

The new minimalism.

SCHÜCO

SCHÜCO AS PD 75.HI PANORAMA DESIGN SLIDING SYSTEM

The new minimalism.

SCHÜCO

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How modern glazing and window construction is reinventing minimalism.

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LESS IS MORE



Iconic architecture, such as Ludwig Mies van der Rohe's Farnsworth House or Richard Neutra's bungalows, has already demonstrated the impact that glass can have in the context of minimalist design. However, from a technical point of view, an almost completely transparent façade is now considerably easier to achieve than it was in the early days of minimalist architecture. Glass is currently undergoing an exciting evolution, particularly in the field of high-end residential construction. Transparent façade solutions and frameless sliding doors are paving the way for a new, intelligent and radically contemporary minimalist style that offers designers and users more than ever before.

Minimalism as an aesthetic dogma

A minimalist glass building completely reduced to the essentials became a cornerstone of minimalist residential architecture in the 1940s – Farnsworth House, built by Mies van der Rohe. With large areas of glazing supported by steel angles, the master of “less is more” succeeded in creating a spectacular degree of continuity between the inside and outside, where the surrounding nature provided the backdrop for the home. The building stands for the uncompromising implementation of aesthetic minimalism, to which the needs of the inhabitants come second.

In a later design (1951), Mies van der Rohe went one step further and did away with window frames altogether. Unfortunately, the minimalist design caused the building to become damaged soon after it was moved into, severely impacting the comfort of its residents.

Minimalism becomes habitable

Richard Neutra's spectacular bungalows were built in California around the same time. Neutra also perfectly understood how to create a

link between nature and the home, between indoors and outdoors. Floor-to-ceiling glass walls, all-glass sliding doors and floor-to-ceiling windows are typical of his architecture.

However, the co-founder of American modernism believed that a home should not serve an architectural dogma, but cater to people's needs instead. Neutra's flat-roof bungalows embodied a habitable glass architecture where minimalism was not an end in itself.



Image on left

A typical American home designed by Richard Neutra, built in 1956.

Image below

Architectural minimalism par excellence: Farnsworth House by Ludwig Mies van der Rohe offers unrestricted views of rural Illinois.



Neutra factored extreme climatic conditions such as heat into his designs, along with his view that living space was an expensive, scarce resource. Nevertheless, the elegant, crystalline appearance of his homes could only be achieved using single glazing and by making compromises in the design, which had a negative impact on the comfort of the residents.

Minimalism becomes intelligent

Since then, glass has made more leaps and bounds in innovation than virtually any other material. Once brittle and delicate, it is now a high-performance building material that enables bold designs to be created for offices and industrial buildings, while also helping to control the indoor climate. Architects and engineers have also redefined the potential of the material in private homes. The glazing and window industry is combining high-quality design with sophisticated engineering ever more perfectly. In addition to the classic requirements of being able to see out, burglar resistance, lighting, insulation and ventilation, new and higher expectations are being added all the time. At the same time, technologies that are concealed when integrated are being developed at a rapid pace.

What remains unchanged is the fact that many developments in the window and glass industry can still be traced back to the pursuit of "aesthetics of nothingness", which has almost been a value in and of itself since the residential architecture of classical modernism. This is particularly evident in the case of sliding doors: a frameless appearance is now possible in almost any size, the profile systems are becoming ever narrower, and the installation can be completely hidden in the floor, ceiling and wall. However, as key design elements of contemporary architecture, sliding systems now also combine design with intelligent features. An electric drive enables heavy, fully transparent sliding units to be opened and closed quietly and with complete and utter ease. The new sliding doors are almost completely concealed, barrier-free, and also provide thermal insulation, as well as weather and burglar resistance.

Our new AS PD 75.HI Panorama Design sliding door also shows that architectural minimalism has come a long way: it is setting completely new standards in the perfect synergy between transparency, security, comfort and smart technology.

Image below

Focus on minimalism and transparency: the fully glazed south façade with Schüco Panorama Design sliding doors allows the living area of Martin Boden-Peroche's home to merge into the garden.



Interview with the architect Martin Boden-Peroche



Schüco: You have designed and built your house (pictured on the left) within a conservation area in Dresden. How would you describe your home?

MBP: I would describe it as clean, straight and honest due to its materials, such as concrete, wood and glass. The newbuild maintains a low profile in the conservation area and, as a flat pavilion clad in carbonised black wood, allows the old trees to shine.

Schüco: What are the characteristic features of the building?

MBP: It's a reinforced concrete construction, which is almost completely closed on the north side and nestled into the slope. A fully glazed façade opens up the house to the south. Inside, the building has been designed as an exposed concrete construction throughout. As a result, the exposed concrete walls will not require any other coating throughout their life. The only contrast is created by solid oak floorboards, which have been extended out onto the terrace using bamboo wood.

Schüco: Minimalism plays a key role then?

MBP: That's right. It's evident in the minimalist architecture here, which radiates a sense of tranquility both inside and out, as well as in the modest number of "raw" and genuine materials. This is also complemented by the functional interior design, which replaces a lot of loose furniture, and a single window format with floor-to-ceiling glazing. For me, this is what minimalism is all about.

Schüco: Why were Schüco Panorama Design sliding doors the best solution to realise your concept?

MBP: My aim was to design the fully glazed façade to be as transparent

and minimalist as possible, without any visible profiles. That's why the technology won me over – the fact that the profile face widths are completely hidden in the ceiling and floor and the fixed fields and opening vent are separated by a very narrow interlock section. The sliding systems meet all of my objectives in terms of design and energy efficiency, and provide barrier-free access throughout.

Schüco: How do you feel living inside such a transparent house?

MBP: I feel safe and protected despite the floor-to-ceiling glazing. With the closed side behind me, there's a beautiful panoramic view in front. I can watch the forest animals and am part of this small living environment. And yet I feel safe in this house, in my exposed concrete building, which surrounds me and keeps me warm in winter.

Schüco: Thank you for talking to us.

Martin Boden-Peroche

Together with Volker Giezek and Peter Jarisch, the architect and managing director is the head of the Dresden-based architectural practice CODE UNIQUE. The 72-strong team acquires its projects exclusively through design competitions and defines itself by its functional, contemporary and tech-savvy design style.







