

DRIVE

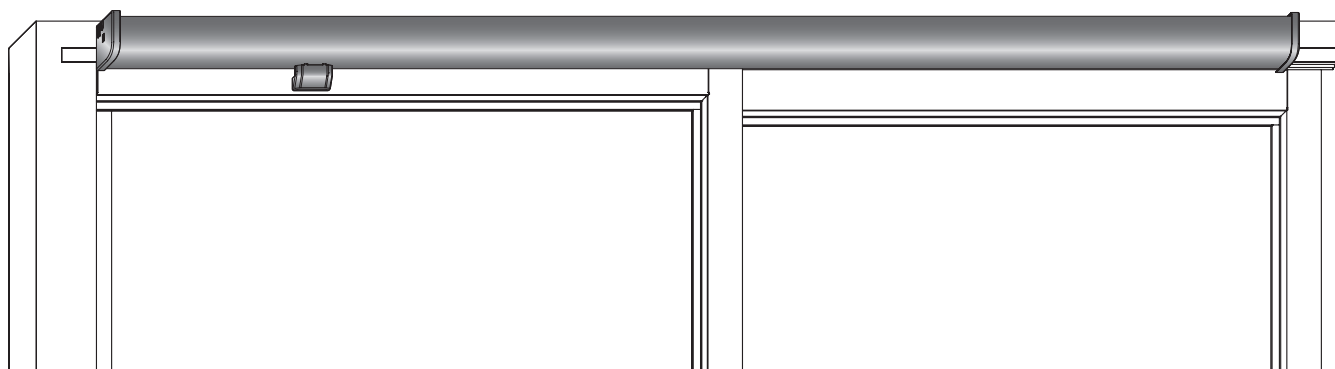
MSA400 smart

Motorised Sliding System.

Window systems

Door systems

Comfort systems



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1. General information

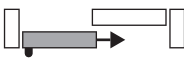

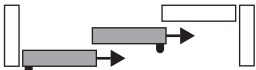
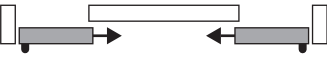

Please read these installation and operating instructions carefully and in full before commissioning the MSA400 smart sliding system.

1.1 Target group of this documentation

- This documentation is intended for use by specialists and end users.
- All instructions concerning installation, commissioning, repairs and maintenance described in this document are to be performed exclusively by electricians with training and practice in the installation, commissioning and maintenance of mechanical drives.
- All instructions on operation and maintenance described here are intended for end users.
- Following installation, the installation company must hand over the installation and operating instructions to the end user and brief the user/owner of the building accordingly.

1.2 Intended use

- The MSA400 smart is an electric motor-driven system for opening and closing windows/patio doors with sliding hardware (sliding elements). It has a maximum displacement force of 50 N (or 90 N on application of a light curtain) and a travel range of up to 8 m, and it may only be installed in elements which are compatible with these specifications:

Scheme A		Scheme G2	
Scheme E max. 250 kg per sash		Scheme K	
Scheme G			

- The standard MSA400 smart system is not suitable for use in swimming pools and/or damp rooms. Special designs are possible and permitted only upon request and after having been tested by SIEGENIA.
- The MSA400 smart must only be operated with hardware components and genuine accessories from SIEGENIA.
- It must be possible to access and disassemble the slide drive SA at all times should maintenance and service work be required (curtain rods, lamps, ceiling covers, roller shutter housings, etc. must not hinder removal).
- The instructions contained in ASR A 1.6, VFF data sheet KB.01 as well as EN 12453 for power-operated windows, doors and gates must be observed!
- If you are using the system for commercial purposes, you must also observe the safety instructions of your accident insurance provider.
- Following installation of the MSA400 smart, you must carry out a reference run as well as a calibration and teach-in run when the unit is commissioned for the first time.

1.3 Incorrect use

- Sliding elements equipped with the MSA400 smart slide system may not be used as escape doors in the event of a fire.
- Any use of this product that is not in accordance with its correct use, or any adaptation of or modification to the product and its associated components for which the express consent of SIEGENIA has not been obtained, is strictly prohibited. SIEGENIA accepts no liability whatsoever for any material losses or injury to people caused by failure to comply with this stipulation.

1.4 Dimensions

- All the dimensions in this documentation are specified in mm.

2. Safety notes

Risk of injury or fatal injury. Hands, arms, legs and feet can get trapped and/or crushed in systems driven by an electric motor.

- Make sure that no parts of the body or objects are within the shearing and locking area of the system.
- Ensure that no body parts or objects are under the sliding sash, especially when lowering sliding elements.
- This unit can be used by children aged 8 and above as well as by people with physical, sensory or mental difficulties or with a lack of experience and knowledge as long as they are supervised or have been instructed in how to use the unit safely and understand the resulting risks. Children must not play with the unit. Cleaning and user maintenance must not be carried out by children without supervision.

Risk of injury or death due to electrical shock or fire. Systems driven by an electric motor can overheat and cause fire.

- Insert the Euro mains plug of the standard connecting cable only into a suitable 230 V AC mains power supply socket.
- Only a qualified electrician may perform any work on the 230 V AC mains power supply.
- Current local regulations (such as VDE 0100 of the VDE in Germany) must be observed.
- Relevant country-specific regulations must be strictly followed for all work on the voltage supply system or building wiring system.
- All-pole safety isolation is required when the mains cable is laid on-site because the power supply does not have a separate line disconnecter.
- Connect in-wall supply lines to the MSA400 smart sliding system in branch boxes. These branch boxes must be kept accessible for maintenance.
- When cleaning the sliding sash and the drives, make sure that no liquid gets inside the MSA400 smart system as this could damage the electronics.
- The unit must be checked by a specialist in the event of a fault.
- Should a solid object or any liquid get inside the unit, stop operation immediately and disconnect the MSA400 smart system from the mains. Then have the MSA400 smart system checked and repaired by qualified specialists only.
- If the network connection cable is damaged, it may only be replaced by SIEGENIA, its customer service department or an electrician.

Injuries caused by falling objects.

- Please do not put or place objects on top of the MSA400 smart.

Hazard due to third party attacks on SIEGENIA WLAN devices! Please observe the following notes to protect your system against attacks by third parties:

- Every SIEGENIA WLAN device is protected by two passwords (user and administrator). It is essential that you change these passwords after the initial setup. Do not leave in the default setting.
- If the SIEGENIA WLAN devices are integrated in your home WLAN, this must be encrypted for operation.
- Please choose secure passwords consisting of lower case and capital letters, numbers and special symbols.

3. Device functions

3.1 General product description

- The MSA400 smart is a motorised sliding system for the automatic movement of sliding elements
- The MSA400 smart can be controlled by a tablet or smartphone and offers additional device functions via the SIEGENIA Comfort app. Please follow the enclosed quick start instructions ([H47.MOTS005EN](#)).
- The slide drive SA features an electronic cut-off function (see “3.3 Information on safety cut-off and jam protection” on page 6).
- To further increase safety during travel, the slide drive SA with terminal board allows for the integration of a light curtain. If an object is placed in the path of the sliding sash, it will be stopped immediately.
- The sliding sash can be moved into a freely programmed intermediate position (intermediate stop).

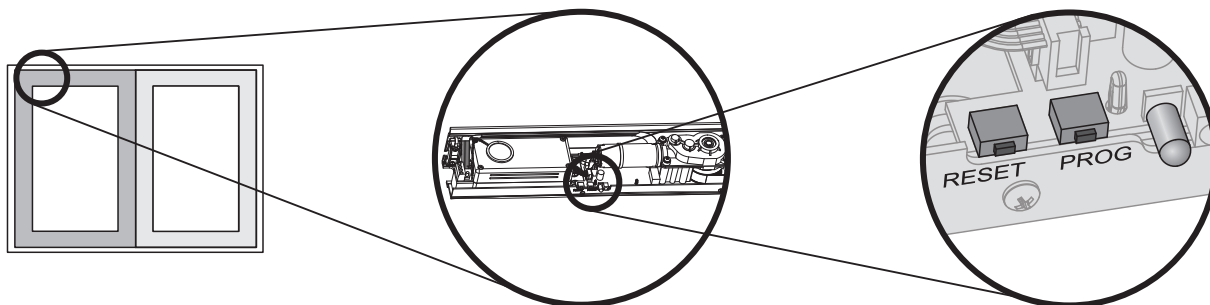
3.2 Control

The MSA400 smart system offers the following control options:

Function	End position of the sliding sash	Button on the MSA400 smart	SIEGENIA Comfort app	Infrared remote control (optional accessory)	On-site button
Reference run	Closed	✓	—	—	—
Calibration and teach-in run	Closed	✓	—	—	—
Open	Open	✓	✓	✓	✓
Close	Closed	✓	✓	✓	✓
Intermediate stop	User-defined, limited opening width	✓	✓	✓	—
Night vent timer (0–60 min.)	Night vent position	—	✓	—	—

Button on the MSA400 smart

The **Reset** and **Prog** buttons are used to reset the sash position and to program the system.

