

# LIKO-S TECHNICAL STANDARDS FOR EXPORT

DOORFRAMES | HANDLES | LOCKS | DOOR CLOSERS | MOVABLE WALLS

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[www.liko-s.com](http://www.liko-s.com)

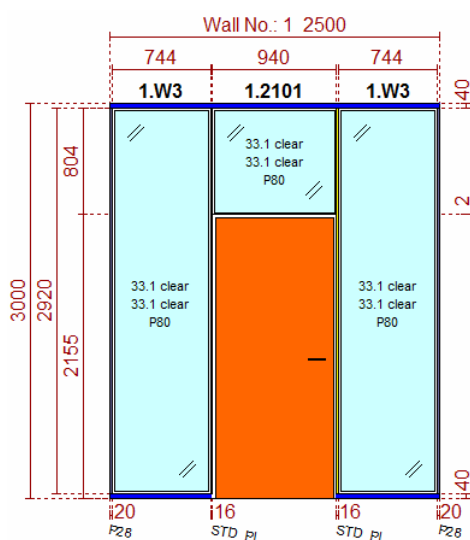
LIKO-S, a.s.  
U Splavu 1419  
684 01, Slavkov u Brna

tel.: +420 5 44 22 11 11  
email: [info@liko-s.cz](mailto:info@liko-s.cz)  
[www.liko-s.com](http://www.liko-s.com)

LIKOform® solution consists of four basic types. The standard door modules dimensions and clear width for each solution is below in the text. This guide shows how to read dimensions in drawings sent to our customers (made by our planning software Logitram).

Unless it is specifically agreed or designed with the customer, following dimensions are applied to our products.

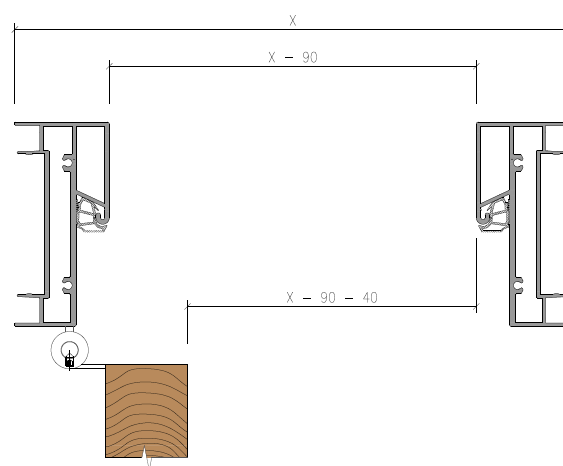
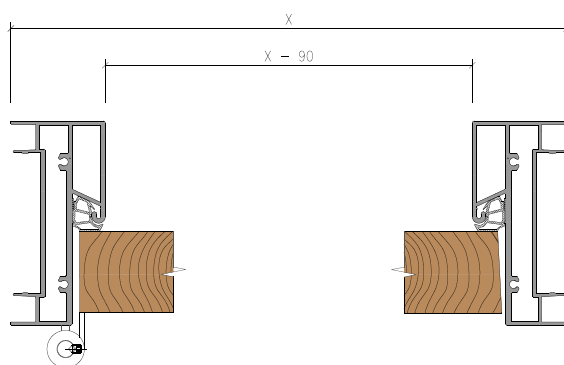
### OMEGA 100 and OMEGA 100.1



System doorframe **P03** – 940 x 2155 mm

X= (Logitram width) = 940 mm

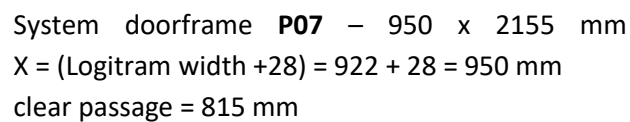
clear passage = 810 mm



### NOTES

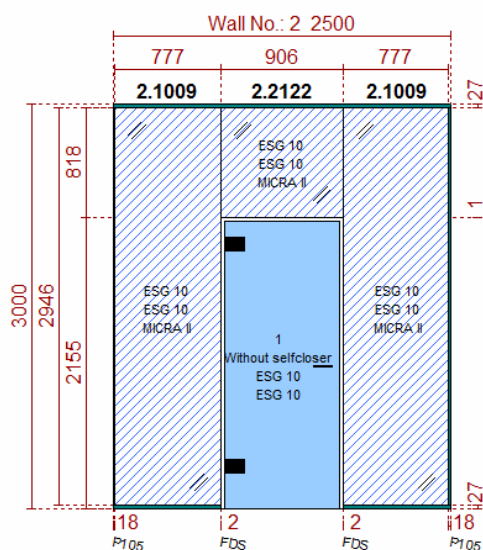
Clear width is measured when door wing is opened to 90°. It is dimension between inner side of door wing and inner side of doorframe. For Omega 100 and Omega 100.1 all door wings type available (aluminum, wooden, fully glazed, Glass Design Door 40 and Glass Design Door 100).

## MICRA I



Clear width is measured when door wing is opened to 90°. It is dimension between inner side of door wing and inner side of doorframe. For Micra I system solution except Glass Design Door 100, all door wings types available (aluminum, wooden, fully glazed and Glass Design Door 40).