The new Panorama Design sliding door brings convenience and design into perfect harmony and elevates minimalism in residential architecture to a new level.

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**AS PD 75.HI –
A NEW LEVEL OF
TRANSPARENCY**

Panorama Design sliding doors

The views don't get any better than this. Schüco Panorama Design sliding doors are characterised by large areas of glass and narrow profiles. In particular, they have been developed to create floating architecture that is flooded with light. Their hallmark is maximum transparency, which allows the architecture to blend in with its surroundings. Concealed outer frames and slender face widths allow the glass surfaces to take centre stage. Smart technology is also concealed in the Panorama Design sliding doors.

Schüco AS PD 75.HI in detail

The Panorama Design sliding system is an absolute favourite with architects in the premium residential sector. The new Schüco AS PD 75.HI (Aluminium Sliding Panorama Design High Insulated) is now offering even more scope for ambitious design.

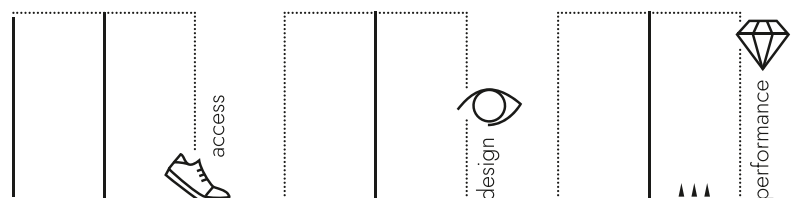
1 Lift-and-slide technology With its optional lift-and-slide design, the new sliding system combines the best of both worlds: for the first time, the award-winning transparency of Panorama Design and ground-level ease of access are no longer mutually exclusive. AS PD 75.HI combines design, safety, security, quality and functionality with simple installation.

2 Variety of designs AS PD 75.HI provides architects with a wide range of add-ons that emphasise the minimalist appearance. The integrated flush pull grip enables manual versions to have a flush-fitted appearance when closed as well. What's more, the dynamic cover profile ensures a flush-fitted look when open. As a result, the sliding door blends in perfectly with the interior design.

3 Exciting features One sliding door, lots of design options: thanks to the extensive range of options, clients can design the AS PD 75.HI system to suit their own, individual requirements. Optional features, such as the Schüco AB ZDS sun shading system, Building Skin Control (BSC) or Schüco WoodDesign can be used to customise the pre-configured product lines.

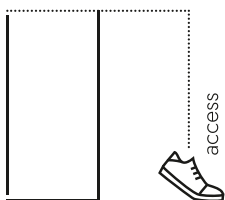
Three lines – maximum individuality

We wanted to develop a sliding door system to satisfy almost any project requirement in the premium residential sector. That's why we talked to architects, specifiers and clients and listened carefully to what they had to say. The Access, Design and Performance product lines are the result, which make a tailored solution possible for every requirement.



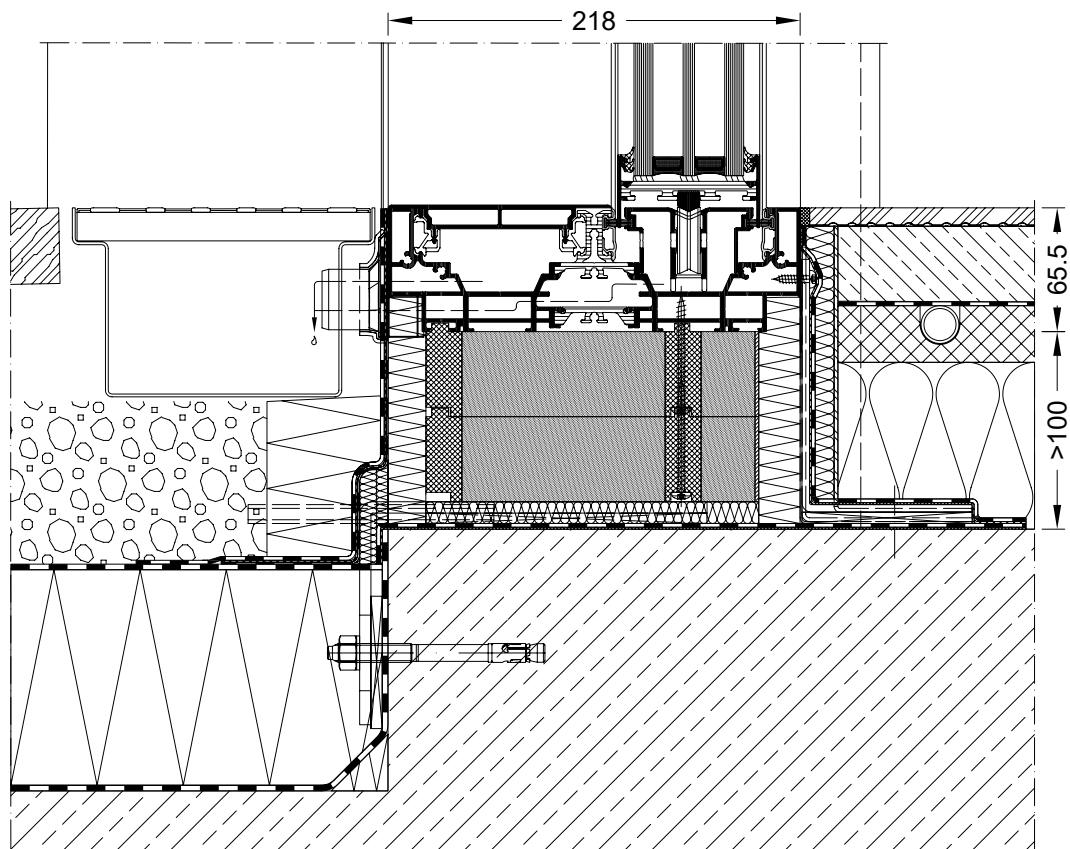
The focus of Access Line is on convenience and features a barrier-free threshold and simple operation.

