



Angel Ventlock®  
Window Opening  
Control Devices

Child window safety is no accident





The Angel Ventlock® – a window opening control device that has moved on dramatically from old-fashioned window guards and screens. Angel Ventlocks® can be both low-cost and incredibly effective without detracting from the appearance and overall function of the window; they can be integrated easily by the window manufacturer and aftermarket retrofitting takes just a few minutes.

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# Angel Ventlock® window fall prevention

## meets ASTM F2090 - 2008 and 2010 regulations

Every year in the United States and Canada, many children are injured or killed by falling through open windows. These incidents are regularly reported in the news.

Changes to building legislation were desperately needed, combined with improved window opening control devices and integrated public safety campaigns.

The window industry has worked tirelessly to improve window safety through various organizations such as the Window Safety Task Force of the National Safety Council. These efforts have culminated in a new standard – ASTM F2090 - 2008 and 2010.

For the first time this includes window opening control devices that permit emergency escape and rescue. This standard has also been used by the Minnesota Senate as the basis for Laela's Law, a state-wide window safety law in Minnesota that came into effect on 1 July 2009.

Window opening control devices have moved on from window guards

and screens. They can be both low-cost and incredibly effective. They do not detract from the appearance and overall function of the window; they can be integrated easily by the window manufacturer and aftermarket retrofitting takes just a few minutes.





## Single Action

# Reverse Retrofit Version

The Retrofit version is for aftermarket use on timber UPVC and aluminium double and single hung sash windows.



## In detail ...

Primarily fitted as an aftermarket device where removal of the sash is difficult.

The Retrofit version is fitted onto the stiles of the top sash – one on either side. The units are single action, so fitting two ensures compliance with ASTM F2090 2008 and 2010

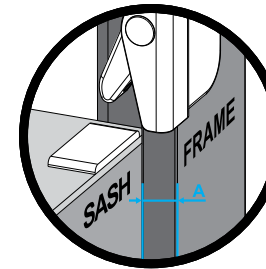
This type can also be installed as a factory-fitted device to avoid interruption of assembly lines.

Specifications & installation instructions are supplied and also available as a download from our website.

Supplied as a handed pair.

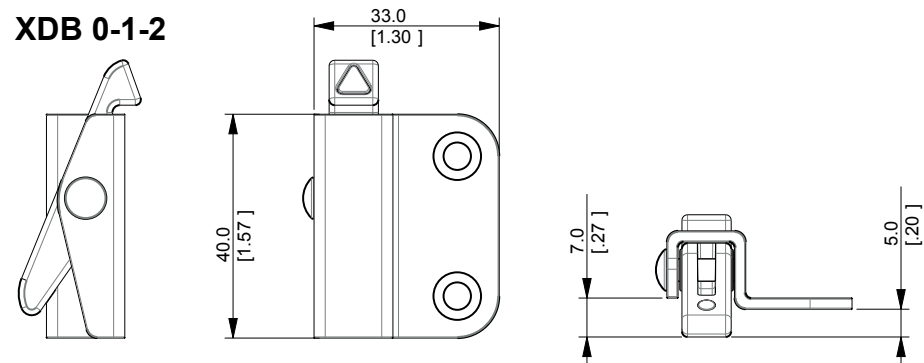
## How to choose the right product

- 1 Measure the distance from the face of the frame to the face of the sash (A).
- 2 Use the table (right) to find the A value and the corresponding product code.
- 3 Technical drawings, information and fitting instructions can be downloaded from the Angel Ventlock® website.

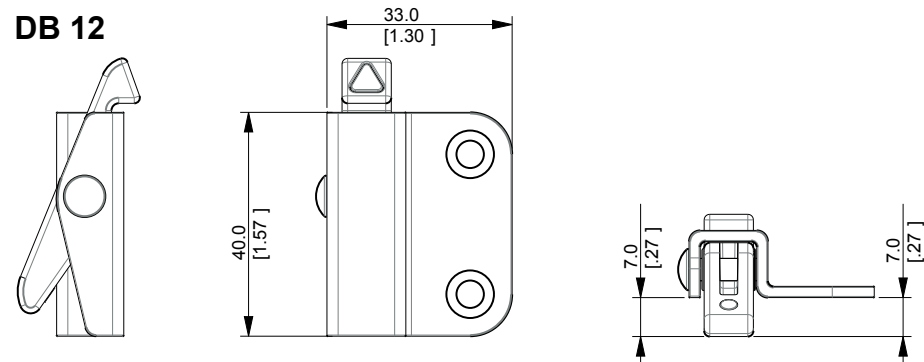


Retrofit Version		
A		Code
Inches	Millimeters	
-0.079	-2	XDB 0-1-2
-0.039	-1	
0.000	0	
0.039	1	DB 12
0.079	2	M 34
0.118	3	
0.158	4	M 56
0.197	5	
0.236	6	SB 78
0.276	7	
0.315	8	XSB 910
0.355	9	
0.394	10	FB 1112
0.433	11	
0.473	12	