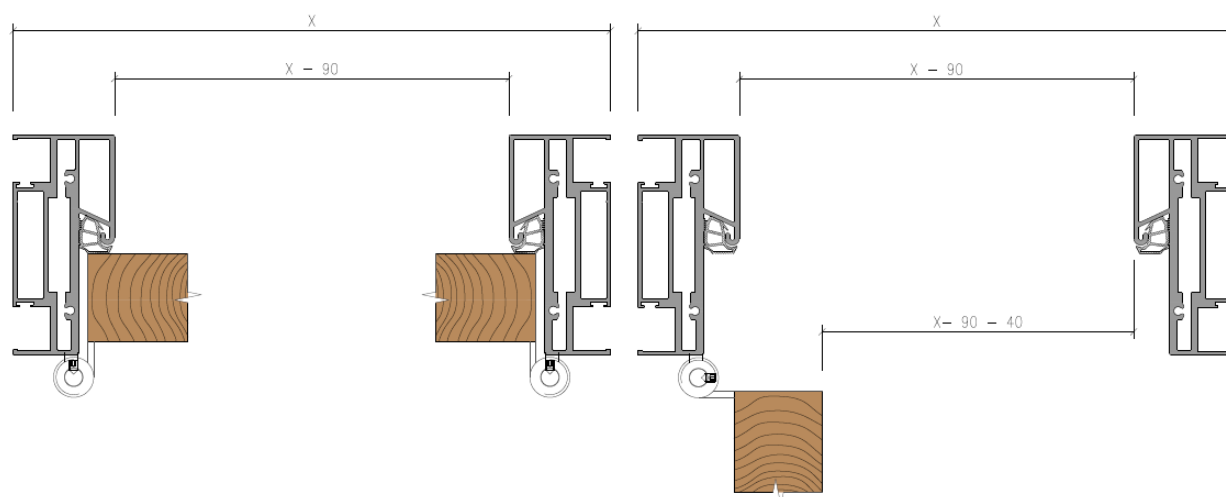
## MICRA II



System doorframe **P05** – 940 x 2155 mm

$X = (\text{Logitram width} + 34) = 906 + 34 = 940 \text{ mm}$

clear passage = 810 mm

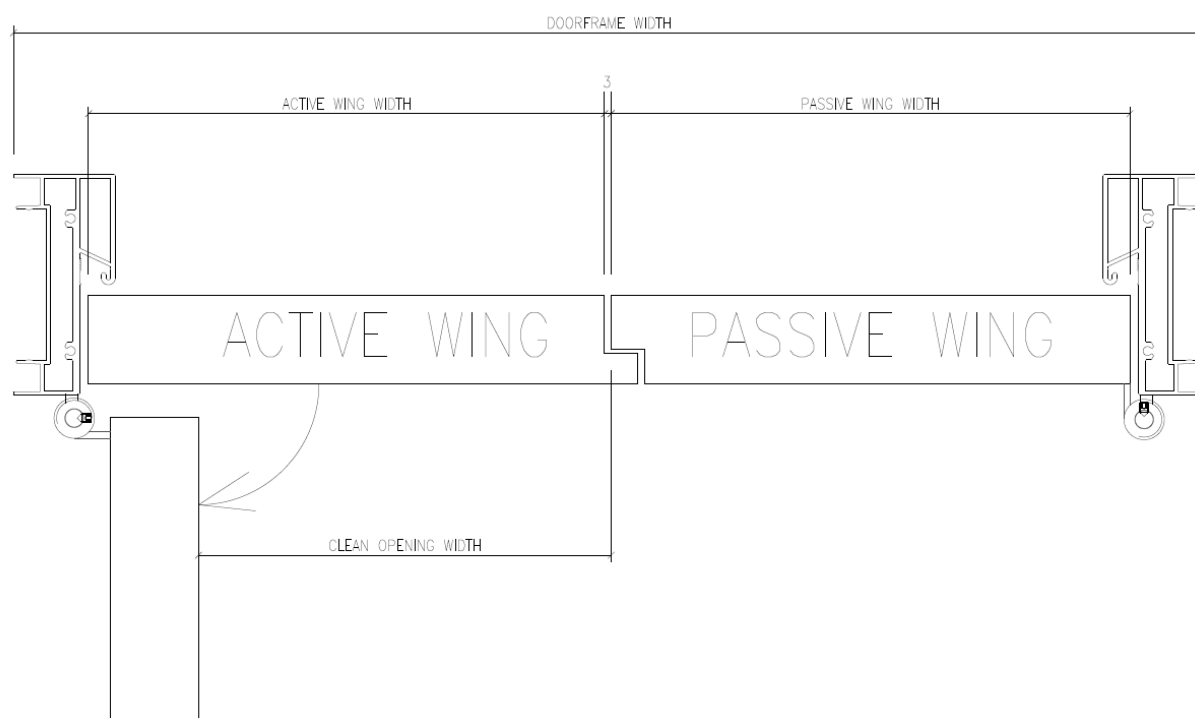


**Never order glass based on the drawing from the Logitram FARplan software! The dimensions might not be exact!**

## NOTES

Clear width is measured when door wing is opened to 90°. It is dimension between inner side of door wing and inner side of doorframe. For Micra II system solution all door wings types available (aluminum, wooden, fully glazed, Glass Design Door 40 and Glass Design Door 100).

## DOUBLE DOORFRAME WITH WOODEN/ALUMINIUM DOOR WING II



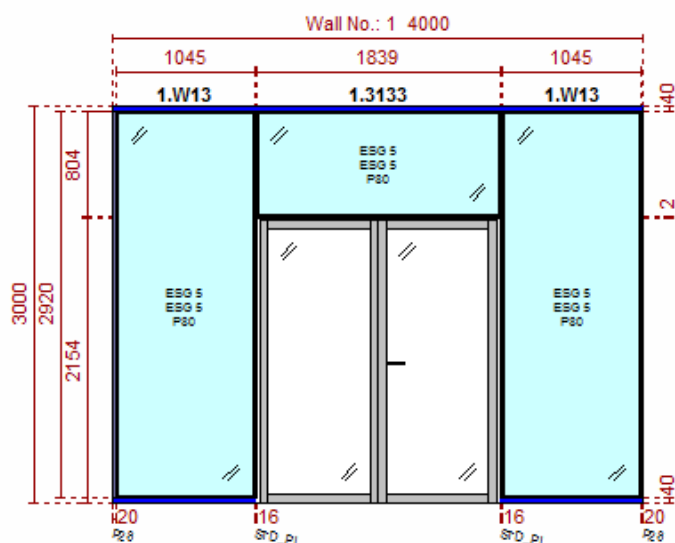
DOOR OPENED TO 90°

### Calculation example of free passage for one leaf opened to 90°

Double doorframe dimension for Omega 100.1 – P03	<b>1839</b>
Gap between door wings	<b>- 3 = 1836</b>
Gap between door wing and doorframe (2x)	<b>- 4 x 2 = 1828</b>
Division 50:50	<b>/ 2 = 914</b>
Wooden / Aluminium door wings	<b>-15 - 30 = 869 mm / -22 - 30 = 862 mm</b>

Doorframe type	Width of element (doorframe dimension)	Clear passage width, 1 leaf open		Clear passage width, 2 leaves open	
		Aluminium	Wooden	Aluminium	Wooden
<b>P03 – Omega</b>	1839 mm	860 mm	870 mm	1670 mm	1670 mm
<b>P07 – Micra I</b>	1839 mm	850 mm	860 mm	1660 mm	1660 mm
<b>P05 – Micra II</b>	1839 mm	860 mm	870 mm	1670 mm	1670 mm

These are clear passage widths for division of door wings 50:50, both wings same width. Wider clear passage upon request and agreement with customer. Double wing fully glazed door, Glass design door 40 and 100 are non-standard solution based upon requirements.



## Standard PRICE LIST double doorframe dimensions:

1839 x 2155 mm

1839 x 2675 mm

1839 x 2975 mm

Standard doorframe dimensions apply to three basic door types: aluminium, wooden and fully glazed. For aluminium and wooden there is flush bolt on the top and on the bottom for passive wing. With the double fully glazed door wings there are more options and the solution is based on customer's requirements (depending if customer requires lockable or non-lockable solution). Standard lockable solution is with LIKO-S lock and counterpart (see pictures below the text) and Dorma's door bold 12.315.



## NOTES

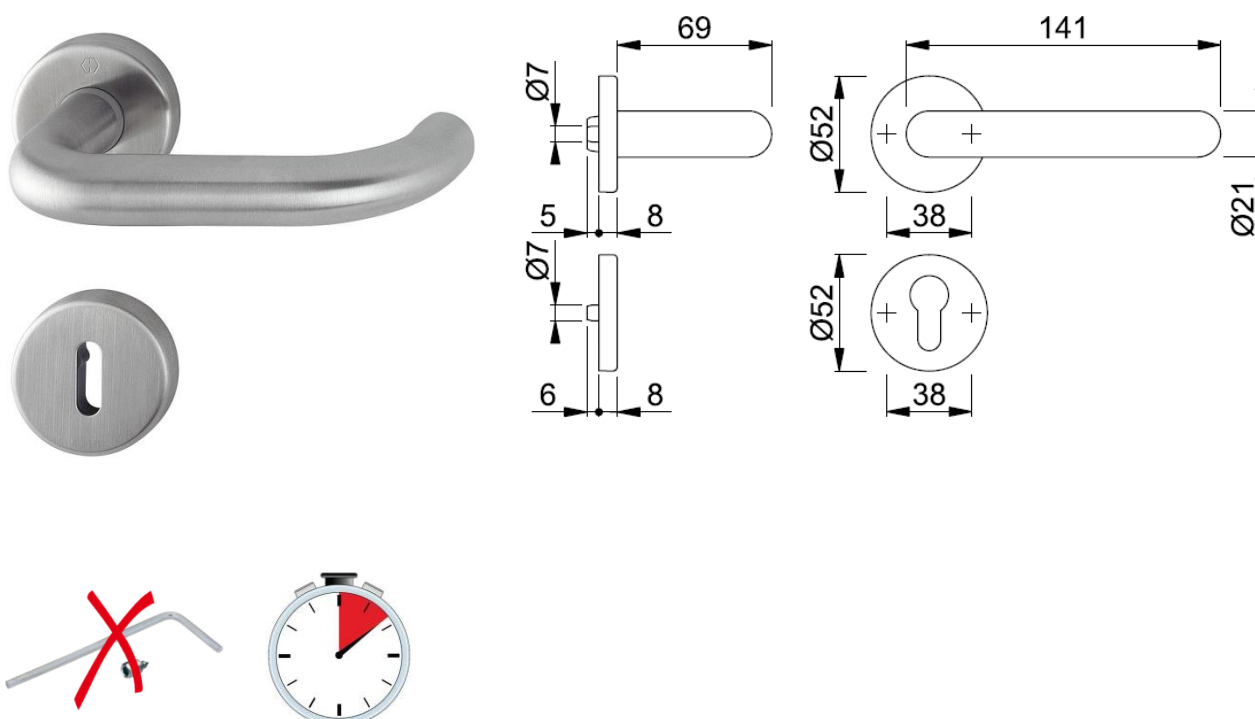
Clear width is measured when door wing is opened to 90°. It is dimension between inner side of door wing and inner side of doorframe. Double wing doors are always as active and passive wing setup. The division of wings is always based on requirements from customer, if not specified 50:50. All door wings types available (aluminum, wooden, fully glazed and Glass Design Door).

