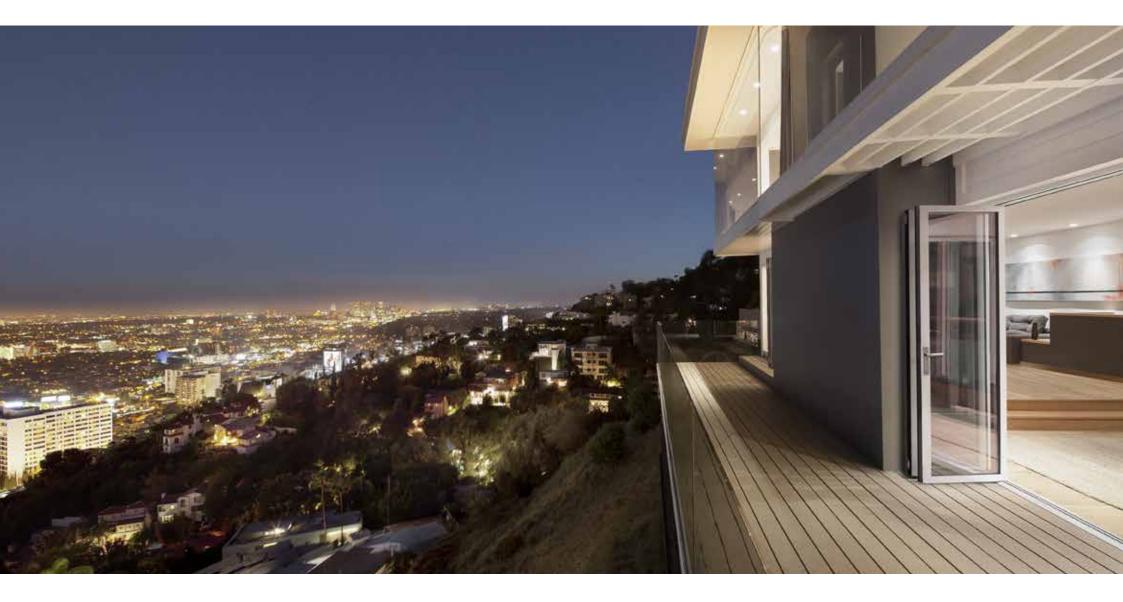


BI-FOLDING DOORS



CONTENTS





04 - 05



BI-FOLDING DOORS FROM SOLARLUX

Generous living space in open-plan rooms

For more than 35 years, Solarlux has stood for the outstanding quality of versatile glazing solutions for public and private spaces. The bi-folding door has been the beating heart of the international, family-owned company right from the very beginning. Unlike traditional sliding doors, which can leave a large section of the opening covered by glass even when fully open, the individual elements of the bi-folding door gather up into a slender bundle of panels to one side. This produces generous glass fronts that can be opened across almost 100% while still offering maximum protection when closed.



06 - 07

DESIGN, MATERIAL, OPENING - *freedom* IN EVERY RESPECT

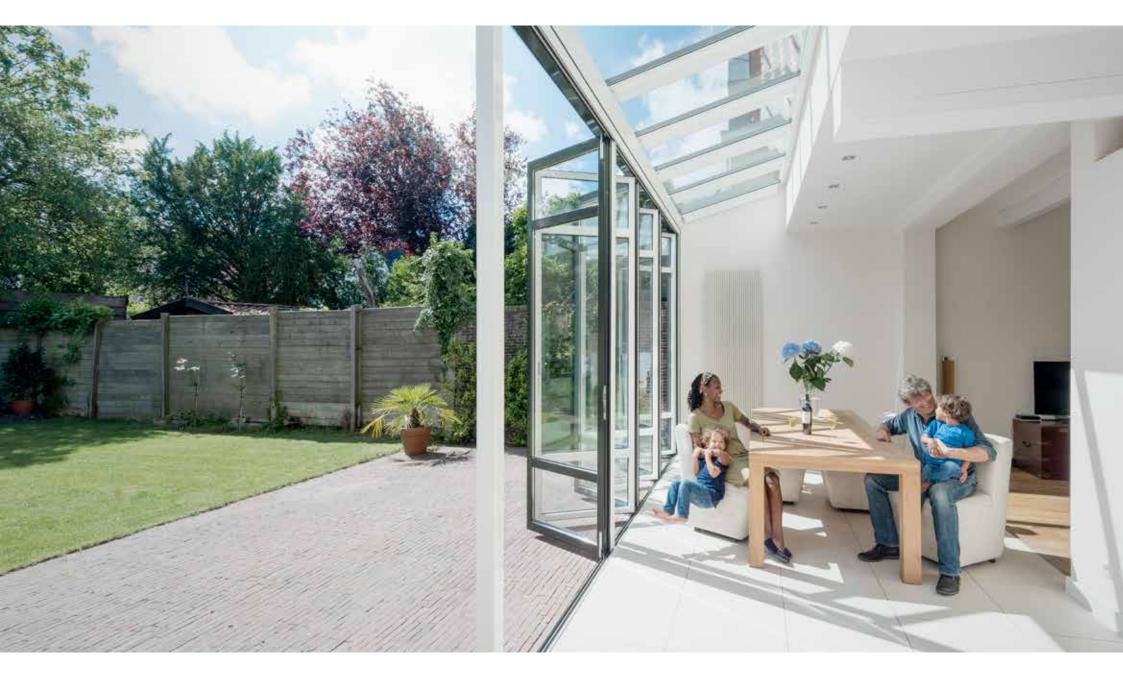
FLEXIBLE DESIGN WITH BI-FOLDING DOORS

SPACE FOR YOUR INDIVIDUAL TOUCH

Enjoy limitless possibilities

Thanks to its perfect functionality, the creative freedom offered by its high-quality materials, and the limitless possibilities for combining it with other elements, the bi-folding door is the ideal solution for a wide range of projects. Systems from the bi-folding door family, non-insulated variants and highly heat-insulated versions for use in passive houses – with bi-folding doors, the possibilities are almost endless.