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ACCESS LINE

Attachment to building structure



Bottom floor attachment

Scale 1:4

Technical performance



Air permeability
Up to class 4



Wind load resistance
Up to class B4/C3



Watertightness
Up to class 8A



Thermal insulation*
To 0.86 W/(m²K)



Burglar resistance
Up to RC 2

* Type: 2A/1, unit: 4500 mm x 3500 mm,
Glass: $U_g = 0.5 \text{ W/(m}^2\text{K)}$.

Add-ons



Dynamic cover profile



Pull grip



Turn knob



Locking in the ventilation position
(with burglar resistance up to RC 2*)



Smart home



Monitoring of opening and closing



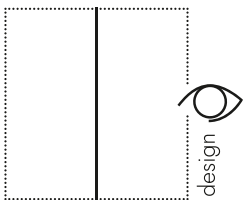
Sun shading



Schüco WoodDesign

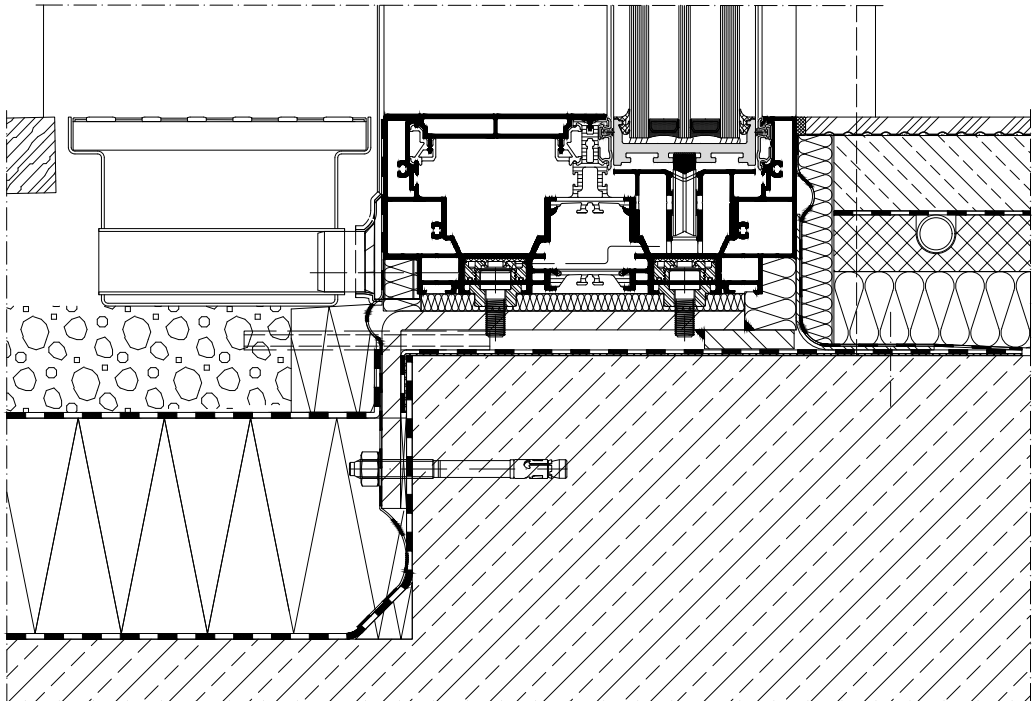
**The frameless Design Line allows
for breathtaking views and makes
style the focal point.**

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DESIGN LINE

Attachment to building structure



Bottom floor attachment

Scale 1:4

Technical performance



Air permeability
Up to class 4



Wind load resistance
Up to class B4/C2



Watertightness
Up to class E750



Thermal insulation*
To 0.84 W/(m²K)



Burglar resistance
Up to RC 2

* Type: 2A/1, unit: 4500 mm x 3500 mm,
Glass: $U_g = 0.5 \text{ W/(m}^2\text{K)}$.

Add-ons



Dynamic cover profile



Pull grip



Flush pull grip



Locking in the ventilation position
(with burglar resistance up to RC 2*)



Smart home



Monitoring of opening and closing



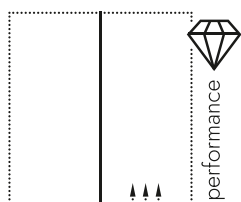
Sun shading



Schüco WoodDesign

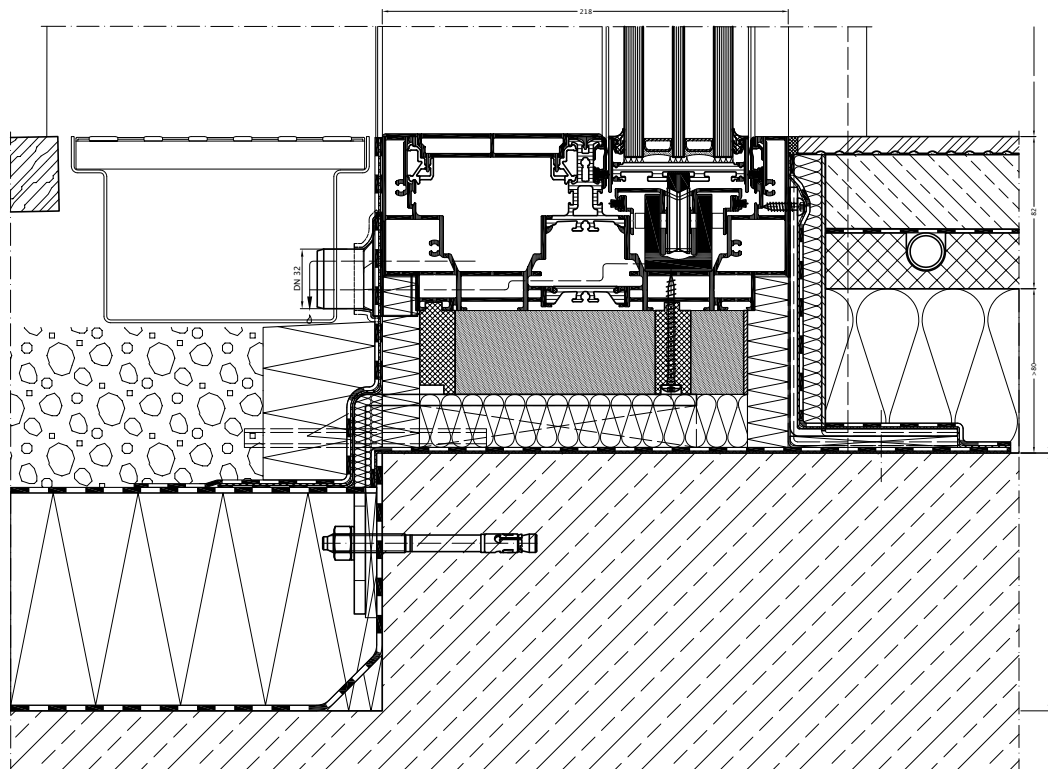
**As a lift-and-slide construction,
the Performance Line combines
maximum comfort with stylish
design for the very first time.**