## LIKO-Form® – STANDARD HARDWARE FOR WOODEN AND ALUMINUM DOOR WINGS

For door modules in LIKOform system, we use quality fittings from a German manufacturer - HOPPE.

The basic variants of the fittings:

### PARIS

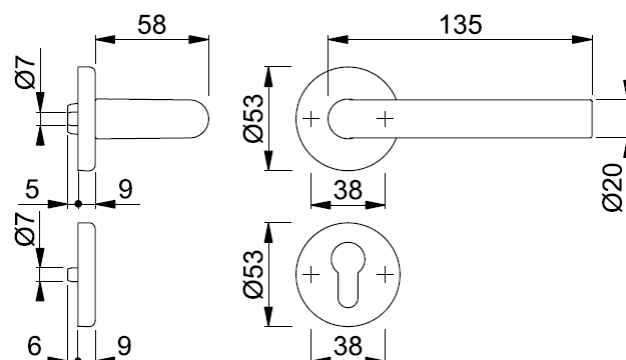


### BASIC INFORMATION

With a proven clamping technology “quick four-edge” there is no possibility of a spontaneous release of the handle, as in the case of a standard clamping mechanism. Installation is a matter of seconds.

Fittings are made of high quality chrome nickel steel, guaranteeing quality and durability. Thanks to the material properties - wholesomeness, abrasion resistance, resistance to acids and alkalis, it can be used not only in offices, but also in hospitals, industrial facilities, laboratories, etc.

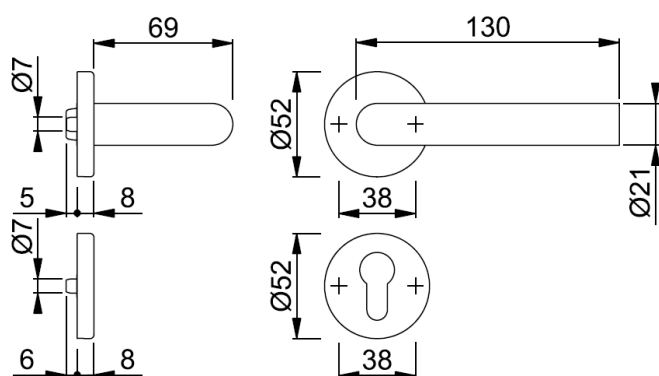
## AMSTERDAM



### BASIC INFORMATION

All our door handles are in accordance with EN 1906 classified in Category 3 - fittings, while it exceeds standard number of cycles by at least 25%.

## BONN

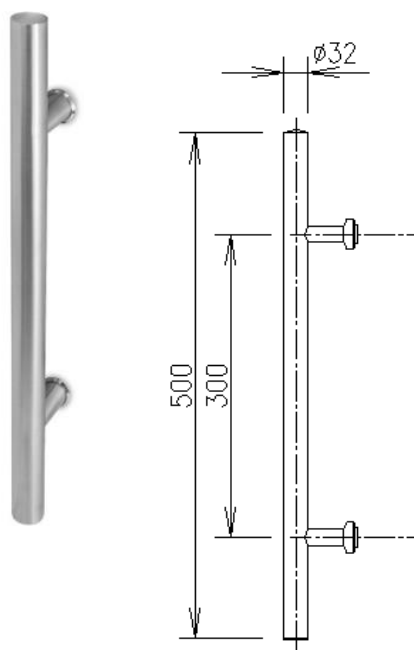




## STAINLESS STEEL HANDRAILS

„F1“ 300/500

„F2“ 300/500

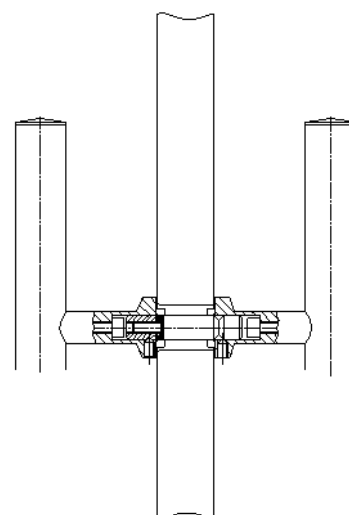


### BASIC INFORMATION

Stainless steel handrails are supplied in standard shapes „F1“, „F2“.

Size - e.g. 300/500 indicates the pitch/length of the handrail. These dimensions can be adapted to the specific requirement of the project.

*Detail of clamping of the handle in the frame:*



## LIKO-form® – STANDARD HINGES FOR WOODEN AND ALUMINUM DOOR WINGS

For door modules in LIKO-form ® system, we use only proven hinges. We work with suppliers SFS intec, Simonswerk, Renson and TKZ.

### JUST 3D HINGES, JUST 3D HINGES FOR FULLY GLAZED DOORS



#### BASIC INFORMATION

Standard hinge for wooden and aluminum door wings. The hinge is able to withstand the most stringent standards as regards to the shape, resistance, appearance and maintenance. It is easily adjustable in three directions.

Basic finish is **satin nickel**; there is also a possibility to use a stainless-steel finish with extra costs.

The hinge is adjustable in all directions. It is possible to adjust the height, sides and hinge pressure in the range of  $\pm 2,5$  mm, which is a sufficient range for precise setting of system door wings.

The hinge is applicable to all kinds of standard supplied LIKO-form® door wings for a leaf weight up to 80 kg. 2 hinges per wing is used for standard door sizes. Suitable for doorframe profiles P03, P05, P07.

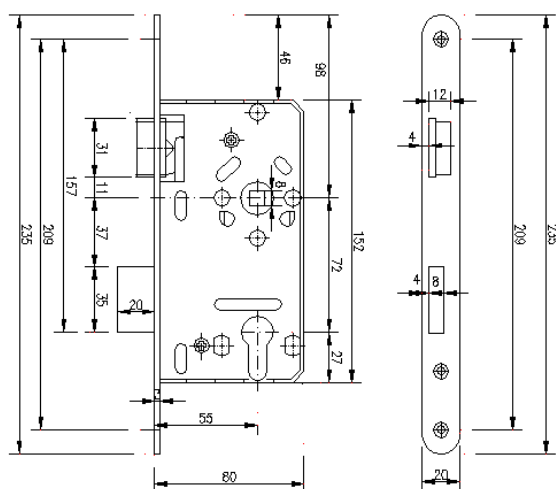


*Hinges for fully glazed door wing.*

## LIKO-Form® – STANDARD LOCKS FOR WOODEN AND ALUMINUM DOORS

We use only high-quality and reliable locks from leading European suppliers. Typical lock for wooden and aluminum door wings in LIKO-Form® system is lock from a German manufacturer SSF.

### STANDARD LOCK SSF ES22

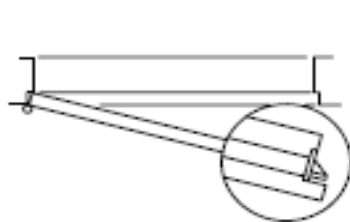


#### BASIC INFORMATION

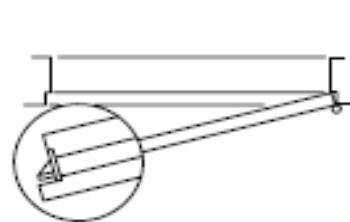
This type of lock is equipped with a dampening surface, which reduces the noise level when contact with the latch bolt and door frame and is referred as SILENT. It also prevents an excessive wear of the latch and the door frame.

