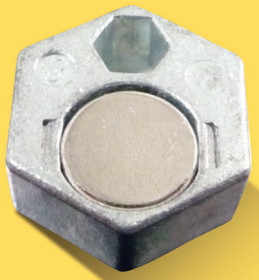
Product catalogue

SIEGENIA
SOLUTIONS INSIDE

AEROCONTROL.



Integrated opening and closing status monitoring for timber windows with 4 mm, 12 mm airgap and PVC windows.

WINDOW HARDWARE
DOOR HARDWARE
SLIDING DOOR HARDWARE
VENTILATION TECHNOLOGY
BUILDING TECHNOLOGY

BUILDING TECHNOLOGY

DRIVE

1 Overview

Information on the AEROCONTROL

What does AEROCONTROL mean?

The AEROCONTROL (magnetic switch) from SIEGENIA was developed to supplement the mechanical intruder resistance provided by hardware for windows and French doors by adding an electronic safety device. Here, it acts as a signal-transmitting component within an intruder alarm system (EMS).

Depending on the version, the AEROCONTROL can also take on other tasks, such as air conditioning and heating control when the windows are open. The two functions can also be combined with each other.

Magnetic switch functionality

Every AEROCONTROL is a magnetic switch which is used in combination with a magnet. Here, the field of the magnet is used to open contacts in the magnetic switch (reed switches) or to keep them closed. The type of contact depends on the magnetic switch version. A change in the magnetic field due to mechanical movement of the magnet leads to a change in the switching state in the magnetic switch.

The reed switch consists of ferromagnetic switching reeds. The reeds are fused hermetically sealed in a glass tube. The two switching reeds overlap with a minimum distance to each other. If an appropriate magnetic field acts on these reeds, they move toward or away from each other. The contact area of the switching reeds is coated with a metal (e.g. rhodium or ruthenium). These hard contact surfaces are important for achieving high switching capacities. The service life lies between 10 million and 1 billion switching cycles, depending on the load and switch.

Depending on the version, the magnetic switches are furnished with 4-pin or 6-pin permanently installed switching lines (control wires).

All of the magnetic switches specified in this manual are equally suitable for timber and PVC windows. During assembly, a distinction is made between *concealed* and *surface-mounted* magnetic switches.

Installation requirements

All AEROCONTROL products are tested to make sure they are in perfect working order before they leave our premises. In addition, these products are subjected to high loads and continuous switching tests by the VdS. Every instruction in this technical documentation must be observed to avoid any damage and customer complaints resulting from incorrect installation.

Before each work step, please read the associated section of this documentation carefully and thoroughly and comply with the sequences specified.

The AEROCONTROL may only be assembled and installed by the following persons:
Assembly: Window fitter
Installation: In the case of VdS-certified systems, installation must be carried out by a certified alarm system installation company.

All VdS certificates are available on request.

What does integrated window monitoring mean?

Unfortunately, the possibility of windows being left open can never be completely ruled out, particularly in buildings with a large number of both windows and occupants. And when they are left open, it is easier for uninvited guests to enter the building – and for precious energy to escape. With the
AEROCONTROL, both of these eventualities can be monitored. Here's how it works: magnetic switches in the window report the relevant status. Via a central monitoring unit an alarm can then be raised, at a security company, for example. What's more, the AEROCONTROL can be used for air conditioning and heating control, helping to save energy as a result. If windows are opened, the heating is automatically turned off. Not only does this save money, it is also good for the environment

Benefits for fabricators:

- Can be fitted in a wide range of windows and French doors
- Also suitable for retrofitting
- Integrates into frame rebate, independently of profile
- Bus-compatible for integration in building control technology
- Extensive range of accessories for wired glass
- Approved for use as a safety extraction switch set for fume extraction hood control
- VdS-tested and certified to the maximum protection class (C), depending on switch type

Benefits for users:

- Additional window safety
- Saves energy costs by notifying the central building control technology of any open windows
- Sabotage monitoring and external magnetic field monitoring of magnetic switch

All-in-one package solution

Fireplaces which are dependent on ambient air can quickly become a real safety hazard if an exhaust air unit is used, because artificially created negative air pressure draws poisonous flue gases into the room. Therefore, in accordance with the ordinance on open fireplaces, fireplaces may only be operated with fume extraction hoods and other exhaust air units if the appropriate pressure balance can be ensured – or alternatively if simultaneous operation can reliably be prevented. The safety extraction switch offers a simple yet safe solution to this problem. Wired with the special AEROCONTROL magnetic switch, it records the status of the window and only switches on the extraction hood if the connected window is tilted or opened.

This all-in-one system for fume extraction hoods is the first fully concealed system on the market to be approved by the German institute for building technology (DIBt) as a complete product set.

Benefits for fabricators:

- DIBt approval for the entire integrated package, consisting of the safety extraction switch and the concealed, special AEROCONTROL magnetic switch
- Meets the requirements of the Building Rules List and chimney sweeping associations
- 6 m cable length allows simple, flexible connection to the magnetic switch
- Safety bracket for plug
- Suitable for retrofitting

Benefits for users:

- Complies with Section 4 of the German ordinance on fire installations (FeuVO)
- Permits simultaneous operation of open fireplaces and fume extraction hoods
- Components on the window are fully concealed

Intended use

- All AEROCONTROL products are tested to make sure they are in perfect working order before they leave our premises. Every instruction in this technical documentation must be observed to avoid any damage and customer complaints resulting from incorrect installation.
- Before each work step, please read the associated section of this documentation carefully and thoroughly and comply with the specified sequences.
- Only VdS-approved switches may be used in VdS-compliant systems.
- The AEROCONTROL may only be assembled and installed by the following persons:
  Assembly: Window fitter
  Installation: In the case of VdS-approved systems, installation must be carried out by a certified alarm system installation company.
- For fume extraction hood control purposes, only DIBt-approved safety extraction switches may be used in Germany.

Cable extension in the case of VdS-compliant systems

- When replacing a defective magnetic switch, disconnecting or modifying the existing line (e.g. patching on or soldering) is not allowed. The magnetic switch, including its cable, must then be completely replaced. The cable is a component of the assembly tested according to VdS guidelines. This assembly may not be modified at a later point.

VdS classification and approval

The VdS guideline for intruder alarm systems, no. VdS 2311, states:
"Intruder alarms must be selected taking the respective monitoring tasks and the ambient conditions into account and observing the installation instructions of the system proprietor/manufacturer".

The magnetic switches are subject to special requirements with regard to tamper protection and monitoring. They are usually equipped with an anti-tamper line. This is also why the wires all have the same colour (white). The classes are easily distinguished as follows:

Class A: No or only little tamper protection. Usually no anti-tamper line.

Class B: Higher requirements to prevent tampering. Anti-tamper lines present.

Class C: High requirements to prevent tampering (e.g. external magnetic fields). Anti-tamper lines present

⚠ NOTICE **Only use SIEGENIA components; otherwise, VdS approval will not apply.**

Positioning the magnetic switches

The positioning depends on the existing hardware components and the window design and is to be done according to the relevant hardware overviews. The system is only VdS-compliant when the alarm signal is **not** suppressed by an additional magnetic switch (e.g. monitoring of a tilted window).

In accordance with the VdS guideline:

"Opening warning devices must be arranged on windows and doors so that every intended opening type leads to an alarm. Mounting *should* be carried out in the middle at the top, if possible, but a maximum of 60 cm away from the opening side. In the case of multi-sash doors/gates and windows, there must be at least one opening warning device mounted on each sash."

Instructions for installation and mounting

To ensure that the AEROCONTROL order processing runs smoothly, the following items must be taken into consideration:

- Within the scope of project planning work, there should be an exact and detailed agreement with the cooperating partners, such as the alarm system installation company, with regard to the connection interfaces to be provided (distribution box, etc.).
- Before delivery and mounting, the magnetic switches installed in the window must undergo a function test with the test unit intended for this (see accessories) while still in the workshop. An additional check of the magnetic switches after installing the windows at the installation site should also be carried out to avoid any potential customer complaints and malfunctions of connected alarm systems at acceptance.
- **The acceptance should be documented with an acceptance report.**
- The technical documents in this section must be made available to the technical crews involved at an early stage for the planning and connecting work.

Checklist for project planning

- What are the requirements?
- Is locking and opening monitoring required?
- What VdS class is required?
- Is the magnetic switch to be concealed or surface-mounted?
- Should an air conditioning or heating control system be put in place?
- Is the magnetic switch to be used for fume extraction hood control (see ordinance on fireplaces)?
- What additional accessories are required (wired glass, cable transfer, etc.)?
- Who is the alarm system installation company (send technical data sheets)?
- Who is the client?
- Who is responsible for acceptance of work?
- Who is installing the cable?
- Where does the cable need to be installed?
- How long does the cable have to be?
- Is the cable sufficiently looped in the window frame?
- Is a connection to the LSN (local security network) bus required?
- How many magnetic switches are to be connected in series (max. of 20 permitted)?
- Are test certificates required for the window system?
- Was an acceptance report signed by the accepting technical crew?

The magnetic switches must be positioned in the frame in a way that prevents the switch and the cable from being manipulated from an external location.

Recommendations for an acceptance report

We recommend that you obtain an acceptance report confirming proper installation according to the manufacturer specifications as well as the complete functionality of elements with AEROCONTROL components.

The acceptance report should include the following:

- ☐ Which windows/French doors were equipped with magnetic switches and magnetic cams? *(Please specify exactly in a separate sheet; individual windows are to be categorised by room or, if known, in relation to the alarm circuit.)*
- ☐ Have the VdS requirements been met?
- ☐ Were the following test certificates submitted; e.g. VdS certificate?
- ☐ Specification of the accepting specialist company (e.g. alarm system installation company, electric installation company).
- ☐ Has it been ensured that the cable was installed on the window frame without a kink?
- ☐ Have the magnetic switches been tested for proper functioning using a suitable test unit (e.g. test unit magnetic switch) before and after installing the windows?
- ☐ Is the length of the magnetic switch cables sufficient for connections that must be made (6 m standard length or 10 m)?
- ☐ Have the required installation dimensions – distances between magnetic switches and magnetic cams – been complied with as specified (the magnetic switch should react at a handle position that is 30° from the locking position)?
- ☐ How many magnetic switches are connected in series (max. 20)?
- ☐ Is it ensured that the magnetic switches can be replaced later (cable channel)?
- ☐ When installed, is the cable sufficiently looped behind the magnetic switch for repairs/removal?
- ☐ Has the correct connection voltage been applied?
- ☐ Were only manufacturer-approved original parts used?
- ☐ Have all required documents been submitted?

2 Monitoring functions

Explanation and description

Possible AEROCONTROL monitoring functions

Locking status monitoring

To check the locking function "locking cam in striker plate".

In the case of the "locking monitoring" function, a check is performed to determine whether a window or French door is locked. To do this, a special hardware component with a magnetic cam is used, which closes a contact in the magnetic switch when the fitting is in the locking position. The magnetic switch is connected to the intruder alarm system.
If the handle of the window or French door is manipulated or if someone attempts to move the locking cam with force, the magnetic cam moves away from the magnetic switch and breaks the connection to the intruder alarm system. This pulse triggers an alarm via the intruder alarm system.

Window locked
The magnetic cam and magnetic switch jointly monitor the locking status

Opening status monitoring

To check the sash position "open – sash has no contact with the frame".

In the case of the "opening monitoring" function, a check is performed to determine if the sash of a window or French door is closed. A magnet is used for this; it closes a contact in the magnetic switch using its magnetic field when the sash is closed. The magnet does not need to have a connection to the fitting system. The magnetic switch is connected to the intruder alarm system. If the sash of the window or French door is opened, the magnet moves away from the magnetic switch. As a result of the weakening magnetic field, the contact opens and breaks the connection to the intruder alarm system. This pulse triggers an alarm via the intruder alarm system.

Window unlocked
A signal is sent to the monitoring unit

Combined locking and opening status monitoring

To check the locking function "locking cam in striker plate" and
to check the sash position "open – sash has no contact with the frame".