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PERFORMANCE LINE

Attachment to building structure



Bottom floor attachment

Scale 1:4

Technical performance



Air permeability
Up to class 4



Wind load resistance
Up to class C4



Watertightness
Up to class E1050



Thermal insulation*
To 0.82 W/(m²K)



Burglar resistance
Up to RC 3

Add-ons



Dynamic cover profile



Smart home



Monitoring of opening and closing



Sun shading



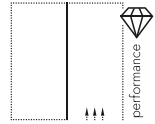
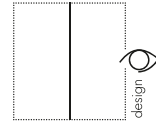
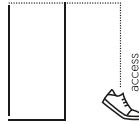
Schüco WoodDesign

* Type: 2A/1, unit: 4500 mm x 3500 mm,
Glass: $U_g = 0.5 \text{ W/(m}^2\text{K)}$.

Schüco AS PD 75.HI fulfils the highest architectural demands and impresses right down to the last detail.

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**THREE PRODUCT
LINES AT A GLANCE**



PROPERTIES	ACCESS LINE	DESIGN LINE	PERFORMANCE LINE
 Basic depth of outer frame	218 mm	218 mm	218 mm
 Basic depth of vent	75 mm	75 mm	75 mm
 Max. vent width	3500 mm	3500 mm	3500 mm
 Max. vent height	3500 mm	3500 mm	3500 mm
 Max. vent weight	500/800* kg	500/800* kg	600 kg
 Face width of interlock section	35 mm	35 mm	35 mm
 Glass thickness	40–60 mm	40–60 mm	40–60 mm
 Frameless appearance		●	●
 Barrier-free threshold	●		●
 Manual operation	●	●	
 Schüco TipTronic	○	○	●
ADD-ONS			
 Dynamic cover profile	●	●	●
 Pull grip	●	●	
 Integrated flush pull grip		○	
 Turn knob	○		
 Locking in ventilation position	○	○	
 Smart home	○	○	○
 Monitoring of opening and closing	○	○	○
 Sun shading	○	○	○
 Schüco WoodDesign	○	○	○

* With Schüco TipTronic.

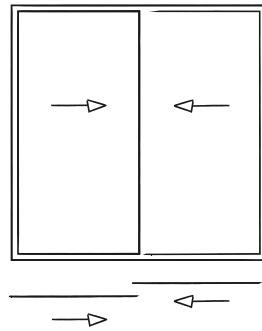
● = Standard, ○ = Optional

The wide range of opening types provides greater design freedom: versions that open to the left or to the right, or that run internally or externally, are available.

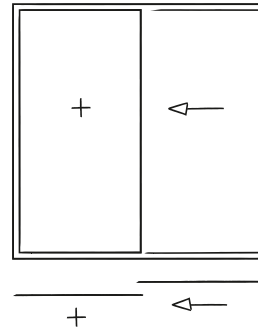
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OPENING TYPES

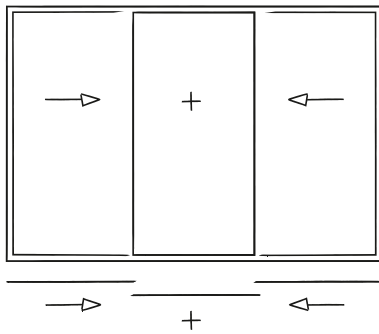
Type 2A



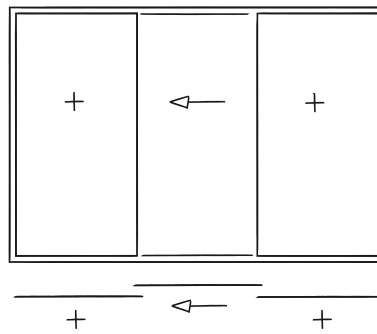
Type 2A/1



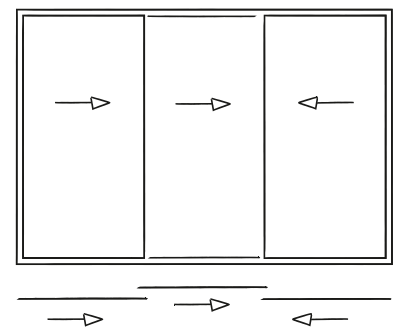
Type 2B



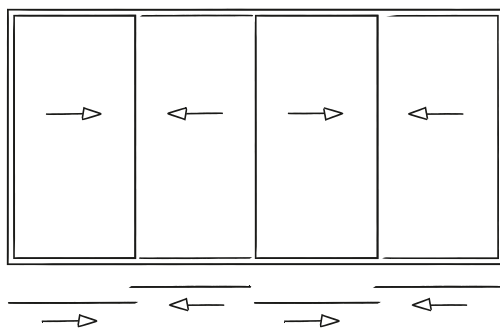
Type 2C



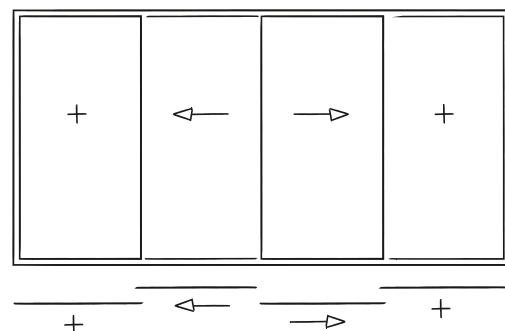
Type 2E



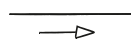
Type 2G



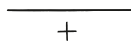
Type 2G/1



Movable unit



Fixed light



Extensive design freedom

Two tracks allow large opening widths and therefore flexible options for playing with light and breadth.