### XDB 0-1-2



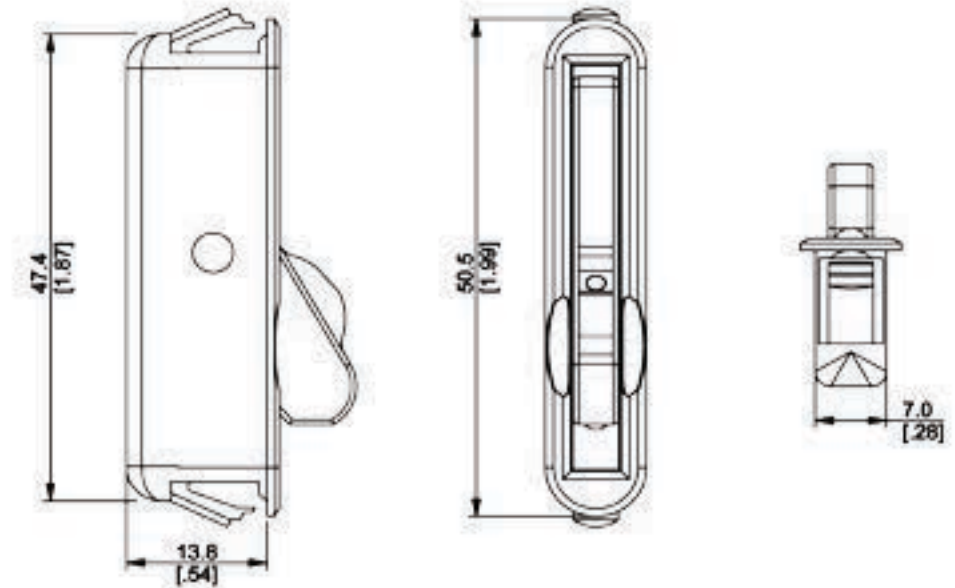
### DB 12





## Single-Action Mini Angel

The Mini Angel is for use on Vinyl, Aluminum and Fiberglass double and single hung sash windows.



### In detail ...

The Mini Angel is fitted into the stiles of the top sash – one on each side. The units are single action, so fitting two ensures compliance with ASTM F2090 - 2008 and 2010.

The unit is primarily factory-fitted as access to the sash is required. However, provided the sashes can be removed easily, the Mini Angel is also suitable for use where the sashes have already been installed.

The unit is clipped into a slot in the face of the top sash. The units are therefore tamper-proof.

Installation instructions supplied and available as a download.



Unit automatically engages  
when window is shut



Press dot to disengage





# Single Action Retrofit Version

The Retrofit version is for aftermarket use on timber and aluminium double and single hung sash windows.



## In detail ...

The Retrofit version is fitted into the stiles of the top sash – one on either side. The units are single action, so fitting two ensures compliance with ASTM F2090 - 2008 and 2010.

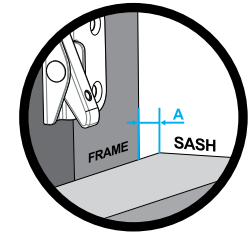
Primarily fitted as an aftermarket device where access to the sash is difficult. This type can also be installed as a factory-fitted device to avoid interruption of assembly lines.

Fixing is through the front of the unit and into the sash.

Installation instructions supplied and available as a download.

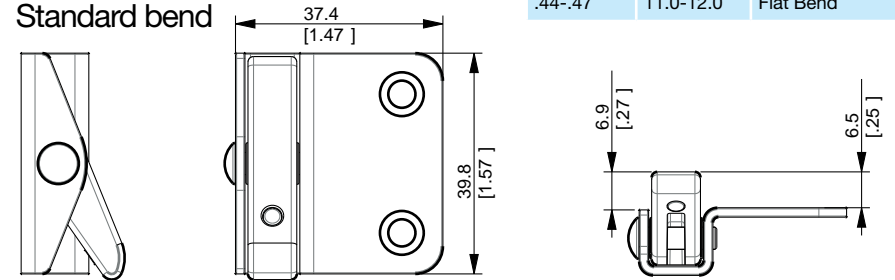
## How to choose the right product

- 1 Measure the distance from the face of the frame to the face of the sash (A).
- 2 Use the table (right) to find the A value and the corresponding product code.
- 3 Technical drawings, information and fitting instructions can be downloaded from the Angel Ventlock® website.