APPLICATIONS

The possibilities offered by a bi-folding door are almost limitless. It can be used as a substructure element for a glass extension that can to be almost entirely opened; employed as an entrance to a pool; or used as an alternative to a traditional patio door or window. Also suitable for public spaces, of course! Use it for your shop entrance, glaze the VIP box in your stadium, or create a facade on your balustrade - whatever you're building, make the bi-folding door your first choice.



01 Flexible use of space - the bi-folding door as a partition · Best, Netherlands 02 Bring air and light to your pool · Nottuln, Germany 03 A bespoke solution for your glass extension · Delden, Netherlands 04 The alternative to traditional windows · Hamburg, Germany





MORE INSPIRATION

12 - 13

AND REFERENCES AVAILABLE

ON OUR SPACES APP



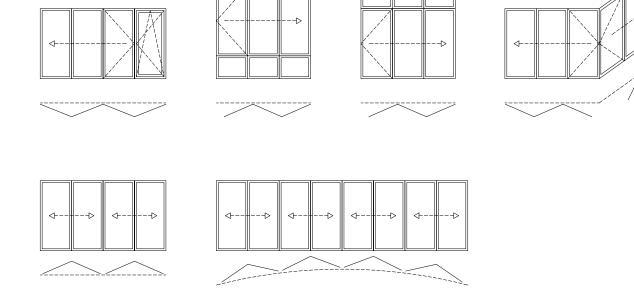
01 Glazing balconies, creating space · Hattingen, Germany 02 Flexibility for restaurants & business entrances · Cologne, Germany 03 Sports facilities with the perfect view · Mainz, Germany

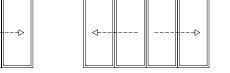




MAXIMUM CREATIVE FREEDOM

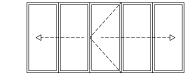
Inwards or outwards, folding to the left and/or to the right - Solarlux bi-folding doors offer countless opening system possibilities. The individual glass elements can be opened or closed in just a few simple steps, whilst incorporating tilt-andturn panels and window elements can help you enjoy even more creative freedom.





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CONFIGURATION EXAMPLES

FLEXIBLE DESIGN WITH BI-FOLDING DOORS 14 - 15

OUR MATERIALS

The high-quality aluminium and wood materials we use at Solarlux offer maximum creative freedom for your design – not to mention sustainability and durability. By combining these materials with our patented technology, we can make the Solarlux bi-folding door the perfect, high-quality, designer solution for your construction project.



The mark of responsible forestry



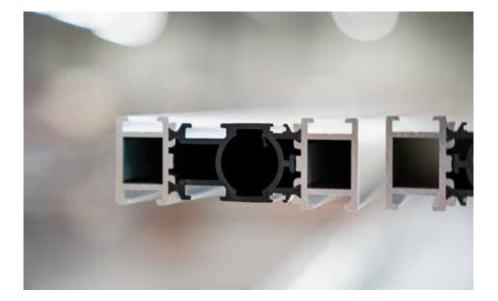


WOOD

The natural material for a cosy environment

The woods used by Solarlux are certified and sourced from sustainable forestry. Both our certificates in this area set high standards, particularly in terms of sustainability, the environmental compatibility of the forest cultivation, the quality of the work and the social expertise of the forestry companies we work with. Our use of water-based finishes and energy-saving production with recycling of water and heat provide further evidence of the care with which we handle our natural resources.

This means that when you choose wood as your material, you are opting for a natural raw material that will provide individual and cosy living. Solarlux fulfils this preference in every respect. In addition to our standard woods – spruce and pine – we also offer a wide range of other timbers. Our surface treatments are completely individual, too. Whether you opt for a varnish, a hand-oiled surface or an opaque lacquer, Solarlux products are available in any colour of your choice, regardless of the product manufacturer.



ALUMINIUM *The material for durability*

Durable and almost completely zero-maintenance - this is the promise that aluminium offers as a material. We also apply environmental awareness to our aluminium production - Solarlux is certified in accordance with the German A.U.F. Recycling Loop, which has confirmed that our aluminium is recycled in an environmentally conscious manner that saves on resources. All of our aluminium bi-folding doors are available in any colour - including special colours, Eloxal and DB.

OUR COLOURS

When you choose a Solarlux bi-folding door, you opt for individuality. Solarlux standard colour options, which include around 30 RAL colours, offer all the colours of the rainbow in matt and gloss finishes, at no extra cost. This allows every bi-folding door to match its building's interior and exterior design. We use our own in-house coating plant – one of the most advanced in Europe – for top surface quality.



THE SOLARLUX WORLD OF COLOURS



18 - 19



THE SOLARLUX COATING IS CERTIFIED

TO INTERNATIONAL STANDARDS

SOLARLUX SPECIAL COLOURS

Inimitable surfaces for unique projects

It goes without saying that we also offer special DB, RAL and Eloxal colours, as well as special surface finishes (e.g. Tiger), for anyone looking to give their bi-folding doors a unique twist. We can make almost any wish come true - and we also offer the option of dual colours for the inside and outside.

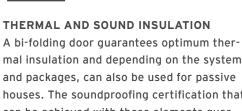


THE ADVANTAGES OF THE **BI-FOLDING DOOR - AN OVERVIEW**



MAXIMUM OPENING AND SLIM SIGHT LINES

The most important feature of the bi-folding door is its accordion-like folding technique, which allows it to be opened almost 100%. When closed, it boasts incredibly slim sight lines of just 99 mm across the panel joint.



mal insulation and depending on the system and packages, can also be used for passive houses. The soundproofing certification that can be achieved with these elements guarantee a quiet living space, even in bustling built up areas.





SECURITY AND ANTI-BURGLARY PROTECTION

Bi-folding doors are high-quality and extremely sturdy. They fulfil the requirements of the standard European anti-burglary protection class RC2.



Bi-folding doors are extremely convenient, with accessible floor tracks available suitable for living spaces with durable stainless steel carriages and rollers.