Other opening types and solutions are available from
PreFab Paderborn. See pages 38–39.





**The right features
for every building project.**

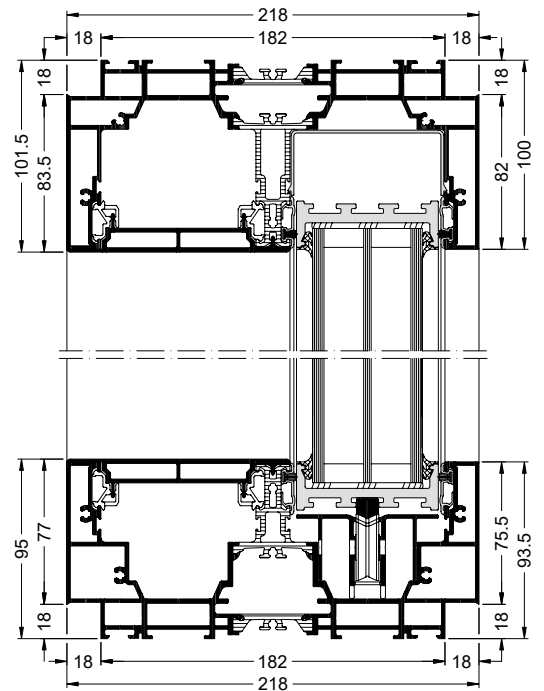
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**TECHNICAL
DETAILS**

Features

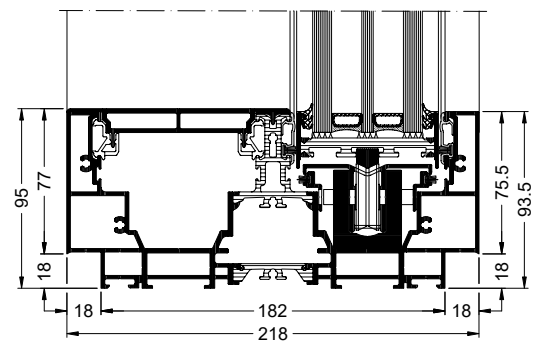
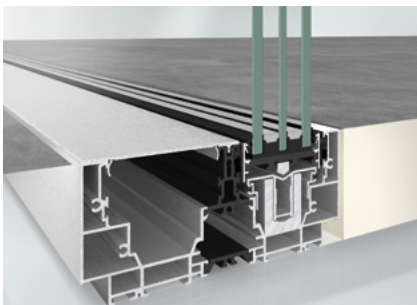
Frameless views

The Panorama Design sliding system is characterised by the large-scale glass areas from the floor to the ceiling, with flush-fitted frames concealed in the walls, ceiling and floor. Only the narrow interlock section (35 mm) is visible between the vent units. The result is practically limitless views.



Barrier-free access with impressive views

Level thresholds and frameless views are now possible thanks to the lift- and slide technology of the Schüco AS PD 75.HI Performance Line. When the door is closed, the vent frame disappears into the bottom outer frame. When the door is opened, it lifts to create a barrier-free threshold.

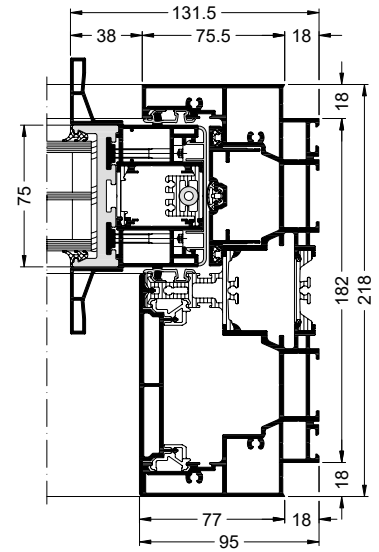
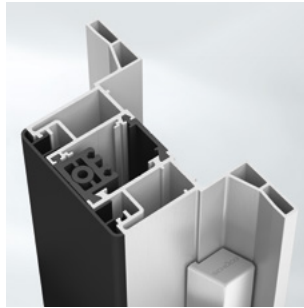


The scale of the section details is 1:4

Operation add-ons

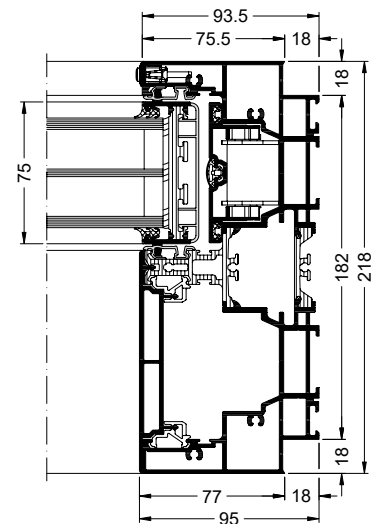
Operation by means of a pull grip or turn knob

The continuous pull grip allows the manual vent units to be moved easily and conveniently. A turn knob is also available for the Access Line as a locking point. Positioned on the interlock profile, it underlines the system's maximum transparency.



Automated operation

While the Performance Line is always mechatronically operated, this is available as an option for the Access Line and Design Line. When fitted with Schüco TipTronic, the sliding units can be operated at the touch of a button via the app or a switch.