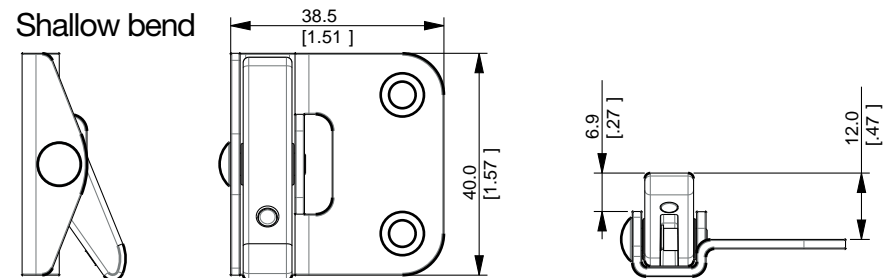


Retrofit Version		
A		Code
Inches	Millimetres	
.12-.15	3.0-4.0	Standard Bend
.32-.35	8.0-9.0	Shallow Bend
.44-.47	11.0-12.0	Flat Bend

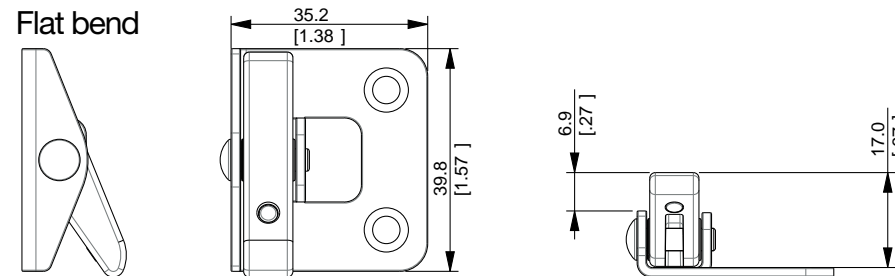
### Standard bend



### Shallow bend



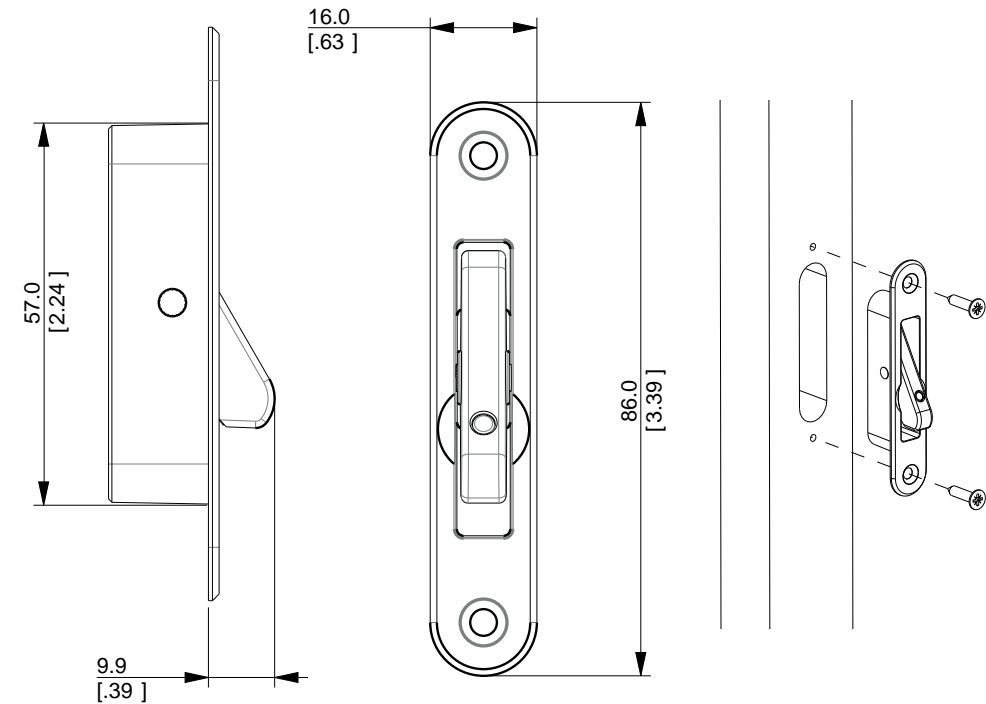
### Flat bend





## Single-Action Face Fix

The Face Fix version is for use on timber and aluminium double and single hung sash windows.



### In detail ...

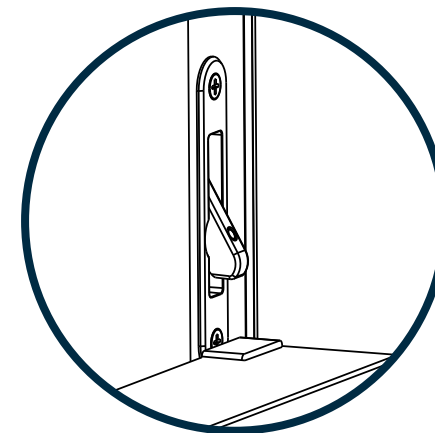
The unit is primarily factory-fitted as removal of the sash is required. However, provided the sashes can be removed easily, the Face Fix version is also suitable for use where the sashes have already been installed.