WHAT SOLARLUX OFFERS

- \cdot In-depth consultation and planning
- · Patented technical details
- \cdot Durability and high quality
- \cdot Made in Germany
- Systems certified by national and international institutes
- Filigree sight lines of 99 mm
- Maximum transparency and flexibility
- Sophisticated technical design and assembly
- Compliance with all applicable standards and specifications



SYSTEMS TO SUIT ANY REQUIREMENT

22 - 23

A NEW DIMENSION FOR OPEN living

BI-FOLDING DOORS TO SUIT ANY REQUIREMENT



THE SYSTEM FAMILY

The Bi-Fold Door family includes aluminium, wood as well as wood/aluminium systems and offers decisive benefits: perfected technical details such as a patented carriage, TwinX[®] panel centring mechanism, accessible floor tracks and frame cladding are used for every system in the product range, while the specific requirements of the wood or aluminium profiles are also incorporated into the technical design.

This "system for all seasons" also comes with advantages in terms of assembly. Thanks to their sophisticated fitting technology and that they all use the same components, every system in *The* Bi-Fold Door Family is quick to assemble and easy to adjust. This not only provides maximum room to manoeuvre, but also helps to ensure that your project goes without a hitch.



ECOLINE, HIGHLINE, WOODLINE AND COMBILINE: THE NEXT GENERATION OF SYSTEMS

ECOLINE AND HIGHLINE

ALUMINIUM

Incredibly slim sight line, patented technology

Despite their frame depth differences (67 mm and 84 mm), our two thermally insulated bi-folding door systems, Ecoline and Highline, boast a slim sight line of 99 mm at the panel to panel joint. This is thanks to the heart of the bi-folding door: the bionicTURTLE®, a multi-functional thermal break profile that combines a range of technical details. Its shape helps to keep profiles extremely slim – even when using large and heavy panels. It also houses the locking mechanism and fittings that ensure perfect insulation.

bionic TURTLE®

ECOLINE

Overall depth: 67 mm
Sight line: 99 mm
Glass thickness: 5 - 36 mm
U_w ≥ 1.1 W/m²K
Panel width: up to 1 m;
Panel height: up to 3 m
Panel weight: Up to 90 kg

HIGHLINE

Overall depth: 84 mm
Sight line: 99 mm
Glass thickness: 22 - 60 mm
U_w ≥ 0.8 W/m²K
Panel width: Up to 1.1 m
Panel height: Up to 3.5 m
Panel weight: Up to 110 kg





AWARD-WINNING DESIGN

The Ecoline and Highline are more than merely functional – they also boast an impressive design, as has been confirmed by renowned international experts. This is reflected in the fact that the new bi-folding door has already won four awards.









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WOODLINE

WOOD

Cosy living with an individual touch

A cosy yet modern living space: the Woodline bi-folding door is the perfect choice for those who want the best of both worlds. Its profiles are made from multi-laminated, high-quality wood, while a special panel corner joint gives the system additional stability. The sub-frame comprises an aluminium structure that is completely clad with solid-wood sections, inside and out. The slender sight line in the panel joint, just 143 mm ensures maximum transparency when the doors are closed, in keeping with your natural approach to living.

WOODLINE
· Overall depth: 86 mm
· Sight line: 143 mm
· Glass thickness: 28 - 48 mm
· U_w ≥ 1.0 W/m²K

- Panel height: Up to 2.8 m
- Panel weight: Up to 100 kg

COMBILINE

WOOD/ALUMINIUM

The perfect combination for a weatherproof solution

With its wood/aluminium profiles, the Combiline bi-folding door provides maximum weatherproofing. This system maintains the panel profile overall depth of 86 mm, despite the external aluminium cladding placed over the wood profiles. The sub-frame comprises an aluminium structure that is faced with solid-wood sections on the inside of the frame. The seal encompasses two continuous gaskets, so optimum drainage is guaranteed.

COMBILINE

- Overall depth: 86 mm
- Sight line: 147 mm
- · Glass thickness: 28-48 mm
- $\cdot U_w \ge 1.1 \text{ W/m}^2\text{K}$
- Panel height: Up to 2.8 m
- Panel weight: Up to 100 kg
- \cdot Exceptionally weatherproof
- thanks to application of
- external aluminium cladding





A NEW CLASS OF ACCESSORY

EQUIPMENT PACKAGES

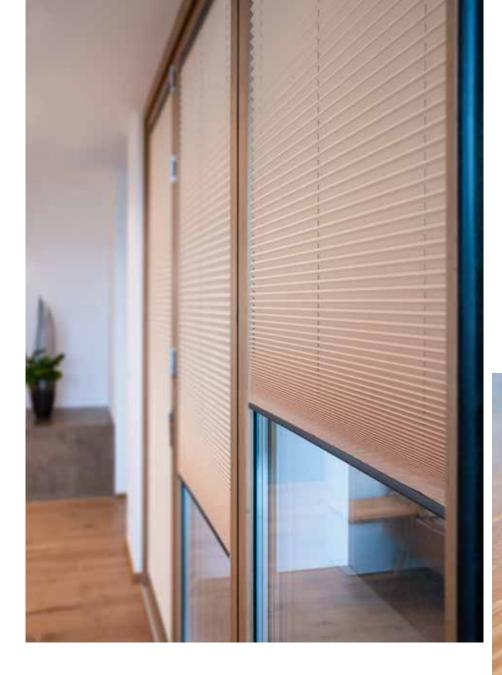
Equipment packages containing a variety of components and details are available for the entire Bi-Fold Door Family. By choosing the appropriate package, customers can place even greater focus on aspects such as security, thermal or sound insulation, lighting, or convenience. Combining packages is both financially attractive and a great way to make your bi-folding door even more individual.

SHADING

Solarlux pleated blinds are equally great at shading you from sunlight and protecting your privacy. They can be adjusted up and down to any position or length, making them the perfect solution. They are available as single or two-part elements, and can be easily positioned simply by moving them up or down. They also offer one other great advantage: they can be fitted without the hassle of drilling or gluing, by simply clipping them into the profiles. They can even be easily retro fitted to any existing bi-folding door.