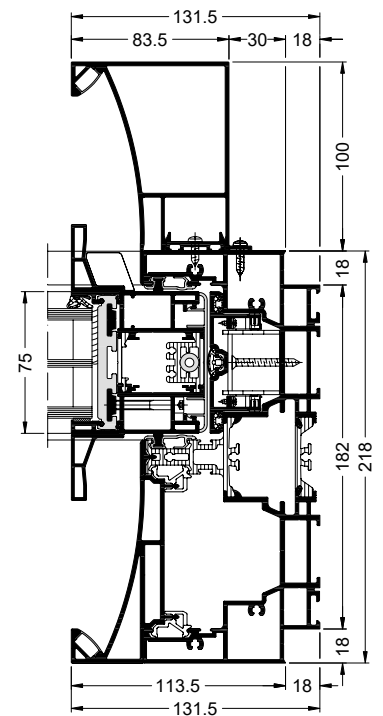
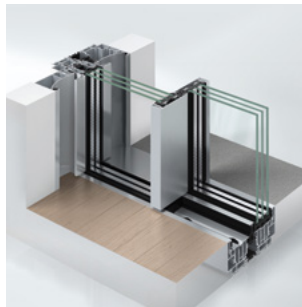
The scale of the section details is 1:4

Design add-ons

Flush-fitted appearance

The sliding system boasts a clean appearance undisturbed by joints or fittings. The dynamic cover profile runs parallel to the vent from the outer frame and ensures a flush-fitted appearance – even when the door is open.

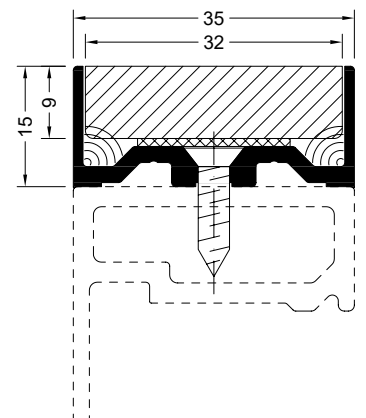
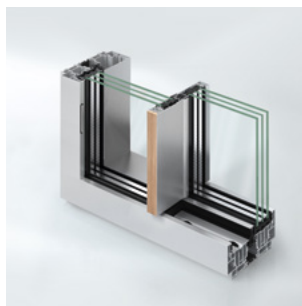
The Schüco AS PD 75.HI Design Line is also available with an integrated flush pull grip to perfect the minimalist look. The pull grip moves into the recess when the unit is closed, making it practically invisible. The integrated flush pull grip enables manual versions to have a flush-fitted appearance as well.



Scale 1:4

Timber and aluminium combined

Schüco WoodDesign is available as an option and combines the warm, natural charm of timber with the security and stability of aluminium. A decorative wood strip is attached to the interlock section via an adapter profile. The colour scheme of the sliding door can be customised to match the interior design.

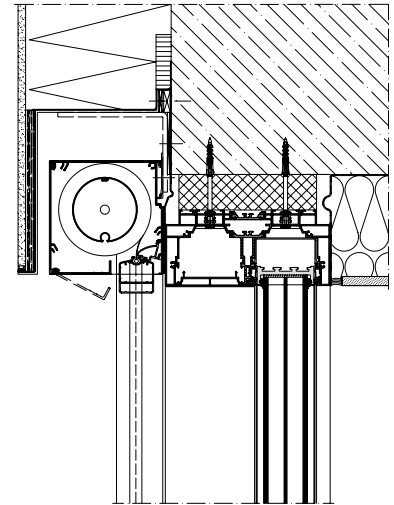


Scale 1:1

Comfort add-ons

Schüco AB ZDS sun shading system

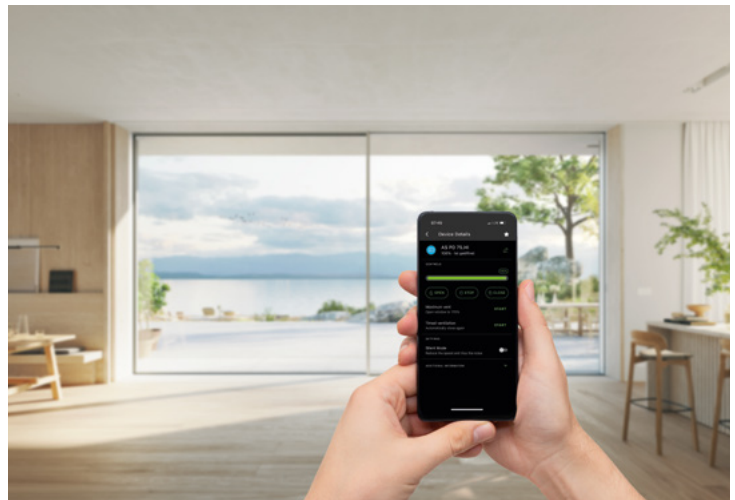
The external Schüco AB ZDS (Aluminium Blind Zip Design Screen) textile sun shading system is now available for the first time in the Panorama Design range. The guide tracks and blind box are directly attached to the building structure. As the sun shading is integrated into the load-bearing system, the minimalist appearance of the building envelope is not compromised. When lowered, it creates an opaque area that, depending on the choice of fabric and colour, can make a real visual statement.



Scale 1:10

Secure smart home integration

Thanks to the smart Building Skin Control (BSC) management platform, Schüco systems, in conjunction with Schüco TipTronic, can be connected to each other and to conventional smart home solutions such as Gira and Alexa, as well as to the bus systems KNX, BACnet and Loxone. This enables even heavy sliding units to be opened and closed fully automatically using an app on a tablet or smartphone. At the same time, the new finger-trap protection software offers maximum safety and convenience.



Monitoring of opening and closing

Schüco AS PD 75.HI can also be enhanced with monitoring of opening or combined monitoring of opening and closing. With the aid of the Schüco magnetic switch, you can monitor whether a moveable unit is open, closed, locked or unlocked. The magnetic switch is integrated into the profile and cannot be seen when the opening units are closed. It also fulfils VdS class B and potentially class C, which means it guarantees the highest level of protection against sabotage and can be used for special applications in burglar alarm technology.



Locking in the ventilation position

To enable the sliding door to be locked in position even when open, the locking points are located at the top and bottom of the vent, rather than on the side. The locking points can be machined at any point along the track. Since the open sliding door cannot be pushed open from outside when locked in position, the building can be ventilated securely, even when no one is inside.







