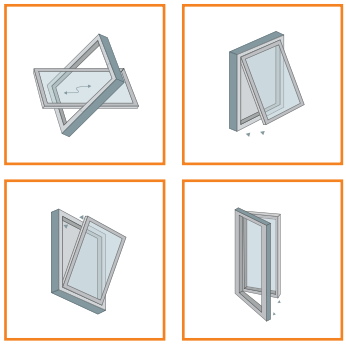
SCA01/02 BHB *
Bottom Hung Bracket



* Supplied complete with actuator.

ELECTRIC WINDOW ACTUATORS

SCA03 ACTUATOR



Application

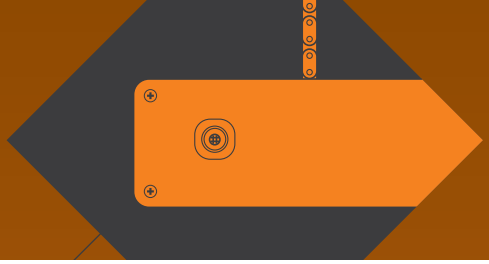
Colours

- White
- Black
- Grey

DESCRIPTION

- Chain type actuator with adjustable travel (2 positions 200 and 380mm).
- Strong composite casing.
- Supplied complete with SCA03/SB standard bracket and SCA03/BHB bottom hung brackets.
- Also available with SCA03/SPB small pivot bracket.
- High protection degree IP30.
- A robust stainless steel chain with an acoustic device that warns of incorrect installation.
- All electric parts are double insulated and supplied with 1.5m cable.

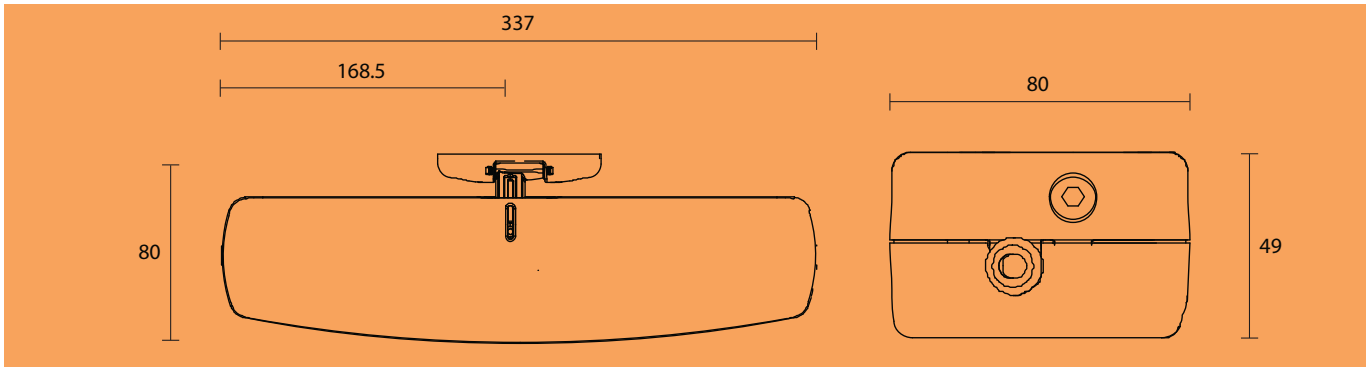
230V 24V



TECHNICAL DATA

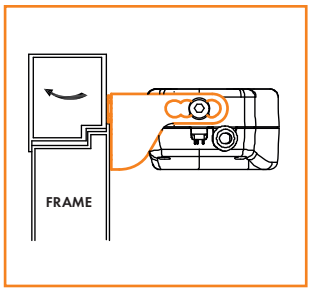
CODE	SCA03230	SCA0324
VOLTAGE	230VAC	24VDC
STROKE	200-380mm	200-380mm
THRUST FORCE	300N	300N
ABSORBED CURRENT	0.26A	1.3A
SPEED	27mm/s	17mm/s
PROTECTION CLASS	IP30	IP30
FLEX	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	White / Black / Grey	White / Black / Grey
LIMIT STOP	Electronic	Electronic
SAFETY STOP	Electronic	Electronic
MAX WINDOW WIDTH	<1.5m	<1.5m