FLOOR TRACKS WITH LIGHTING

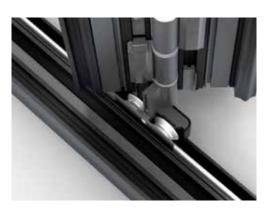
In many types of floor track, the 3s impact protection can be fitted with LED lights and concealed cabling. The lighting creates a great ambience, especially in the evenings. It also acts as an orientation aid to ensure that the track is easy to locate for the visually impaired.

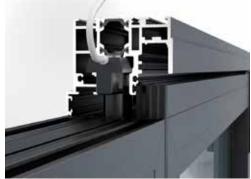


SYSTEMS TO SUIT ANY REQUIREMENT | The Bi-Fold Door Family 32 - 33

TAKE A LOOK INSIDE THE BI-FOLD DOOR FAMILY

Inter-system harmony was one of our greatest concerns when developing *The* Bi-Fold Door Family: all four variants use the patented technical details described in the following pages. The benefits of this approach are reflected in both the process for fitting of the bi-folding doors and their ease of operation.





CARRIAGES Optimum load transfer

The stainless steel carriage with double-layered grooved ball bearings runs smoothly and quietly, and its height can be adjusted during installation. It offers optimum load transfer onto its rollers and running track, allowing it to carry even heavy panels with little effort. The entire stainless steel sliding technology is extremely low-maintenance and non-wearing. **LOCKING MECHANISM** *Certified to security standard RC2*

With its 24 mm upward and downward stroke in the frame, the Solarlux special gearbox provides a high level of security. It can be fitted with a reed-contact lock monitoring system and concealed wiring, available in RC2 or RC2N design.



TWINX® Uniform panel design

The TwinX[®] concealed panel centring mechanism stands for uniformity, homogeneous panel design (only the top and bottom hinges are visible). Keeping the panels centrally aligned with one another, provides stability even when the system is subjected to high wind loads, and ensures that the joint alignment remains even. It also ensures that the seal levels remain unchanged and uninterrupted throughout the system.





The "Comfort Snap" functional panel catch offers incredibly convenient operation when operating your bi-folding door. The swing panel can be opened and closed easily and securely by following the set sequence: once fully opened, the swing panel snaps onto the next panel, and is not released until it is closed again.



FRAME COVER Homogeneous sight lines

The black polyamide frame cover conceals all the fixings. In addition to this, the hollow space between the base of the profile and the cover can be used to lay concealed cables or house an additional convection chamber.



IMPACT PROTECTION *A safe step*

The Solarlux 3s aluminium impact protection, clips into the floor track. It also keeps dirt out of the running track and is easily removable again if required.







The cleaning pin with "Easy Clean Technology" is convenient to lock and unlock, and makes cleaning the outer faces of the panels easy, even on the upper floors of tall buildings. Thanks to its new locking technology, it is impossible to operate incorrectly. The new safety lock prevents the hinge pin from falling out.



The adjustable side profile provides a quick and easy means of compensating for panel tolerances. The width of the panels is adjusted in the sub-frame, and this operation no longer needs to be carried out separately for each panel. As a result, the seal contact pressure between the panels is maintained at every point. The adjustable profile does not interrupt the sealing level.



FITTING PANELS *Optimum load transfer*

The stainless steel fittings offer optimum load transfer in the most stable section of the laminated profile when fitting the frame. A sealing cushion behind the screw head seals the mounting hole to prevent any moisture ingress.



THE ALL-GLASS BI-FOLDING DOOR SL 82

ALUMINIUM

Award-winning design with a unique look

The flush outer design of its glass surface gives the all-glass, aluminium bi-folding door SL 82 a unique look that will appeal to even the most discerning design fans. It is the winner of the Red Dot Award: Product Design and the iF Product Design Award.

THE SL 82 IN BRIEF:

- · An all-glass aluminium system
- · Stepped-edge glazing conceals profile to create an all-glass look
- \cdot Glass edges protected by all-round aluminium panel frame
- with slim 8 mm sight line
- Optimum thermal insulation in accordance
- with the latest energy-saving regulations
- · Sturdy, hollow-chamber profiles with quadruple-rolled break profiles
- · Built-in convenience lock for high-level security
- · Elements can be opened and closed from outside using
- through-glass lever door handle and profile cylinder
- · Flush floor track without rebate for accessible living

THE BI-FOLDING DOOR SL 97

WOOD/ALUMINIUM

Thermal insulation for maximum energy savings

The great thermal insulation offered by the wood/aluminium SL 97 will help to bring your home closer to passive house standards. Laminated wood profiles with a overall depth of 96 mm offer additional insulation level and triple glazing result in a U-value of \geq 0.8 W/m²K.

THE SL 97 IN BRIEF:

- \cdot Highly heat-insulated wood/aluminium profile system
- $\cdot U_w$ of $\geq 0.8 W/m^2 K$
- Laminated woods with rear-ventilated aluminium outer cover shells and additional insulation layer
- \cdot System fitted with underlaid running gear as standard
- \cdot Running and guide rails built flush into the system
- · All designs come with swing panel
- Panels fold either inwards or outwards and either left or right







THE BI-FOLDING DOORS SL 35 & SL 45

ALUMINIUM

Wind & weather protection for balconies & patios

Depending on their requirements, some projects are also suited to the use of non-insulated bi-folding doors. These elements can be used as balcony glazing for non-insulated facades, glazing for under glass canopies, or in any situation where thermal insulation is not important, e.g. as internal partitions.