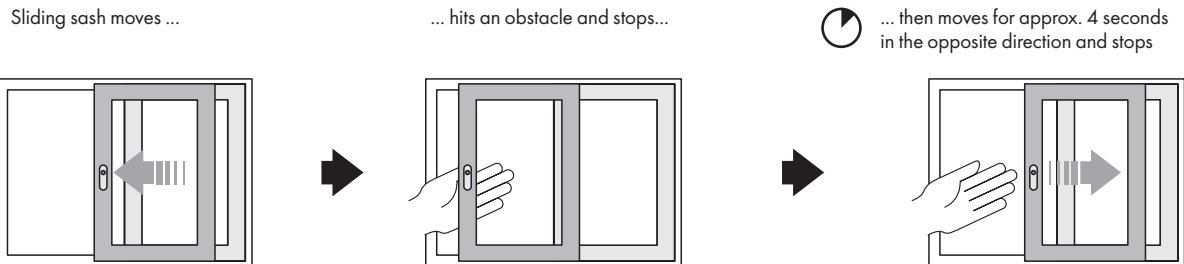


3.3 Information on safety cut-off and jam protection

General information on safety cut-off

As soon as the slide path of a sliding sash becomes blocked (e.g. due to an obstacle or because it is stuck), it stops, moves for approx. 4 seconds in the opposite direction and then comes to a final stop (see figure below).

For increased safety in the area around the bottom shear points between the sliding sash and the sliding sash frame, in normal motor-powered operation, the sliding sash only moves as far as a defined opening position.



Safety shutdown in systems with light curtain

If additional safety requirements apply, the optional terminal board must be ordered. Also available prepared to be equipped with a light curtain. To prevent injuries and damage, the safety cut-off function is performed, which brings the sliding sash to an immediate standstill. If equipped with a light curtain, the sliding sash is opened to its full extent.



3.4 LED indicator

The LED is attached to the lower edge of the slide drive SA. Please note the light indicators in the LED. The indicators and their meanings are listed in the table below:

Function and meaning	LED
System test or overheating	Flashes red/green in alternation
Teach in	Flashes red
Move in direction of "Open" position	Continuously green
Move in direction of "Close/Lock" position	Continuously red
10-min. night vent (timer running)	Flashes green
Intermediate stop (limited opening width)	Off
Locked	Off
After a power failure	Flashes red

4. Size range

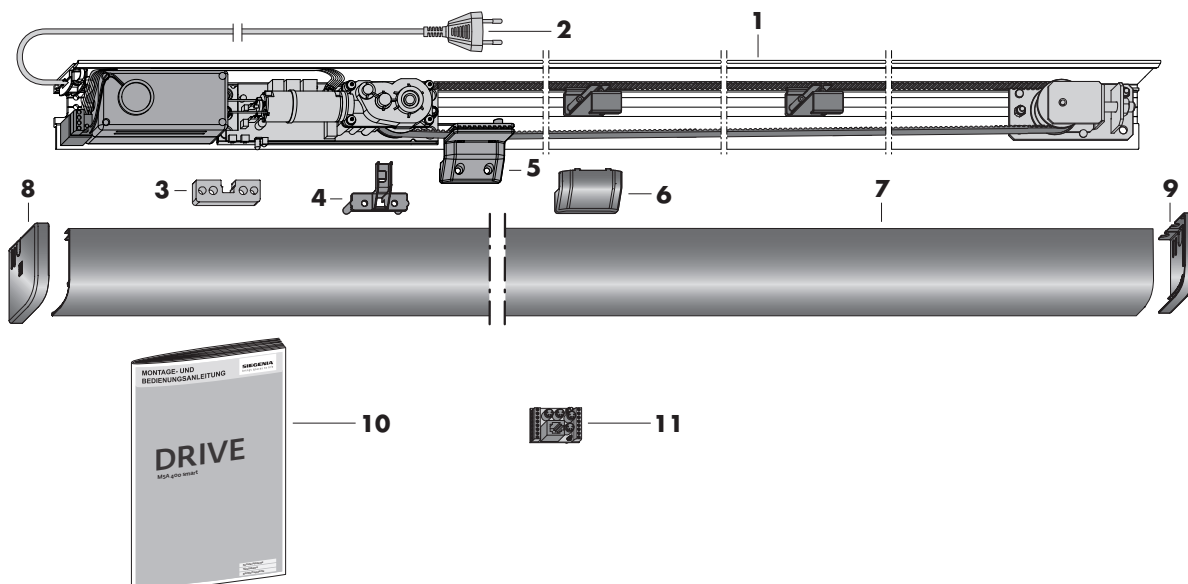
The MSA400 smart system is installed horizontally on the inside top of the sliding element frame.

Traverse path	8,000 mm
Displacement force	50 N
Displacement force with light curtain installed	90 N
Max. permissible sash weight for MSA400 smart	Max. 400 kg (2 x 250 kg scheme E)

5. Scope of delivery

Pos.	Pieces	Designation	Version
1	1	slide drive SA	Including 24 V power supply
2	1	Network connection cable with Euro plug	On slide drive SA, 5 m cable length, for 230 V AC
3	1	Packer (2.5, 5, 8 or 10 mm thick depending on profile system) *	for catch on sliding sash
4	1	Catch base	for sliding sash top
5	1	Catch (profile-dependent adapter)	On slide drive SA
6	1	Cover cap	For catch
7	1	Cover profile SA *	For slide drive SA
8	1	Cover cap SA left *	For cover profile SA
9	1	Cover cap SA right *	For cover profile SA
10	1	Installation and operating instructions	
11	1	Terminal board *	For connecting light curtain

* optional, not included in the standard scope of delivery



6. On-site risk and hazard analysis

In order to assess the potential hazards of a power-operated window and to take the appropriate protective measures, you must assess risks in the planning phase. A risk analysis provides you with all the information needed to assess risks and make decisions concerning the safety of the window elements. The sliding element of the MSA400 smart can cause crushing and shearing. You must carry out a risk and hazard analysis during the planning phase in accordance with VFF data sheet KB.01 and the current Machinery Directive relating to the safety equipment and installation location as appropriate for the individual property and conditions of use (e.g. in case of persons requiring special protection or commercial properties).

6.1 Risk and hazard analysis

- Takes into account the protective measures necessary in the planning phase
- Must be carried out before commissioning
- Provides information based on the individual installation location and instructs users on how to install the window system in order to prevent or minimise possible hazards
- Draws attention to possible residual risks

The following aspects must be checked:

- Public or non-public area (private or industrial property)
- Installation location
- Users (authorised users, persons in need of protection or trained personnel)
- Special structural conditions
- Type of access control
- Requirements for added safety can be met with a light curtain

6.2 Instructions for assembly and installation

- Use flexible supply lines (route conduit tubes if necessary)
- When routing cables, avoid damaging the cables by crushing, bending or stretching them
- The concealed mains supply lines running to the MSA400 smart must be connected in branch boxes (these branch boxes must be easily accessible for maintenance)
- Protect the MSA400 smart system against contamination by site material and humidity
- The hardware components must be securely fixed in place
- Connect to the mains supply only after you have tested for proper mechanical function
- Observe the applicable fabrication guidelines from the profile manufacturer
- To avoid personal injury, it is important to observe the safety precautions provided in these instructions and make sure that these instructions are accessible at all times

6.3 Cooperation between trades and interfaces

In the context of project management, the work of the various trades must be carefully coordinated. If SIEGENIA components are being connected to third-party installations or SIEGENIA products are being combined with parts by other manufacturers (e.g. drives and controls), technical compatibility must be verified in advance by authorised personnel. For data collation purposes, the technical data sheets and the latest versions of the installation and operating instructions must be handed over to the trades involved when work commences.

7. Installation

7.1 Installation requirements

General information about installation

- The following description of the assembly process is a recommendation from SIEGENIA and describes the major steps involved. The specific details of the assembly process are determined, amongst other factors, by the sliding element used, by the production process and by the window manufacturer's equipment and facilities.
- You will find specific steps for installation of the MSA400 smart on our download portal:
downloads.siegenia.com/de/00007/index.html

⚠ WARNING Risk of mechanical defects if the MSA400 smart system is put into operation unassembled.

- › You must assemble the MSA400 smart first before putting it into operation!

Sliding element requirements

- The sliding element must not be warped.
- The sliding element must be installed vertically plumb in the reveal.
- The threshold must be properly and sufficiently supported – especially with wide or heavy sliding elements (e.g. 400 kg).
- The displacement force must not be > 60 N.
- The cable routing of the cable in the sliding sash must be checked prior to assembly. The sliding sash must be prepared for an optimum cable channel in the eurogroove.
- The concealed mains cable guide must be located on the horizontal top section of the frame near the locking side.

Requirements to be met by the hardware

- The hardware must be able to run smoothly (be in unrestricted working order).

Requirements to be met by the drive

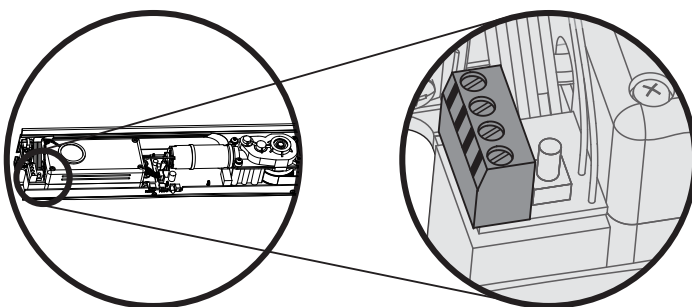
⚠ WARNING Risk of mechanical defects if the MSA400 smart system is put into operation with sliding elements which cannot move freely.

- › Only put MSA400 smart into operation if the smooth running of the sliding element can be ensured!

- The MSA400 smart system has not been tested as a locking unit in accordance with ENV 1627-1630.

7.2 The connection of external operator push buttons and locking motor (not included in scope of delivery)

- You can also connect an optional external operator push button and a locking motor to the MSA400 smart system, maximum connection 24V DC 1A.