In the case of combined locking and opening monitoring, both the opening of the sash of a window or French door as well as its locking status are checked. To do this, a hardware component with a magnetic cam is used, which closes a contact in the magnetic switch when the fitting is in the locking position.
The magnetic switch is connected to the intruder alarm system.
If the sash is opened, the handle is manipulated or if someone attempts to move the locking cam of the fitting with force, the magnetic locking cam moves away from the magnetic switch. It breaks the connection to the intruder alarm system or makes a connection to it. Each of these pulses triggers an alarm via the intruder alarm system.

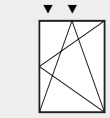
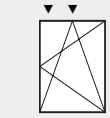
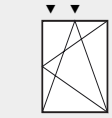
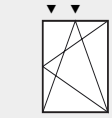
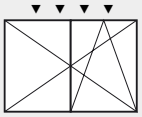
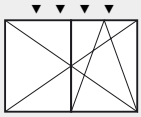
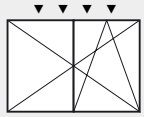
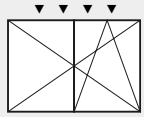
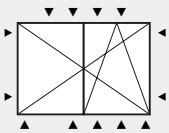
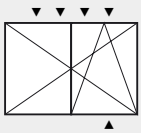
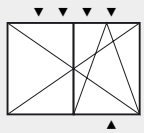
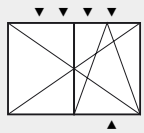
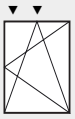
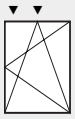
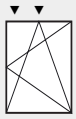
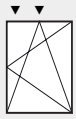
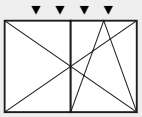
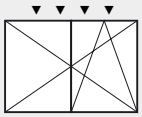
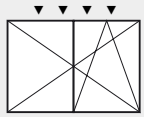
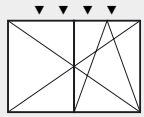
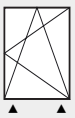
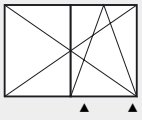
Anti-tamper line

An anti-tamper line is an electrical circuit to which a voltage is applied. The circuit is fed and monitored by an intruder alarm system. If the circuit is interrupted, e.g. by the cable connection being broken, the intruder alarm system triggers an alarm. In the case of magnetic switch types with anti-tamper lines, there are two identical switching lines connected to each other in the head of the magnetic switch.

External magnetic field monitoring

When the "external magnetic field monitoring" function is used, a check is performed to determine whether the magnetic switch is being manipulated by an external magnetic field that is being used to fool the intruder alarm system. For this, a special magnetic switch with two contacts is used; these are both connected to the intruder alarm system.
While the first contact reacts to the magnetic field of the magnet (locking and/or opening status monitoring), the second contact opens only when an external magnetic field is externally applied by ferromagnetic materials.
Each of these pulses triggers an alarm via the intruder alarm system.

Magnetic switch positions on the turn-only window/tilt and turn window

Magnetic switch selection *What type of monitoring is required?*	**VdS class**			
	None	**A**	**B**	**C**
Possible magnetic switches *(one magnetic switch per sash)*	UMS001, UMS002, UMS004, UMS010-LSN, UMS011-EN, UMS124, UMS1080, UMS012	UMS001, UMS002, UMS003, UMS010-LSN, UMS011-EN	UMS001, UMS002, UMS003, UMS010-LSN, UMS011-EN	UMS003
Opening status monitoring				
				
Locking status monitoring				
				
Combined locking and opening status monitoring				
				
Possible magnetic switches *(one magnetic switch per sash)*	UMS001, UMS002, UMS004, UMS010-LSN, UMS011-EN, UMS124, UMS1080, UMS012			
Monitoring of a tilted window				
				

The system is only VdS-compliant when the alarm signal is **not** suppressed by an additional magnetic switch (e.g. monitoring of a tilted window)!

3 Magnetic switches

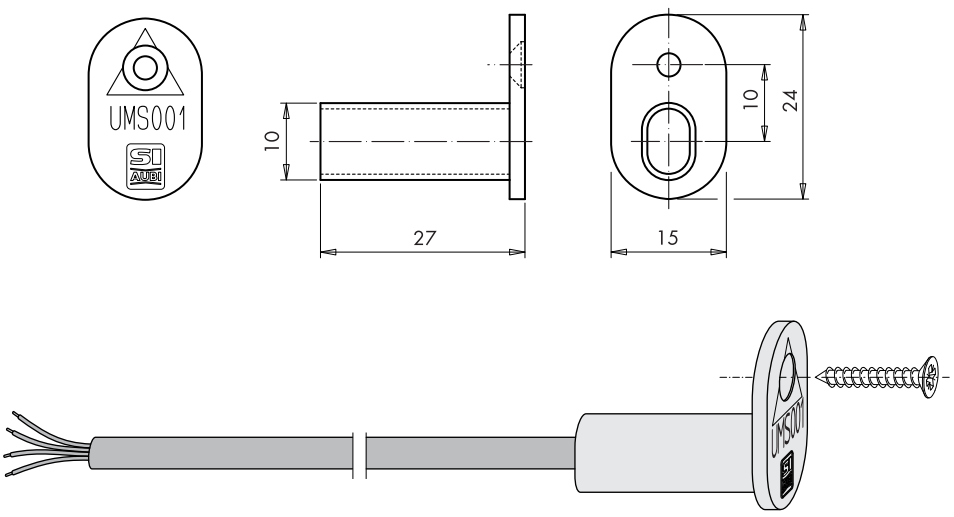
Concealed **with** VdS approval

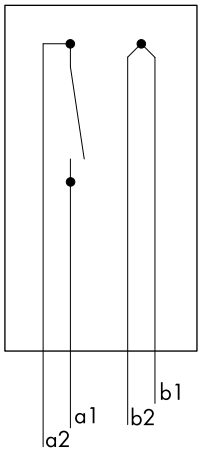
Concealed magnetic switches **with** VdS approval

Description	Type of monitoring	Contact type	Approval Approval no.
UMS001 Carton with 25 bags, each consisting of: – Magnetic switch – Fixing screws	• Combined locking and status monitoring	• N/O contact • Anti-tamper line	**VdS class B*** G 102515
UMS002 Carton with 25 bags, each consisting of: – Magnetic switch – Fixing screws	• Combined locking and status monitoring • Air conditioning and heating control system	• N/O contact • Anti-tamper line • N/C contact	**VdS class B*** G 102521
UMS003 Carton with 25 bags, each consisting of: – Magnetic switch – Fixing screws	• Combined locking and status monitoring with external magnetic field monitoring	• N/O contact • Anti-tamper line • N/C contact	**VdS class C*** G 102063
UMS010-LSN Only available as complete set. Carton with 10 bags, each consisting of: – Magnet – Distance sleeves – Magnet contact – Installation flange – Fixing screws	• Combined locking and status monitoring only for LSN bus systems (safety bus system from Bosch)	• N/O contact • Anti-tamper line	**VdS class C*** G 105047
UMS011-EN Carton with 25 bags, each consisting of: – Magnetic switch – Magnetic switch casing – Covers for magnetic switch casing – Fixing screws	• Combined locking and status monitoring	• N/O contact • Anti-tamper line	**VdS class B*** G 113515 **EN approval**

* *VdS approval up to 10 m line length.*

Magnetic switch type UMS001 – 4-pin with anti-tamper line
Technical data





a1-a2	Contact type: N/O contact
b1-b2	Anti-tamper line

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS001 VdS-UEBW.4P.6M	899526	White	6 m	1
	315101	White	6 m	25
	899601	White	10 m	1
	315187	White	10 m	25
	899533	Silver	6 m	1
	315118	Silver	6 m	25

Technical data

Working contact	A
Casing material	ABS
Contact load	10 watts
Max. DC switching voltage	100 V DC
Max. DC switching current	0.5 A
Max. contact resistance at 10 AW overvolting	0.15 ohms
Temperature with permanently installed cable	-20 °C to +70 °C
Temperature with loose cable	-5 °C to +50 °C
Environmental class according to VdS 2110	3
Protection class according to DIN 40050, waterproof	IP 68
Combined locking and status monitoring VdS approval no.	Class B: G 102515
Minimum values for N/O contacts are 0.05 mA (current) and 1 V DC (voltage)	

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error.

Magnetic switch type UMS001 – 4-pin with anti-tamper line
Technical performance specifications

Combined locking and status monitoring

VdS class	B
VdS approval no.	G 102515
Number of switching lines	4
Working contacts	• N/O contact (closed when magnet is applied) for locking and status monitoring • Anti-tamper line (required for VdS class B)
Alarm triggered by	• Opening the window/French door • Operating the handle • Moving a locking cam with force • Interrupting the anti-tamper line
Notes on connection	

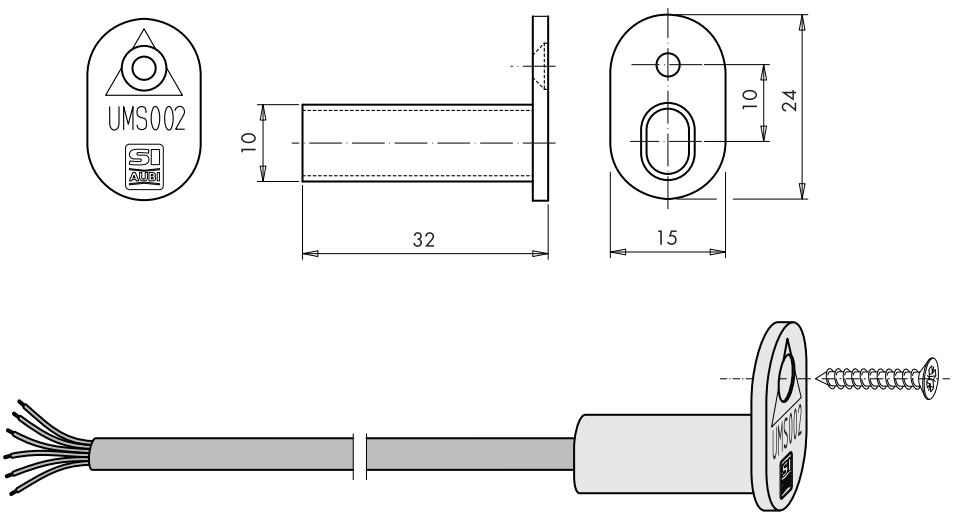
⚠ NOTICE

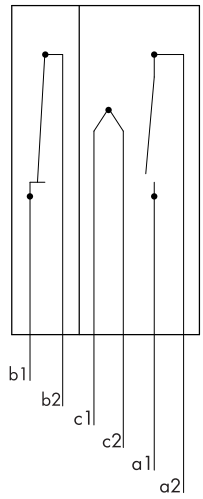
High voltage or current levels can damage magnetic switches! For testing, either the ZUPG0010 test unit magnetic switch or a common digital multimeter with a continuity tester can be used. Never use a light bulb continuity tester. The technical data of the magnetic switch should not be exceeded.

- Terminal assignment must be determined by measurements.

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error.

Magnetic switch type UMS002 – 6-pin N/O or N/C contact with anti-tamper line
Technical data





a1-a2	Contact type: N/O contact
b1-b2	Contact type:? N/C contact
c1-c2	Anti-tamper line

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS002 VdS-UEBW.6P.	894415	White	6 m	1
	303993	White	6 m	25
	899496	Silver	6 m	1
	315071	Silver	6 m	25

Technical data	N/O contact for locking monitoring	Changeover switch as N/C contact for air conditioning and heating control system
Working contacts	A	C
Casing material	ABS	
Cable	LIYY 6 x 0.14 mm² ZGL	
Contact load	10 W	3 W
Max. DC switching voltage	100 V DC	30 V DC
Max. DC switching current	0.5 A	0.2 A
Min. insulation resistance	10^9 ohms	
Contact resistance at 10 AW overvolting	0.1 ohms	0.15 ohms
Temperature with permanently installed cable	-20 °C to 70 °C	
Temperature with loose cable	-5 °C to + 50 °C	
Environmental class according to VdS 2110	3	
Protection class according to DIN 40050, waterproof	IP 68	
Combined locking and status monitoring VdS approval no.	Class B: G 102521	
Minimum values for N/O and N/C contacts are 0.05 mA (current) and 1 V DC (voltage)		

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error.