Face of the lock is made of stainless steel. Size: 8x8 square, spacing 72 mm, liner depth 55 mm. Lock comes in a left or right version. Design for standard cylinder.

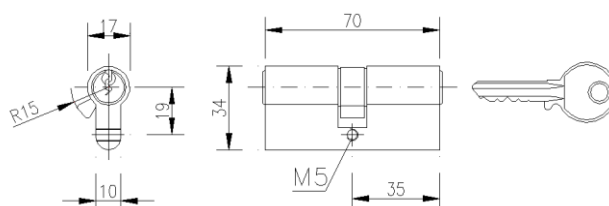
*Left doors*



*Right doors*



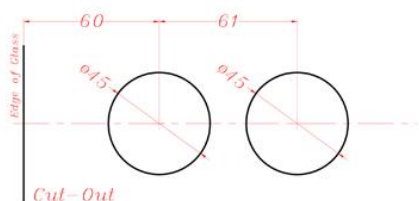
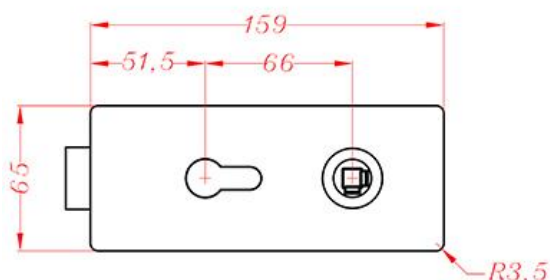
*Standard cylinder size 35/35 (double-sided, symmetric).*



## LIKO-Form® – STANDARD LOCK FOR FULLY-GLAZED DOORS

Standard lock for glazed door wings in LIKO-Form® system is lock GDL-300C.

### STANDARD LOCK LIKOS GDL-300C



#### BASIC INFORMATION

This type of lock is equipped with a dampening surface, which reduces the noise level when contact with the latch bolt and door frame and is referred as SILENT. It also prevents an excessive wear of the latch and the door frame.

Cover of the lock is made of stainless steel, the standard finish is brushed stainless steel. Available finish also stain aluminum. Size: 8x8 square. Lock is in low-noise design with plastic latch insert and with adjustable spring strength. Lock comes in a left or right version. Design for standard cylinder. Standard cylinder type is CISA 22/27 (double-sided).



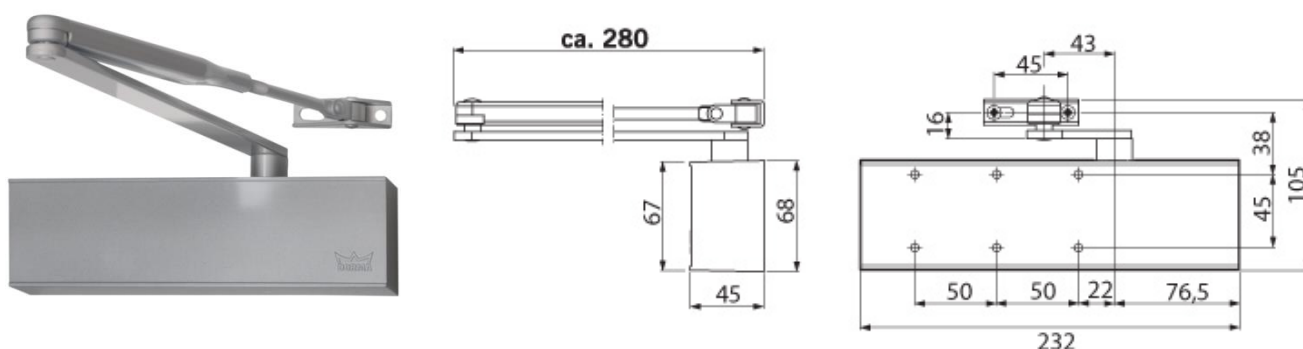
## LIKO-form® – DOOR-CLOSERS FOR WOODEN, ALUMINUM AND GLASS DESIGN DOOR

For door modules in LIKOform system we use standard high-quality door-closers from a German manufacturer – DORMA.

The basic types of door-closers:

### A. Visible:

#### DORMA TS 72



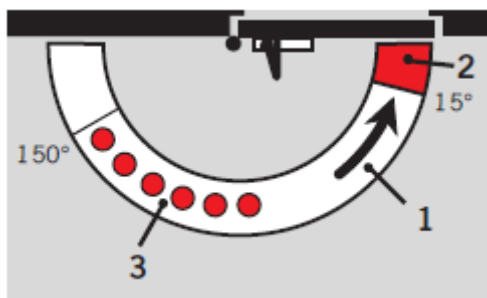
#### BASIC INFORMATION

Universal door-closer with advanced settings, closing force according to EN 1154 is EN 2-4. Recommended weight / width of a door wing is 70kg / 900mm. No fire resistance.

Universal usage for both, right and left, door wing.

DORMA door-closer has a constant and temperature fluctuation independent course of closing. Optimum adaptation of closing speed with control valves. Safe closing with adjustable end stops.

#### Setting options used in the LIKO-form® system:

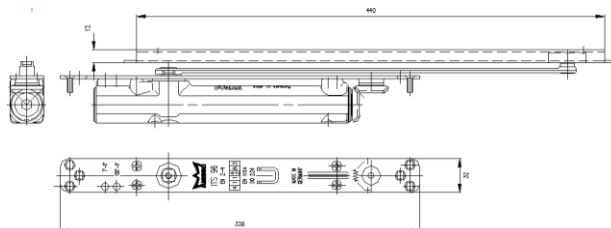


1. Continuously adjustable closing speed in the range of 180 ° -15 °,
2. Continuously adjustable closing speed in the range of 15 ° -0 °,
3. End stop (the TS91 on request),
4. Aeration in the open position - on request.

## B. CONCEALED:

Hidden closers are used as an alternative to the visible door-closers. We currently offer two variants of hidden (concealed) closers:

### DORMA ITS96



### BASIC INFORMATION

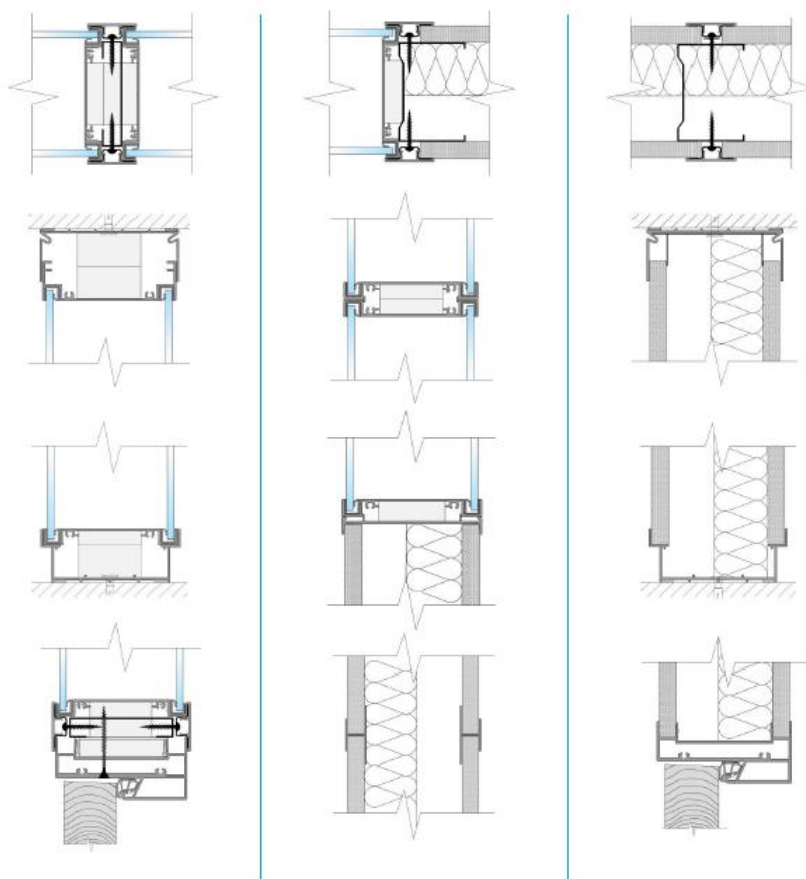
Universal door-closer with advanced settings, closing force according to EN 1154 is EN 2-4. Recommended weight / width of a door wing up to 100kg / 1100 mm. The door-closer is equipped with a sliding arm.