1	Locking motor
2	
3	Operating push button
4	

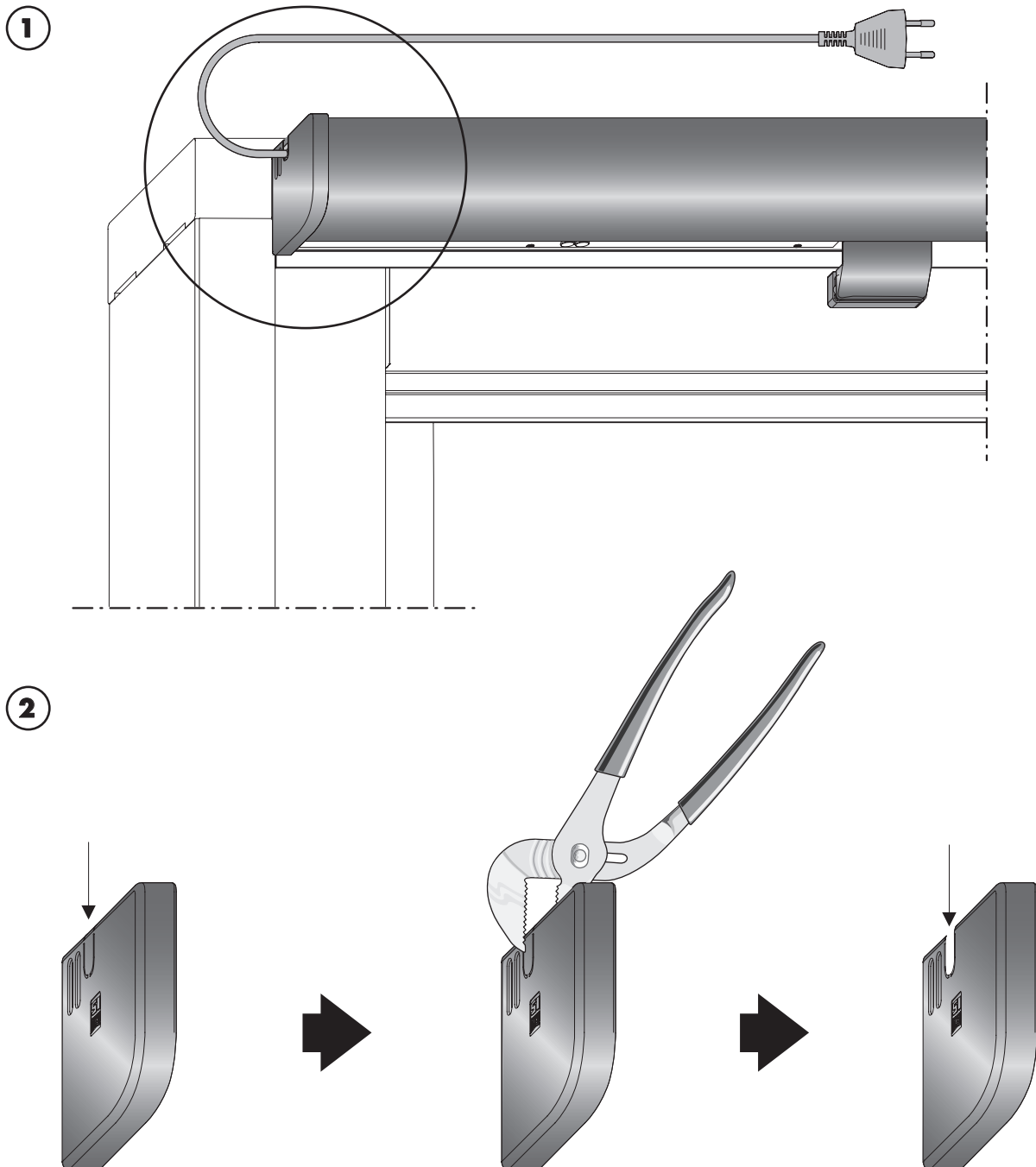
7.3 Information about mains cable running

Important information for safety and assembly

The fitting of the mains cable is determined by the prevailing conditions on site. There are two assembly options:

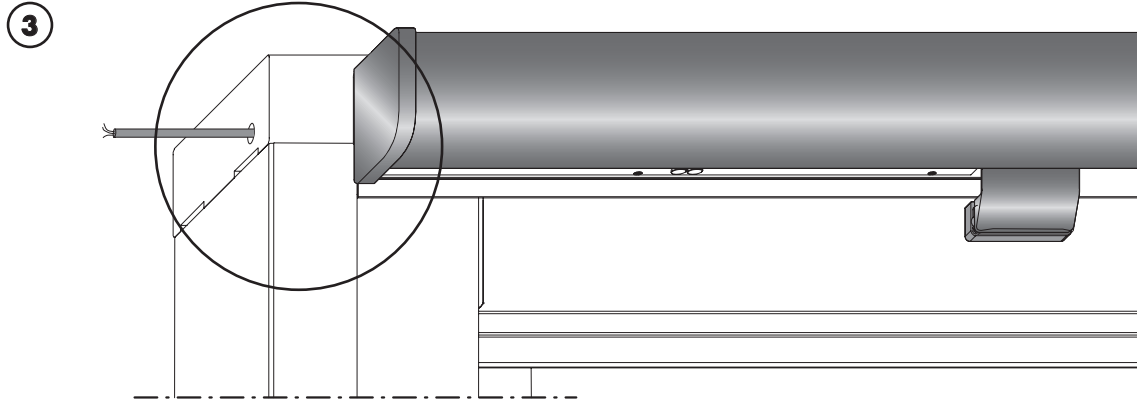
Assembly option 1 – surface-mounted mains cable running

The MSA400 smart system is delivered as standard with a mains cable. The cable outlet for scheme A is always at the top of the slide drive SA on the locking side (Fig. 1); for scheme C, it can be located on the outside of the slide drive SA on either the left-hand side or the right-hand side. A notch for the cable outlet must be made on the cover cap SA of the cover profile SA (see Fig. 2). A suitable mains socket must be located near the cable outlet. It is recommended to route the mains cable through an appropriate installation duct.

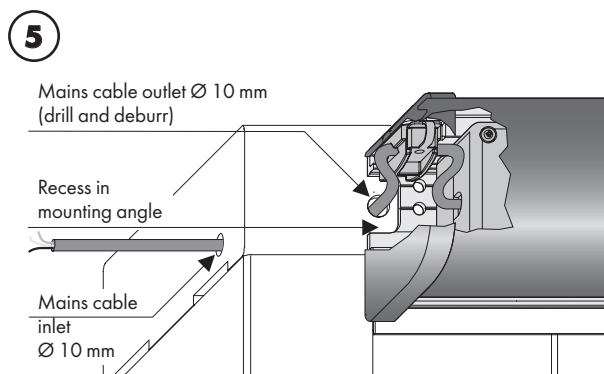
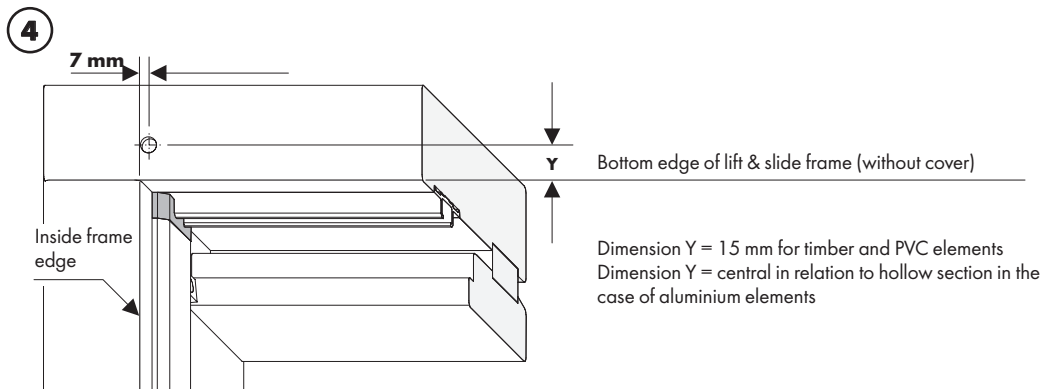


Assembly option 2 – concealed mains cable running

The customer-side concealed routing of the mains cable for the slide drive SA and the connection of the slide drive SA, this work must be carried out by a qualified electrician. In the case of mains cable running for sliding elements which have not yet been installed (e.g. new build and renovation projects), a flexible cable (5 x 1.5 mm² incl. connection) for wall and key switches must be provided by the customer and fed concealed through the top section of the lift & slide frame (fig. 3).



Holes for the cable inlet and outlet (each approx. Ø 10 mm) must be made for this purpose, with the centre of each hole being positioned approx. 7 mm away from the inside frame edge (Fig. 4). All-pole safety isolation is required if the customer is routing the mains cable. The isolated end of the mains cable must be located inside the power supply housing. The connection to the slide drive is made in accordance with the wiring diagrams. The mounting angle of the slide drive SA contains a sufficiently dimensioned recess for the cable outlet on the frame profile (fig. 5). Concealed mains cable fitting to the slide drive SA is through the top edge of the frame on the locking side. Concealed mains cable fitting to the slide drive SA is through the top edge of the frame on the locking side.