The Face Fix version is fitted into the stiles of the top sash – one on each side. The units are single action, so fitting two ensures compliance with ASTM F2090 2008 and 2010.

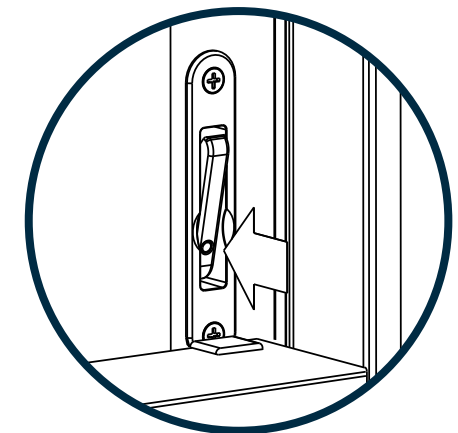
Fixing is through the front of the unit and into the sash.

Specifications & installation instructions are supplied and also available as a download from our website.

Supplied as a pair.



Unit automatically engages when window is shut



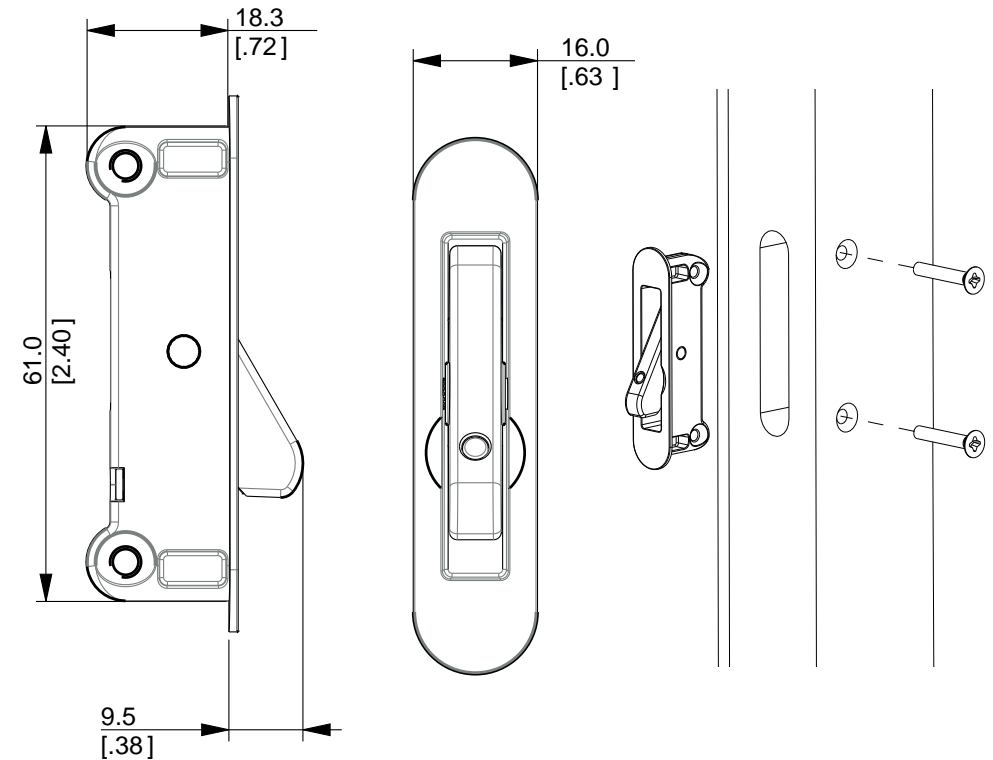
Press dot to disengage





## Single-Action Side Fix

The Side Fix version is for use on timber, aluminium and PVCu double and single hung sash windows.



### In detail ...

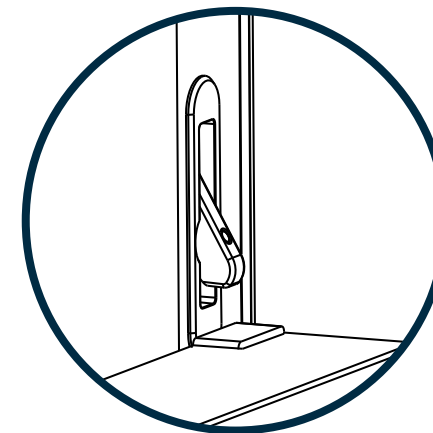
The unit is primarily factory-fitted as removal of the sash is required. However, provided the sashes can be removed easily, the Side Fix version is also suitable for use where the sashes have already been installed.

The Side Fix version is fitted into the stiles of the top sash – one on each side. The units are single action, so fitting two ensures compliance with ASTM F2090 2008 and 2010

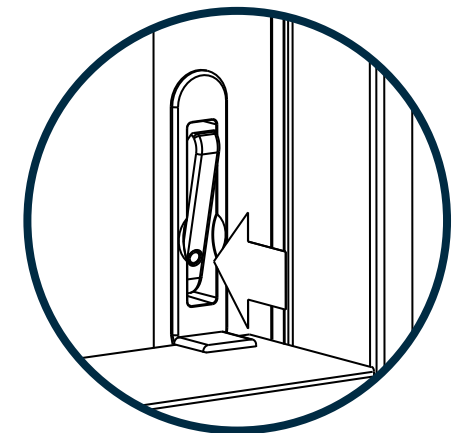
Fixing is through the side of the sash and into the unit. Screw holes are not visible and the units are therefore tamper-proof.

Specifications & installation instructions are supplied and also available as a download from our website.

Supplied as a pair.



Unit automatically engages  
when window is shut



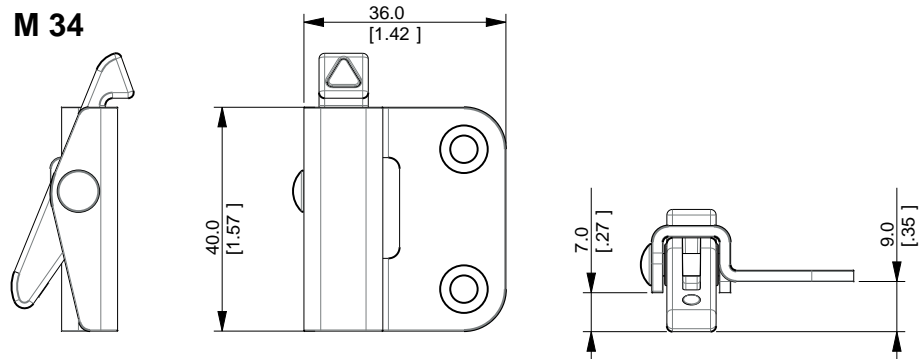
Press dot to disengage



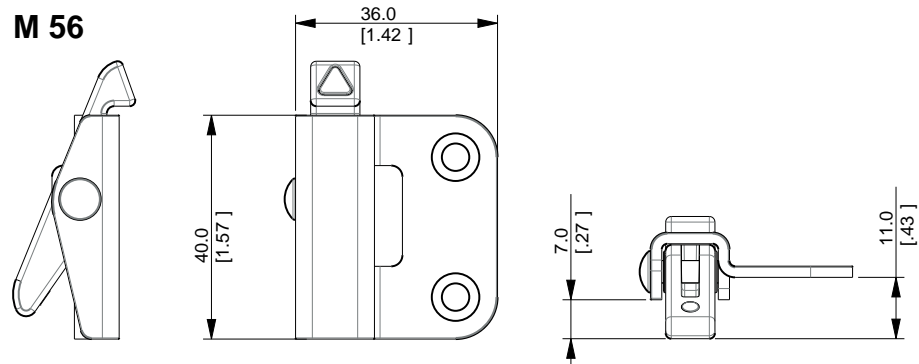


## Reverse Retrofit continued

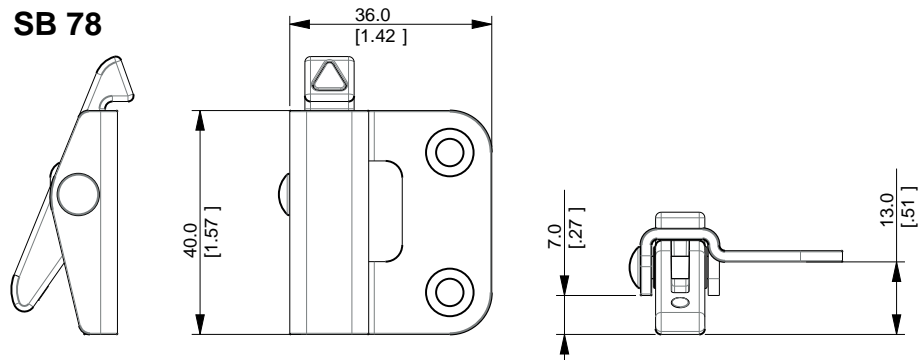
**M 34**



**M 56**

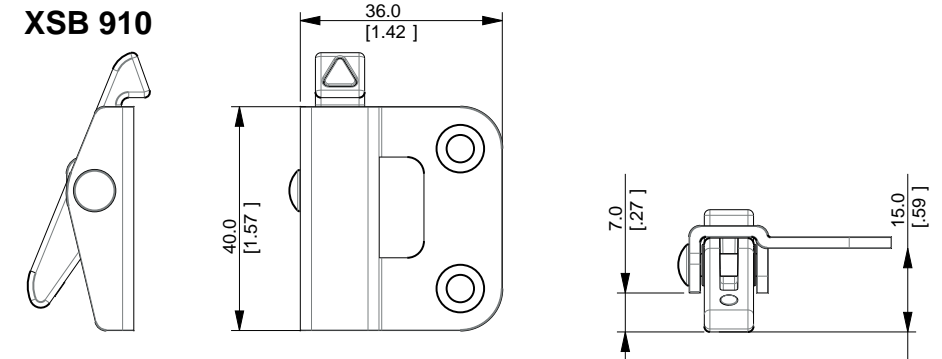


**SB 78**

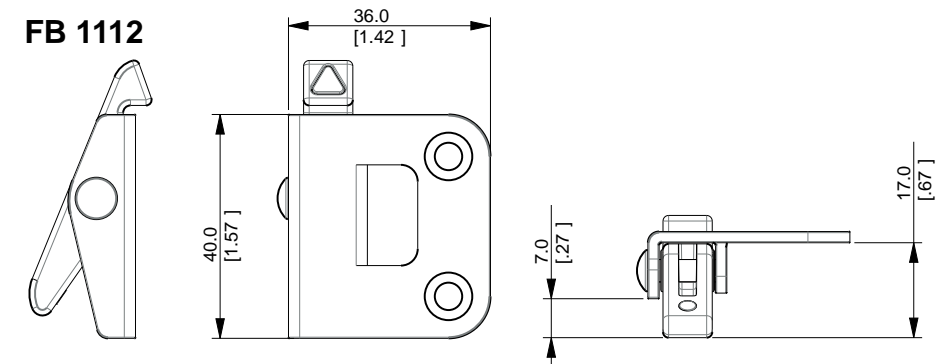


## Reverse Retrofit continued

**XSB 910**



**FB 1112**



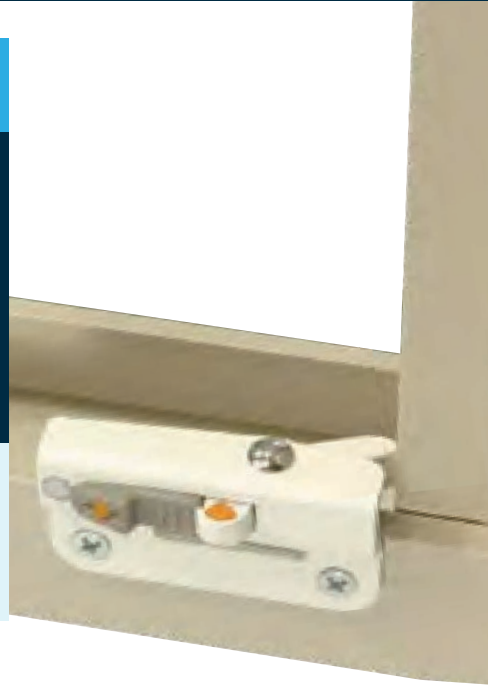




## Dual- Action

# Retrofit Version

Primarily used on **gliding windows** as access to a second single-action device may not be possible.



### In detail ...

Dual-action means that two separate actions are required to operate the unit. Only one dual-action unit is required to ensure compliance with ASTM F2090 - 2008 and 2010.

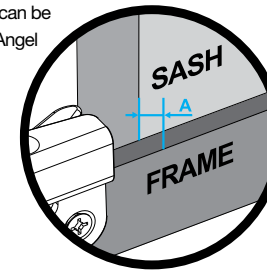
This unit may also be used on double- or single-hung windows. Various forms are available depending on the distance of the frame from the sash and the fixing plane.

These units have been focus group tested and have been proven to be operable without prior knowledge or tools.

Installation instructions supplied and available as a download.

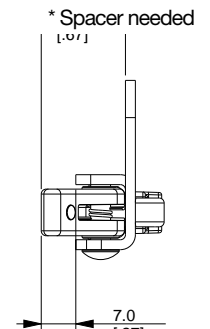
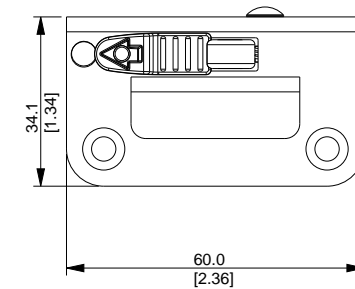
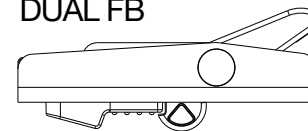
### How to choose the right product

- 1** Measure the distance from the face of the frame to the face of the sash (A).
- 2** Use the table (right) to find the A value and the corresponding product code.
- 3** Technical drawings, information and fitting instructions can be downloaded from the Angel Ventlock® website.

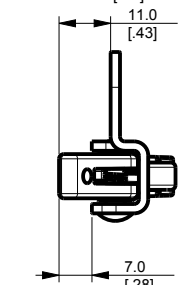
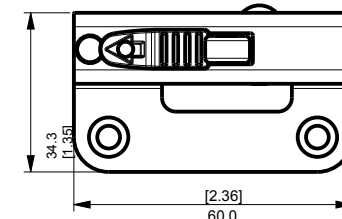
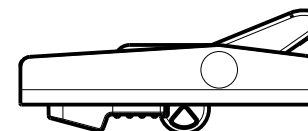


Retrofit Version		
A		Code
Inches	Millimeters	
-0.039	-1	DUAL DB*
-0.000	0	
0.035	0.9	
0.039	1	DUAL DB
0.079	2	
0.114	2.9	
0.118	3	DUAL MB
0.157	4	
0.193	4.9	
0.197	5	DUAL MB56
0.236	6	
0.272	6.9	
0.276	7	DUAL SB
0.315	8	
0.350	8.9	
0.354	9	DUAL XSB
0.394	10	
0.429	10.9	
0.433	11	DUAL FB
0.472	12	
0.508	12.9	

DUAL FB



DUAL MB56



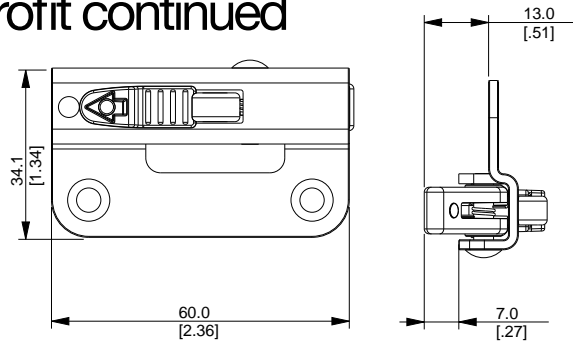
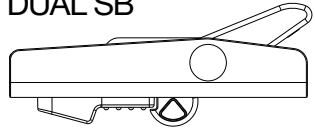
Continued overleaf ...



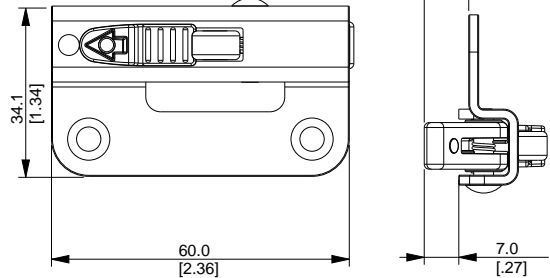
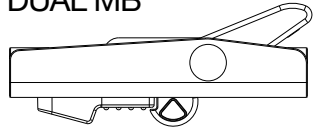


## Dual-Action Retrofit continued

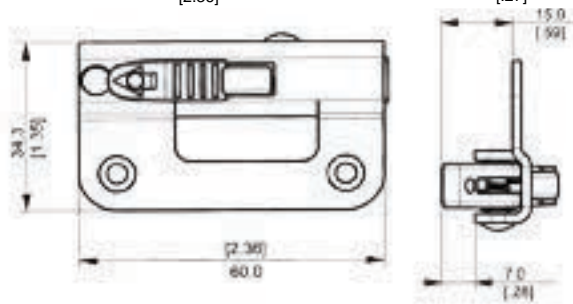
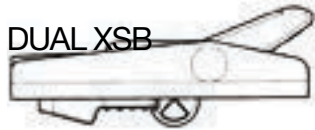
DUAL SB



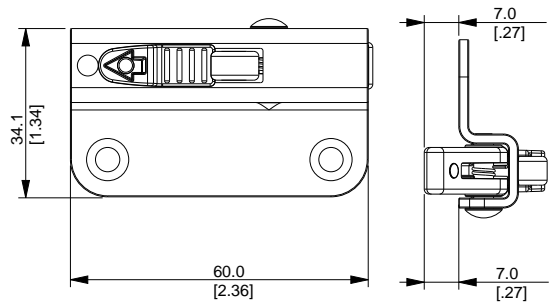
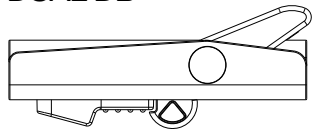
DUAL MB



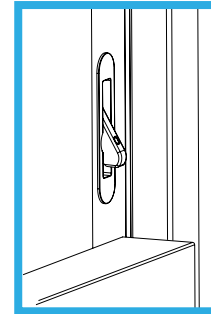
DUAL XSB



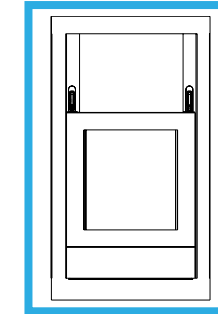
DUAL DB



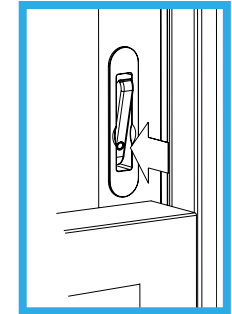
## How Angel Ventlock® keeps your child safe