Universal usage for both the right and left door wing. Without aeration.

## OMEGA 100.1

TECHNICAL SPECIFICATION	
<b>Used as</b>	<i>Non-load bearing interior partitions</i>
<b>Cover of Omega profile – module connection</b>	<i>P34 profile anodized (30mm wide) – visible!</i>
<b>Wall thickness</b>	<i>100mm</i>
<b>Standard module width</b>	<i>1200 mm (can be customized according to requirements)</i>
<b>Maximum height of partitions</b>	<i>4000mm</i>
<b>Surface of profiles</b>	<i>Anodized or in RAL coating</i>
<b>Standard size of doorframe</b>	<i>940 x 2155 mm</i>
<b>Standard size of doorwing</b>	<i>872 x 2113 mm</i>
<b>Standard hinges</b>	<i>JUST 3D hinges, 2 pcs for doorframe lower than 2500 mm, 3 pcs for higher doorframe</i>
<b>Full mobules standard surface</b>	<i>Plasterboard with Durafort Vinyl 2013 Nagano white</i>
<b>Types of doors</b>	<i>Aluminum framed, glassdesign, wooden, fully glazed</i>
<b>Sound reduction of aluminum doors</b>	<i>Rw=23 dB; 30; 37 dB (laboratory value)</i>
<b>Sound reduction of GLASSDESIGN doors</b>	<i>Rw=20 dB; 38 dB (laboratory value)</i>
<b>Sound reduction of wooden doors</b>	<i>Rw= 21; 31; 33; 39 dB (laboratory value)</i>
<b>Sound reduction of fully glazed doors</b>	<i>Rw = 23 dB; 32 dB (laboratory value)</i>
<b>Sound reduction of glazed partitions</b>	<i>Rw = 36 - 45 dB (laboratory value) – depending on glass type</i>
<b>ESG5/ESG5</b>	<i>Rw = 36 dB (laboratory value)</i>
<b>VSG3.3.1/VSG3.3.1</b>	<b><i>Rw = 39 dB (laboratory value) – standard unless specified otherwise</i></b>
<b>VSG3.3.2/VSG3.3.2 Silence</b>	<i>Rw = 45 dB (laboratory value)</i>
	<i>More combinations on request</i>

Standard solution offered by LIKO-S Omega is the version **100.1!**

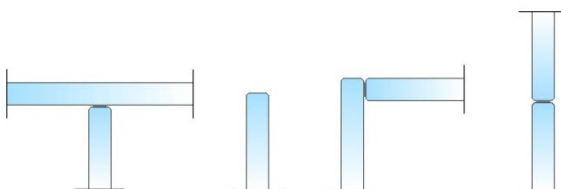




## MICRA I

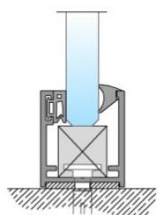
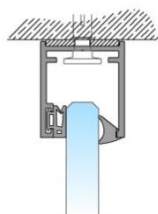
TECHNICAL SPECIFICATION	
<b>Used as</b>	<i>Non-load bearing interior partitions</i>
<b>Glass thickness</b>	10 mm, 12 mm
<b>Standard module width</b>	1000 mm (can be customized according to requirements)
<b>Maximum height of partitions</b>	3300 mm
<b>Glass to glass connection</b>	3M double-sided self-adhesive tape
<b>Glass used</b>	ESG or VSG glass with polished edges
<b>Standard size of doorframe</b>	950 x 2155 mm
<b>Standard size of door wing</b>	872 x 2108 mm
<b>Standard hinges</b>	JUST 3D Glass hinges, 2 pcs for doorframe lower than 2500 mm, 3 pcs for higher doorframe
<b>The standard type of door fittings</b>	According to the requirement and construction
<b>Types of doors</b>	Aluminum framed, glassdesign, wooden, fully glazed
<b>Sound reduction of aluminum doors</b>	Rw=23 dB; 30 dB (laboratory value)
<b>Sound reduction of GLASSDESIGN doors</b>	Rw=20 dB; 38 dB (laboratory value)
<b>Sound reduction of wooden doors</b>	Rw= 21; 31; 33; dB (laboratory value)
<b>Sound reduction of fully glazed doors</b>	Rw = 23 dB; 32 dB (laboratory value)
<b>Sound reduction of glass partitions</b>	Rw = 31 - 38 dB (laboratory value) – depending on glass type
<b>ESG 10, 10 mm tempered glass</b>	Rw = 31 dB (laboratory value)
<b>VSG 55.1 Stratobel, laminated glass</b>	<b>Rw = 35 dB (laboratory value) – standard unless specified otherwise</b>
<b>VSG 55.2 Stratobel, laminated glass</b>	Rw = 36 dB (laboratory value)
<b>VSG 66.2 Stratophone, laminated glass</b>	Rw = 38 dB (laboratory value)

## T -CONNECTION / TERMINATION IN THE OPEN SPACE / 90° CORNER / 180°.

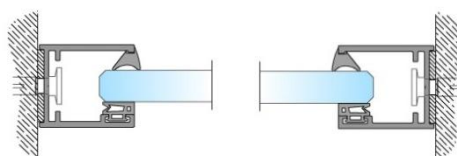


## DETAIL OF PARTITIONS AT THE FLOOR, CEILING AND WALL WITH P47 PROFILES

P47 PROFILE – floor and ceiling section



P47 PROFILE – wall connection section



### SEALING TYPES (Also for Micra II):



**K14**

Inner sealing



**K15.10**

Outer sealing for 10 mm glass



**K15.12**

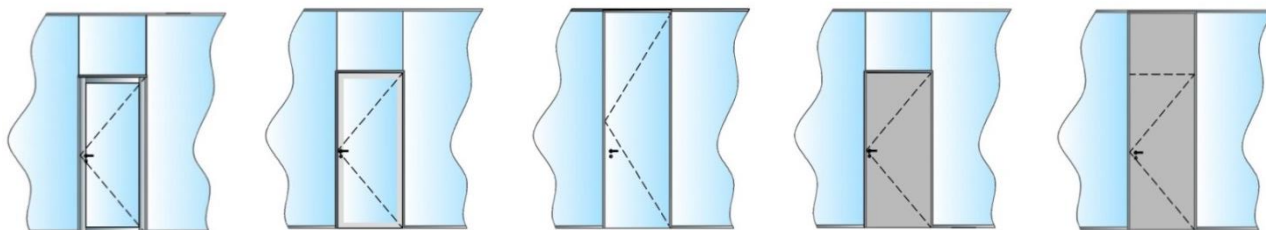
Outer sealing for 12 mm glass (K50)