THE SL 35 & SL 45 IN BRIEF:

- Non-insulated aluminium systems
- Overall depth: 35 mm/45 mm
- · Low-wear, even after 10,000 operations
- Flush floor track without rebate for accessible living
- Two all-round gasket seals to protect against wind and rain

SL 35 features

- Cleaning pin for cleaning the outer faces of the panels on upper levels
- Highly sturdy thanks to tongue and groove joint and sturdy corner sections
- SL 45 features
- One section of the panel opens inwards, the other outwards
- System can be segmented up to 22.5°



SYSTEM SPECIFICATIONS - COMPARISON

44 - 45

GREAT DIVERSITY REQUIRES clarity

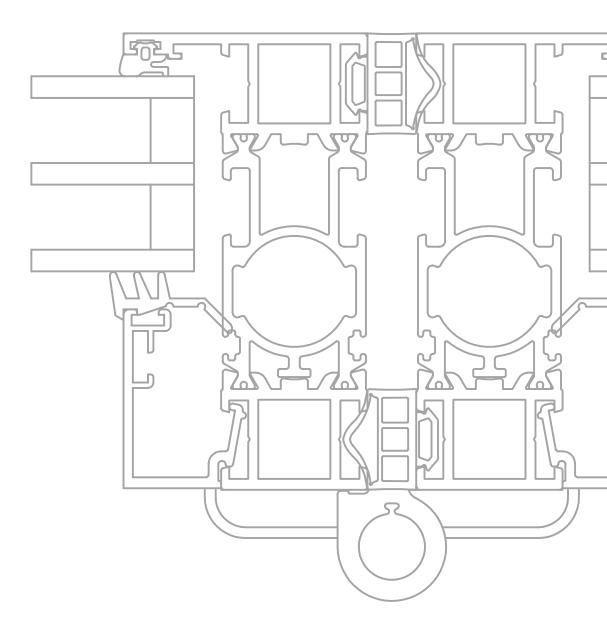
SYSTEM SPECIFICATIONS - COMPARISON

OVERVIEW OF THE SYSTEMS

	ECOLINE	HIGHLINE	WOODLINE	COMBILINE
Material				
Aluminium	٠	•	0	0
Wood	0	0	•	0
Wood/aluminium	0	0	0	•
Profile				
Thermally insulated	٠	٠	•	•
Non-insulated	0	0	0	0
Overall depth	67 mm	84 mm	86 mm	86 mm
Panel joint sight line	99 mm	99 mm	143 mm	147 mm
Frame height	0 - 72 mm	0 - 72 mm	0 - 72 mm	0 - 72 mm
Glazing				
Glass thickness	5 - 36 mm	22-60mm	28 - 48 mm	28 - 48 mm
Thermal insulation value				
U-value	≥ 1.1 W/m²K	≥ 0.8 W/m ² K	≥ 1.0 W/m²K	≥ 1.1 W/m²K
Panels				
Max. panel dimensions (max. width, max. height)	1 m w., 3 m h.	1.1 m w., 3.5 m h.	1 m w., 2.8 m h.	1 m w., 2.8 m h.
Panel weight	90 kg	110 kg	100 kg	100 kg
Sealing				
Resistance to wind load in accordance with DIN EN 12210	B4	B4	C3	В3
Impermeability to driving rain	88	9A	7A	7A
Air permeability	3	3	3	3
Burglar resistance	RC2	RC2	Tests ongoing	Tests ongoing

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	SL 82	SL 97	SL 35	SL 45
Material				
Aluminium	٠	0	•	•
Wood	0	0	0	0
Wood/aluminium	0	•	0	0
Profile				
Thermally insulated	٠	٠	0	0
Non-insulated	0	0	•	•
Overall depth	80 mm	96 mm	35 mm	45 mm
Panel joint sight line	104 mm	184 mm	100 mm	117,5 mm
Frame height	12 - 97 mm	45 - 108 mm	5 - 70 mm	5-64 mm
Glazing				
Glass thickness	30 - 38 mm	24-46 mm	5-18 mm	5-20 mm
Thermal insulation value				
U-value	≥ 1.2 W/m²K	\geq 0.8 W/m ² K	-	-
Panels				
Max. panel dimensions (max. width, max. height)	1 m w., 2.5 m h.	1 m w., 2.5 m h.	0.9 m w., 2.2 m h.	1.1 m w., 2.5 m h.
Panel weight	70 kg	100 kg	65 kg	100 kg
Sealing				
Resistance to wind load in accordance with DIN EN 12210	B4	C3	-	-
Impermeability to driving rain	7A	7A	4A	4A
Air permeability	3	3	2	2
Burglar resistance	-	-	-	-





THE TECHNOLOGY OF THE BI-FOLDING DOOR

THE BI-FOLDING DOOR FAMILY

Detail sections: Ecoline - Aluminium Detail sections: Highline - Aluminium Detail sections: Woodline - Wood Detail sections: Combiline - Wood/aluminium Floor track variants Frame solution for element combinations Window sill connections

SL 82 Detail sections: All-glass/aluminium

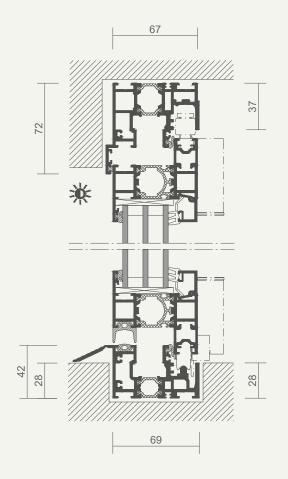
SL 97 Detail sections: Wood/aluminium

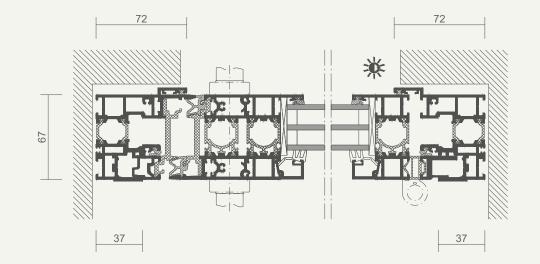
SL 35 AND SL 45 Detail sections: Aluminium