**More flexibility with our prefabricated
Panorama Design kits**

38
39

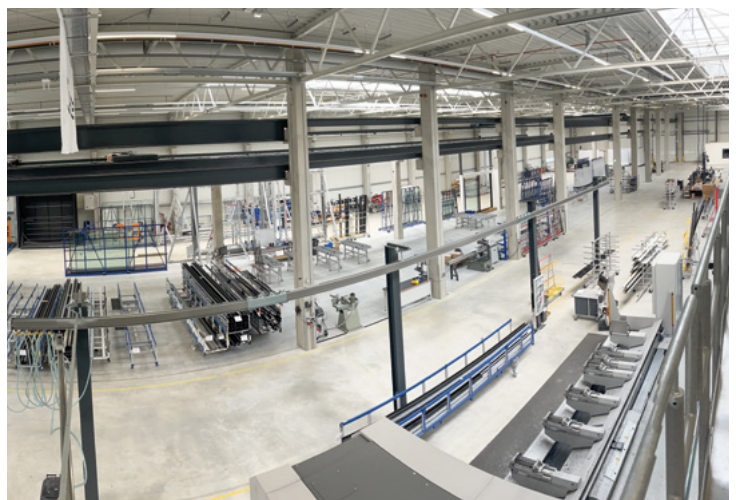
**CUSTOMISED SLIDING
DOORS**

Prefabricated kits

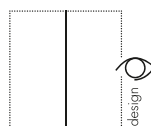
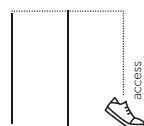
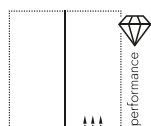
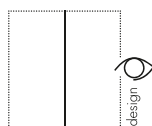
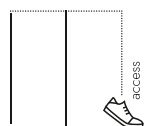
Every building project has different requirements. In addition to its extensive portfolio of tested system solutions, Schüco also offers a number of special solutions for customised sliding door constructions. Free configuration of the vent and corner constructions with angles greater or less than 90° in the area of the fixed lights are also possible, as are combinations of unequal numbers of tracks, such as transitions from double to triple track sliding systems. A check and approval of oversize units by Schüco ensures reliable and economical project planning.



The complex systems can be constructed quickly and easily using prefabricated assemblies that are manufactured in a purpose-built factory in Paderborn (Schüco PreFab). The precise fabrication kit – also available as a CE-compliant project-specific special solution upon request – is prepared in close collaboration with the specifiers and metal fabricators. The securely packaged assemblies are then delivered directly to the building site or location of the Schüco partner. This ensures high quality throughout the entire process.



THE PRODUCT LINES AT A GLANCE



MANUAL

TIPTRONIC

FEATURES	ACCESS	DESIGN	PERFORMANCE	ACCESS	DESIGN
Maximum vent height	4000 mm	4000 mm	6400 mm	6400 mm	6400 mm
Maximum vent width	4000 mm	4000 mm	5000 mm	5000 mm	5000 mm
Maximum fixed vent width	6400 mm	10000 mm	10000 mm	6400 mm	10000 mm
Maximum vent weight	500 kg	500 kg	600 kg	1000 kg	1000 kg
Maximum fixed vent weight	2000 kg	2000 kg	2000 kg	2000 kg	2000 kg
Seamless (double-track)	●	●	●	●	●
Can be rolled over by pneumatic tyres	●		●	●	
All-glass corner	●	●	●	●	●
Openable corner	06/2024	06/2024	06/2024	On request	On request
Offset double-vent versions 2G and 2G/1	Q3 2024	Q3 2024	●	●	●
Triple-track	*	*	Q2 2024	*	*
Alarm glass	●	●	On request		●
Height difference	●	●	●	●	●
Combination of double and triple-track	●	●	●	●	●
All glass corner <90°>	●	●	●	●	●
In-wall solution	●	●	●	●	●
Flyscreen (2A/1 and 2B)	Q3 2024	Q3 2024	On request	On request	On request
AB ZDS sun shading (single span: max. 18 m²)	●	●	●	●	●

*Available from Schüco PreFab.

● = Standard, ○ = Optional

The Schüco Technology Center in Bielefeld is one of the world's leading test centres for windows, façades, doors and sliding doors.

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**TESTED
AND CERTIFIED**



For almost half a century, we have been intensively studying the performance of materials and structures in relation to a range of different external factors and loads. We use the expertise we have gained in this way to inform our own product development and to support our partners as a manufacturing laboratory with project-specific testing services. The Schüco Technology Center is accredited as an independent (manufacturing) test laboratory and DAkkS calibration laboratory by the national accreditation body for the Federal Republic of Germany. This means that we offer reliable, robust and independent results based on globally recognised competence standards for test facilities, staff and organisations.

Testing and optimisation

The core specialist areas of the Schüco Technology Center include component, material and environmental simulation tests. The Technology Center has been extended to include a large building acoustics hall, making space for new, highly flexible test rig technology.

Research and development

Continually optimising new systems and validating the results: using our own test samples, we test the long-term durability and ageing behaviour of materials under the influence of heat, cold, moisture and UV light.

**Visit one of our showrooms in Germany
for information, inspiration and a special
experience.**

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SCHÜCO
SHOWROOMS



One exhibit often says more than a thousand images. Personal and expert advice is essential when it comes to the design and planning of your building project. Experience the Schüco product range up-close at our showrooms or at one of our partner's showrooms.



The latest information about the sites, as well as opening times and contact addresses, can be found on our website.

Berlin

Schlüterstraße 40
10707 Berlin, Germany

Bielefeld

Schücostraße 1
33609 Bielefeld, Germany

Düsseldorf

Franziusstraße 6
40219 Düsseldorf, Germany

Frankfurt am Main

Thurn-und-Taxis-Platz 6
60313 Frankfurt am Main, Germany

Hamburg

Watermark Tower, HafenCity
Überseeallee 10
20457 Hamburg, Germany

Weißenfels

Selauer Straße 155
06667 Weißenfels

Wertingen

Industriestraße 12
86637 Wertingen, Germany

With advice, digital solutions and inspiration, Schüco supports you at every stage of your building project – from the initial idea and planning, right through to fabrication and installation.

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**PLANNING DATA
FOR ARCHITECTS**

Specification texts

Our specification service for you

Regardless of the procedure for awarding contracts, whether public or not, our specifications provide the basis for reliable cost planning when it comes to construction work. Our free product specifications cover, for example, sliding doors, sun shading and functions such as burglar resistance. You can find our specification texts on our website, in Docu Center or at ausschreiben.de.