Sealings are grey as standard

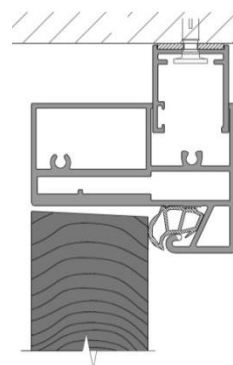
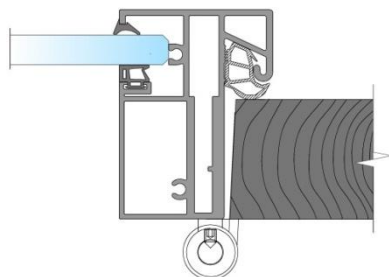
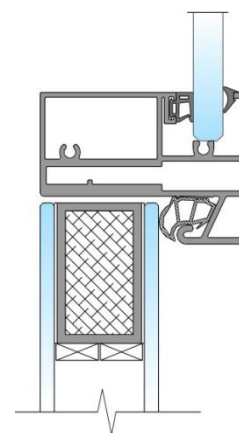
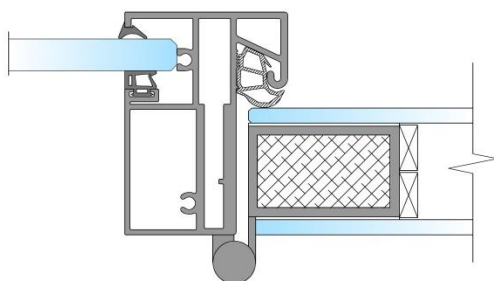
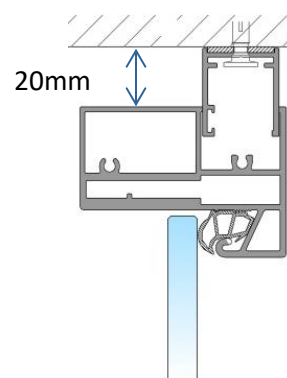
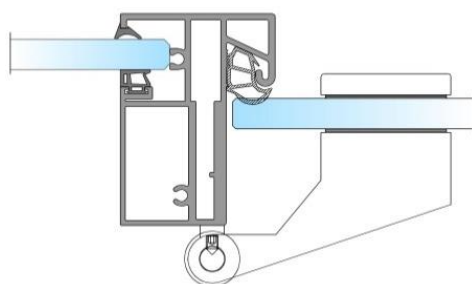


## OVERVIEW OF THE DOOR MODULES IN THE GLASS PARTITION:

ALUMINIUM / GLASSDESIGN / FULLY GLAZED TO FULL HEIGHT / WOODEN / WOODEN WITH OVERPANEL

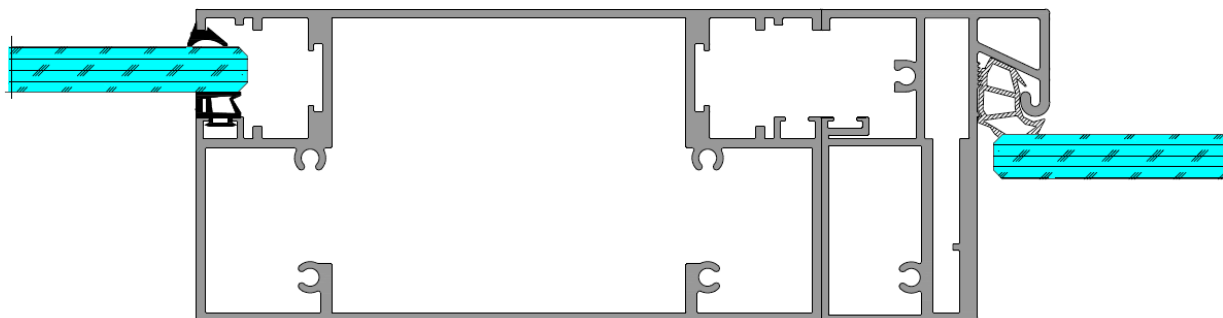


## DOORFRAME OF PROFILE P07 WITH FULLY GLAZED DOORS / GLASSDESIGN DOORS / WOODEN DOORS



## TECHNICAL PANEL FOR MICRA I

Nowadays most of the projects require technical panels to hide cabling and allows mounting sockets or switches. Standard solution for Micra I is aluminium technical panel in an anodized or RAL powder coating finish.



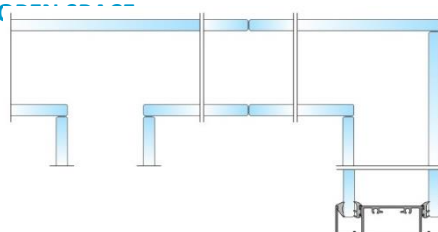
### BASIC INFORMATION

There are only two standard lengths – 3000 and 6000 mm. Cutting to precise length available on request, most of the time the length is the same as the doorframe height. Milling on top for P47 ceiling profile is also on request.

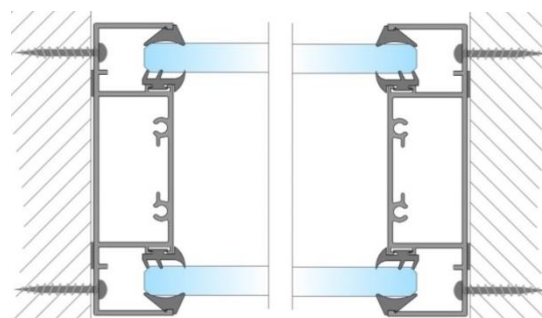
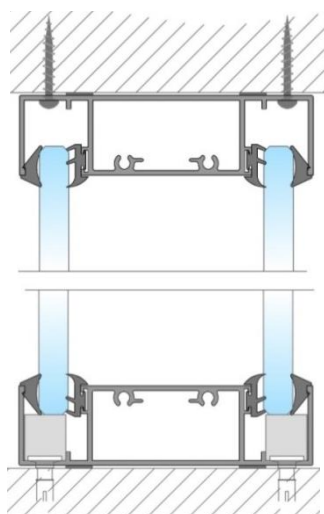
## MICRA II

TECHNICAL SPECIFICATION	
<b>Used as</b>	<i>Non-load bearing interior partitions</i>
<b>Glass thickness</b>	10 mm, 12 mm
<b>Standard module width</b>	1000 mm (can be customized according to requirement)
<b>Maximum height of partitions</b>	3300 mm
<b>Glass to glass connection</b>	3M double-sided self-adhesive tape
<b>Glass used</b>	ESG or VSG glass with polished edges
<b>Standard size of doorframe</b>	940 x 2155 mm
<b>Standard size of door wing</b>	872 x 2113 mm
<b>Standard hinges</b>	JUST 3D Glass hinges, 2 pcs for doorframe lower than 2500 mm, 3 pcs for higher doorframe
<b>The standard type of door fittings</b>	According to the requirement and construction
<b>Types of doors</b>	Aluminum framed, glassdesign, wooden, fully glazed
<b>Door infill</b>	Solid, partially glazed, glazed
<b>Sound reduction of aluminium doors</b>	Rw= 23 dB; 30 dB; 37 dB (laboratory value)
<b>Sound reduction of GLASSDESIGN doors</b>	Rw= 20 dB; 38 dB (laboratory value)
<b>Sound reduction of wooden doors</b>	Rw= 21; 31; 33; 39 dB (laboratory value)
<b>Sound reduction of fully glazed doors</b>	Rw = 23 dB; 32 dB (laboratory value)
<b>Sound reduction of glass partitions</b>	Rw = 39 - 45 dB (laboratory value)
<b>2x ESG 10, tempered glass</b>	Rw = 39 dB (laboratory value)
<b>2x VSG 55.1 Stratobel, laminated glass</b>	<b>Rw = 40 dB (laboratory value) – standard unless specified otherwise</b>
<b>2x VSG 55.2 Stratobel, laminated glass</b>	Rw = 43 dB (laboratory value)
<b>2x VSG 66.2 Stratobel, laminated glass</b>	Rw = 44 dB (laboratory value)
<b>2x VSG 66.2 Stratophone, laminated glass</b>	Rw = 45 dB (laboratory value)