THE BI-FOLDING DOOR FAMILY

Detail sections: Ecoline – Aluminium

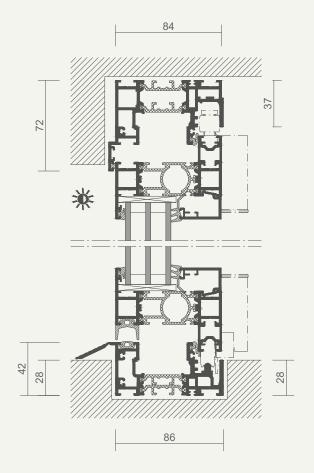
Vertical section

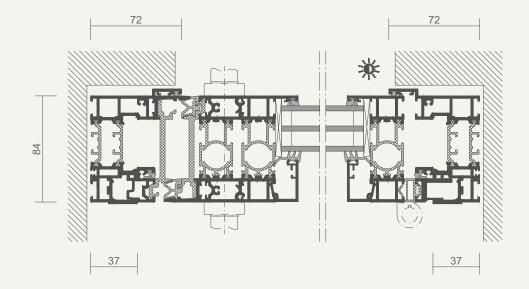




Detail sections: Highline – Aluminium

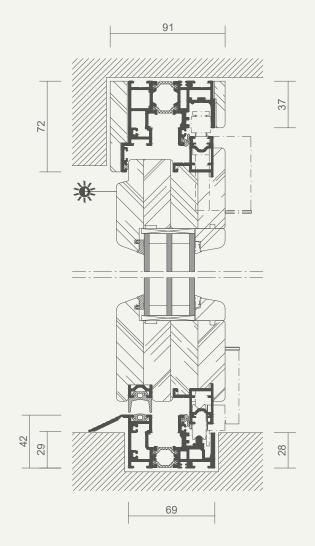
Vertical section

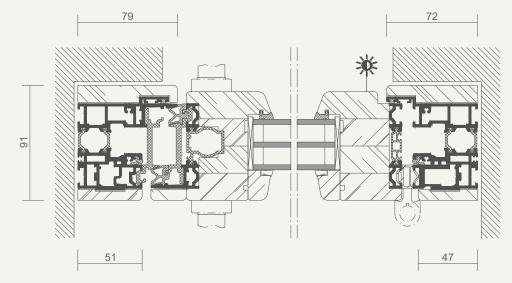




Detail sections: Woodline – Wood

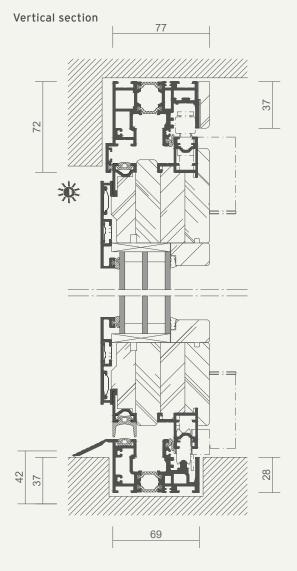
Vertical section

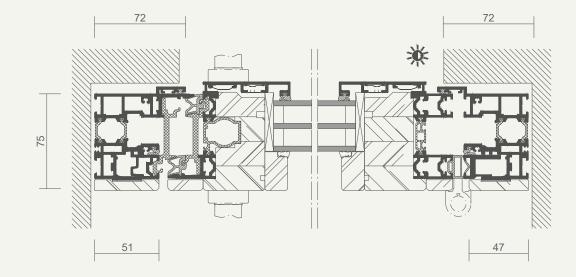




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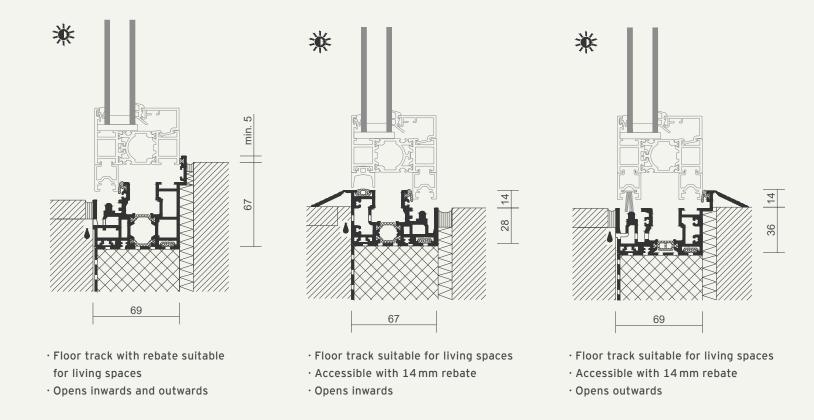
Detail sections: Combiline – Wood/aluminium

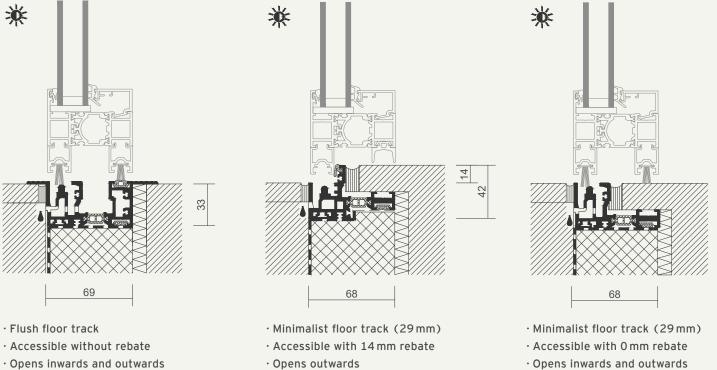




Floor track variants

The only way to cater for different applications is with a variety of floor tracks. We offer the right solution for every area: accessible and suitable for living spaces, with a rebate or completely flush, and even a minimalist option with a depth of just 29 mm. You can choose any of the floor tracks designed for *The* Bi-Fold Door Family, regardless of the material. Runners and guide rails are integrated into the respective systems so do not protrude.