DIMENSIONS

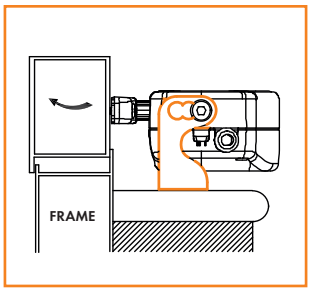


BRACKET TYPES

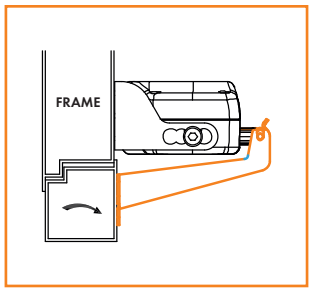
SCA03/SB*
Standard Bracket



SCA03/SPB
Small Pivot Bracket



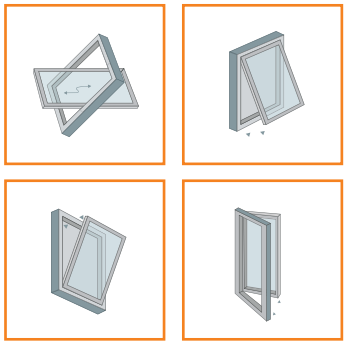
SCA03/BHB*
Bottom Hung Bracket



* Supplied complete with actuator.

ELECTRIC WINDOW ACTUATORS

SCA04 ACTUATOR



Application

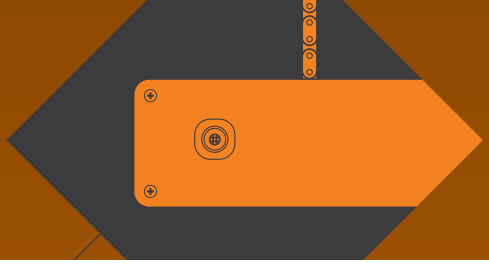
Colours

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

DESCRIPTION

- Chain type actuator with adjustable travel (7 positions from 100-400mm).
- Strong die-cast aluminium body.
- Brackets and fixings to suit most applications.
- 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.

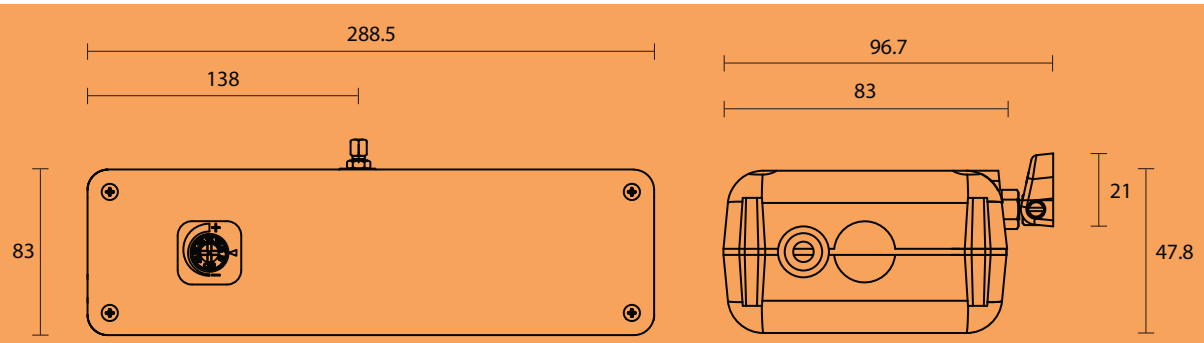
230V 24V



TECHNICAL DATA

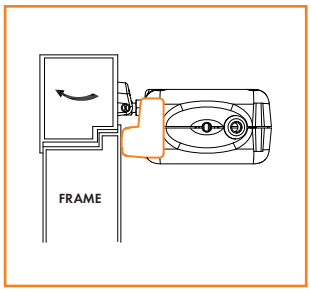
CODE	SCA04230	SCA0424
VOLTAGE	230VAC	24VDC
STROKE	100-400mm	100-400mm
THRUST FORCE	300N	300N
ABSORBED CURRENT	0.32A	1.35A
SPEED	27mm/s	17mm/s
PROTECTION CLASS	IP55	IP55
FLEX	1.5m (3 CORE)	1.5m (2 CORE)
COLOURS	White / Black / Grey	White / Black / Grey
LIMIT STOP	Electronic	Electronic
SAFETY STOP	Electronic	Electronic
MAX WINDOW WIDTH	<1.5m	<1.5m