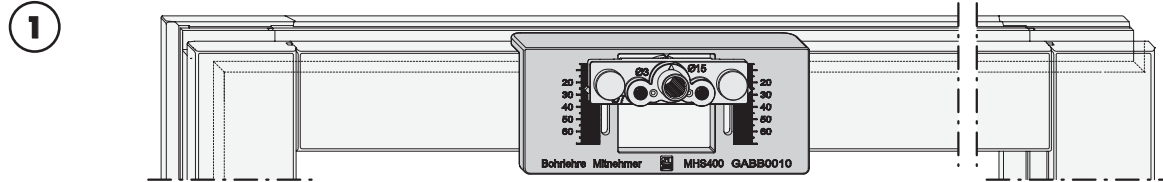


7.4 Drill holes on the sliding sash

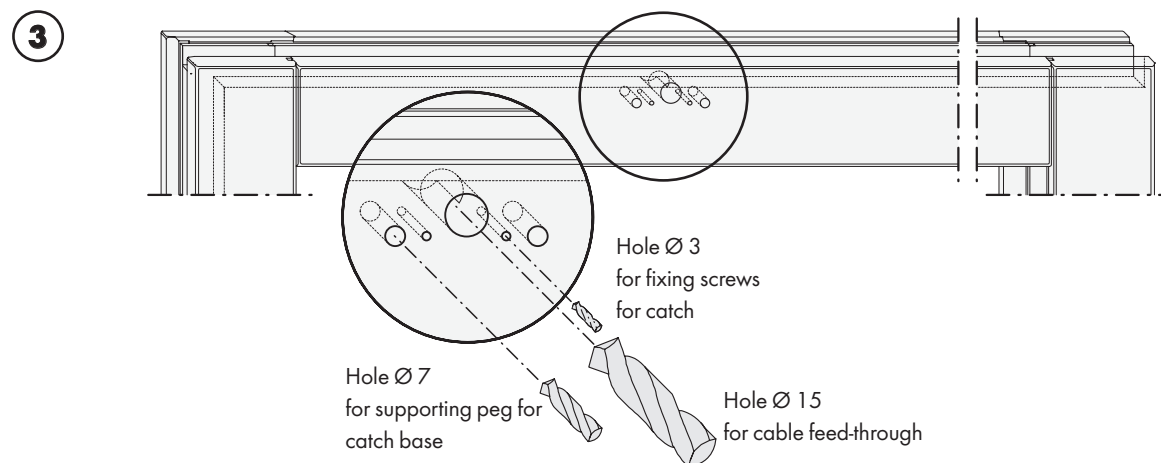
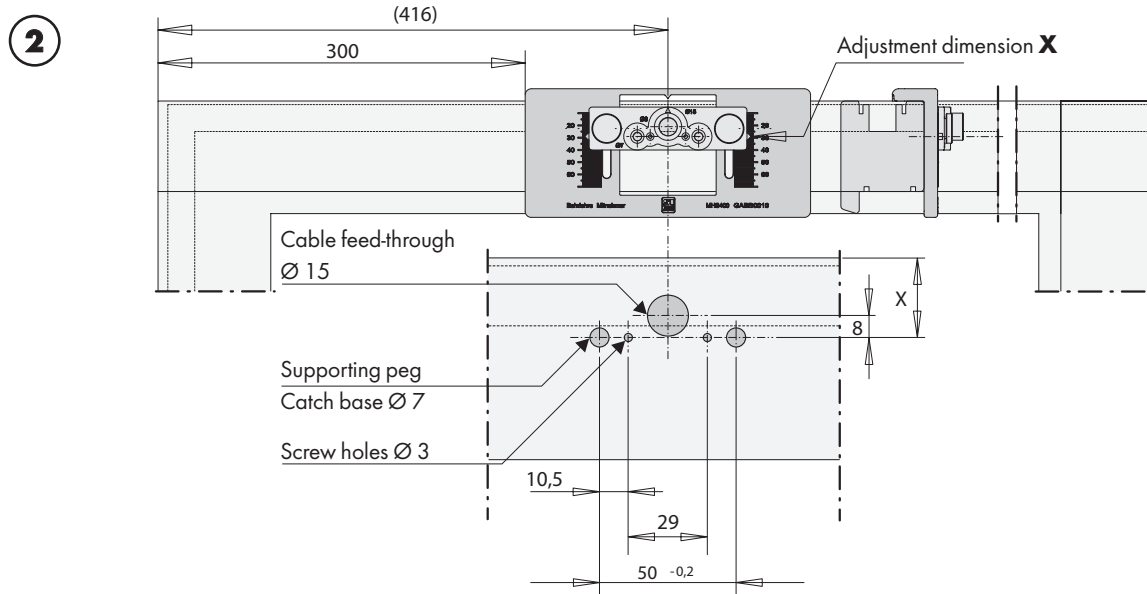
7.4.1 Positioning and setting the catch jig (accessories)

Place the jig horizontally at the top of the lift & slide sash (Fig. 1), removing existing sash seals first. Position and set the jig in accordance with the dimensioning (Fig. 2).

Make the holes for the catch horizontally at the top, noting the drilling diameter (Fig. 3).



Positioning and drilling diameters for the holes of the catch on the Sliding sash (fig. for timber profile DIN left - DIN right is a mirror image)



Important: In order for the catch to be positioned correctly on the sliding sash, the set dimension **X** (Fig. 2) must be used. The correct set dimension **X** for the respective profile systems is listed in the installation steps for the installation of the MSA400 smart, available from our download portal:

downloads.siegenia.com/de/00007/index.html

7.5 Assembly of the slide drive SA

7.5.1 Horizontal positioning of the slide drive SA

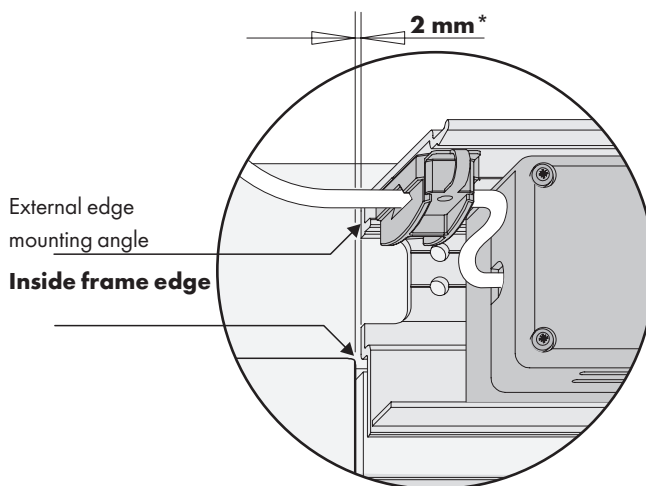
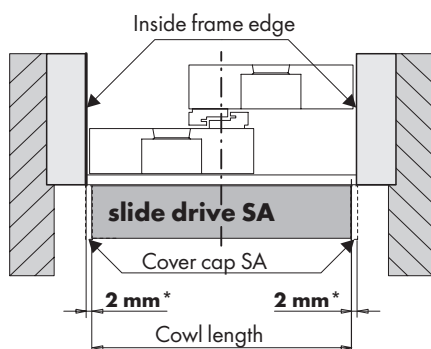
When measuring the RIB (inside frame width), take into account whether the frame profile is being used with or without a cover. With a cover, the inside frame edge is offset inwards and must be taken into account when measuring the RIB. The offset specified here of 2 mm* corresponds to the material thickness of the side cover cap SA (optional).

Option A — Frame profile without cover

Position slide drive SA offset from inside frame edge by 2 mm* (see Fig. A)

A

Fig. for positioning DIN left (DIN right is a mirror image)

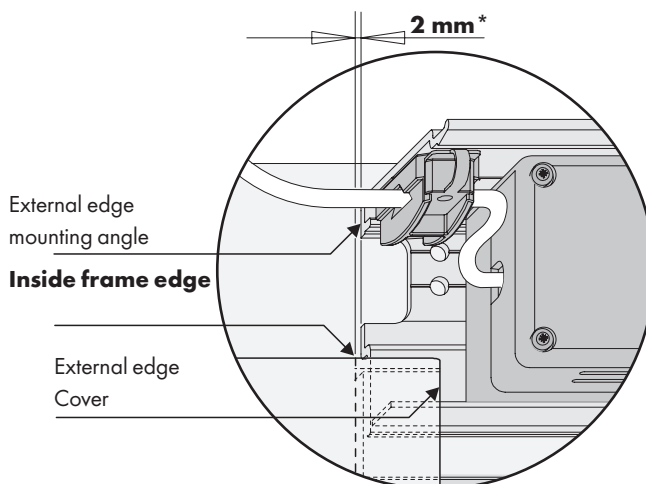
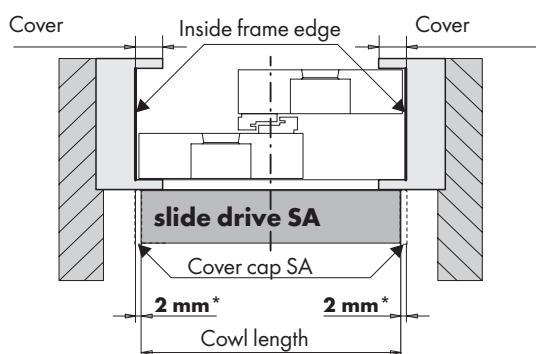


Option B — Frame profile with cover

On a frame profile with cover, the inside frame edge is not visible through the cover. The slide drive SA must be positioned offset from the inside frame edge by 2 mm* (see Fig. B). To achieve this, the distance from the inside frame edge to the external edge of the cover must be measured out before positioning the slide drive SA.