### T -CONNECTION / 180° / 90° CORNER / TERMINATION IN THE C

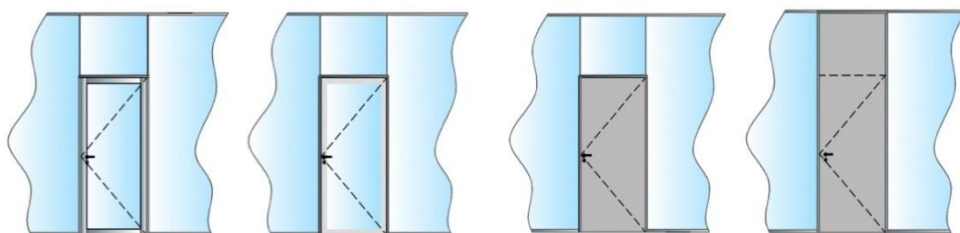


### DETAIL OF PARTITIONS AT THE FLOOR, CEILING AND WALL

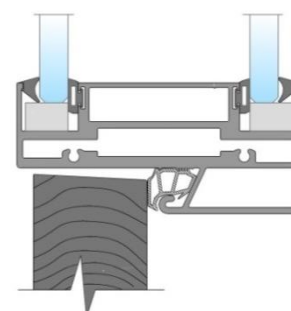
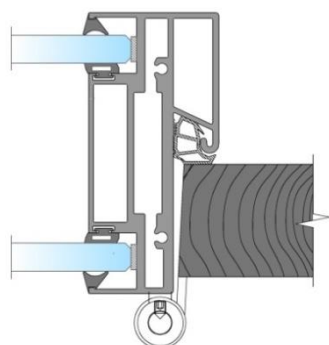
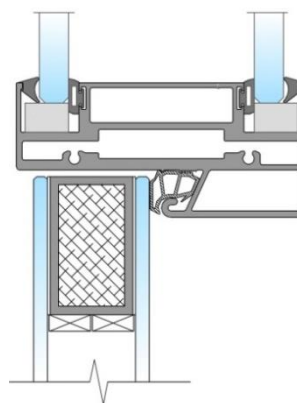
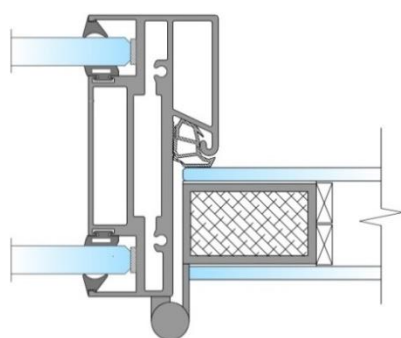
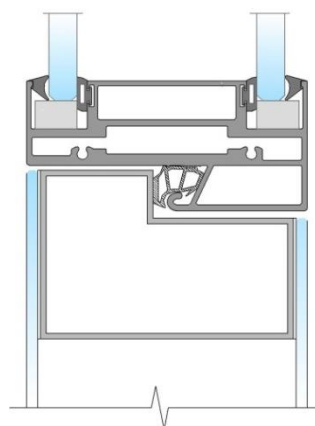
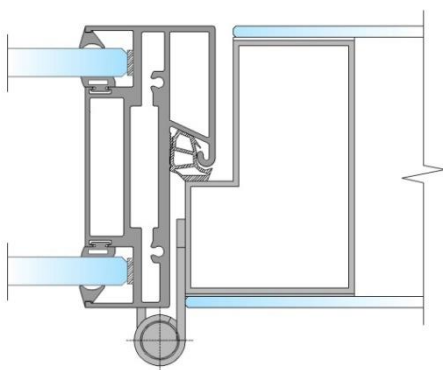


## OVERVIEW OF THE DOOR MODULES IN THE GLASS PARTITION:

ALUMINIUM / GLASSDESIGN / FULLY GLAZED WITH OVERPANEL / WOODEN / WOODEN WITH OVERPANEL

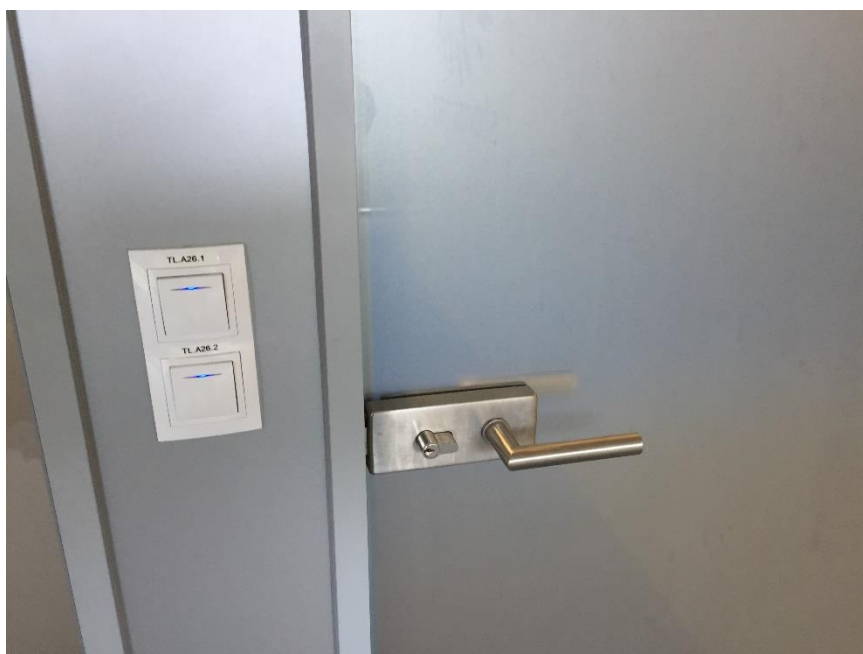
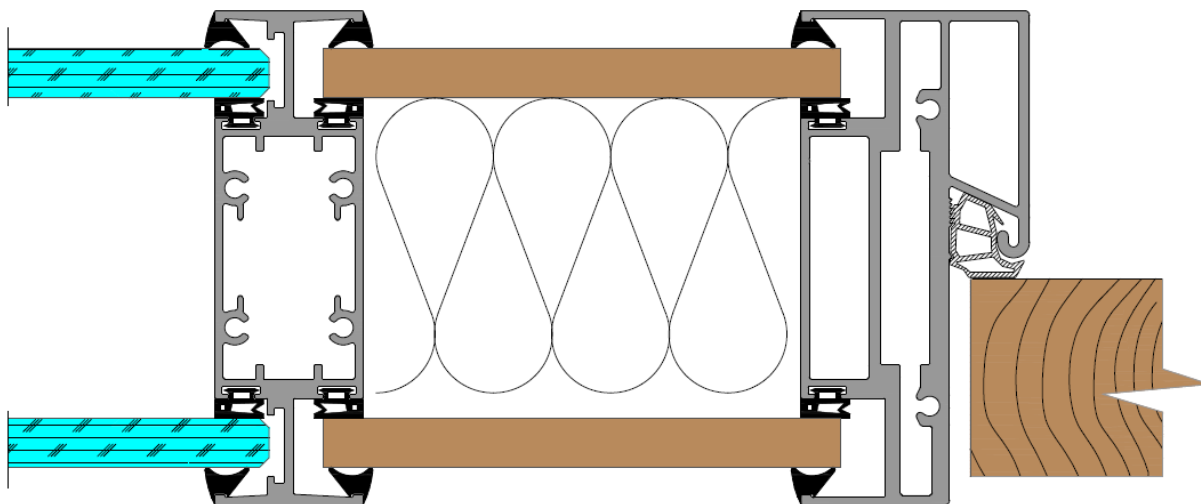


## DOORFRAME OF PROFILE P05 WITH GLASSDESIGN DOORS 100mm / GLASSDESIGN DOORS / WOODEN DOORS



## TECHNICAL PANEL FOR MICRA II

Nowadays most of the projects require technical panels to hide cabling and allows mounting sockets or switches. Standard solution for Micra II is using melamine boards or MDF boards in agreed décor or painting. Please note that to disassemble the module, you need to demount the glasses first and then full parts.



## BASIC INFORMATION

There are only two standard lengths – 3000 and 6000 mm.