DIMENSIONS

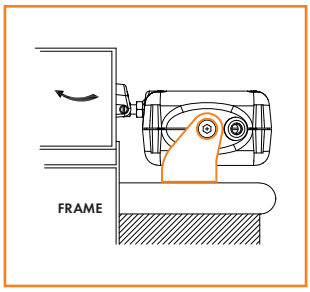


BRACKET TYPES

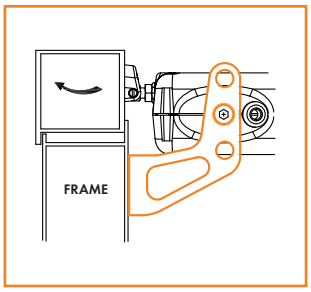
SCA04/SB
Standard Bracket



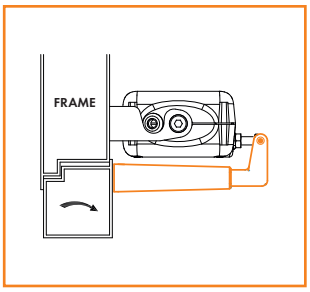
SCA04/SPB
Small Pivot Bracket



SCA04/LPB
Large Pivot Bracket

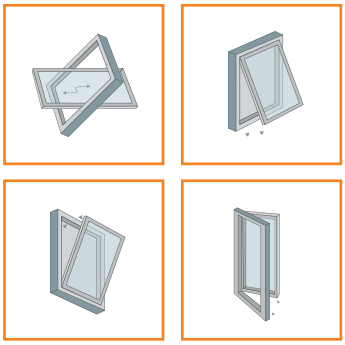


SCA04/BHB
Bottom Hung Bracket



ELECTRIC WINDOW ACTUATORS

SCA05 ACTUATOR



Application

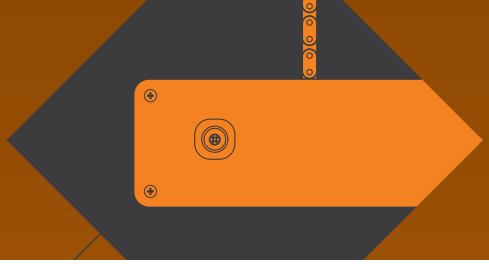
Colours

- Silver Anodised

DESCRIPTION

- Actuator can be programmed to required opening speed and opening stroke (to special order).
- 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.

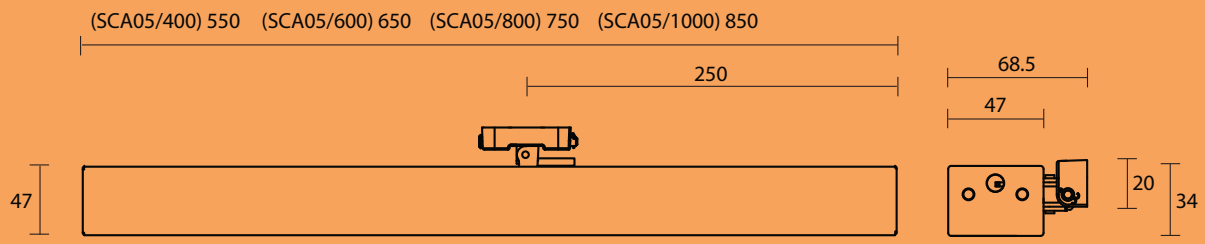
24V



TECHNICAL DATA

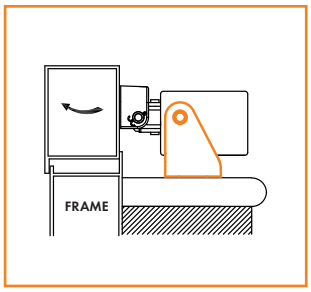
CODE	SCA05
VOLTAGE	24VDC
STROKE	400 / 600 / 800 / 1000mm
THRUST FORCE	300N
ABSORBED CURRENT	1A
SPEED	11-14mm/s
PROTECTION CLASS	IP32
FLEX	5m (3 CORE)
COLOURS	Silver Anodised
LIMIT STOP	Electronic
SAFETY STOP	Electronic
MAX WINDOW WIDTH	<1.5m

DIMENSIONS

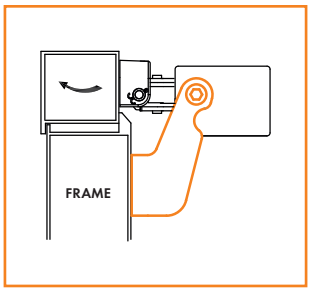


BRACKET TYPES

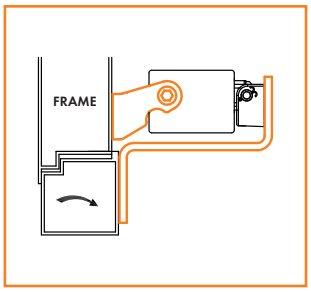
SCA05/SPB
Small Pivot Bracket



SCA05/LPB
Large Pivot Bracket

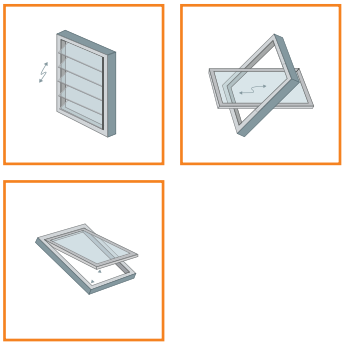


SCA05/BHB
Bottom Hung Bracket



ELECTRIC WINDOW ACTUATORS

SLA01 ACTUATOR



Application

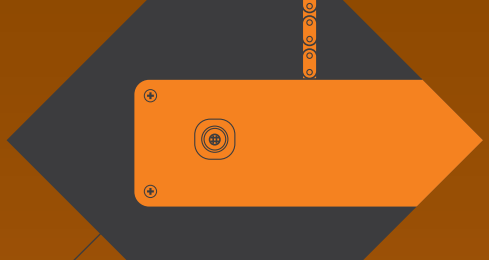
Colours

- Silver Anodised

DESCRIPTION

- Linear-type actuator for use on roof vents or domes.
- Can also be used on louvre vents where a small opening stroke is required.
- Low noise operation.
- Supplied complete with slide bracket.
- High protection degree IP55.
- Supplied with 1.0m cable.
- Choice of 200mm, 300mm or 400mm opening strokes.

230V

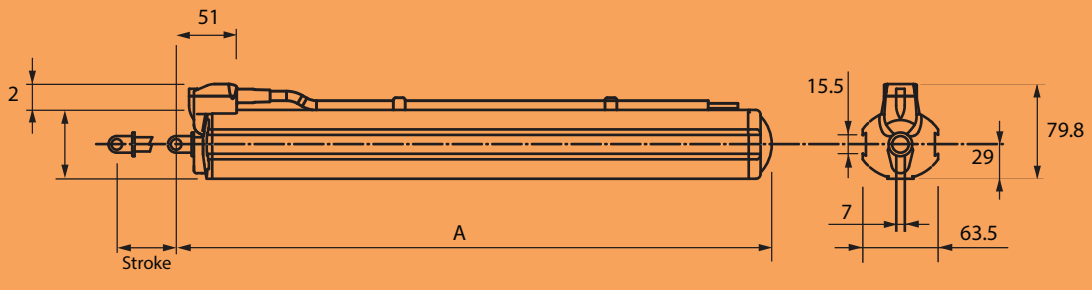


TECHNICAL DATA

CODE	SLA01
VOLTAGE	230VAC
STROKE	200 / 300 / 400mm
THRUST FORCE	500N
ABSORBED CURRENT	0.76A
SPEED	19mm/s
PROTECTION CLASS	IP55
FLEX	1.0m (3 CORE)
COLOURS	Silver Anodised
LIMIT STOP	Electronic
SAFETY STOP	Electronic
MAX WINDOW WIDTH	<1.25m

DIMENSIONS

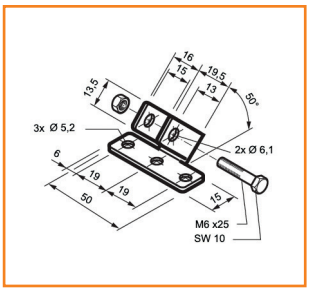
Stroke	A
200	318.8
300	418.8
400	518.8



BRACKET TYPES

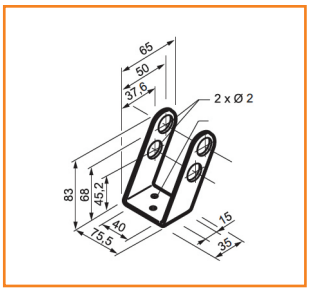
SLA01/VENT *

Vent Bracket



SLA01/SLIDE *

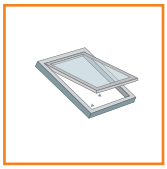
Slide Bracket

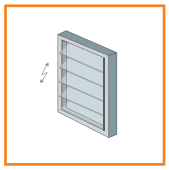


* Supplied complete with Actuator.

ELECTRIC WINDOW ACTUATORS

SLA02 ACTUATOR





Application

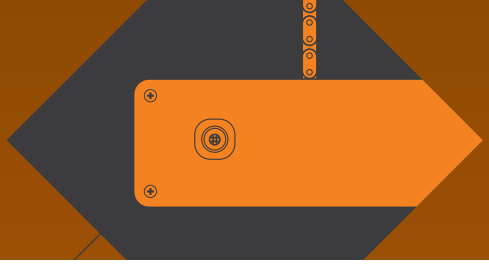
Colours

- Silver Anodised

DESCRIPTION

- Linear-type actuator for use on roof vents or domes.
- Low noise operation.
- Supplied complete with slide bracket.
- Hi protection degree IP55
- Supplied with 1.5m cable.
- Choice of 180mm, 350mm, 550mm, 750mm or 1000mm travel.

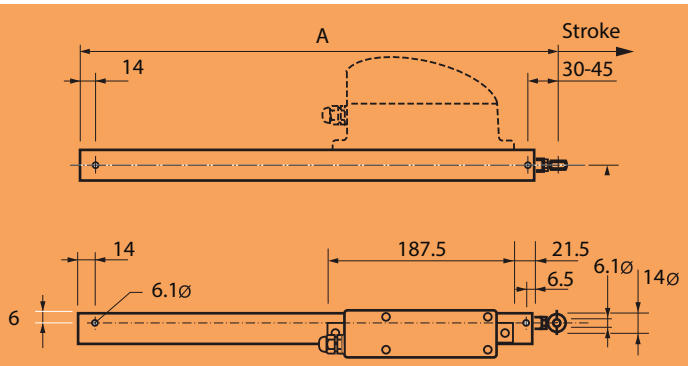
230V 24V



TECHNICAL DATA

CODE	SLA02230	SLA0224
VOLTAGE	230VAC	24VDC
STROKE	180/350/550/750/1000mm	180/350/550/750/1000mm
THRUST FORCE	600N	800N
ABSORBED CURRENT	0.29A	1.5A
SPEED	5mm/s	10mm/s
PROTECTION CLASS	IP55	IP55
FLEX	1.0m (3 CORE)	1.0m (2 CORE)
COLOURS	Silver Anodised	Silver Anodised
LIMIT STOP	Electronic	Electronic
SAFETY STOP	Electronic	Electronic
MAXIMUM WINDOW WIDTH	<1.25m	<1.25m

DIMENSIONS

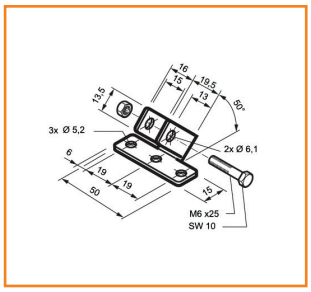


Stroke	A
180	325
350	495
550	695
750	895
1000	1145

BRACKET TYPES

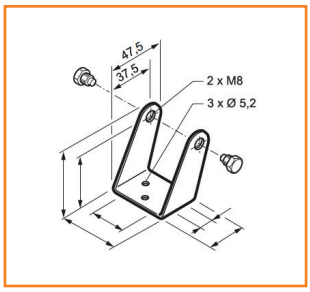
SLA02/VENT *

Vent Bracket



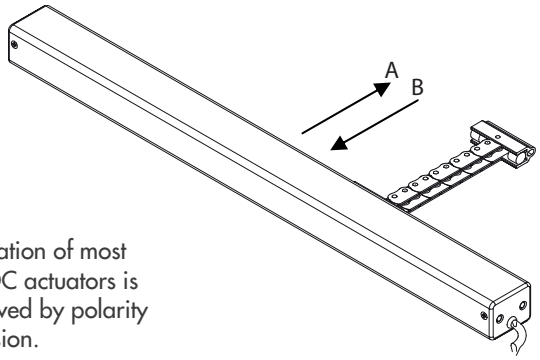
SLA02/SLIDE *

Slide Bracket



* Supplied complete with Actuator.

24 VOLT ONLY
TECHNICAL DATA / OPERATION / MAINTENANCE



Operation of most 24VDC actuators is achieved by polarity inversion.

OPERATION

The power supply must not be left on for extended periods of time, see below for details. The supply for the actuators must not have the polarity reversed by a simple double-pole change-over relay circuit, as this will not provide the 'off' times required by these actuators. The controlling circuit must ensure the supply is switched off during idle periods.

NOTES ON DUTY CIRCLE

Electric chain actuators have a limited duty cycle that specifies how often and for how long they are operated in a given time period. This is to ensure that they are not overloaded which can result in overheating and excessive wear and tear. In extreme cases the actuators will burn out.

Duty cycles are typically quoted in accordance with EN60034.

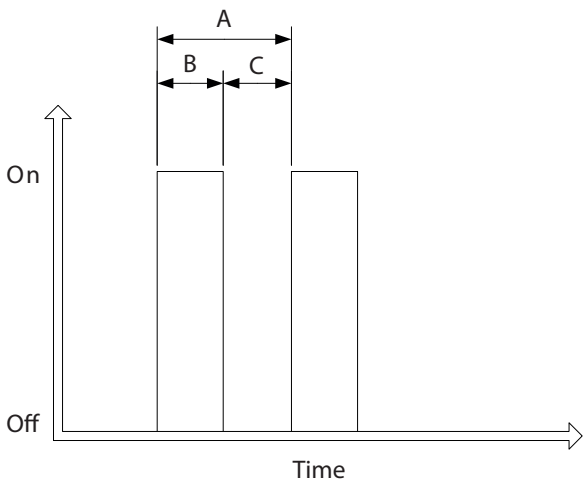


Diagram shows a duty cycle of S3 50%

Where; A = Cycle time
B = Operating time
C = Rest 'Off' period

During a stroke period of approximately 50 seconds the actuator should have a rest or 'off' period of approximately 50 seconds before any further operations.

Operating from Building Management Systems

Where chain actuators are controlled from Building Management Systems (BMS) care is required to ensure excessive 'hunting' by the control system is prevented. This is often the case when the BMS system is set to modulate the opening of the actuators in an attempt to control temperature too closely. This type of excessive control will invariably exceed the actuators duty cycle and shorten the life time of the actuators. This can be reduced by increasing the temperature set point 'dead bands' and applying a set time period between temperature samples.

BMS systems can utilise timed operations to achieve partial openings. Because some actuators may run at very slightly different speeds, many partial operations can result in the actuators being open varying amounts. It is advised that every 5 or so partial operations, a full close is implemented (close control for full time of actuator stroke plus a few seconds), this will ensure any 'drift' in actuator positions is kept to a minimum.

NATURAL VENTILATION

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.

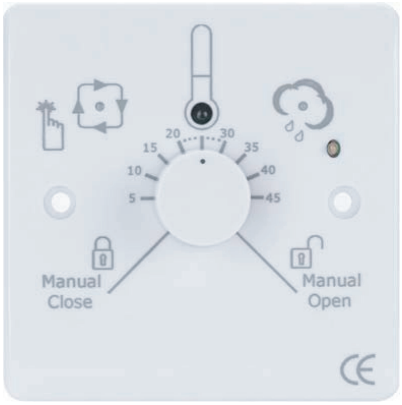
NATURAL VENTILATION

SNV01 CONTROL UNIT

Application

Description

- 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	SNV01
VOLTAGE	230VAC
OUTPUT CURRENT	8A
PROTECTION CLASS	IP4X
COLOURS	White
DIMENSIONS	86 x 86 x 28mm
INPUTS	Rain Sensor

*RAIN SENSOR

* Supplied complete with Actuator.

SNV02 CONTROL UNIT

Application

Description

- 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	SNV02
VOLTAGE	230VAC
OUTPUT CURRENT	8A
PROTECTION CLASS	IP4X
COLOURS	White
DIMENSIONS	146 x 86 x 28mm
INPUTS	Rain Sensor / Temperature Probe

***RAIN SENSOR**

***TEMPERATURE PROBE**

* Supplied complete with Actuator.

NATURAL VENTILATION

SNV03 CONTROL UNIT

Application

Description

- Control unit for one actuator or one group of actuators.
- Complete with radio receiver for remote operation.
- Inputs for Wireless Remotes, Switches & Timers.
- Maximum output of 3.15A to operate 230V AC actuators.
- Supplied complete with surface mount enclosure.

TECHNICAL DATA

CODE	SNV03
VOLTAGE (INPUT)	230V AC
VOLTAGE (OUTPUT)	230V AC
OUTPUT CURRENT	3.15A
PROTECTION CLASS	IP55
COLOURS	Grey
DIMENSIONS	110 x 110 x 40mm
INPUTS	RC1, RC4, SWITCH, TIMER

INPUTS

RC1
1-Channel Remote

RC4
4-Channel Remote

SWITCH
Wireless Switch

TIMER
Wireless Timer

SNV04 CONTROL UNIT

Application

Description

- 230VAC radio receiver for the remote control operation of 230VAC actuators .
- Supplied complete with 2 x single channel remote controls.

TECHNICAL DATA

CODE	SNV04
VOLTAGE (INPUT)	230V AC
OUTPUT CURRENT	6.3A
PROTECTION CLASS	IP54
COLOURS	Grey
DIMENSIONS	180 x 140 x 75mm
INPUTS	1, 2 or 12 Channel Remote, SNV05

INPUTS

1-Channel Remote*

2-Channel Remote

12-Channel Remote

SNV05
Rocker Switch

* Supplied with unit (x2)

NATURAL VENTILATION

SNV05 ROCKER SWITCH

Application

Description

- Rocker switch to control the open/close movement of window actuator.
- Can be used to directly control 230VAC actuators or used as an input for other control units.
- Supplied complete with back box for surface mounting.
- Two, three and four gang versions are available.
- Supplied in white as standard, also available in satin chrome & brass.

TECHNICAL DATA

CODE	SNV05
VOLTAGE	230VAC
OUTPUT CURRENT	10A
PROTECTION CLASS	IP4X
COLOURS	White / Chrome / Brass
DIMENSIONS	86 x 86 x 28mm

SNV06 KEY SWITCH

Application

Description

- Key switch to control the open/close movement of window actuator.
- Can be used to directly control 230VAC actuators or used as an input for other control units.
- Supplied complete with 3 x operating keys.

TECHNICAL DATA

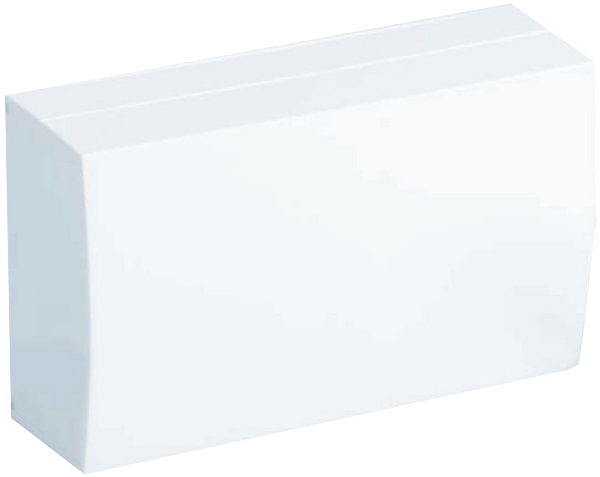
CODE	SNV06
VOLTAGE	230VAC
OUTPUT CURRENT	10A
PROTECTION CLASS	IP4X
COLOURS	Grey
DIMENSIONS	70 x 80 x 70mm

SNV07/SNV08 24VDC POWER SUPPLY

Application

Description

- 24VDC transformer for use with 24VDC actuators.
- Unit can be linked to SNV05 for manual operation, or linked to thermostat, wind and rain sensors for natural ventilation.
- Available in 1amp and 3amp versions



TECHNICAL DATA

CODE	SNV07	SNV08
VOLTAGE (INPUT)	230VAC	230VAC
VOLTAGE (OUTPUT)	24VDC	24VDC
OUTPUT CURRENT	1A	3A
PROTECTION CLASS	IP20	IP20
COLOURS	White	White
DIMENSIONS	182 x 85 x 67mm	180 x 110 x 70mm

INPUTS

Wall Switch *

Thermostat *

Rain Sensor *

Wind & Rain Sensor *

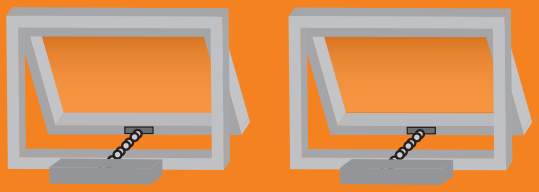
* Price and Availability on application

SMOKE VENTILATION

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 fire alarm systems.

SMOKE - BEFORE ORDERING WE NEED TO KNOW THE FOLLOWING



To enable an accurate quotation to be prepared. Please provide the following information:

To help specify the correct brackets for fixing to materials Timber, Aluminium and PVC-U please mark dimensions onto the drawings shown here. For PVC-U and Aluminium, the step (distance between face of sash and frame) is very important

QUESTIONS ABOUT THE SYSTEM

1 What specification/products have been asked for ?

2 How many windows are to be controlled ? .....

3 Where are the window/s located ? i.e. stairwell etc.
- please provide a floor plan with windows clearly indicated

4 How is the system to be operated ? i.e. connected to an existing building fire alarm system*

5 Are any additional inputs required ? i.e. smoke detectors

QUESTIONS ABOUT THE WINDOWS

1 What is the window material ?
- PVC-U ☐
- Timber ☐
- Metal ☐
- Other ☐

2 Dimensions of windows ? width .....mm height .....mm

3 Sash and frame details with dimensions would be useful - see drawings shown.

4 Position of hinges ?
- Top ☐
- Side ☐
- Bottom ☐

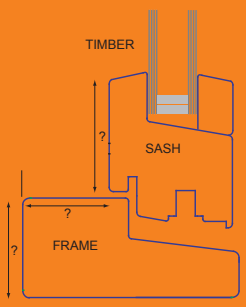
5 Direction of opening ?
- Inwards ☐
- Outwards ☐