B

Fig. for positioning DIN left (DIN right is a mirror image)

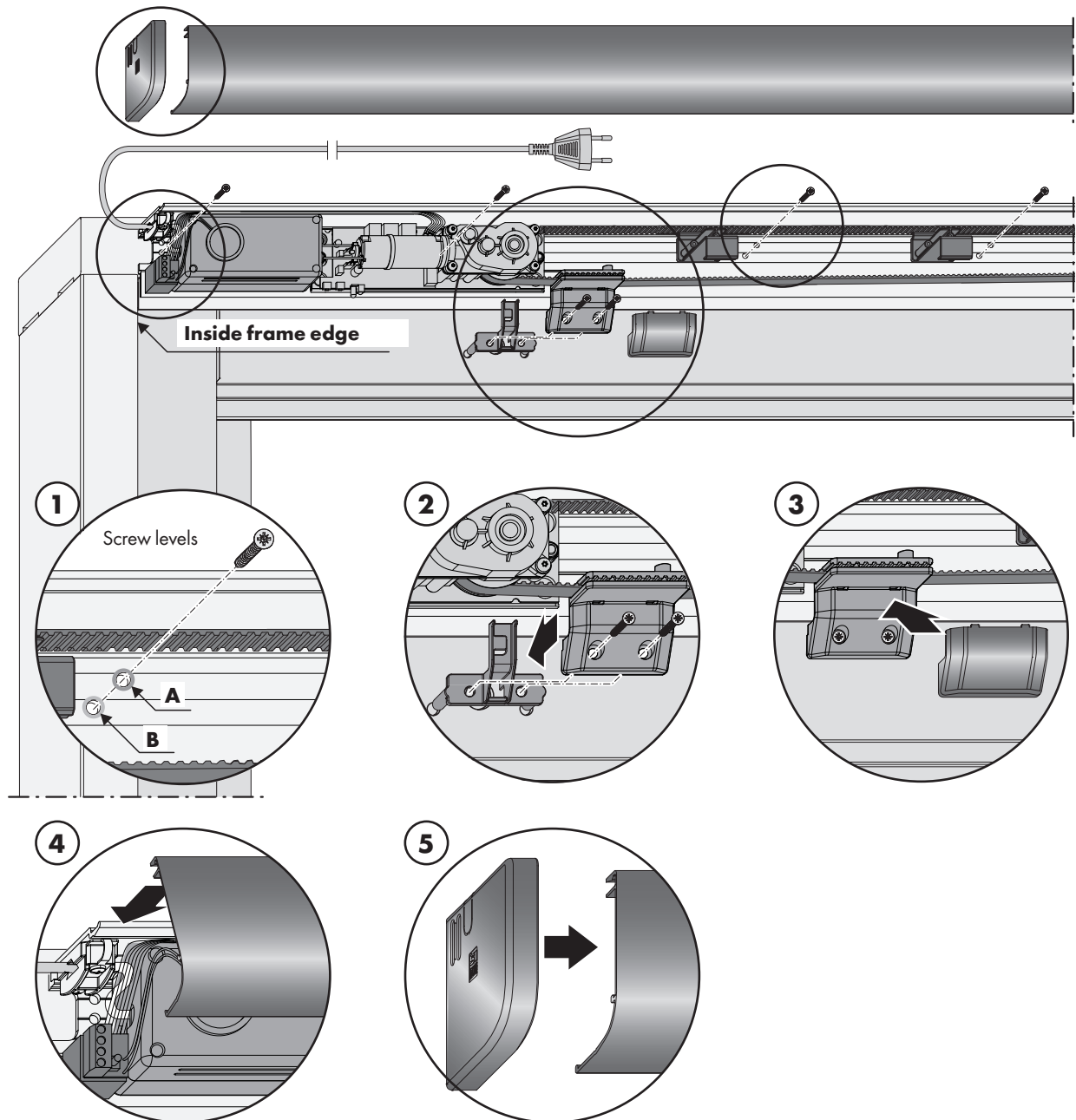


7.5.2 Vertical positioning and fixing of the slide drive SA – scheme A

Two screw levels (**A** or **B**) are provided to fix the slide drive SA to the top of the frame profile. You will find specific steps for installation of the MSA400 smart on our download portal:

downloads.siegenia.com/de/00007/index.html

1. Fixing the slide drive SA to the mounting angle at screw level **A** or **B**.
2. Set the catch down on the catch base and screw on with suitable screws
3. Attach the cover cap for the catch.
4. Attach the cover profile SA to the mounting angle.
5. Push the right-hand and left-hand cover caps SA onto the cover profile SA



7.6 Concealed mains cable running and connection

7.6.1 Concealed routing and connection to the power supply for slide drive SA

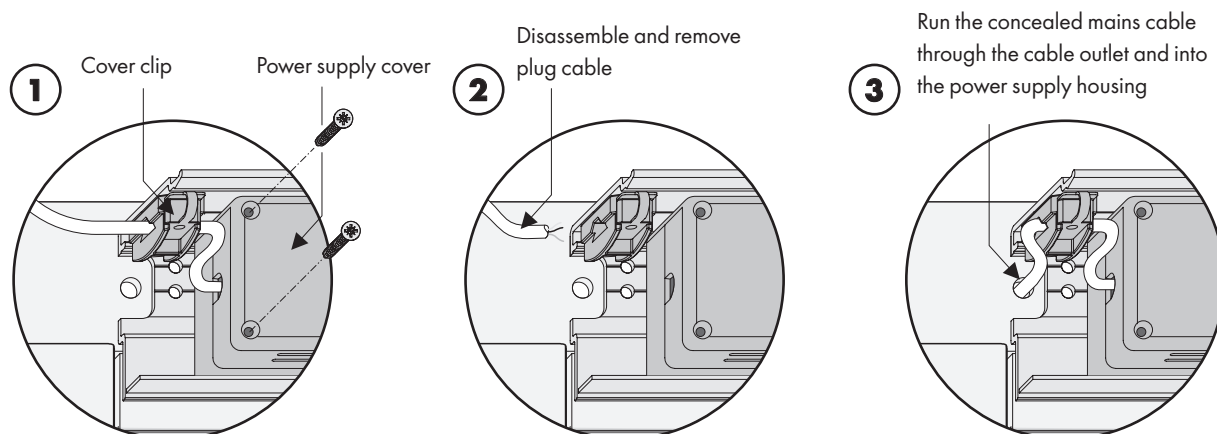
Important note: If the customer is responsible for routing the flexible mains cable (5 x 1.5 mm²) for the slide drive SA and the connection in the power supply of the slide drive SA, this work must be carried out by a qualified electrician.

⚠ WARNING Risk of overheating!
Risk of electrical shock!

- › Prior to installation, you must disconnect the mains cable from the AC mains power supply or disconnect the mains fuses.

With concealed mains cable running and for control using a wall or key switch (not included in scope of delivery), the cable must be connected in the power supply of the slide drive SA.

1. Unscrew the fixing screws on the power supply cover and remove the power supply cover.
2. Release cover clip
3. Disassemble and remove the plug cable that comes standard in the power supply.
4. Run the concealed mains cable through the cable outlet in the mounting angle and into the power supply housing; the jacket on the mains cable must extend into the power supply housing.
5. Strip the insulation from the mains cable within the power supply housing
6. Reattach the power supply cover using the fixing screws
7. Secure the mains cable with cover clips



7.6.2 Surface-mounted mains cable running

The MSA400 smart system is delivered with a 5 m long mains cable as standard. The cable outlet is always located on the locking side at the top of the MSA400 smart system. A suitable mains socket must be located near the cable outlet. It is recommended to route the mains cable through an appropriate installation duct.

7.6.3 Concealed mains cable running and connection

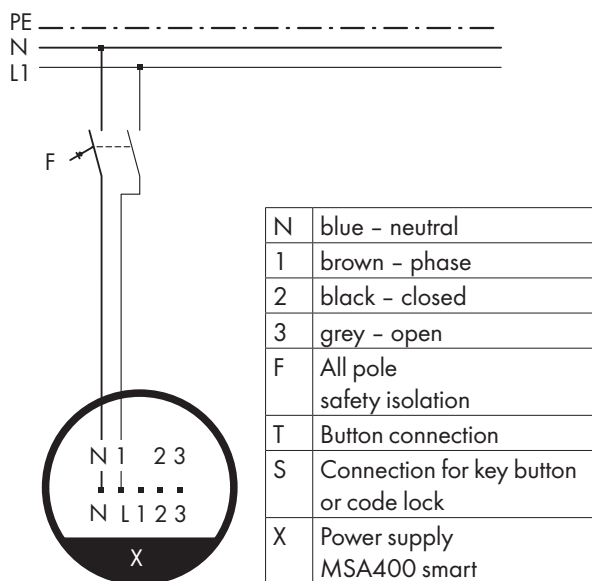
Important: All-pole safety isolation is absolutely necessary.

⚠ WARNING Risk of injury or death due to electrical shock or fire. Systems driven by an electric motor can overheat and cause fire.

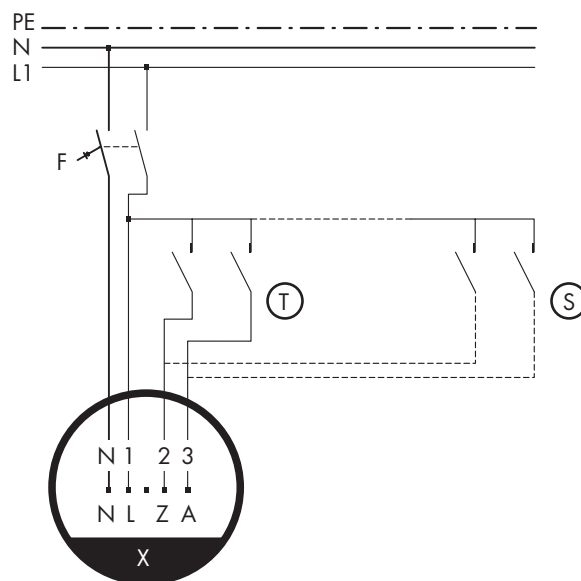
- › The power supply must be switched off.