Magnetic switch type UMS002 – 6-pin N/O or N/C contact with anti-tamper line
Technical performance specifications

Combined locking and status monitoring

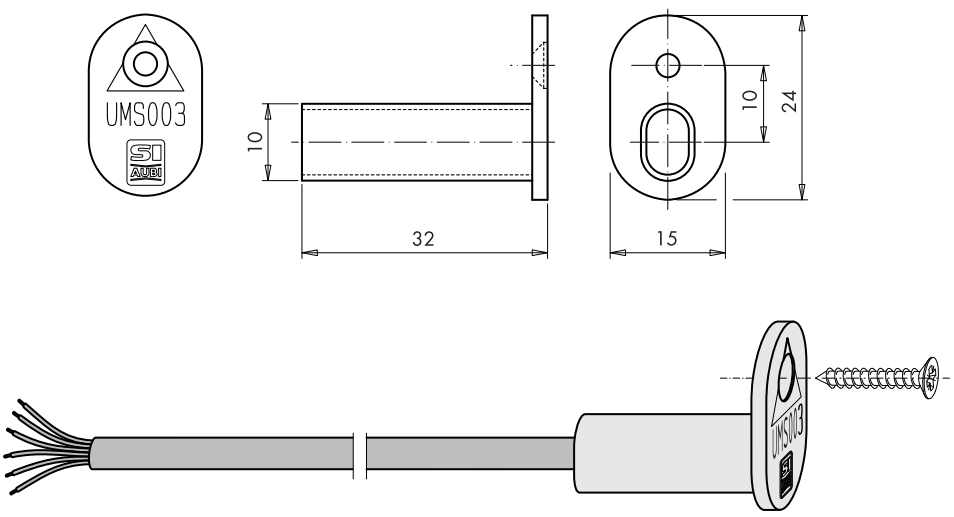
VdS class	B
VdS approval no.	G 102521
Number of switching lines	6
Working contacts	• N/C contact (opened when magnet is applied) for control, e.g. heating systems • N/O contact (closed when magnet is applied) for locking and status monitoring • Anti-tamper line
Alarm triggered by	• Opening the window/French door • Operating the handle • Moving a locking cam with force • Interrupting the anti-tamper line
Notes on connection	

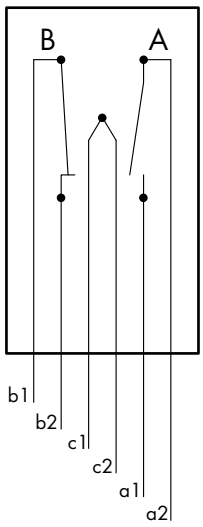
⚠ NOTICE	**High voltage or current levels can damage magnetic switches! For testing, either the ZUPG0010 test unit magnetic switch or a common digital multimeter with a continuity tester can be used. Never use a light bulb continuity tester. The technical data of the magnetic switch should not be exceeded.**

- Terminal assignment must be determined by measurements.
- **The switching lines for the N/C contact should not be connected to an intruder alarm system.**

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error.

Magnetic switch type UMS003 - 6-pin with external magnetic field monitoring
Technical data





a1-a2	Contact type: N/O contact
b1-b2	Contact type: N/C contact (external magnetic field contact)

Cannot be used for tilt monitoring

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS003 VdS-UEBW.6P.	899564	White	6 m	1
	315149	White	6 m	25
	899571	Silver	6 m	1
	315156	Silver	6 m	25
	315194	White	10 m	25

Technical data	N/O contact for locking monitoring	N/C contact, external magnetic field contact
Working contacts	A	B
Casing material	ABS	
Cable	LIYY 6 x 0.14 mm^2 ZGL	
Contact load	10 W	3 W
Max. DC switching voltage	100 V DC	30 V DC
Max. DC switching current	0.5 A	0.2 A
Min. insulation resistance	10^9 ohms	
Contact resistance at 10 AW overvolting	0.1 ohms	0.15 ohms
Temperature with permanently installed cable	-25 °C to 70 °C	
Temperature with loose cable	-5 °C to + 50 °C	
Environmental class according to VdS 2110	3	
Protection class according to DIN 40050, waterproof	IP 68	
Combined locking and status monitoring VdS approval no.	Class C: G 102063	
Minimum values for N/O and N/C contacts are 0.05 mA (current) and 1 V DC (voltage)		

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error; see page 25.

Magnetic switch type UMS003 – 6-pin with external magnetic field monitoring Technical performance specifications

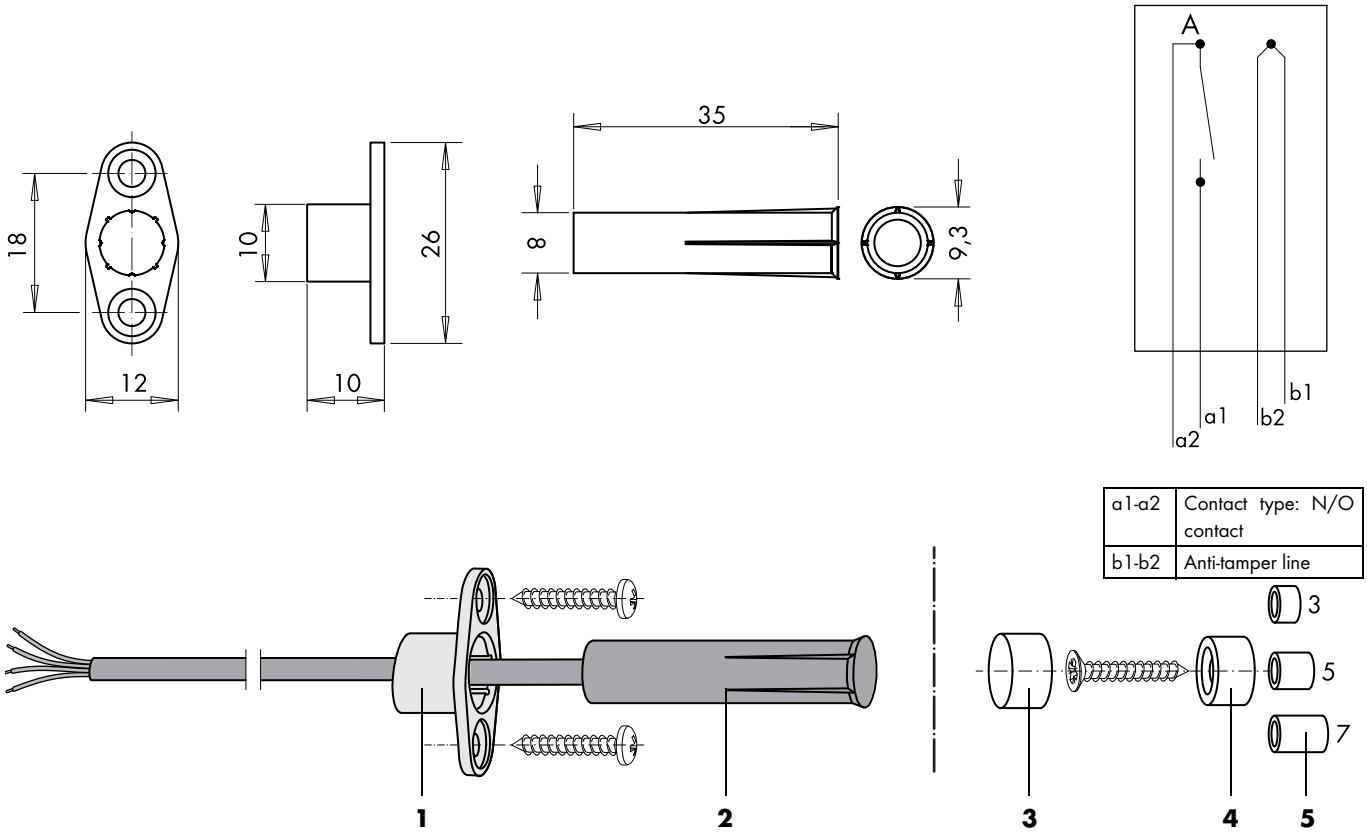
Combined locking and status monitoring with external magnetic field monitoring

VdS class	C
VdS approval no.	G 102063
Number of switching lines	6
Working contacts	• N/O contact (closed when magnet is applied) for locking and status monitoring • N/C contact (contact opens in the case of manipulation with an external magnet) for external magnetic field monitoring • Anti-tamper line
Alarm triggered by	• Opening the window/French door • Operating the handle • Moving a locking cam with force • Manipulation with external magnetic fields • Interrupting the anti-tamper line
Notes on connection	

⚠ NOTICE	**High voltage or current levels can damage magnetic switches! For testing, either the ZUPG0010 test unit magnetic switch or a common digital multimeter with a continuity tester can be used. Never use a light bulb continuity tester. The technical data of the magnetic switch should not be exceeded.**

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error; see page 25.

Magnetic switch type UMS010-LSN – 4-pin (with integrated LSN chip)
Technical data



a1-a2	Contact type: N/O contact
b1-b2	Anti-tamper line

1	Installation flange EF 8/10 for contact installation in timber, PVC and non-magnetic metals
2	Magnet contact ø 8 x 35
3	Magnet cover
4	Magnet ø 10 x 5, neodymium
5	Distance sleeves 3, 5 and 7 mm

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS010 LSN VdS CLASS C	ZUMS0100 - 096010	White	4 m	1
	ZUMS0100 - 096020	White	4 m	10

Technical data

Working contacts	N/O contacts
Casing material	PBT-GF, A-B-S
Cable	4 m cable LIYY (ST) ZGL 4 x 0.14 mm² Cu, tin-plated, suitable for cable insulation displacement
LSN supply voltage	15 - 33 V DC
LSN current consumption	Approx. 0.4 mA
Temperature range	-25 °C to 70 °C
Environmental class according to VdS	3
Protection class	IP 67
Combined locking and status monitoring	with VdS approval up to class C
Scope of delivery	See installation parts above

Note: Observe the notes on potential sources of error; see page 25.

Magnetic switch type UMS010-LSN – 4-pin (with integrated LSN chip) Technical performance specifications

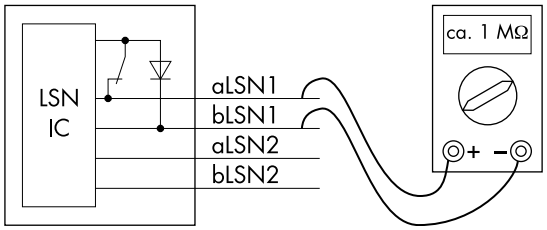
Combined locking and status monitoring

VdS class	C
VdS approval no.	G 105047
Number of switching lines	4
Characteristics	• Integrated LSN chip for connection to the LSN bus (safety bus system from Bosch) • N/O contact (closed when magnet is applied) for locking and status monitoring • Anti-tamper line • For installation/surface mounting on the front side • SMD technology
Alarm triggered by	• Opening the window/French door • Operating the handle • Moving a locking cam with force • Interrupting the anti-tamper line

Testing information

⚠ NOTICE **The switching contact can only be measured using a standard multimeter. It is essential to use the magnets supplied.**

Testing the switching function of the intruder contact



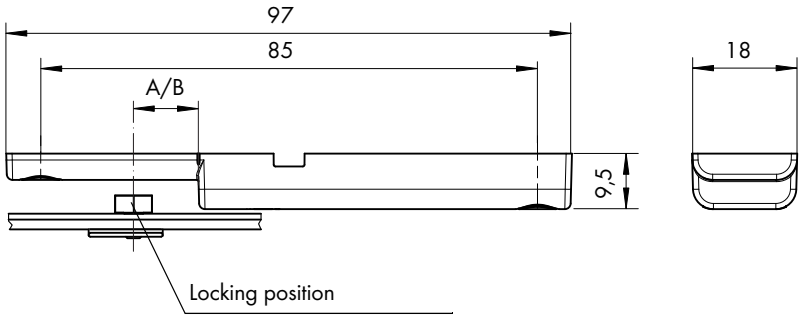
Alarm (diagram)

Contact open: 3 MΩ
Contact closed: 1 MΩ
The resistance specifications are approximate values. A significant change in resistance is the decisive factor.