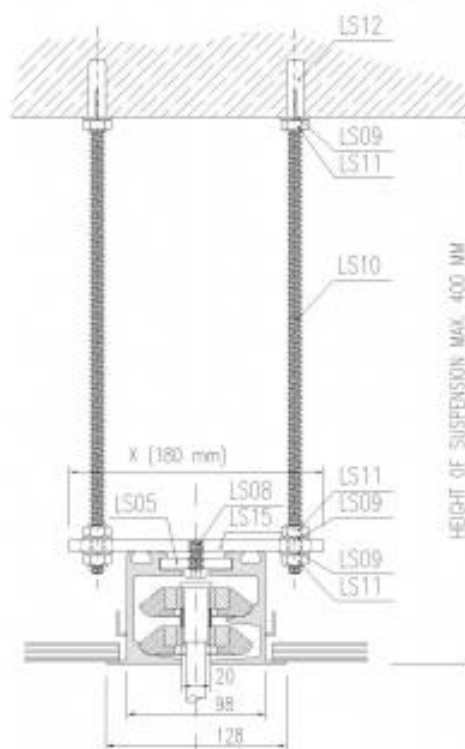
## Movable walls – LIKO-Space®

TECHNICAL SPECIFICATION	
<b>Wall thickness</b>	100 mm, 120 mm
<b>Visible profiles</b>	Aluminum
<b>Surfaces of aluminum profiles</b>	Standard: anodized
<b>Panel heights</b>	2000-4000mm
<b>Rail types</b>	One-point, Two-point
<b>Standard surface of panels</b>	White melamine boards – Kronospan 101 SM
<b>Standard door module</b>	Width of panel 1030 mm, clear width 800 mm
<b>Weight of the module per square meter</b>	37dB approximately 45 kg
	43db approximately 50 kg
	47dB approximately 55kg

## ANCHORING

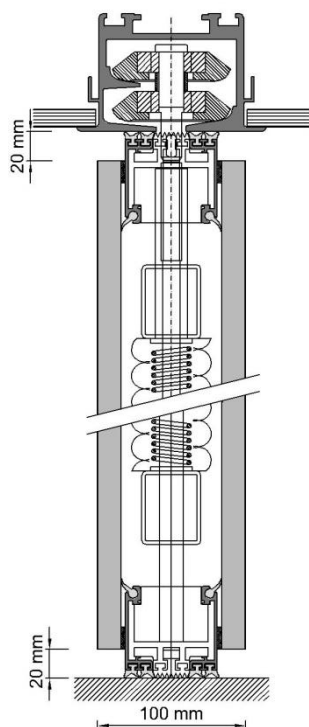
Anchoring of rail must be always designed based on conditions of the project and building site. LIKO-S cannot take any responsibility with the static assessment of the appropriate ceiling construction. We are always pleased to provide tailor made solution, but the **ultimate customer's responsibility is to get static approval**. Standard price offer from LIKO-S is without price of anchoring system, unless there is a clear idea of anchoring and known ceiling construction.

The most common way of anchoring is straight drilling into the concrete, with anchoring rods. The length is up to 0,5m. The anchoring could look as following picture shows. The price of such a solution usually does not exceed 5% of the total price of the wall.

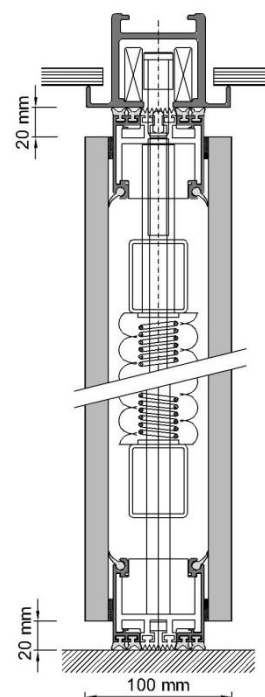


## RAIL TYPES

**Two-point suspension  
LIKO-Space 100**



**Single-point suspension  
LIKO-Space 100**

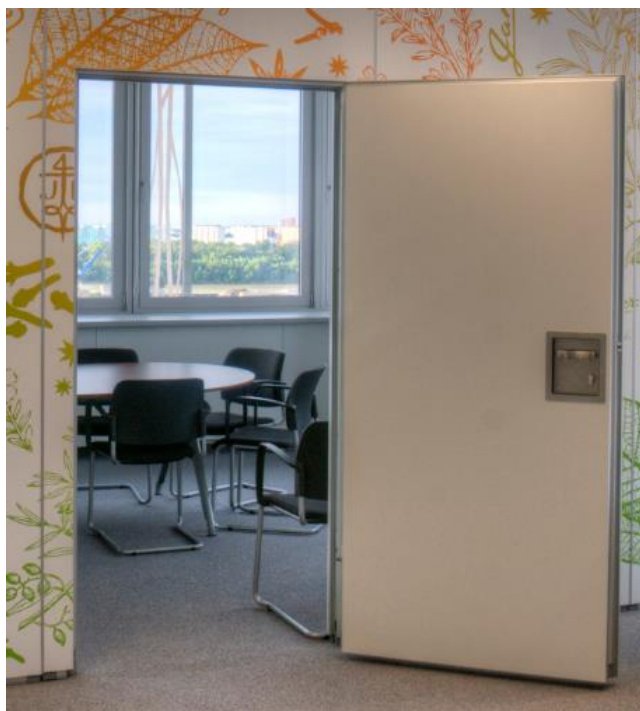




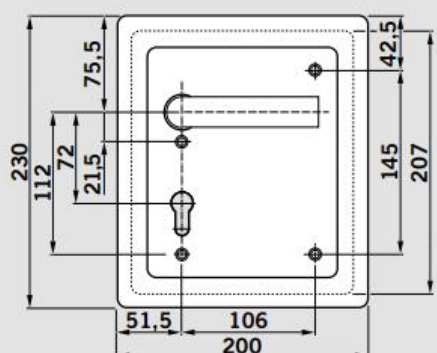
## DOOR MODULE AND ACCESSORIES

Standard door module is 1088 mm wide and provides clear passage of 800 mm. To ensure unified look of a whole movable wall we use concealed Hinges TECTUS.

Module width	Clear passage width, leaf opened
1088 mm	800 mm
1188 mm	900 mm



Stainless steel handle/handle Dorma ZS 8937A is our standard for Liko-Space door module. Biggest advantage is that it is at the same level as the side panels (better parking options, no issues with scratching other panels). For cheaper version of door module, there is option with handle that is extending from the surface of the wall and this solution is based upon request.



Each movable wall consists of at least one standard panel and one telescopic panel. To fold and unfold telescopic panel, there is a crank which operates the mechanism inside the panel. A special cover made of stainless steel informs about the direction of rotation for closing or opening.



## ANODIZING

Due to the technology limitation of profile anodizing there are always visible “scratches” at the profile ends. This is caused by the hangers that are connected to the profiles in order to dive the profile into the anodizing tub. These can vary, depending on the profile shape and thickness – from 3 – 6 cm. You shall consider when ordering the particular profile length

## DISCLAIMER

We do try to provide to our customers the latest and most accurate information and technical specification of the standards. However, we do reserve the right for any potential typos or mistakes in specification and this document serves for information purposes only. This document does not serve as an offer or contract proposal.



# ABOUT US



LIKO-S was founded in 1992 and is a family owned and operated company. It currently ranks among the leading European companies in its field.

All products are tested according to European norms in accredited testing institutes, including the environmental requirements of LEED.

#### ENERGY

Construction of administrative buildings, corporate headquarters, logistic and production halls. Research and application of Icyne®\*, revolutionary foam insulation system from Canada.

[www.zivestavby.cz](http://www.zivestavby.cz)  
[www.liko-noe.com](http://www.liko-noe.com)

#### PRODUCTION

We specialize in production using a wide range of materials: steel, stainless steel, aluminum, heat resistant materials. Fine machine processing from design to surface treatment. More than 90% of our production is exported outside the country.

[www.weldinginausterlitz.com](http://www.weldinginausterlitz.com)

#### INTERIORS

We supply modular interior systems, demountable walls and partitions, acoustic suspended ceilings, production hall space management systems, laminated LIKO-Glass® glazing, and interactive wall SMART-I-WALL® partitions. All the systems are developed and produced in our company.

[www.liko-s.com](http://www.liko-s.com)

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LIKO-S, a.s.  
U Splavu 1419  
684 01, Slavkov u Brna

tel.: +420 5 44 22 11 11  
email: [info@liko-s.cz](mailto:info@liko-s.cz)  
[www.liko-s.com](http://www.liko-s.com)