1. Unscrew the fixing screws on the power supply cover and remove the power supply cover.
2. Disassemble and remove the plug cable that comes standard in the power supply.
3. Run the concealed mains cable through the cable outlet in the mounting angle and into the power supply housing; the jacket on the mains cable must extend into the power supply housing.
4. Remove the insulation for the section of the mains cable inside the power supply housing.
5. Connect the cable inside the power supply according to the wiring diagram
6. Reattach the power supply cover using the fixing screws.

Wiring diagram **without** switch unit



Wiring diagram **with** switch unit

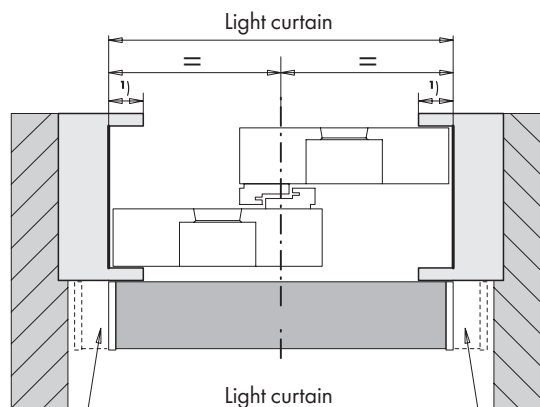


7.7 Installing the light curtain

Alterations must be made to the MSA400 smart in order to operate it with a light curtain

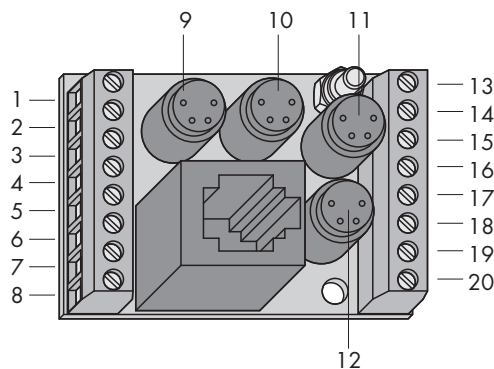
The suitable light curtain can be ordered from:

CEDES GmbH
Elektronische Systeme
Elzmatten 6
D-79365 Reinhausen



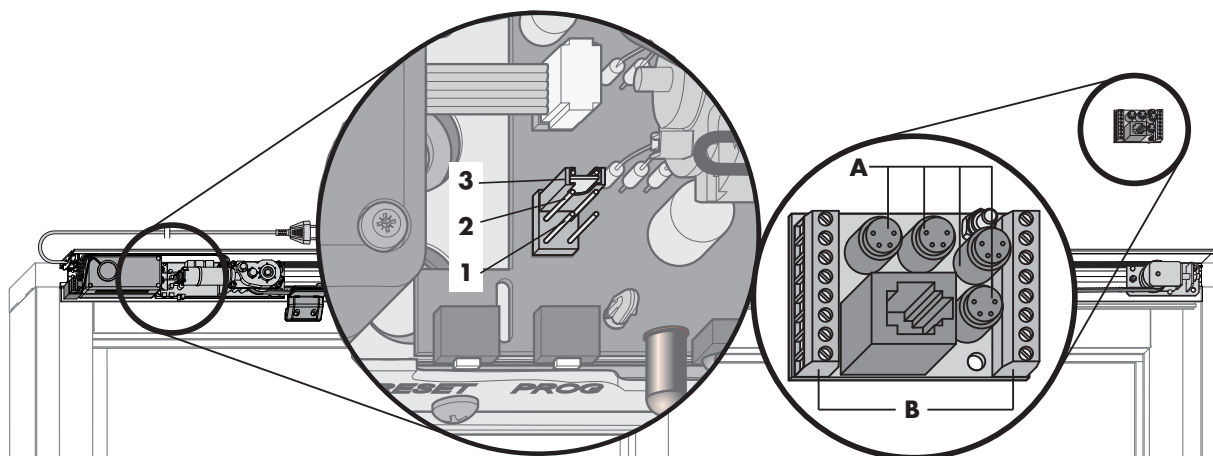
Terminal board for connecting light curtain (plugs or terminals)

Receiver	
1	+ 24 V
2	Input light curtain 2 (RX)
3	Not used
4	GND
5	+ 24 V
6	Input light curtain 1 (RX)
7	Not used
8	GND
9	Receiver, inside
10	Receiver outside



Transmitter	
11	Transmitter, inside
12	Transmitter outside
13	GND
14	Not used
15	Test
16	+ 24 V
17	GND
18	Not used
19	Test
20	+ 24 V

On the slide drive SA, a jumper must be switched for operation with a light curtain.



Jumper position	Operating mode
1	With reduced traverse speed
2	"Normal operation" without light curtain
3	With light curtain

Item	Designation
A	Sockets
B	Connecting clamps

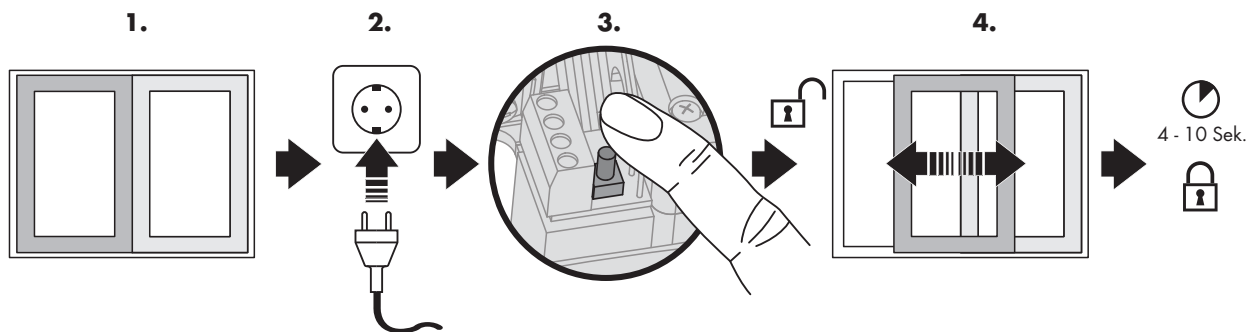
8. Commissioning

8.1 General information for commissioning

- Following installation of the MSA400 smart (initial commissioning), you must carry out a reference run as well as a calibration and teach-in run.
- The reference run, as well as the calibration and teach-in run help to determine the size of the slide element and the displacement force.
- The reference run must be performed again in the event of a power failure. The calibration and teach-in run only has to be performed when commissioning the equipment.
- Any tasks relating to commissioning may only be completed by qualified professionals.

8.2 Reference run

1. The sliding sash must be in the CLOSED position in order to begin the reference run. If necessary, slide the sash to this position manually.
2. Supply power to the MSA400 smart system.
3. Press the operating push button. The reference run starts. During the reference run, the sash is unlocked and then locked again.
4. Wait approx. 4 - 10 seconds until the sash is locked. The LED switches off once the reference run is complete.



Note: A reference run must also be performed after a power failure in order to re-initialise the MSA400 smart system.

8.3 Calibration and teach-in run

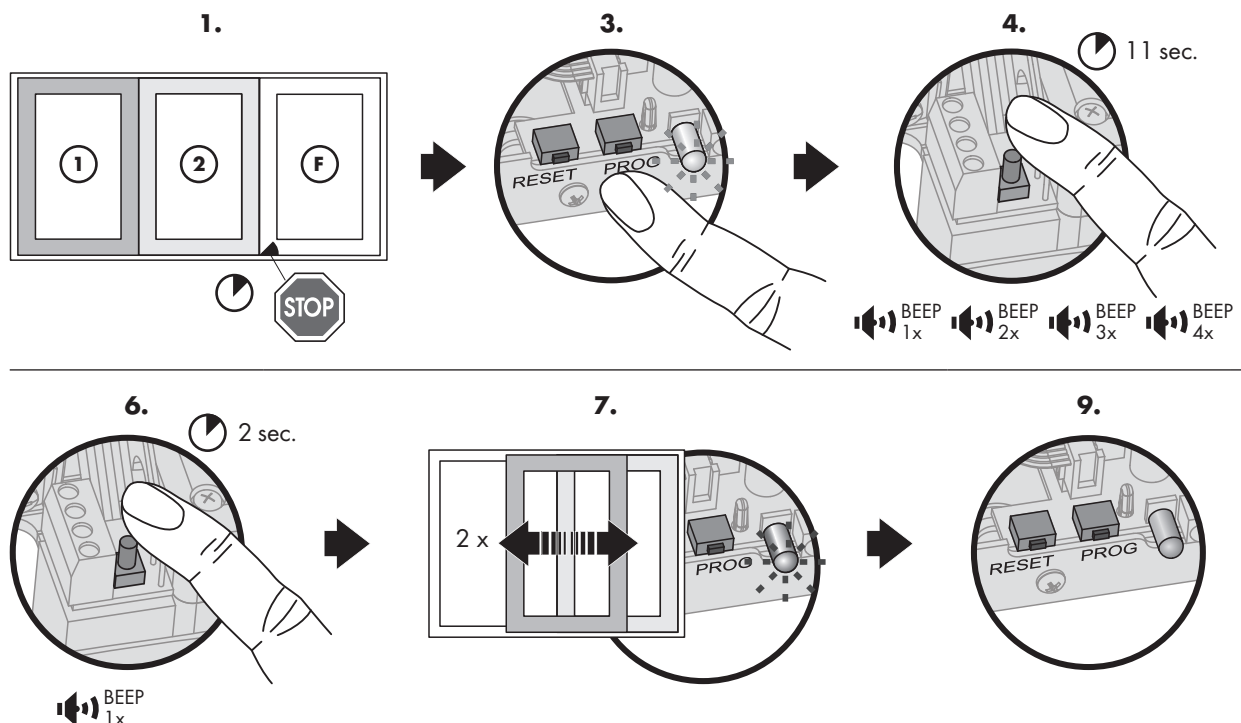
⚠ WARNING Risk of injury! Hands, arms, legs and feet can get trapped and/or crushed! There is no safety cut-off function!