The **anti-tamper contact** is not triggered when the actuating magnet approaches; only the approach of an external magnet triggers it. Therefore, it is not absolutely essential to check the switching behaviour before/after installation.

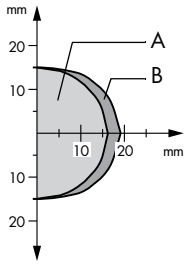
Note: Observe the notes on potential sources of error; see page 25.

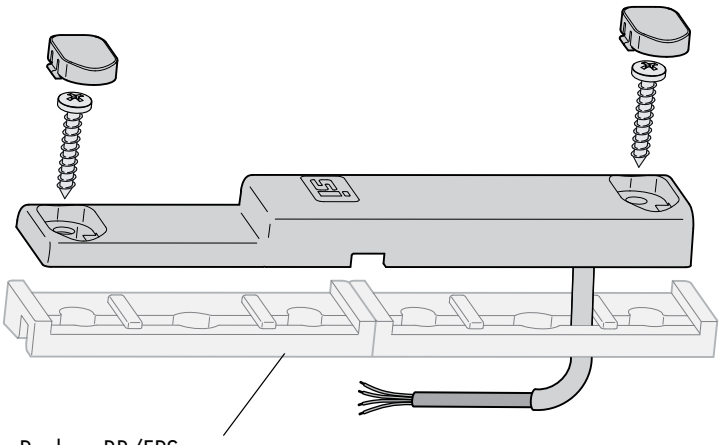
Magnetic switch type UMS011-EN – 4-pin with anti-tamper line
Technical data



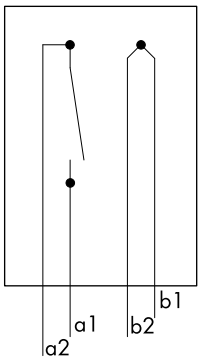
Switching distance A/B

A 16 mm ±4 Approach = contact closes
B 19 mm ±4 Withdrawal = contact opens





Packers RB/FPS
(fig. may differ)



a1-a2	Contact type: N/O contact
b1-b2	Anti-tamper line

Note: The required sash attachment and the packers **must** be ordered separately (for information on packers RB/FPS, see the profile data sheets).

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS011-EN VdS-UEBW.4P.6M	ZUMS5040-040010	Silver	6 m	1
	ZUMS5040-040040	Silver	6 m	25

Technical data

Working contact	A / N/O contact
Casing material	ABS
Contact load	10 W
Max. DC switching voltage	100 V DC
Max. DC switching current	0.5 A
Max. contact resistance at 10 AW overvolting	0.15 ohms
Temperature with permanently installed cable	-20 °C to +70 °C
Temperature with loose cable	-5 °C to +50 °C
Environmental class according to VdS 2110	3
Protection class according to DIN 40050, waterproof	IP 67
Combined locking and status monitoring VdS approval no.	Class B: G 113515
Minimum values for N/O contacts are 0.05 mA (current) and 1 V DC (voltage)	

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error.

Magnetic switch type UMS011-EN – 4-pin with anti-tamper line
Technical performance specifications

Combined locking and status monitoring

VdS class	B
VdS approval no.	G 113515
EN approval	
Number of switching lines	4
Working contacts	• N/O contact (closed when magnet is applied) for locking and status monitoring • Anti-tamper line (required for VdS class B)
Alarm triggered by	• Opening the window/French door • Operating the handle • Moving a locking cam with force • Interrupting the anti-tamper line
Notes on connection	

⚠ NOTICE	**High voltage or current levels can damage magnetic switches! For testing, either the ZUPG0010 test unit magnetic switch or a common digital multimeter with a continuity tester can be used. Never use a light bulb continuity tester. The technical data of the magnetic switch should not be exceeded.**

- Terminal assignment must be determined by measurements.

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error.

Installation and mounting instructions

Possible sources of error

- Cable kinking (no protective hose)
- Connection voltage and currents too high
- Externally acting forces (shocks, impacts, do not use hammer)
- Switching distance/installation situation (airgap/cavity too large)
- Inductive and capacitive overload (e.g. relay, unsuitable measuring devices)
- Heat (temperature range > 75 °C)
- Magnetic field change in the case of steel
- Ferromagnetic materials such as reinforcement change the switching distance.
- Non-magnetic fixing screws are not used.

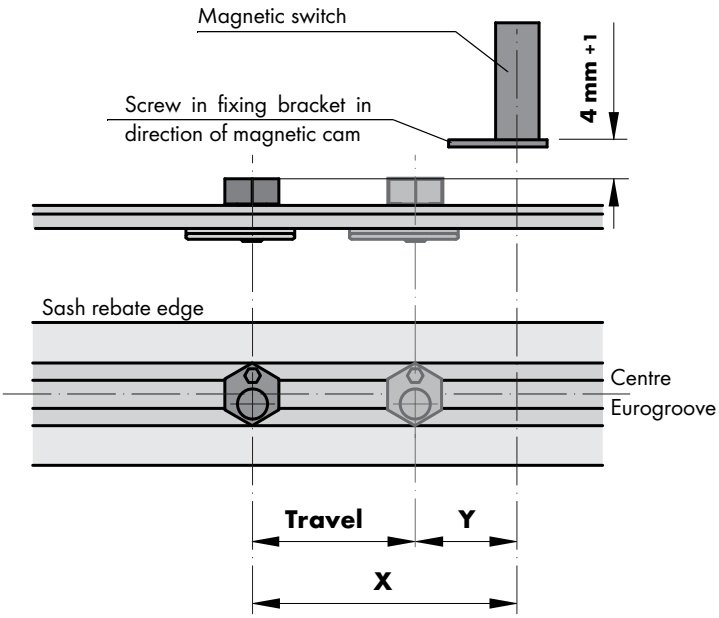
⚠ NOTICE

To ensure that the magnetic switch can be replaced and to prevent any potential complaints (e.g. cable separation or cable kinking), the protective hose from the accessories range should be used during mounting.

Positioning the magnetic switch and magnetic cam

Offsetting the magnetic cam on the magnetic switch

Magnetic switches UMS001, UMS002, UMS003, UMS010-LSN



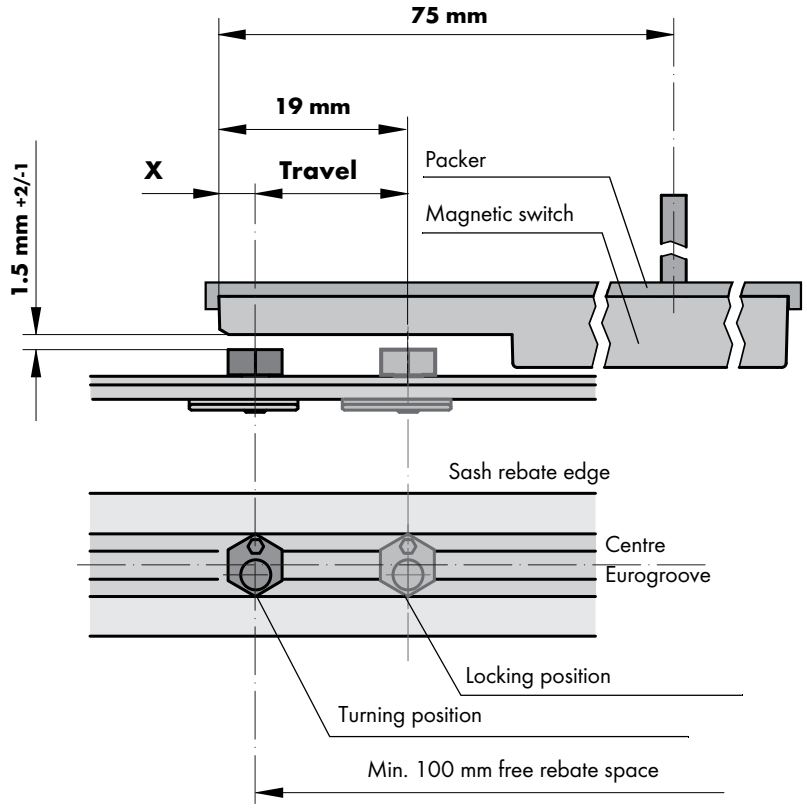
Hardware travel for calculating offset in turning position
Offset X = travel + Y

Magnetic switch distance in locking position

Magnetic switch	Dimension Y
UMS001	11 mm ±1
UMS002	11 mm ±1
UMS003	11 mm +2
UMS010-LSN	9 mm +2

Hardware range	Travel
FAVORIT	16 mm
TITAN iP	18 mm
TITAN AF	18 mm
PORTAL PSK 200 Z Plus	56 mm

Magnetic switch UMS011-EN



Hardware travel for calculating offset in turning position
Offset X = 19 mm - travel

Hardware range	Travel
TITAN iP	18 mm
TITAN AF	18 mm

Installation requirements:
There must be free rebate space (12 mm +1) over a length of at least 100 mm (to prevent the casing from colliding with the hardware components).

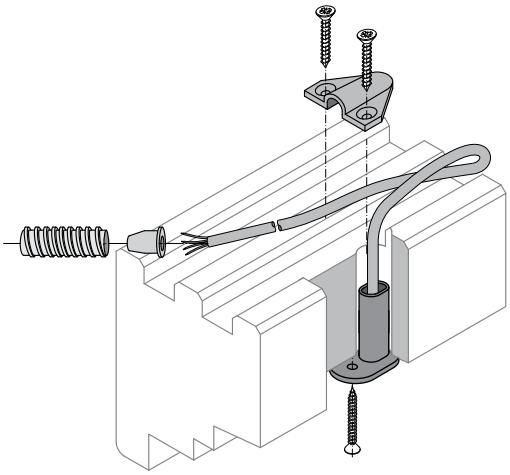
Installation and mounting instructions

Installation conditions

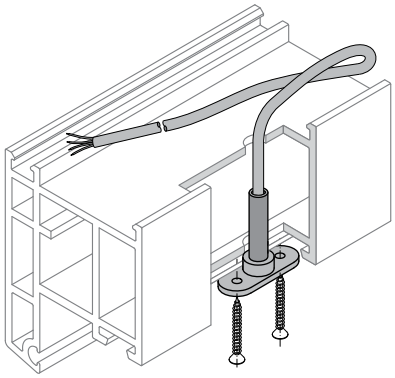
Cable installation	Through the frame, flush-mounted
Installation position of the magnetic switch	Top, horizontally on window or door element See page 12 for more information
Drill holes	• Ø 2 mm and Ø 10 mm for magnetic switch in frame • Ø 10 mm as through hole for cable installation
Fixing the magnetic switch	• Non-magnetic screws (included in scope of delivery) • See technical data sheets

Mounting examples

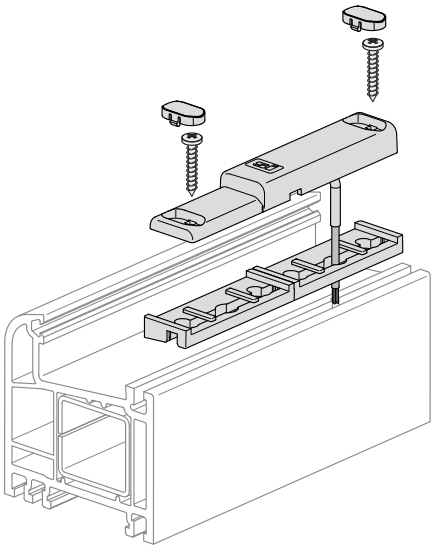
UMS001, UMS002, UMS003
Installation in timber profile



UMS010-LSN
Installation in PVC profile



UMS011-EN
Installation in PVC profile
(see mounting instructions for more information)
Recommendation: Use a jig for mounting purposes
(see accessories, page 78)



Cable installation

When installing the switching lines from the frame to the bus controller or branch box of the intruder alarm system, make sure the switching lines are protected from damage and that the magnetic switches can be replaced. The cable must be looped directly behind the magnetic switch for protection and as spare for extension at a later date. For this, we recommend installation through a flexible protective hose, which allows small bending radii of r = 20 mm without kinking the hose.

⚠ NOTICE **To prevent damage when installing the magnetic switch in the frame, never pull in the magnetic switch using the cable!**

It is imperative that mechanical stress on the magnetic switch is avoided, such as impacts or shocks, as this can destroy the magnetic switch. Never install a magnetic switch with tools that are too heavy-handed for the job, such as hammers; instead, always insert and fit it carefully by hand!

- We recommend using an empty conduit for cable channels leading to external points.
- Route and push the cable into the drilled hole from below.
- Push the magnetic switch into the drilled hole by hand.
- Fix the magnetic switch with the non-magnetic screws supplied.
- The magnetic switch should not be attached to the frame or masonry.

When using the flexible protective hose:

- Pull the terminal sleeve over the cable up to the frame. When doing so, note the insertion direction onto the flexible protective hose, which will be used later.
- Pull the flexible protective hose over the cable and attach the terminal sleeve to the end of the hose.
- Attach the end piece to the end of the hose and fix it to the frame.
- Roll up the protective hose including the cable that has been pushed in and fix it to the frame so that it cannot kink.

Additional note for timber windows

In the case of timber profiles (timber thickness at least 40 mm), the line must be installed in a groove in the profile that runs the length of the airgap area of the skylight. From this point, it is then routed through the frame at the side to the branch box.

⚠ NOTICE **Frame fixing elements (e.g. fixing cleats or frame dowels) can damage the cable during installation. Therefore, during cable installation, take the screw level for the frame fixing elements into account.**

Additional information for PVC windows

If the geometry of the PVC profile only allows fixing in steel reinforcement, the function of the magnetic switch may be impaired.

4 Magnetic switches

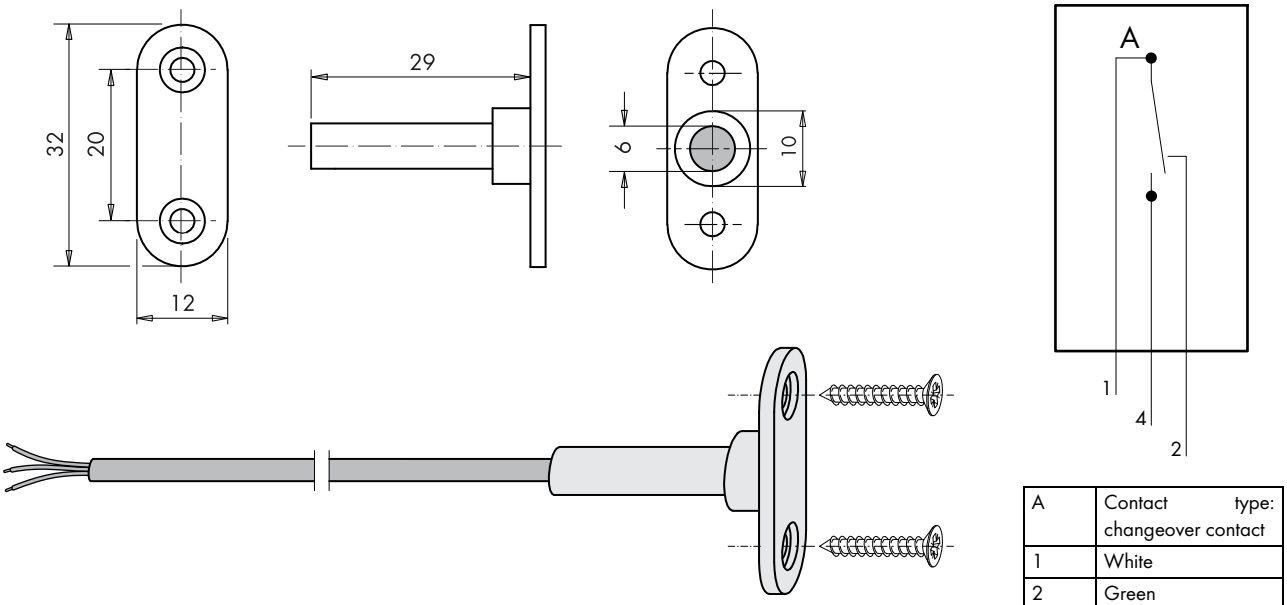
Concealed **without** VdS approval

Concealed magnetic switches **without** VdS approval

Description	Type of monitoring	Contact type
UMS124 Carton with 10 bags, each consisting of: – Magnetic switch – Fixing screws	• Locking monitoring • Air conditioning and heating control system	• Changeover contact
UMS1080 Carton with 10 bags, each consisting of: – Magnetic switch – Fixing screws	• Combined locking and status monitoring • Locking monitoring • Status monitoring in tilt position (without VdS)	• N/O contact • Anti-tamper line

Magnetic switch type UMS124 - 3-pin (without VdS approval)

Technical data



A	Contact type: changeover contact
1	White
2	Green
4	Brown

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS124	ZUMS1090 - 096010	White	6 m	1
	ZUMS1090 - 096020	White	6 m	10

Technical data

Working contacts	Changeover contact
Casing material	Polystyrene
Cable	6 m cable LIYY 3 x 0.14 mm^2
Contact load	3 W
Max. DC switching voltage	30 V DC
Max. DC switching current	0.2 A
Temperature with permanently installed cable	-25 °C to 70 °C
Temperature with loose cable	-5 °C to + 50 °C
Trigger clearance with magnetic cam	12 mm
Environmental class according to VdS 2110	N/A
Protection class according to DIN 40050, waterproof	IP 68
Scope of delivery	Magnetic switch glued to mounting part

Note: Observe the notes on potential error sources.

Magnetic switch type UMS124 - 3-pin (without VdS approval)

Technical performance specifications

Status monitoring, locking monitoring, combined locking and status monitoring

VdS class	None
Number of switching lines	3
Working contacts	• (Changeover contact when magnet is applied; one contact open, one closed) for air conditioning and heating control system
Signal triggered by	• Opening the window/French door • Operating the handle
Notes on connection	

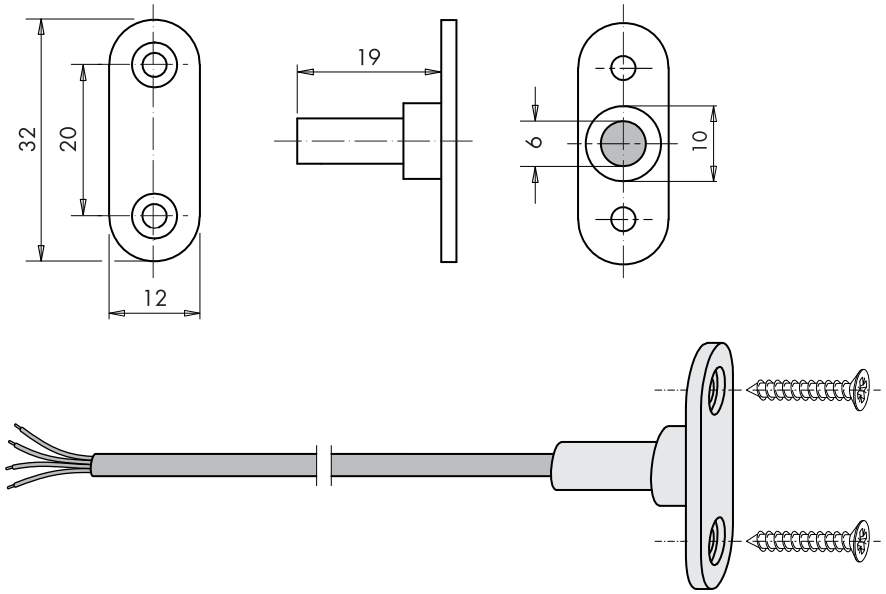
⚠ NOTICE **High voltage or current levels can damage magnetic switches! For testing, either the ZUPG0010 test unit magnetic switch or a common digital multimeter with a continuity tester can be used. Never use a light bulb continuity tester. The technical data of the magnetic switch should not be exceeded.**

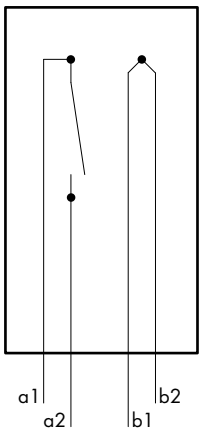
- Terminal assignment must be determined by measurements.

Note: Observe the notes on potential error sources; see page 35.

Magnetic switch type UMS1080 - 4-pin (without VdS approval)

Technical data





a1-a2	Contact type: N/O contact
b1-b2	Anti-tamper line

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS1080	ZUMS1080 - 096010	White	10 m	1
	ZUMS1080 - 096020	White	10 m	10
	ZUMS1080 - 040010	Silver	10 m	1
	ZUMS1080 - 040020	Silver	10 m	10

Technical data

Working contacts	A / N/O contact
Casing material	Polystyrene
Cable	10 m cable LIYY 4 x 0.14 mm²
Contact load	5 W
Max. DC switching voltage	100 V DC
Max. DC switching current	0.5 A
Temperature with permanently installed cable	-25 °C to 70 °C
Temperature with loose cable	-5 °C to + 50 °C
*Trigger clearance with magnetic cam	9 mm
Protection class according to DIN 40050	IP 68
Scope of delivery	Magnetic switch with mounting part and screws

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential error sources; see page 35.

Magnetic switch type UMS1080 - 4-pin (without VdS approval)

Technical performance specifications

Status monitoring, locking monitoring, combined locking and status monitoring

VdS class	None
Number of switching lines	4
Working contacts	• N/O contact (closed when magnet is applied) for locking and status monitoring
Alarm triggered by	• Opening the window/French door • Operating the handle • Moving a locking cam with force
Notes on connection	
⚠ NOTICE	**High voltage or current levels can damage magnetic switches! For testing, either the ZUPG0010 test unit magnetic switch or a common digital multimeter with a continuity tester can be used. Never use a light bulb continuity tester. The technical data of the magnetic switch should not be exceeded.**
	• Terminal assignment must be determined by measurements.

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential error sources; see page 35.

Installation and mounting instructions

Possible sources of error

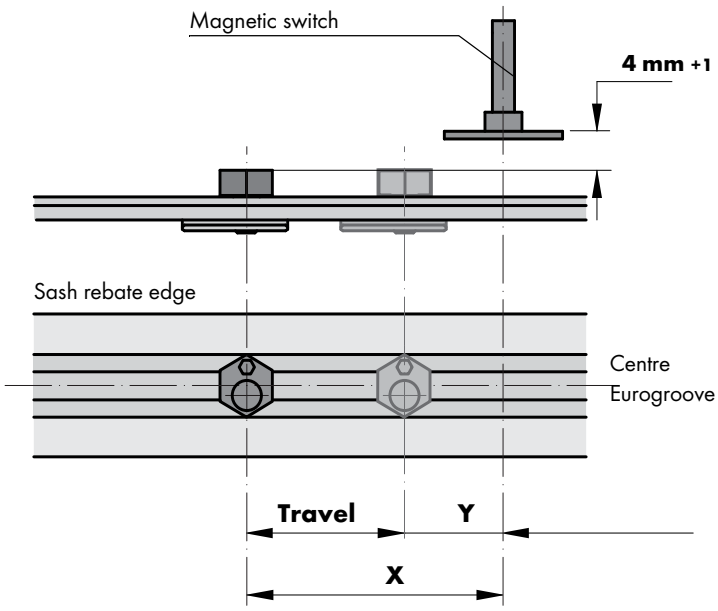
- Cable kinking (no protective hose)
- Connection voltage and currents too high
- Externally acting forces (shocks, impacts, do not use hammer)
- Switching distance/installation situation (airgap/cavity too large)
- Inductive and capacitive overload (e.g. relay, unsuitable measuring devices)
- Heat (temperature range > 75 °C)
- Magnetic field change in the case of steel
- Ferromagnetic materials such as reinforcement change the switching distance.
- Non-magnetic fixing screws are not used.

⚠ NOTICE

To ensure that the magnetic switch can be replaced and to prevent any potential complaints (e.g. cable separation or cable kinking), the protective hose from the accessories range should be used when mounting.

Positioning the magnetic switch and magnetic cam

Offsetting the magnetic cam on the magnetic switch



Hardware travel for calculating offset in turning position
Offset X = travel + Y

Magnetic switch distance in locking position

Magnetic switch	**Dimension Y**
UMS124	12 mm +2
UMS1080	9 mm +2

Hardware range	**Travel**
FAVORIT	16 mm
TITAN iP	18 mm
TITAN AF	18 mm

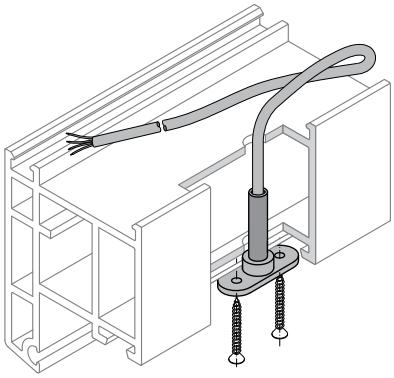
Installation and mounting instructions

Installation conditions

Cable installation	Through the frame, flush-mounted
Installation position of the magnetic switch	Top, horizontally on window or door element See page 12 for more information
Drill holes	• Ø 2 mm and Ø 10 mm for magnetic switch in frame • Ø 10 mm as through hole for cable installation
Fixing the magnetic switch	• Non-magnetic screws (included in scope of delivery) • See technical data sheets

Mounting examples

Installation in PVC profile



Cable installation

When installing the switching lines from the frame to the bus controller or branch box of the intruder alarm system, make sure the switching lines are protected from damage and that the magnetic switches can be replaced. The cable must be looped directly behind the magnetic switch for protection and as spare for extension at a later date. For this, we recommend installation through a flexible protective hose, which allows small bending radii of r = 20 mm without kinking the hose.

⚠ NOTICE **To prevent damage when installing the magnetic switch in the frame, never pull in the magnetic switch using the cable!**

It is imperative that mechanical stress on the magnetic switch is avoided, such as impacts or shocks, as this can destroy the magnetic switch. Never install a magnetic switch with tools that are too heavy-handed for the job, such as hammers; instead, always insert and fit it carefully by hand!

- We recommend using an empty conduit for cable channels leading to external points.
- Route and push the cable into the drilled hole from below.
- Push the magnetic switch into the drilled hole by hand.
- Fix the magnetic switch with the non-magnetic screws supplied.
- The magnetic switch should not be attached to the frame or masonry.

When using the flexible protective hose:

- Pull the terminal sleeve over the cable up to the frame. When doing so, note the insertion direction onto the flexible protective hose, which will be used later.
- Pull the flexible protective hose over the cable and attach the terminal sleeve to the end of the hose.
- Attach the end piece to the end of the hose and fix it to the frame.
- Roll up the protective hose including the cable that has been pushed in and fix it to the frame so that it cannot kink.

Additional note for timber windows

In the case of timber profiles (timber thickness at least 40 mm), the line must be installed in a groove in the profile that runs the length of the airgap area of the skylight. From this point, it is then routed through the frame at the side to the branch box.

⚠ NOTICE **Frame fixing elements (e.g. fixing cleats or frame dowels) can damage the cable during installation. Therefore, during cable installation, take the screw level for the frame fixing elements into account.**

Additional information for PVC windows

If the geometry of the PVC profile only allows fixing in steel reinforcement, the function of the magnetic switch may be impaired.

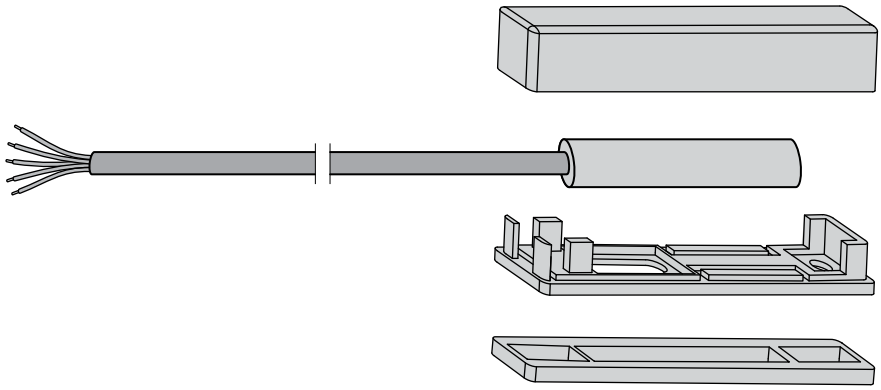
5 Magnetic switches

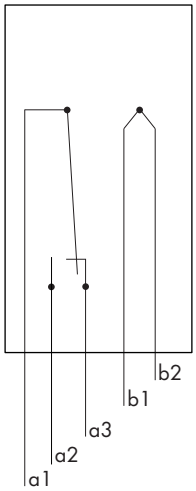
Surface-mounted **without** VdS approval

Surface-mounted magnetic switches **without** VdS approval

Description	Type of monitoring	Contact type
UMS004 Carton with 25 bags, each consisting of: – Magnetic switch – Magnetic switch casing – Magnet casing – Compensation pieces – Fixing screws	• Status monitoring • Air conditioning and heating control system	• Changeover contact • Anti-tamper line
Also: magnet - surface-mounted		

Magnetic switch type UMS004 - 5-pin changeover contact (without VdS approval)
Technical data





a1-a3	Contact type: changeover contact
b1-b2	Anti-tamper line

Note: The magnet required **must** be ordered separately.

Description	Material number	Colour	Cable length	VPE
Magnetic switch UMS004	878538	White	6 m	1
	265574	White	6 m	25
Magnet type 100	878743	-	-	1
	266250	-	-	25

Technical data

Working contacts	Changeover contact
Casing material	PVC
Colour	White
Cable	LIYY 5 x 0.14 mm²
Contact load	3 W
Max. DC switching voltage	30 V DC
Max. DC switching current	0.2 A
Temperature with permanently installed cable	-25 °C to 70 °C
Temperature with loose cable	-5 °C to + 50 °C
Protection class according to DIN 40050, waterproof	IP 68

Note: All cable wires are the same colour in order to safeguard against tampering. Observe the notes on potential sources of error.

Magnetic switch type UMS004 - 5-pin (without VdS approval)
Technical performance specifications

Status monitoring

VdS class	None
Number of switching lines	5
Working contacts	• (Changeover contact when magnet is applied; one contact open, one closed) • for air conditioning and heating control system
Signal triggered by	• Opening the window/French door
Notes on connection	

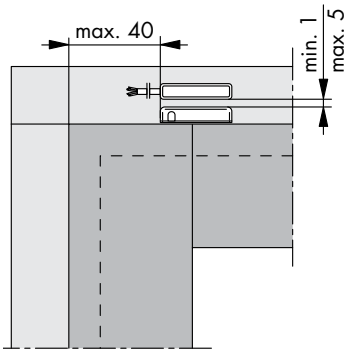
⚠ NOTICE	**High voltage or current levels can damage magnetic switches! For testing, either the ZUPG0010 test unit magnetic switch or a common digital multimeter with a continuity tester can be used. Never use a light bulb continuity tester. The technical data of the magnetic switch should not be exceeded.**

- Terminal assignment must be determined by measurements.

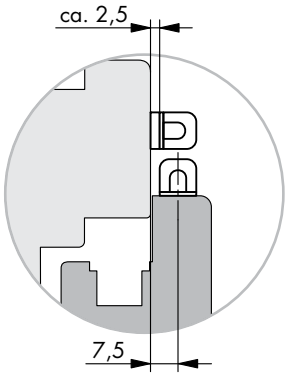
Mounting magnetic switch type UMS004 (without VdS approval)

Installation position for timber windows

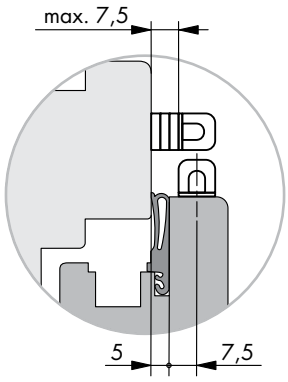
Distance from vertical frame rebate



Fixing to timber window

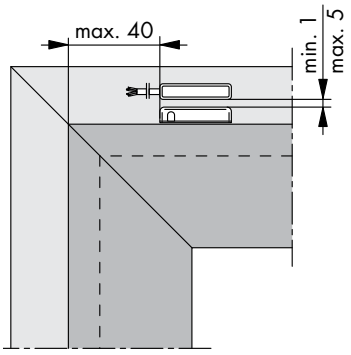


Fixing to timber window: with sound absorption

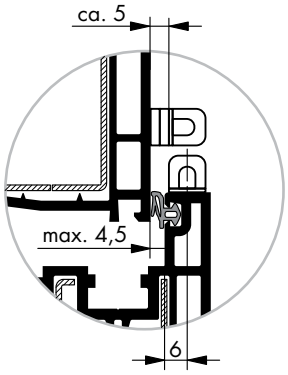


Installation position for PVC windows

Distance from vertical frame rebate



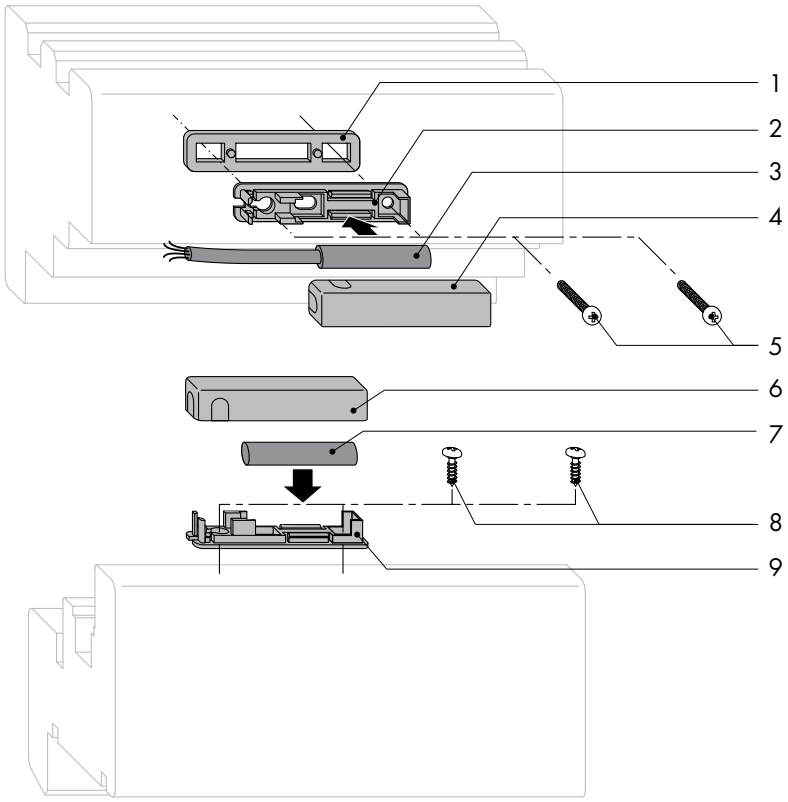
Fixing to PVC window



Mounting conditions

Cable installation	On the frame with the appropriate trim, flush-mounted
Installation position of the magnetic switch	Top, horizontally on frame of window or door element
Installation position of the magnet	Top, horizontally on sash rebate of window or door element
Drill holes	Ø 2 mm
Fixing dimensions	See the sections "Installation position for timber windows" and "Installation position for PVC windows"
Fixing the magnetic switch and the magnet	Non-magnetic screws (included in scope of delivery)

Mounting overview



1	Compensation piece
2	Switch casing
3	Magnetic switch
4	Switch casing cover
5	Screw 2.9 x 19
6	Magnet casing cover
7	Magnet **(order separately)**
8	Screws 2.9 x 9.5
9	Magnet retainer

Mounting steps

- Mark drill holes for fixing screws on the top horizontal side of the frame and on the sash rebate. When doing this, note the information in the sections "Installation position for timber windows" and "Installation position for PVC windows".
- Drill holes measuring Ø 2 mm (for fixing screws) on the frame and on the sash rebate.
- On the frame using the non-magnetic 2.9 x 19 screws **(5),** supplied, fix:
  – 1 to 3 compensation pieces **(1)** (depending on the window type)
  – The switch casing **(2)** for the magnetic switch **(3)**.
  For this, see the sections "Installation position for timber windows" and "Installation position for PVC windows"
- Insert the magnetic switch **(3)** in the switch casing **(2)** and snap it in
- Install the cable on the frame so that it leads up to the branch box of the intruder alarm system, and add trim as appropriate.
- Clip on the switch casing cover **(4)**.
- Fix the retainer **(9)** for the magnet **(7)** to the sash rebate, using the non-magnetic 2.9 x 9.5 screws **(8)** supplied.
- Insert the magnet **(7)** in the retainer **(9)**.
- Clip on the magnet casing cover **(6)**.

Cable installation

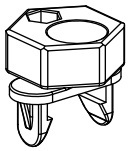
- The cable for the magnetic switch is installed on the frame and flush-mounted so that it leads up to the branch box of the intruder alarm system. The cable must be provided with an appropriate trim along its full length in order to protect it against damage.

6 Magnets

Designs and assignment

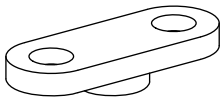
Description	Design	Hardware type
Clip-on magnet ZUMA0010	• Can be clipped into drive rod, no VdS approval	TITAN iP
Magnet PUMA0010	• Magnet with sleeve, for HS elements	PORTAL HS
Magnet ZUMA002	• Magnet for drilling in	
Screw-on magnet ZUMA0030	• For screwing into the Eurogroove	For all
Magnet ZUMA0040	• Replacement piece for cover	A300
Magnet ZUMA0050	• For profiles with no Eurogroove	
Magnet ZUMA0060	• For profiles with no Eurogroove	
Clip-on magnet ZUMA0500	• For clipping into the drive rod	Roto NT
Magnet clamp UE ZFUE0010	• For clipping onto cover rails measuring 2 - 2.2 mm thick	For all
Guide UE	• Replacement piece for cover piece	FAVORIT
Magnet type 100	• For magnetic switch UMS004	

Clip-on magnet



Description	Material number	Colour	VPE
AEROCONTROL clip-on magnet	ZUMA0010-10001_	Titanium silver	1
	ZUMA0010-10002_	Titanium silver	25

Magnet with sleeve for PORTAL HS

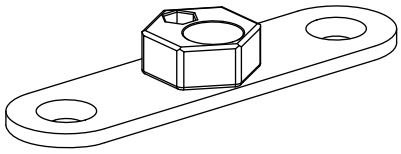


Description	Material number	Colour	VPE
AEROCONTROL magnet PORTAL HS UMA002	PUMA0010-02101_	RAL 7035 Light grey	1
	PUMA0010-02102_	RAL 7035 Light grey	25

Magnet for drilling in, ø 8L

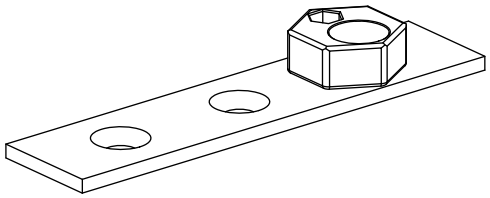
Description	Material number	Colour	VPE
AEROCONTROL magnet for drilling in	ZUMA0020-09401_	Chrome	1
	ZUMA0020-09402_	Chrome	25

Magnet for Eurogroove



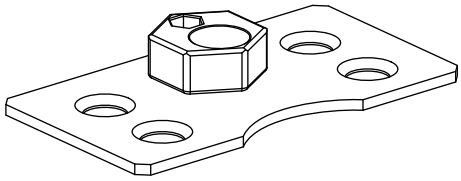
Description	Material number	Colour	VPE
AEROCONTROL screw-on magnet	ZUMA0030-10001_	Titanium silver	1
	ZUMA0030-10002_	Titanium silver	25

Magnet for replacing cover



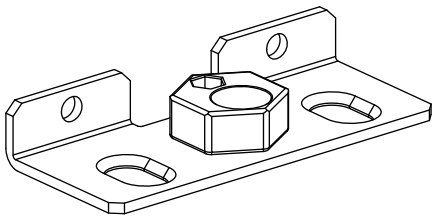
Description	Material number	Colour	VPE
AEROCONTROL screw-on magnet	ZUMA0040-10001_	Titanium silver	1
	ZUMA0040-10002_	Titanium silver	25

Magnet for sash rebate



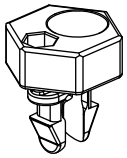
Description	Material number	Colour	VPE
AEROCONTROL screw-on magnet	ZUMA0050-10001_	Titanium silver	1
	ZUMA0050-10002_	Titanium silver	25

Magnet for sash rebate



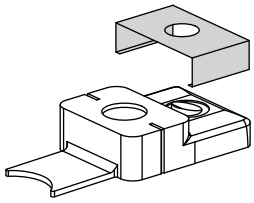
Description	Material number	Colour	VPE
AEROCONTROL screw-on magnet	ZUMA0060-10001_	Titanium silver	1
	ZUMA0060-10002_	Titanium silver	25

Magnet for Roto NT



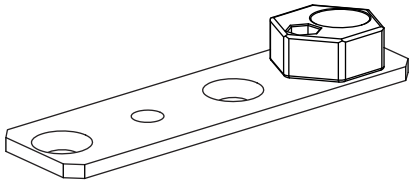
Description	Material number	Colour	VPE
AEROCONTROL clip-on magnet	ZUMA0500-10001_	Titanium silver	1
	ZUMA0500-10002_	Titanium silver	25

Magnet clamp



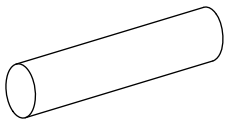
Description	Material number	Colour	VPE
Magnet clamp UE	ZFUE0010-04005_	Silver	50

Magnet for replacing cover piece



Description	Material number	Colour	VPE
AEROCONTROL screw-on guide UE	713570	Titanium silver	1
	295632	Titanium silver	25

Magnet for magnetic switch UMS004



Description	Material number	Colour	VPE
Magnet type 100	878743		1
	266250		25

7 Sash components

TITAN AF hardware range

Description	Material
Top corner AF VSO UE	TEUL4100
Stay sash part AF V-V Gr.1 UE	TSSV0340
Linkage AF/UE Gr.1	TZZS0160

TITAN iP hardware range

Description	Material
Locking part VSO/A UE 1M	TEVR0080
Locking part VS/A UE 1M 1S	TEVR0310
Stay sash part UE Gr.1 1M	TSSK1060
Stay sash part FFA UE Gr.1 1M	TSSK1140
Linkage UE 1M	TZOS0010
Linkage Gr.1 + UE	TZZS0190

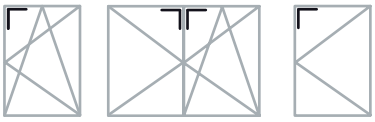
PORTAL PSK 200 ZPLUS hardware range

Description	Material
Linkage UE Gr.23 MV	716519

Top corner AF VSO UE

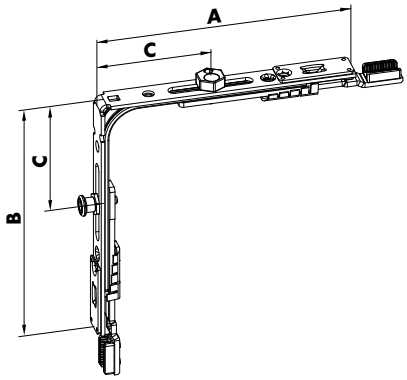
Technical information

Material number	Description	Dimensions (mm)			
		A	B	C	
TEUL4100-...	TOP CORNER AF VSO UE 1M 1RS	140	140	63	4



TITAN AF hardware range

During installation, refer to the documentation for the relevant product group.



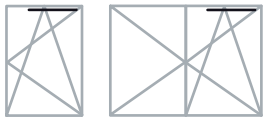
Sales information

Description	Material number	Surface	VPE
TOP CORNER AF VSO UE 1M 1RS	TEUL4100-10001_	Titanium silver	1
	TEUL4100-10005_	Titanium silver	50

lStay sash part AF V-V Gr.1 UE

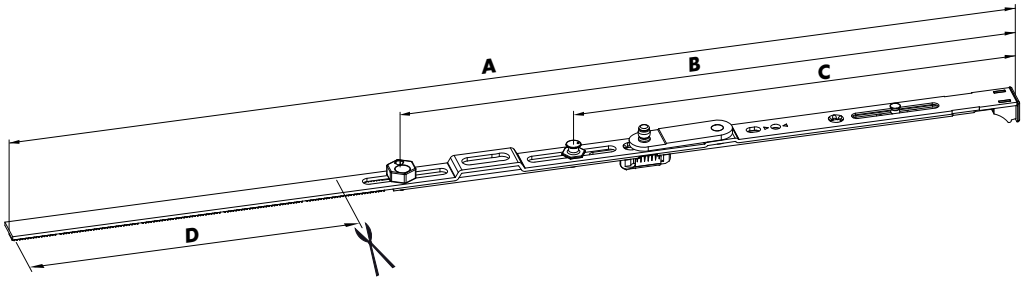
Technical information

Material number	Description	FFB	Dimensions (mm)				
			A	B	C	D	
TSSV0340-...	STAY SASH PART AF V-V GR.1 UE	410 - 680	550	335	241	170	3



TITAN AF hardware range

During installation, refer to the documentation for the relevant product group.



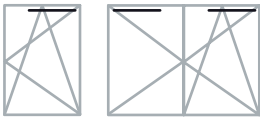
Sales information

Description	Material number	Surface	VPE
STAY SASH PART AF V-V GR.1 UE TS	TSSV0340-10001_	Titanium silver	1
	TSSV0340-10004_	Titanium silver	25

Linkage AF/UE Gr.1

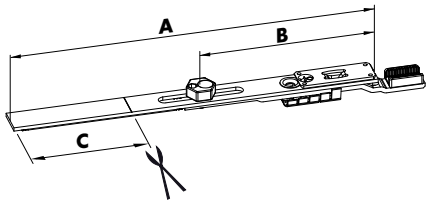
Technical information

Material number	Description	FFB	Dimensions (mm)			
			A	B	C	
TZZS0160-...	LINKAGE AF/UE GR.1 1M/95	410 - 680	200	95	65	2



TITAN AF hardware range

During installation, refer to the documentation for the relevant product group.