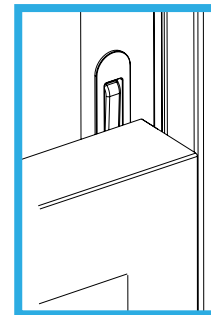
Angel Ventlock® set



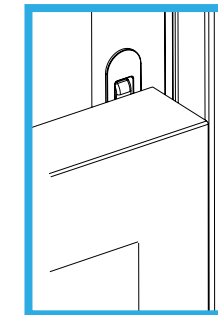
Sash is stopped when opened to 100mm



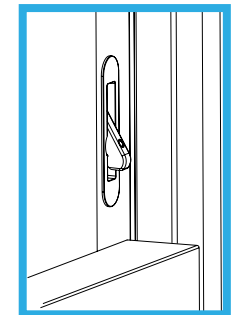
Push arm in (repeat on opposite side)



Sash can be raised



The arm unlatches as the sash is raised



The arm resets as the sash is lowered

There are various forms of the Angel Ventlock®. The face-mounted, side-mounted and mini versions are designed to be installed by the manufacturer and be used in conjunction with vinyl, timber and aluminum frames. They are aesthetically pleasing and can't be easily removed by the homeowner. Additionally, there is a range of aftermarket versions of the Angel Ventlock® that are designed to fit timber, aluminum and vinyl frames.

If the Angel Ventlock® doesn't fit your particular frame section contact Roto Frank of America.





# Our top ten window safety tips

We have compiled a list of our top ten window safety tips to guide you and your family:

- 1 Never leave young children unattended near open windows
- 2 Teach your children not to play near windows
- 3 Close and lock your windows when children are around
- 4 Only open windows that children cannot reach or windows that are secured with compliant locks
- 5 Keep beds, furniture and anything a child can climb on away from windows
- 6 Do not depend on insect screens to prevent falls, they are not designed for this purpose
- 7 Repair broken windows or nonworking parts as soon as possible
- 8 Open windows from the top, not from the bottom
- 9 Install child safety devices that comply with ASTM F2090 - 08/10 standard
- 10 Supervise your children as they play

## ASTM F2090 - 2008 and 2010

In the United States falls from windows account for an estimated 12 deaths and 4,000 injuries among children under 10 every year.

Window manufacturers are determined to do everything possible to prevent these tragedies happening to families across our nation.

The new code, ASTM F2090 - 2008 and 2010, is the result of the window industries' efforts to save lives, by improving window safety through organizations such as the Window Safety Task Force of the National Safety Council.

This specification establishes the installation, safety, performance, and labelling requirements for devices intended to address the risk of injury and death associated with accidental falls from windows by children five years old and younger.

In brief:

- Window opening of no more than four inches
- Independent operation of release mechanism
- Maximum force of 15 lb<sub>F</sub> required to release the mechanism
- Automatic reset
- Visible indicators
- No interference with window integrity
- Instructions / warnings included

For further information on the new ASTM F2090 - 2008 and 2010 standards, please contact ASTM International.





# Laela's Law

The Minnesota Senate recently passed a window fall prevention law known as Laela's Law. The first such law in the nation which aims to stop injuries and deaths due to children falling through open windows.

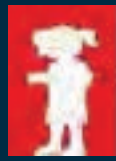
Laela's Law is based on the new ASTM F2090 - 2008 and 2010 standard, which has been adopted by the International Construction Council (ICC). The ICC code is expected to be rolled out state by state.

The measure was dubbed "Laela's Law" after the two-year-old girl who fell through the screen of a fourth-floor apartment in a nearly new building. Senator Linda Berglin said that it requires the State Building Code to be updated to mandate fall-prevention devices on windows that are used on residences.

The worst thing about these injuries and deaths is that they could have been easily and cheaply avoided using a simple window safety latch. The state of Minnesota recognizes this and is leading the cause.

Minnesota is also setting up a program to educate parents and caregivers of young children about window safety. It's not enough to depend on construction and technology to prevent falls. People who care for kids need to be aware of the limits of windows and screens.





# Angel Ventlock

Child window safety is no accident

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[www.angel-ventlock.com](http://www.angel-ventlock.com)

Proud members of ASTM International, The Windows Safety Task Force, WDMA, CWDMA, National Safety Council.

Patent Application No US 12/999,751.

Ventlock® is a trademark of Mighton Products Ltd