- › During the entire calibration and teach-in run, maintain a safe distance from the moving elements.

⚠ WARNING Risk due to incorrect measured values!

- › To prevent incorrect measured values, never interrupt or interfere with the calibration and teach-in run of the MSA400 smart system!

1. Block sliding sash 2 (not applicable for scheme A).
2. The sliding sash must be in the CLOSED position in order to begin the calibration and teach-in run. If necessary, slide the sash to this position manually.
3. Press the **Prog** button; the LED flashes green.
4. Press and hold the operating push button for approx. 11 seconds until a short acoustic signal sounds 4 times in succession.
5. Release the operating push button.
6. Press and hold the operating push button for approx. 2 seconds until a short acoustic signal sounds once.
7. Release the operating push button. The calibration and teach-in run starts. The LED flashes red.
During the calibration and teach-in run, the sliding sash travels to the OPEN and CLOSED positions twice.
8. The element stops at sliding sash 2. Remove the blockage within approx. 5 seconds (not applicable for scheme A).
9. The LED switches off once the calibration and teach-in run is complete.

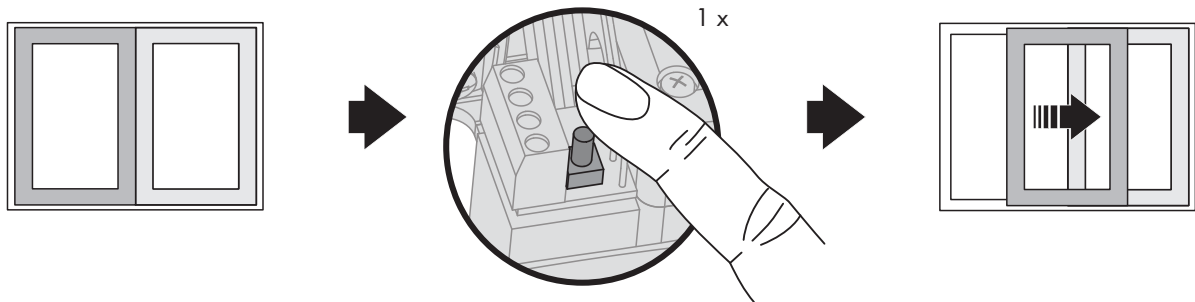


Once the calibration and teach-in run has been completed successfully, the MSA400 smart system is ready for normal operation.

9. Operation

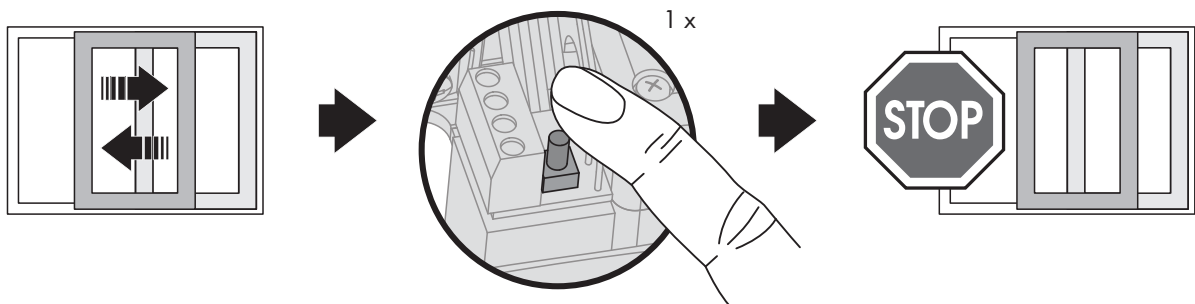
9.1 Opening the sliding sash

- › When the sliding sash is closed and locked, press the operator push button once.
- › The sliding sash is unlocked and opens; the LED lights up green.



9.2 Stopping the sliding sash during travel – OPEN or CLOSE direction

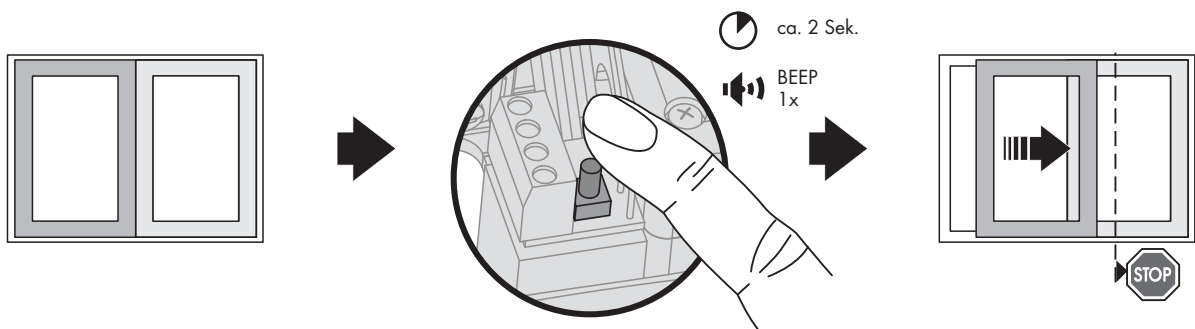
- › While the sliding sash is opening, press the operator push button once.
- › The sliding sash stops.



9.3 Opening the sliding sash to the intermediate position

Note: The desired intermediate position must be programmed on the MSA400 smart system before carrying out this function – see . "Teach in intermediate position" on 22.

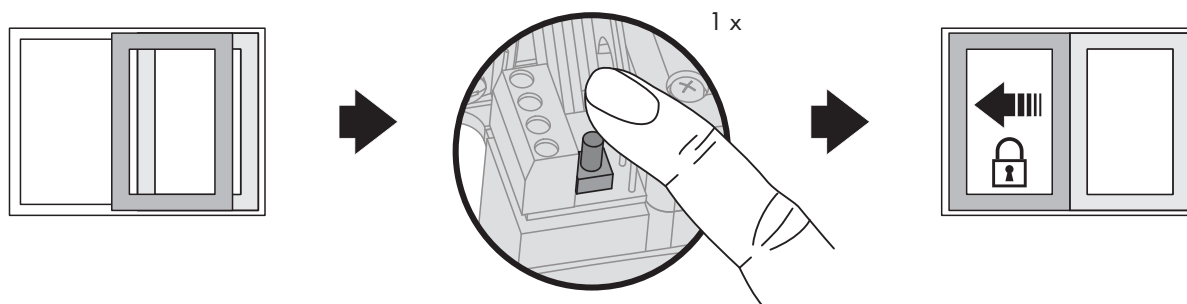
- › With the sliding sash closed, press and hold the operator push button for approx. 2 seconds until a short acoustic signal sounds once.
- › The sliding sash opens up to the intermediate position; the LED lights up green.



9.4 Closing and locking the sliding sash (optional, only with supplementary locking motor)

Note: This function must be programmed on the MSA400 smart system before it is carried out – see “Teach in close function without locking” on 22.

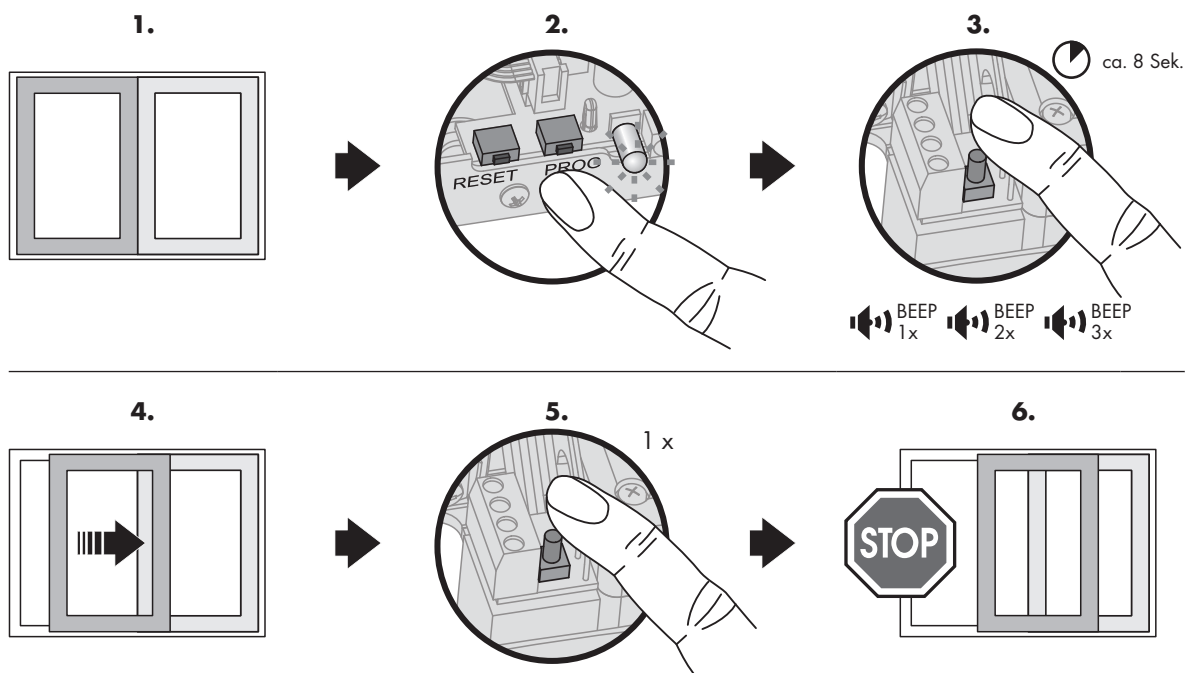
- › With sliding sash open, press the operating push button 1 times.
- › The sliding sash closes; the LED lights up red.