CAD data

To make your planning easier

The CAD library gives you the option of downloading AutoCAD dwg drawings for every single series. There are drawings for planning guidelines, rule details and design suggestions.



BIM objects

Planning data for BIM users

Building Information Modelling (BIM) provides new strategic solutions for the planning and realisation of construction projects as well as the operation of buildings. At the heart of this is a digital data model, which is used to create a virtual version of the planned construction project before it is actually built. Schüco supports users of the BIM method with planning modules and interfaces.



Plan.One

Independent comparison portal for construction products

Plan.One is a central database for digital planning where you can carry out a manufacturer-independent search for construction products in seconds. Standardised product properties allow you to quickly compare all of the products.



Architect website

Inspiration, information and news

In addition to the Panorama Design sliding door, find out all about our folding sliding and and lift-and-slide systems on our website. Aside from a wealth of inspiration, you will also find all of the products in detail. The practical product filter will also help you to find the right solution for your building project.



Schüco Docu Center

Technical documentation and information

Schüco Docu Center is home to all of the product data, certificates, planning guidelines, system solutions, application options, attachments to building structure and section details.



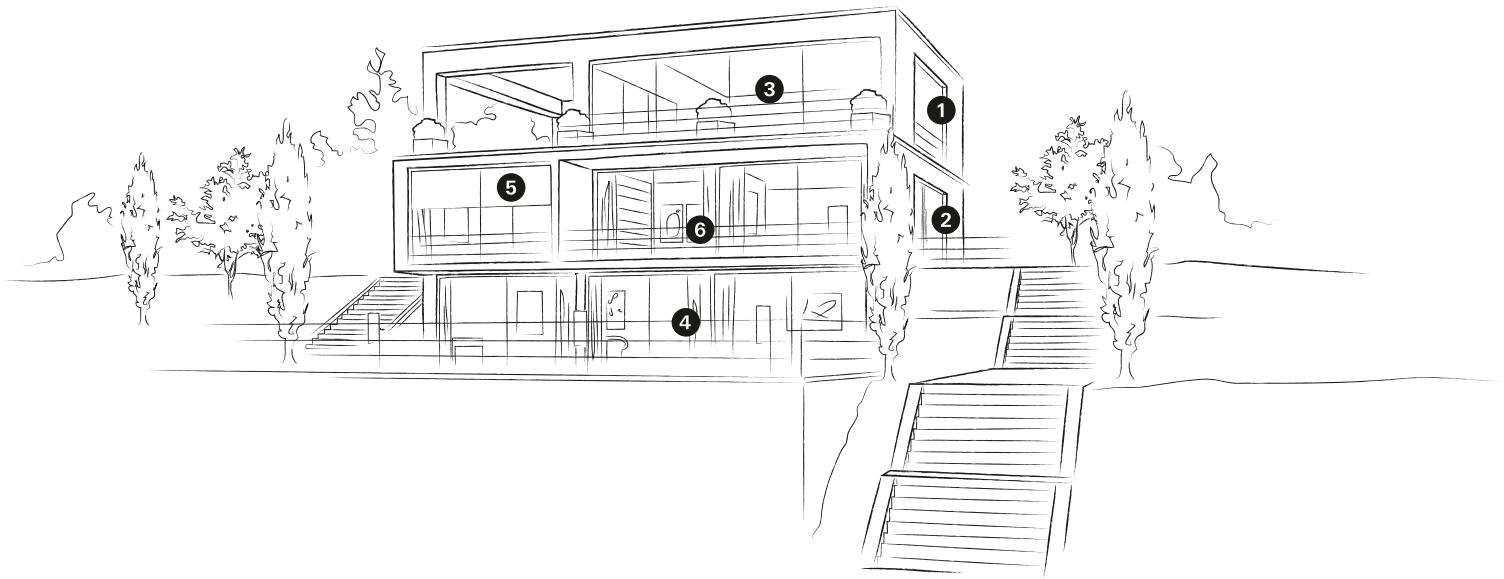
Do you still have questions?
service@schueco.com

**You shape the future of living
and working – we develop the
products. Together we create
buildings with foresight –
in terms of architecture,
technology and people.**

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**EVERYTHING FROM
A SINGLE SOURCE**

Schüco International KG provides high-quality systems for building envelopes made from aluminium, such as windows, doors, façades and sun shading solutions, and offers consultations for architects, investors and clients. Our success is based on innovation, partnership, excellence and responsibility for people and the environment. After all, the buildings we design today determine how future generations will live and work. That's why our aim is to be the industry leader in technology and service, today and in the future – so that, together, we can build a bright future.



- ❶ **Schüco windows** Advanced functionality, comfort all year round and a minimalist design, combined with a comprehensive choice of fittings and handles, plus a wide range of colours
- ❷ **Schüco doors** Many different formats and numerous, timeless designs for the highest levels of security, thermal insulation and functionality
- ❸ **Schüco sliding doors** Many different opening types, timeless designs, very easy operation and maximum transparency
- ❹ **Schüco building automation** Intelligent automation solutions for individual windows, doors and sliding doors, as well as fully networked systems for the entire building envelope
- ❺ **Schüco sun shading** Attractive sun shading and weather protection with many variations for large-scale, individual façade designs
- ❻ **Schüco balconies** A wide variety of styles, optimised system compatibility, individual design options and a high level of weather resistance – suitable for newbuilds and existing properties

Imprint

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Published by:

Schüco International KG
Karolinenstraße 1–15
33609 Bielefeld, Germany

Editor-in-chief:

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Lisa Landwehrjohann

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Concept and design:

entdecker*design

Illustration:

Ni" Jeanette Flick

Picture credits:

ullstein bild – ullstein bild (p. 10)
Robert Gommlich (p. 12/13)
David Nuglisch (p. 13)
Lukas Palik (p. 41)

All other images:

Schüco International KG

Lithography:

comwedo GmbH

Production:

Druckerei Vogl GmbH & Co KG

P 4568/04.24/Printed in Germany

We reserve the right to make changes
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