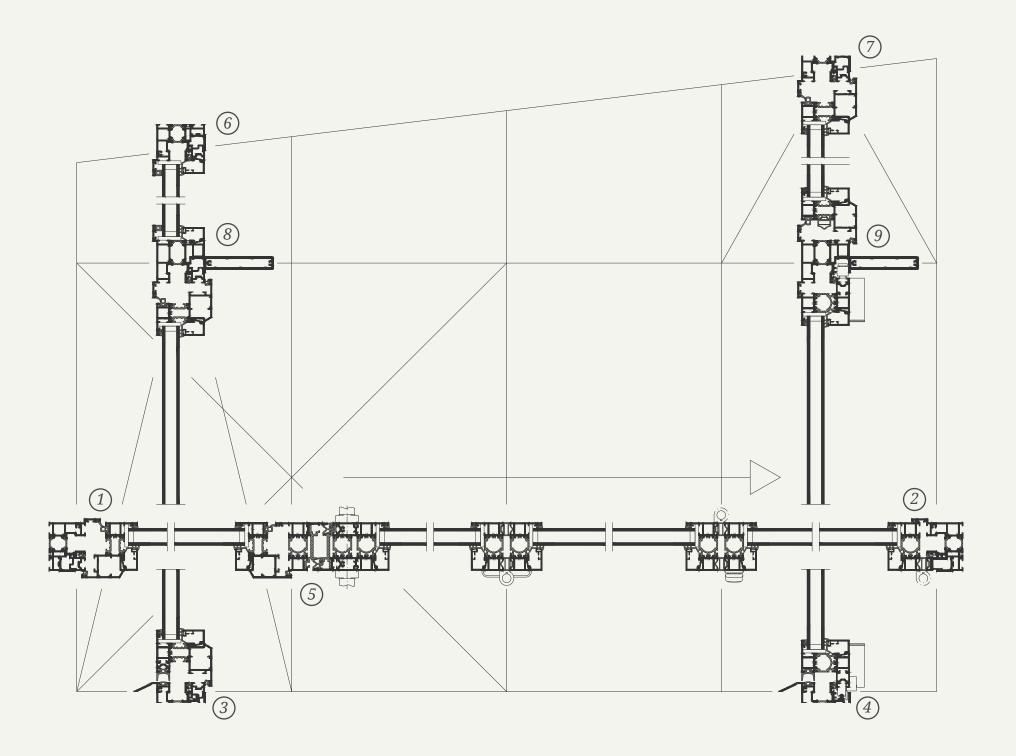




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Frame solution for element combinations

In more complex projects, the remit often extends beyond simply integrating a bi-folding door into the building – other elements such as tilt-and-turn panels, fixed elements and overhead panels are also required. Thanks to its built-in mullion, the run-through modular frame can be used to mount a variety of options in a single frame without joining the elements in question. This guarantees slim sight lines throughout the system.

(1)(2)

FRAME PROFILE, LEFT & RIGHT

• Side frame profile for the tilt-and-turn element and the hinge side of the bi-folding door



RUN-THROUGH FLOOR TRACK

 Accessible floor tracks suitable for living spaces, for the tilt-and-turn element and the bi-folding door

67

TOP FRAME PROFILE

 Top frame profile for the fixed element and the tilting panel

(5)

MULLION PROFILE

• Thin mullion profile between the tilt-and-turn element and the swing panel of the bi-folding door

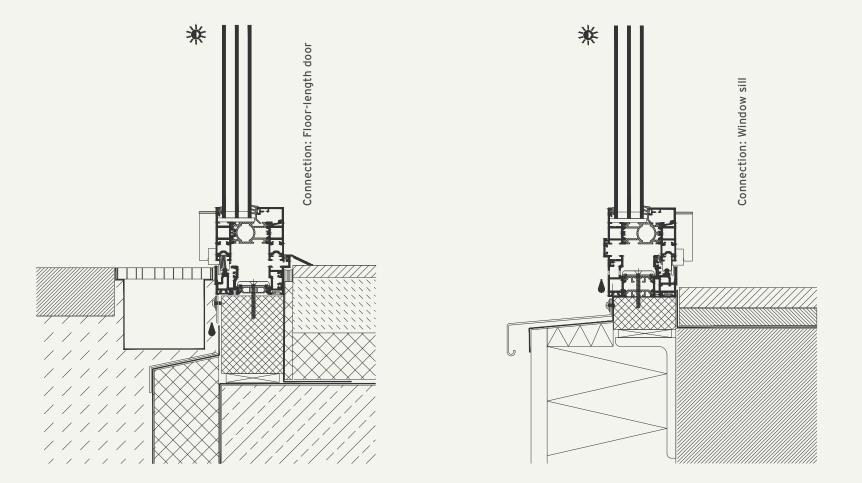


STATIC BOLT

• Thin, multi-functional static bolt for absorbing transverse loads

Window sill connections

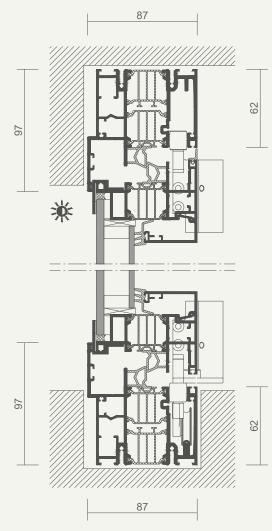
Gasket with beading in the frame groove ensures a connection that provides protection against wind and driving rain. The window sill connection below the frame profile allows controlled drainage of any water. This prevents water from entering the building structure.