10. Programming special functions

10.1 Teaching-in the intermediate position

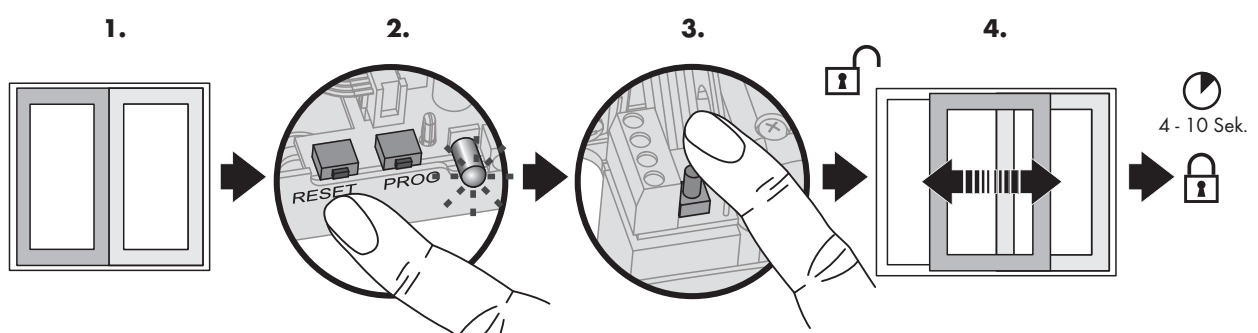
1. Close sliding sash completely (CLOSED position).
2. Press the **Prog** button; the LED flashes green.
3. Press and hold the operating push button for approx. 8 seconds until a short acoustic signal sounds 3 times in succession.
4. Release operating push button; the sliding sash opens.
5. At the desired intermediate position, press the operating push button once.
6. The sliding sash stops and the intermediate position is stored. The sliding sash can now be opened up to the intermediate position.



11. Reset the sash position

11.1 Performing a reference run

1. The sliding sash must be in the CLOSED position in order to begin the reference run. If necessary, slide the sash to this position manually.
2. Press the **RESET** button; the LED flashes red.
3. Press the operating push button. The reference run starts. During the reference run, the sash is unlocked and then locked again.
4. Wait approx. 4 - 10 seconds until the sash is locked.
5. The LED switches off once the reference run is complete.



12. Care and maintenance

⚠ WARNING**Electrically operated unit.****Risk of fatal injury from electric shock or fire.****To prevent personal injury or damage to property, always comply with the following instructions:**

- › Pull the mains plug out of the socket prior to every cleaning process or maintenance work. Never pull at the cable to disconnect the device from the electricity grid.
 - › For all devices with a fixed connection to the 230 V AC mains power supply, switch off all poles of the feeder. The fuses may need to be removed.
-

12.1 Cleaning

Important: When cleaning the MSA400 smart, do not allow liquids to get inside the unit.

- Never use cleaning agents that are aggressive or contain solvents, or sharp-edged objects, as these may damage the surfaces of the casing.
- Never clean the unit with a high-pressure cleaner or steam-jet cleaner.
- Clean the MSA400 smart with a cloth moistened with a mild soap solution or cleaning agent.
- Observe the safety regulations for operating electrical equipment and, if necessary, for ladders, steps and work overhead or at certain heights.

13. Rectification of malfunctions

In case of a malfunction, do not open the device or try to repair it under any circumstances.

If the problem is not listed in the table below, please contact your window specialist or SIEGENIA directly: Tel. +49 271 3931-0

13.1 MSA400 smart

Description of problem	LED	Possible cause	Proposed solution
MSA400 smart not functioning	Off	No power supply	Check power supply
	Off	Infrared remote control not taught in	See operating instructions – infrared remote control
	Flashes red	MSA400 smart not initialised	Perform reference run (see page 18)
	Flashes 2x green – 3x red	Overheating	Wait until the drive cools and LED stops flashing
	Flashes red/green	System test failed	Disconnect the voltage for at least 10 seconds, then start reference and calibration run (see pages 18) (if the problem reoccurs, contact Service)
MSA400 smart aborts closing/opening and moves in opposite direction for 4 seconds	Off	Obstacle is blocking the sash's traverse path	Remove obstacle and operate MSA400 smart again
MSA400 smart does not respond to smartphones/tablets	-	No WLAN connection to the router of the home network	Restart WLAN router of the home network
	-	No WLAN connection to the smartphone/tablet	Restart smartphone/tablet
	-	No WLAN connection to the MSA400 smart	Reset MSA400 smart: 1. Press and release "PROG" button 3 times in succession. 2. Hold "PROG" button once (for approx. 4 seconds) directly on the connection 3. Sliding sash moves to the CLOSED position MSA400 smart has been reset to the factory settings.

13.2 SIEGENIA Comfort app

You will find detailed operating information as well as information on how to rectify disturbances on the SIEGENIA Smarthome Internet page.

<https://smarthome.siegenia.com>



14. Technical specifications

Specification for a MSA400 smart	
Supply voltage	120–230 V~, 22 W
Device operating voltage (power supply integrated in the slide drive)	24 V DC
Max. displacement force during slide operation	Approx. 50 N (depending on sash weight and friction)
Traverse speed	Approx. 150 mm/sec.
Temperature range	–5 °C to 50 °C
Jam protection	Electronic overload cut-off device (current limiter in accordance with standard)
Protection class	IP20 for dry locations
Connection to AC mains power supply (at factory)	Europlug, cable length 5 m
Connecting clamps	For max. 2.5 mm ² supply line
Functional reliability	Tested with 400 kg sash weight for over 20,000 switching cycles

15. Accessories

Material description	Material no.
Jig catch	GABB0010-0E5010
Infrared remote control	GZFB0020-025010
Light curtain (inside/outside)	Available from CEDES GmbH Elzmatten 6, 79365 Reinhausen, Germany

16. Information concerning product liability

16.1 Intended use

Any use of this product that is not in accordance with its correct use, or any adaptation of or modification to the product and its associated components for which the express consent of SIEGENIA has not been obtained, is strictly prohibited. SIEGENIA accepts no liability whatsoever for any material losses or injury to people caused by failure to comply with this stipulation.

16.2 Product liability

Our products are guaranteed – subject to correct installation and proper use – for a period of one year from the date of receipt by a company (according to our general terms and conditions) or as otherwise agreed, and for a period of two years for end consumers, in accordance with statutory provisions. As part of our ongoing improvements, we reserve the right to replace individual components or entire products. Consequential losses resulting from defects are excluded from the warranty within the limits of the law. The warranty shall become void if modifications that are not authorised by us or have not been described in this documentation are performed on the product and/or individual components, or if the product and/or individual components is/are dismantled or (partly) dismantled, and the defect is due to the changes made.

16.3 Disclaimer of liability

The product and its components are subject to stringent quality controls. As a result, they function reliably and safely when used correctly.

Our liability for consequential losses and/or claims for damages is excluded, except in the case of wilful misconduct or gross negligence, or where we are responsible for injury to life, physical injury or damage to health. Strict liability under the German Product Liability Act (Produkthaftungsgesetz) remains unaffected. Liability for the culpable violation of significant contractual obligations also remains unaffected; liability in this case is limited to losses that are specific to the contract and that could have been foreseen. The above regulations do not imply a change in the burden of proof to the detriment of the consumer.

16.4 Environmental protection

Although our products do not fall within the scope of the German Electrical and Electronic Equipment Act, SIEGENIA will continue to meet the requirements of this Act and will endeavour to completely eliminate the use of substances that are hazardous to the environment as soon as this becomes technically feasible.

Electrical products should not be disposed of as household waste.

17. Feedback on documentation

We welcome your comments and suggestions on how to improve our documentation. Please email your comments to documentation@siegenia.com.

18. EC declaration of incorporation

Manufacturer SIEGENIA-AUBI KG
Hardware and ventilation technology
Duisburger Straße 8
57234 Wilnsdorf

declares that the product: **Slide drive**

Device type

MSA400 smart

Type designation

meets the following fundamental requirements:

EC Machinery Directive	2006/42/EC
EMC Directive	2014/30/EU
	EN 301 489-1
	EN 301 489-17
Low voltage directive	2014/35/EU
	EN 60335-1:2012
	EN 60335-2-103:2010
RoHS Directive	2011/65/EU

This declaration is based on test reports from:

EMC TestHaus Dr. Schreiber GmbH - Test protocol 14/457

The machine may only be put into operation when incomplete if it has been ascertained, if applicable, that the machine into which it is to be installed conforms to the specifications of the Machinery Directive.

The specific technical documentation has been drafted in accordance with Annex VII Part B of the EC Machinery Directive 2006/42/EC.

We undertake to provide such documentation to market surveillance authorities in electronic format within a reasonable time upon reasoned request. The aforementioned technical documentation can be obtained from the manufacturer.

Siegen, 09-05-2017


M. Weber

(Head of group development)

This declaration certifies conformity with the directives cited but does not warrant properties in the legal sense.

The safety instructions in the product documentation supplied must be followed.

SIEGENIA®

brings spaces to life

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Ukraine Phone: +38 044 4054969

Contact your dealer: