Highline
Window Control Systems

by rocburn limited

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» Manual
» Electric
» Smoke
A comprehensive range of manual and electrically operated systems to provide natural ventilation or automated smoke control to a variety of window styles in timber, steel, aluminium or PVCu.

The manual system is used extensively in schools, libraries and other public buildings to control high level or difficult access windows.

The system can be used on most styles of windows and materials to operate individual or multiple sets of windows from a single operator. The connecting conduit can be bent around pillars, mullions and other obstacles in its path.

There is also a range of screwjack openers and winding poles to operate conservatory roof vents.

Electric window controls for single, group or zoned operation from manually operated switches or automated control panels linked to sensors for everyday ventilation or smoke control requirements.

Numerous types of 24V dc and 230V ac actuators are available to operate most types of windows, louvres, roof lights and domes.
For single or group operation of high level windows. The chain opener can be fitted to most styles of aluminium, timber, or steel windows using the appropriate fixing brackets.

Controlled from a wall mounted operator connected via lengths of conduit and inner cable to the chain opener on the window. When the handle of the operator is turned the inner cable is driven forwards or backwards inside the conduit. The moving cable engages the cog wheel of the opener, driving the chain out to open the window.

Depending on height limitations, vents can be opened 250mm or 380mm, with suitable openers.

A very flexible system, as the conduit can be bent to go around pillars and other obstacles, using the special bending tool and fixed to the wall or framework with saddle brackets.

To allow for the forwards and backwards 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 opener and below the operator (except the T250 & T260 operators which have an integral “spent travel” tube).
**T100**

The most popular type of window opener with 250mm travel. Can be used on most window styles and materials with the appropriate fixing brackets (see page 7).

The T100 can control individual or multiple sets of windows from a single operator (see pages 8, 9).

**T150**

Similar to the T100 but with 380mm travel. The T150 cannot be used with the T250 operator.

**Standard Colours**

White (RAL 9010)

Black (RAL 9005)

Grey (RAL 9006)

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**Fitting Notes**

**T100**

- For the full 250mm travel the vent must be 500mm high.

**T150**

- For the full 380mm travel the vent must be 900mm high.

- Travel on chain openers fitted to shallower windows must be restricted to 30% of vent height using T100 spring stops or T850 square nuts to shorten cable travel. All bottom-hung open-in applications require a minimum of 50mm head clearances.

**PLEASE NOTE:** For safety reasons we recommend fitting side support stays to all bottom-hung, open-in windows.

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**Accessories & Tools**

<table>
<thead>
<tr>
<th>T740 Narrow Fixing Plate</th>
<th>T750 Wide Fixing Plate</th>
<th>T760 Angled Fixing Plate</th>
<th>T850 Bottom-Hung Fixing Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>For surface fixing the chain opener to aluminium windows. Available in white, black or grey.</td>
<td>For surface fixing chain opener to PV/Cu windows. Available in white, black or grey.</td>
<td>For surface fixing chain opener to timber window sills. Available in white, black or grey.</td>
<td>Set of frame and vent brackets for fitting chain openers to bottom hung, open-in windows. Available in white, black or grey.</td>
</tr>
</tbody>
</table>

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*T100 Manual Operation*
**T250**

The standard or “ Midi” type operator with long metal case enclosing the “spent travel” conduit and cable. Supplied complete with handle.

Please Note: The T250 cannot be used with the T150 chain opener – Use the longer T260 operator.

**T260**

Similar to T250 but with longer body to use with the T150 chain opener.

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

**T200**

Heavy duty, metal cased operator designed for multiple window operation beyond the capability of the standard T250 and T300 operators.
- Supplied complete with handle.
- Recommended for use with the SJ138000 screw jack opener.
- Available in white or black.

**T210**

Budget priced heavy duty, metal cased operator ideal for multiple window operation beyond the capability of the standard T250 and T300 operators.
- Supplied complete with handle.
- Available in white, black or grey

**T300**

Small, metal cased operator for single or light multiple window control. Spent travel conduit will be exposed below the operator.
- Supplied complete with handle.
- Available in white, black or grey
**Openers – T125 / T175 / T190 / SJ138600**

- **T125, T126, T127**
  Manual chain operator for low level top hung windows with T126 handle or lightweight roof vents with T127 eyelet and W3041 winding pole (see page 11). Available in White, Black or Grey finishes.

- **T175**
  Use with the T250 or T300 operator to open/close bottom-hung, open-in windows, fitted with butt hinges. Minimum head clearance 25mm. Available in White, Black or Grey finishes.

- **T190**
  Stainless steel telescopic fork drive to use with suitable operator to control banks of pivoting louvre blades. Maximum travel 250mm.

- **SJ138600**
  Sill mounted screwjack to use with T200 or T210 operators to control roof vents. Available in white finish only.

**Screwjacks & Poles – W3030 / W3041**

- **W3030**
  Telescopic 300mm screwjack opener. Available in polished lacquered brass or bright chrome finish.

- **W3041**
  Chrome or brass finished winding poles with wooden handles. Available in 1.7m, 2.2m & 2.8m lengths.
**Accessories and Tools**

- **T270 Large Grip handle**
  Replacement large grip handle to suit all operators except T200. Available in white, black or grey.

- **T275 Spare 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.

- **T700 Spring Stop**
  Helical spring stop that can be threaded onto the end of the cable to restrict the travel of the chain opener/window opening.

- **T720 Square Nut**
  Brass nut used in conjunction with T410 / T411 square conduit when both ports of T250 or T260 operator are used.

- **T400 Conduit**
  Plastic covered metal tube with nylon inner liner. Used to connect operator to chain opener. Supplied in 3 metre lengths. Available in white, black or grey.

- **T410, T411 Square Conduit**
  Mill finished aluminium spigot travel to use with the T220 brass nut when both chucks of the T250 (T410) or T260 (T411) operator are used.

- **T750 Wide Fixing Plate**
  For surface fixing chain opener to PVCu windows. Available in white, black and grey.

- **T760 Angled Fixing Plate**
  For surface fixing chain opener to timber window sills. Available in white, black or grey.

- **T420 End Plug**
  Plastic moulded plug to seal the open end of the conduit. Available in white, black or grey.

- **T800, T800M Conduit Connector**
  Moulded plastic (T800) or Metal (T800M) collar and sleeve used to connect lengths of conduit. Available in white, black or grey.

- **T50 Inner Cable**
  Helical steel cable which fits inside the conduit to drive the gearbox of the operator, chain opener or screwjack.

- **T600 Saddle Bracket**
  Frame Fix – Moulded plastic saddle bracket to fit conduit to window frame. Available in white, black or grey.

- **T650 Saddle Bracket**
  Wall Fix – Moulded plastic saddle bracket to fit conduit to wall. Available in white, black or grey.

- **T850 Bottom Hung Fixing Kit**
  Set of frame and vent brackets for fitting chain openers to bottom-hung, open-in windows. 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 chain opener.

- **T950 Bending Tool**
  Curved metal tool used to bend the conduit to the correct radius.
**Manual**

**Technical Data**

Minimum window height for full 250mm travel of T100 = 500mm
Minimum window height for full 380mm travel of T150 = 900mm

Travel on chain openers fitted to a window less than recommended must be restricted to 30% of the vent height using the T700 spring stops or T720 square nuts to shorten the cable run. Use only T200, T210, T230 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 T830 fixing kit (sold separately) see page 13.

**Maximum Control Run**

**Operator**
- T200 - 30 metres
- T210 - 30 metres
- T230/280 - 15 metres
- T300 - 15 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**

<table>
<thead>
<tr>
<th>Type of Operator</th>
<th>Spent Travel Conduit</th>
</tr>
</thead>
<tbody>
<tr>
<td>138600 Screwjack</td>
<td>2.5m (for full 380mm travel)</td>
</tr>
<tr>
<td>T100 Chain Opener</td>
<td>0.3m</td>
</tr>
<tr>
<td>T150 Chain Opener</td>
<td>0.45m</td>
</tr>
</tbody>
</table>

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

The above figures are based on a single bend in he 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.
Single, group or zoned operated window control systems. From manually operated switches to automatic control panels, there is something for every type of natural ventilation or smoke control requirement.

A wide variety of 24V dc and 230V ac actuators to operate top, side, pivot and bottom-hung windows, louvres, roof vents and domes.
**ACK4**

**Product Summary**
- Chain-type actuator with adjustable travel
- 7 positions from 100mm to 400mm
- Strong die-cast aluminium body.
- Rigid or pivot fixing options and various brackets and extension pins to suit most applications (all sold separately).
- High protection degree IP55.
- 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.
- Available in white (RAL9003), silver (RAL9010) or black.

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**Technical Specification**

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<tr>
<th>Voltage</th>
<th>24V dc</th>
<th>230V ac</th>
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<tr>
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<td>100-400mm</td>
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<td>500N</td>
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<td>IP55</td>
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<td>3 Core</td>
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<td>White/Black/Silver</td>
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<tr>
<td>Safety Stop</td>
<td>Electronic</td>
<td>Electronic</td>
</tr>
</tbody>
</table>

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**Optional Extras**

Various brackets available to suit most applications (see below)

- Extension pins to suit: E 30-40mm step
- F 20-30mm step
- G 10-20mm step

![Diagram of brackets](image)

- Standard Bracket
- Small Pivot Bracket
- Large Pivot Bracket
- Bottom hung fixing Bracket
**SuperMaster**

**Product Summary**

- 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 or 800mm travel.
- High speed and virtually no-leak operation.
- Minimum window height when using **Slide Brackets**:
  - 900mm for 450mm stroke,
  - 1200mm for 600mm stroke,
  - 1600mm for 800mm stroke.
- Minimum window height when using **Pivot Brackets**:
  - 450mm for 450mm stroke,
  - 600mm for 600mm stroke,
  - 800mm for 800mm stroke.
- All types of fixing brackets supplied separately.

**Standard Colours**

- White (RAL 9010)
- Silver Anodised
- Dark Brown Anodised

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**Technical Specification**

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<th>24V dc</th>
<th>230V ac</th>
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<td>230V ac</td>
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<td>Wiring</td>
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**Additional Information**

**Dimensions**

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<tr>
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<th>Body Height</th>
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<tr>
<td></td>
<td>450</td>
<td>574</td>
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<tr>
<td></td>
<td>800</td>
<td>764</td>
<td>50</td>
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</tbody>
</table>

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**Diagram**

- Slide Bracket
- Pivot Bracket
- Bottom Hung Bracket
## XP

### Product Summary
- Heavy duty actuator with powerful 400N thrust.
- Double link stainless steel chain.
- Ideal for heavy windows or windows requiring large opening.
- Choice of 400mm, 600mm and 800mm strokes.
- Supplied with 1.2m cable.
- Supplied complete with pivot brackets.
- Available in White P.C. or Silver Anodized.
- Bottom Hung fixing brackets available separately.

### Technical Specification
- **Voltage**: 24V dc
- **Stroke**: 400/600/800 mm
- **Thrust Force**: 400N
- **Absorbed Current**: 1A
- **Speed**: 10mm/s
- **Protection Class**: IP42
- **Wiring**: 2 Core
- **Colours Available**: White/Silver/Black
- **Limit Switch**: Thermonic
- **Pivot Bracket**: Bottom Hung Bracket

## TwinMaster

### Product Summary
- Twin-Chain 24V dc Actuator with 380mm travel.
- For wider/heavy windows and roof vents.
- Inbuilt electronic circuit to control safe operation of tandem motors.
- Very high torque in push and pull action.
- Strong, double link chain.
- Quick release system for easy window cleaning.
- Standard actuator 1230mm long but other lengths available (subject to quantity).
- Minimum window height: 800mm. Use pivot brackets on shallower windows.
- All fixing brackets supplied separately.

### Technical Specification
- **Voltage**: 24V dc
- **Stroke**: 380mm
- **Thrust Force**: 700N
- **Absorbed Current**: 5A
- **Speed**: 12mm/s
- **Protection Class**: IP44
- **Wiring**: 2 Core
- **Colours Available**: White/Dark Brown/Silver
- **Limit Switch**: Microswitch
- **Pivot Bracket**: Pivot Bracket
- **Safety Stop**: Electronic

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**rocbum limited**

**Highline Window Control Systems**

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**C240**

**Product Summary**
- Twin - Chain Actuator.
- For wide windows and roof vents.
- Strong double link chain.
- Fast hooking and unhooking system to the window frame.
- Standard range available in 1200mm, 1500mm and 1800mm lengths (other lengths available to order).
- Standard stroke 360mm (*Also available with 240mm stroke by special order*).
- Specify Horizontal, Vertical or Bottom-hung brackets when ordering.

**Technical Specification**

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<tr>
<th>Voltage</th>
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<th>230V ac</th>
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<td>Stroke</td>
<td>360mm (<em>240mm</em>)</td>
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<td>Thrust Force</td>
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<td>Absorbed Current</td>
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<td>Speed</td>
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<td>IP30</td>
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<td>Electronic</td>
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<tr>
<td>Safety Stop</td>
<td>Electronic</td>
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</tbody>
</table>

**MPD**

**Product Summary**
- Twin - Chain Actuator.
- For wide windows and roof vents.
- Strong double link chain.
- 1210mm or 1610mm lengths available.
- Adjustable stroke between 150mm and 400mm.
- Supplied complete with pivot brackets.
- Slim profile.
- Bottom-hung brackets available separately.

**Technical Specification**

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<th>230V ac</th>
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<tr>
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<tr>
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</table>
### Max

**Product Summary**
- Linear actuator for roof vents and domes.
- Load transmission by rigid spindle.
- High speed and virtually noiseless operation.
- High protection degree IP65.
- Standard unit supplied with end fixing bracket.
- Supplied with 1.5m cable.
- Slide bracket available as optional extra.
- Choice of 300mm or 500mm travel.

### Rack

**Product Summary**
- Linear type actuator for use on roof vents or domes.
- Low noise operation.
- High protection degree IP55.
- Supplied with 1.5m cable.
- Available with end brackets or slide brackets, to be ordered separately.
- Choice of 180mm, 360mm, 550mm, 750mm or 1000mm travel.

### Technical Specification

#### Max

<table>
<thead>
<tr>
<th>Specification</th>
<th>230V ac</th>
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<tr>
<td>Stroke</td>
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<td>Force in push pull action</td>
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<td>Microswitch</td>
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#### Rack

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<td>Voltage</td>
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<td>Thrust Force</td>
<td>650N (360N)</td>
<td>650N (360N)</td>
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<td>Absorbed Current</td>
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<td>5mm/s</td>
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<td>IP55</td>
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<td>4 Core</td>
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<td>Safety Stop</td>
<td>Electronic</td>
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</table>
**Dual Rack**

**Product Summary**
- Dual drive linear actuator and slave unit for large, wide roof vents and domes.
- Low noise operation.
- High protection degree IP55.
- Supplied with 1.5m cable.
- Requires a pair of end brackets, and connecting rod, sold separately.
- Choice of 1000mm, 1500mm and 2000mm connecting rods.
- Available with 180mm, 350mm, 550mm, 750mm or 1000mm travel.

**Technical Specification**

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<tbody>
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<td>Thrust Force</td>
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<tr>
<td>Safety Stop</td>
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**Double Rack**

**Product Summary**
- Strong dual drive linear actuators for very heavy, wide roof vents and domes.
- Low noise operation.
- High protection degree IP55.
- Supplied with 1.5m cable.
- Requires a pair of end brackets and connecting rod, sold separately.
- Choice of 1000mm, 1500mm and 2000mm connecting rods.
- Available with 180mm, 350mm, 550mm, 750mm or 1000mm travel.

**Technical Specification**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>24V dc</th>
<th>230V ac</th>
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<tbody>
<tr>
<td>Stroke</td>
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<tr>
<td>Thrust Force</td>
<td>1300N /7000N</td>
<td>1300N /7000N</td>
</tr>
<tr>
<td>Absorbed Current</td>
<td>2A</td>
<td>0.2A</td>
</tr>
<tr>
<td>Speed</td>
<td>8mm/s</td>
<td>8mm/s</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP55</td>
<td>IP55</td>
</tr>
<tr>
<td>Wiring</td>
<td>3 Core</td>
<td>4 Core</td>
</tr>
<tr>
<td>Colour</td>
<td>Silver</td>
<td>Silver</td>
</tr>
<tr>
<td>Limit Stop</td>
<td>Electronic</td>
<td>Electronic</td>
</tr>
<tr>
<td>Safety Stop</td>
<td>Electronic</td>
<td>Electronic</td>
</tr>
</tbody>
</table>
**SL60**

**Product Summary**
- Linear actuator for roof vents and domes.
- High protection degree IP56.
- High speed operation.
- Supplied with 1.3m cable.
- Supplied complete with slide brackets as standard.

**Technical Specification**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>24V dc</th>
<th>230V ac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>180/230/350/550/750mm</td>
<td>180/230/350/550/750mm</td>
</tr>
<tr>
<td>Thrust Force</td>
<td>600N</td>
<td>600N</td>
</tr>
<tr>
<td>Absorbed Current</td>
<td>1.5A</td>
<td>0.32A</td>
</tr>
<tr>
<td>Speed</td>
<td>18mm/s</td>
<td>18mm/s</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP55</td>
<td>IP55</td>
</tr>
<tr>
<td>Wiring</td>
<td>2 Core</td>
<td>3 Core</td>
</tr>
<tr>
<td>Colour</td>
<td>Silver</td>
<td>Silver</td>
</tr>
<tr>
<td>Limit Stop</td>
<td>Microswitch</td>
<td>Microswitch</td>
</tr>
<tr>
<td>Safety Stop</td>
<td>Thermic</td>
<td>Thermic</td>
</tr>
</tbody>
</table>

**PL6**

**Product Summary**
- Very strong pair of linear actuators for large/heavy windows, roof vents and domes.
- Provide maximum opening for roof vents, domes and windows.
- Supplied complete with tandem control panel.
- For smoke and heat exhaust systems (SHEVS) and natural ventilation.
- Supplied complete with brackets.

**Technical Specification**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>24V dc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>300-1000mm</td>
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<tr>
<td>Thrust Force</td>
<td>1200N</td>
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<tr>
<td>Absorbed Current</td>
<td>1.6A</td>
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<tr>
<td>Speed</td>
<td>5.77mm/s</td>
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<tr>
<td>Protection Class</td>
<td>IP65</td>
</tr>
<tr>
<td>Wiring</td>
<td>2 Core</td>
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<tr>
<td>Colour</td>
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<tr>
<td>Limit Stop</td>
<td>Electronic</td>
</tr>
<tr>
<td>Safety Stop</td>
<td>Electronic</td>
</tr>
</tbody>
</table>
**ST70**

No more hot and stuffy conservatories. The 10 Amp panel automatically controls the operation of 230Vac actuators fitted to conservatory roof vents to maintain a comfortable environment on those warmer days. There is an integral open/close switch and remote thermostat to control temperature and a rain sensor to close roof vents during rain storms.

**ART 230**

230V ac Radio receiver with single channel transmitter to control a single actuator or single bank of actuators simultaneously. Can also be used with the PS24 Transformer Unit to operate 24V dc actuators (type of PS24 dependent on number of actuators).

**RRT KEY 2**

2 Channel Radio Transmitter to use with the RRT Unit to individually operate 2 actuators or 2 banks of actuators from a single key fob.

**RRT KEY 12**

12 Channel Radio Transmitter to use with RRT Unit to individually operate up to 12 actuators or 12 banks of actuators from a single key fob.
**SS0**
A choice of 1, 2, 3 or 4 gang switches with surface boxes.
10 amp rated, single pole, double throw (centre off) switch for 230V power supplies. Can be used with 24V dc systems linked to VCS panels or relay panels with their own power supplies. Can also be used with the PS24 Transformer.

**RRT KEY**
230V ac, 10Amp rated key switch. Supplied complete with 3 keys.

**PS24**
2 Amp (50W) transformer to use with the SS0 switch or RRT unit to operate 24V dc actuator/s.
(8 amp version also available by special order)

**TP24 / TP230**
Tandem Panel to control a pair of actuators fitted to a single vent.
24V dc or 230V ac versions available.

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**Example**
60 kg window / 1000mm fall / opening 500mm

\[
F = \frac{60 \times 500 \times 10}{2 \times 1000} = \frac{30 \times 0.5 \times 10}{2} = 150 \text{ Newtons}
\]

**Fitting Instructions**
Ensure that when the window is fully closed the chain has reached its end stop and the motor is not stalling.
(This can be done electronically with the SuperMaster or manually adjusted with longer extension screw for all other motors.)
The ACK4 has an internal buzzer to indicate that the chain is not fully closed.
For linear type actuators ensure that actuator is fully closed then unscrew end bolt to allow for gasket compression.

**Example**
60 kg window / 1000mm fall / opening 500mm

\[
F = \frac{60 \times 10}{2} = 30 \times 10 = 300 \text{ Newtons}
\]
Smoke Control Systems

A range of standard or purpose-made panels, switches and sensors to automatically control virtually every smoke or natural ventilation requirement.
**Smoke Panel – VCS-1**

- Single Zone 10Amp 24V dc Control Panel.
- 72 hour battery back-up on mains failure.
- 300mm x 200mm x 150mm IP65 steel enclosure.
- Sealed lead acid batteries.
- Auto cut off to protect batteries.
- Relay to provide volt free fault indication.
- Close-Auto-Open Function. Front of panel keyswitch to control open, close function of actuators/vents (full override priority).
- Facility to connect smoke heads to automatically reset once smoke has cleared.
- Variable opening of vents option available as special order.
- Multi-Zone versions available by special order.

**Inputs for:**
- Fire alarm signal
- Break glass call points
- Smoke detectors
- Heat detectors
- REM
- Fireman’s override switch
- Thermostat
- Rain sensor
- Wind sensor (subject to special order)

**Smoke Panel – SVCS-1**

- Single Zone 2Amp or 2-10Amp 24Vdc Control Panels
- When installed correctly are compliant with EN12101-10.
- 72 hour battery back-up on mains failure.
- 300mm x 200mm x 150mm IP65 steel enclosure.
- Sealed lead acid batteries.
- Auto shut down to protect batteries (open vents to fail safe condition first).
- Relay to provide volt free fault indication (when not used for auto-reset feature).
- Open circuit cable detects power supply failures, removal of batteries etc (code fault signal).
- Auto-test – Front of panel keyswitch enables testing and opening and closing of all actuators/vents connected.
- Facility for smoke heads to be automatically reset.
- Multi-Zone versions available by special order.

**Inputs for:**
- Fire alarm signal
- Break glass call points
- Smoke detectors
- Heat detectors
- Fireman’s override switch
- Thermostat (subject to special order)
- Rain sensor (subject to special order)
- Wind sensor (subject to special order)
Purpose Made Panels

Purpose made, single or multi-zone panels which can be designed and manufactured for most smoke control or natural ventilation requirements.
Smoke Sensors / Break Glass / Fireman’s Switch

**SSS**
Smoke Sensor and Sounder base.

**SS**
Smoke Sensor and base.

**BG1/S**
Break glass call point (smoke).

**BG1/FOS**
Fireman’s Override Switch (smoke).

Fireman’s Switch / Sensors / Thermostat

**BG2/FOS**
Fireman’s override keyswitch (smoke).

**RS1**
Rain Sensor

**WS1**
Wind Sensor

**TS1**
Thermostat