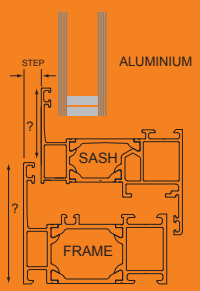
6 Are the windows ?
- Vertical ☐
- In a pitch of roof ☐

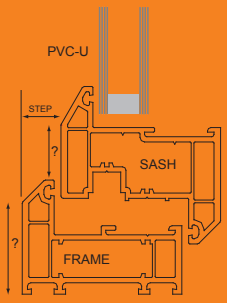
*Stand alone or interlinked smoke detector not forming part of a building fire alarm system i.e. control panel, detectors etc. are not suitable for linking to a smoke control panel.
Note: These points are intended to serve as a guide only and should not be considered as definitive. No responsibility can be accepted for errors or omissions.

SASH & FRAME DETAIL

Typical examples







For safety reasons we recommend fitting side support stays to all bottom-hung windows

TYPICAL STYLES OF WINDOW

Side hung open out | Horizontal pivot window | Vertical pivot window | Top hung open out | Bottom hung open in

SMOKE VENTILATION

SSV01 CONTROL UNIT

Application

Description

- Single zone 5A 24VDC control panel.
- When installed correctly the 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).
- 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.

TECHNICAL DATA

CODE	SSV01
VOLTAGE (INPUT)	230VAC
VOLTAGE (OUTPUT)	24VDC
OUTPUT CURRENT	5A
IP RATING	IP44
COLOURS	Grey
DIMENSIONS	230 x 310 x 120mm

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 for further details.

SSV02 CONTROL UNIT

Application

Description

- 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 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.

TECHNICAL DATA

CODE	SSV02
VOLTAGE (INPUT)	230VAC
VOLTAGE (OUTPUT)	24VDC
OUTPUT CURRENT	4.8A
IP RATING	IP20
COLOURS	White
DIMENSIONS	368 x 353 x 97mm

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 for further details.

STRAND DUOFLEX

Application

- Top hung, opening out windows.
- Opening out sashes made from Timber, Aluminium, Steel and PVC-U.

Description

- Stylish design and simple to adjust to accommodate different steps.
- With an adjustable body - No need for packers.
- 150mm throw, folding action to open and close sash.
- Over centre design means opener 'locks' securely into place when window is closed.
- Link bars available in various lengths depending on sash width.

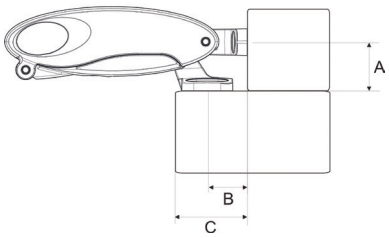
Technical Data

- Cycle tested to over 100,000 operations.
- Patent Approved GB2490896.

A separate Strand Window & Door Hardware catalogue is available. Please refer to our website or contact us to request a copy.

STRDU01 Recessed

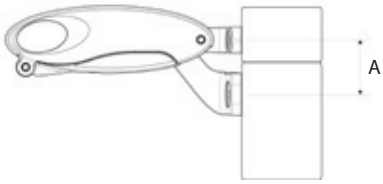
- **For Timber frames**



A = Fixing centre to frame 25mm
B = Fixing centre to Sash 19mm
C = Minimum frame width required 38mm

STRDU02 Flush

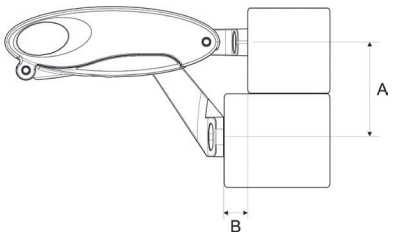
- **For Aluminium or Steel frames**



A = Distance between fixing centres 29mm
Step (see B to the right) 0-10mm can be accommodated

STRDU03 Stepped

- **For PVC-U frames**



A = Distance between fixing centres 48mm
B = Step from face of sash to face of frame 16mm
Step 0-26mm can be accommodated

ADDITIONAL RANGES

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