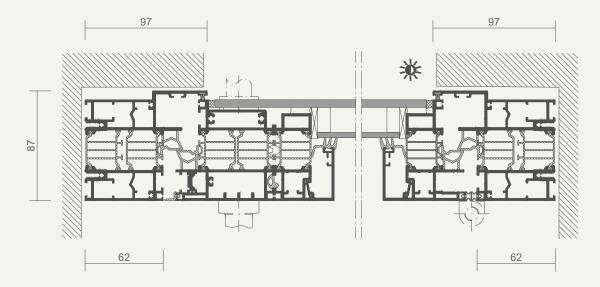


SL 82

Detail sections: All-glass/aluminium

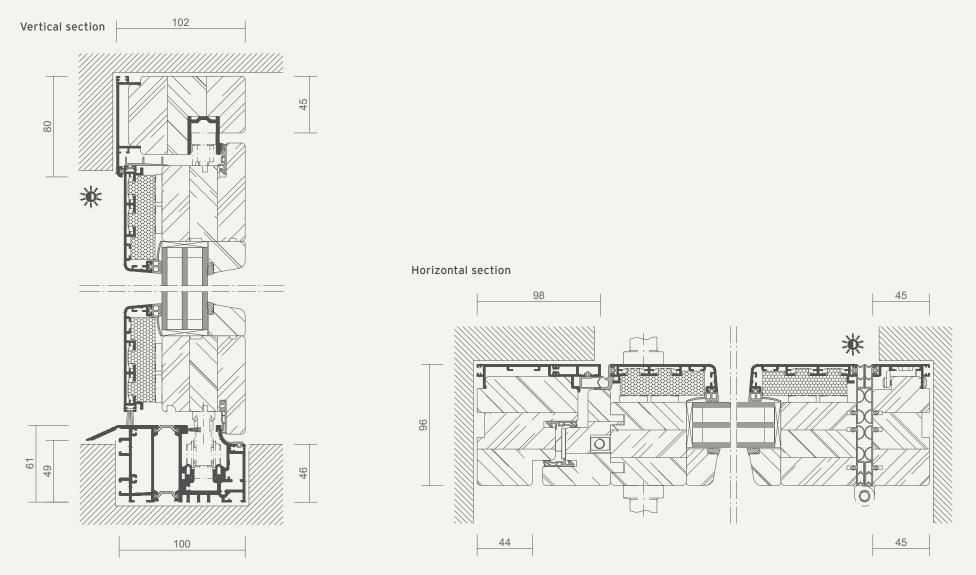
Vertical section





SL 97

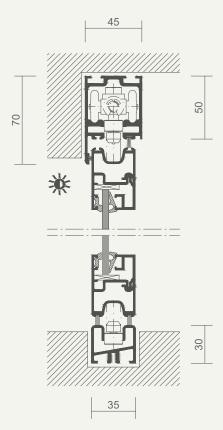
Detail sections: Wood/aluminium

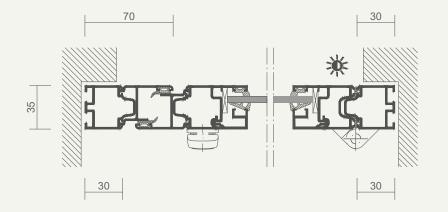


SL 35

Detail sections: Aluminium

Vertical section



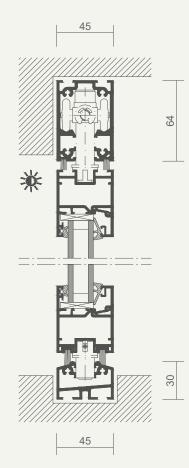


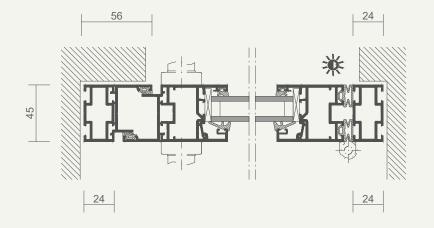
62 - 63

SL 45

Detail sections: Aluminium

Vertical section







ABOUT SOLARLUX

ABOUT SOLARLUX

PLACE YOUR TRUST

IN A STRONG company

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A SPECIAL FAMILY-OWNED COMPANY

Down-to-earth, innovative and passionate

For more than 35 years, Solarlux has represented exceptional quality in the production of bi-folding doors, glass extensions and facade solutions. Founded by Herbert Holtgreife and based in the town of Melle, north-west Germany, the company is now managed by Holtgreife's son, Stefan. But the real driving force behind Solarlux is its employees: A workforce of around 800 imaginative employees is vital for the success of the leading system provider.

The company's environmentally friendly approach to production, in-house production control structure and compliance with the highest quality standards are reflected in its ISO 9001, ISO 14001 and DIN EN 1090 certificates. When combined with the extensive community outreach that has been part of Solarlux ever since it was founded, this truly makes the family-owned company something special.



"YOU CAN LOOK BACK,

AND YOU CAN LOOK TO THE

FUTURE. WE DO BOTH."

THE WORLD OF SOLARLUX



WHAT DOES SOLARLUX STAND FOR?

- · Family-owned company
- · Certified in accordance with ISO 9001
- · In-house Research and Development division
- · 800 employees worldwide
- · Successful projects in over 60 different countries
- \cdot Community outreach, sense of responsibility for people and nature



PRODUCTION

- 55,000 m² production site in north-west Germany
- · State-of-the-art manufacturing machinery
- · In-house painting line and powder-coating plant
- · Sustainable and energy-efficient
- \cdot Certified in accordance with environmental standard ISO 14001

SOLARLUX PRODUCTS

- \cdot Made in Germany
- CE-approved
- · Certified and independently tested
- \cdot Winners of national and international design awards
- Equipped with the best profile surface
- · Comply with the strictest quality standards
- \cdot Custom products made to order

SOLARLUX SERVICE

- Top-class consultation
- Everything from a single source
- · Tidy assembly
- Private and public building projects handled professionally
- Maintenance and service agreements that extend beyond project completion

KEEP TRACK OF SOLARLUX IN THE DIGITAL REALM

Stay up to date

Projects, references, news - the world of Solarlux moves fast, and an image is sometimes worth a thousand words. What more reason do you need to visit our website or the mySolarlux portal, or to follow us on social media?

But it should go without saying that, even in this digital age, we love hearing from you directly and answering your questions in person or on the phone. So don't delay - contact us today! Whether you'd like a zero-obligation consultation session, a sketch of your personal idea, or simply an answer to your question, there are plenty of ways to get in touch with us.