Sales information

Description	Material number	Surface	VPE
LINKAGE AF/UE GR.1 1M/95	TZZS0160-10001_	Titanium silver	1
	TZZS0160-10004_	Titanium silver	25

Locking part VSO/A UE 1M

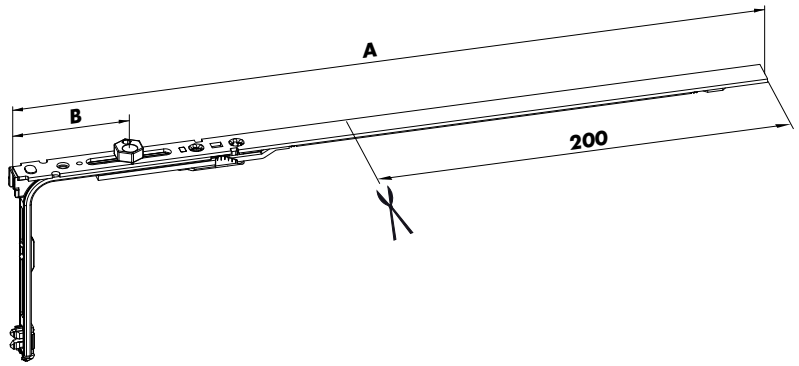
Technical information

Material number	Description	FFH	FFB	Dimensions (mm)		
				A	B	
TEVR0080-...	LOCKING PART VSO/A UE 1M	481 - 2360	481 - 1560	412	64	2

During installation, refer to the documentation for the relevant product group.

TITAN iP hardware range

- Note:
  In the case of components that are to be cropped, another screw is required in addition to the specified quantity, as a further screw hole is created during cropping.



Sales information

Description	Material number	Surface	VPE
LOCKING PART VSO/A UE 1M	TEVR0080-10001_	Titanium silver	1
	TEVR0080-10004_	Titanium silver	25

Locking part VS/A UE 1M 1S

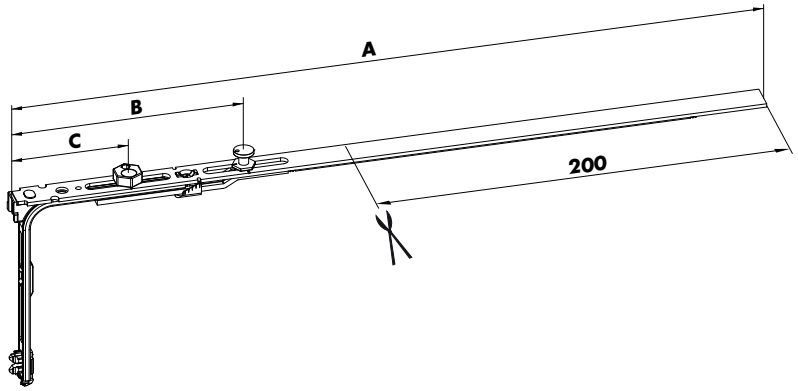
Technical information

Material number	Description	FFH	FFB	Dimensions (mm)			
				A	B	C	
TEVR0310-...	LOCKING PART VS/A UE 1M 1S	481 - 2360	481 - 1560	412	127	64	1

During installation, refer to the documentation for the relevant product group.

TITAN iP hardware range

- Note:
  In the case of components that are to be cropped, another screw is required in addition to the specified quantity, as a further screw hole is created during cropping



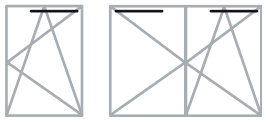
Sales information

Description	Material number	Surface	VPE
LOCKING PART VS/A UE 1M 1S	TEVR0310-10001_	Titanium silver	1
	TEVR0310-10005_	Titanium silver	50

Stay sash part UE Gr.1 1M

Technical information

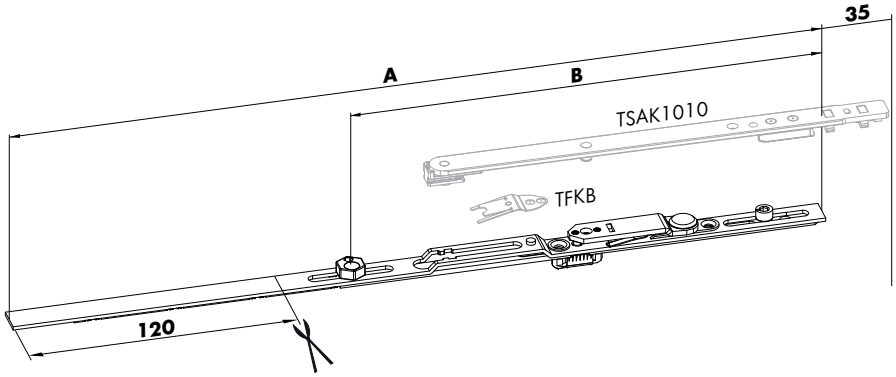
Material number	Description	FFB	Dimensions (mm)		
			A	B	
TSSK1060-...	STAY SASH PART UE GR.1 1M	360 - 480	445	258	2



TITAN iP hardware range

During installation, refer to the documentation for the relevant product group.

- For mounting on a loose rod
- **Please observe:**
  Guidelines/information on the product and on liability (VHBH directive as well as the other applicable documents listed)
  Specifications from the profile manufacturers/system owners (PVC, aluminium) or DIN 68 121 - Timber profiles for windows and French doors



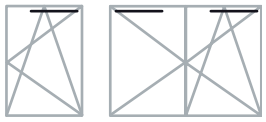
Sales information

Description	Material number	Surface	VPE
STAY SASH PART UE GR.1 1M	TSSK1060-10001_	Titanium silver	1
	TSSK1060-10004_	Titanium silver	25

Stay sash part FFA UE Gr.1 1M

Technical information

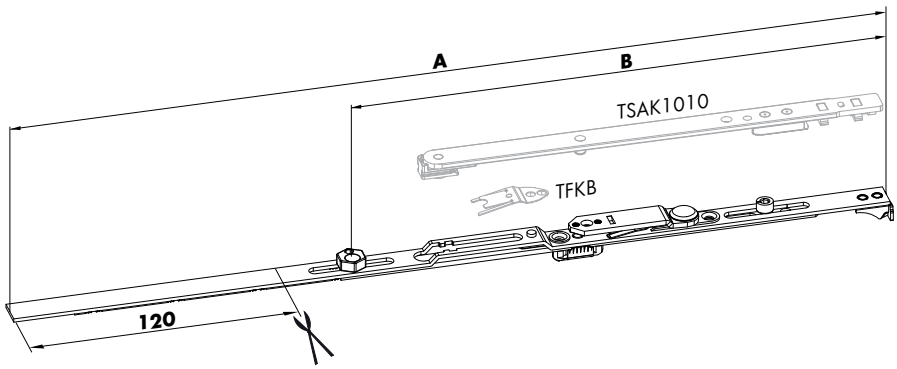
Material number	Description	FFB	Dimensions (mm)		
			A	B	
TSSK1140-...	STAY SASH PART FFA UE GR.1 1M	360 - 480	480	293	2



TITAN iP hardware range

During installation, refer to the documentation for the relevant product group.

- For installation on welded sashes
- **Please observe:**
  Guidelines/information on the product and on liability (VHBH directive as well as the other applicable documents listed)
  Specifications from the profile manufacturers/system owners (PVC, aluminium) or DIN 68 121 - Timber profiles for windows and French doors



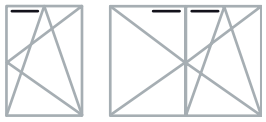
Sales information

Description	Material number	Surface	VPE
STAY SASH PART FFA UE GR.1 1M	TSSK1140-10001_	Titanium silver	1
	TSSK1140-10004_	Titanium silver	25

Linkage UE 1M

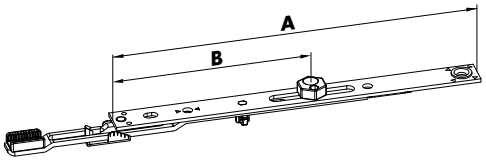
Technical information

Material number	Description	FFB	Dimensions (mm)		
			A	B	
TZOS0010-...	LINKAGE UE 1M	591 - 1450	200	109	1



TITAN iP hardware range

During installation, refer to the documentation for the relevant product group.



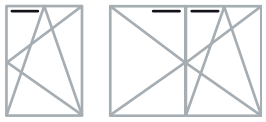
Sales information

Description	Material number	Surface	VPE
LINKAGE UE 1M	TZOS0010-10001_	Titanium silver	1
	TZOS0010-10004_	Titanium silver	25

Linkage Gr.1 + UE

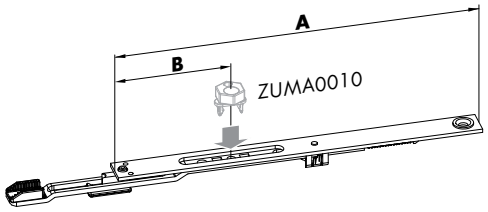
Technical information

Material number	Description	FFB	Dimensions (mm)		
			A	B	
TZZS0190-...	LINKAGE GR.1+ UE	591 - 1450	200	64	1



TITAN iP hardware range

During installation, refer to the documentation for the relevant product group.



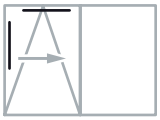
Sales information

Description	Material number	Surface	VPE
LINKAGE GR.1+ UE	TZZS0190-10001_	Titanium silver	1
	TZZS0190-10004_	Titanium silver	25

Linkage UE Gr.23 MV

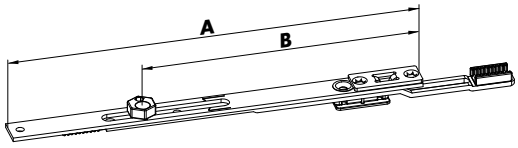
Technical information

Material number	Description	FFB	Dimensions (mm)		
			A	B	
716519	LINKAGE UE Gr.23 MV	770 - 2000	229.5	155.5	3



During installation, refer to the documentation for the relevant product group.

PORTAL PSK 200 ZPLUS hardware range



Sales information

Description	Material number	Surface	VPE
LINKAGE UE Gr.23 MV	716519	Titanium silver	1
	306468	Titanium silver	20

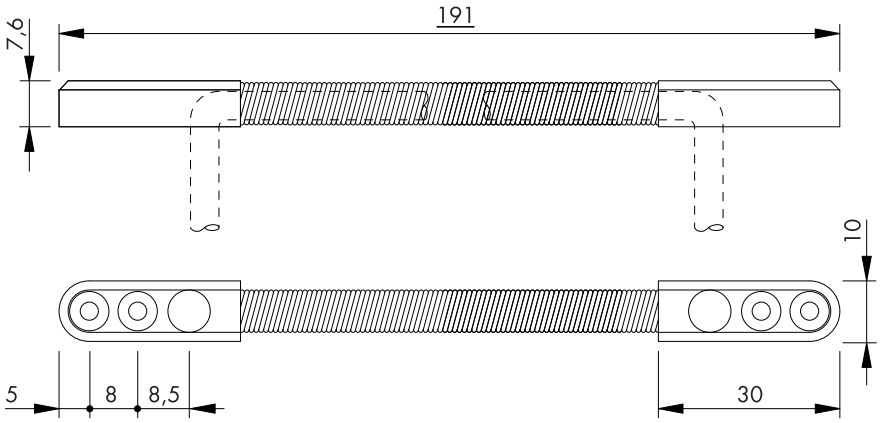
8 Accessories

Description	Application range
AEROCONTROL UVG cable transfer	for wired glass
Separable cable transfer	for motor functions (e.g. connection for motorised handle MH10) Cable 1 m/2 m and cable 4 m/6 m
Separable cable transfer (with alarm glass plug-in connection)	For wired alarm glass (VdS class C) Cable 0.33 m/6 m
Flexible protective hose (incl. accessories)	For protecting the switching lines of the magnetic switch against damage
Protective tube accessories (clamps)	Additional clamp for flexible protective tube
Distance plate accessories	for magnetic switches UMS001, UMS002 and UMS003
Safety extraction switch set	for fume extraction hood control
Contactless transformer for wired glass	Transmitter and receiver for contactless connection to wired alarm glass
Magnetic switch test unit	Test unit for testing the function of magnetic switches
Testing terminal for magnetic switch	Individual testing terminal as accessory for magnetic switch test unit
Jig	Jig for magnetic switches UMS001, UMS002, UMS003, UMS1080
Jig	Jig for magnetic switch UMS011-EN

UVG cable transfer for wired alarm glass
Technical data

Scope of delivery:
- 1 spring
- 2 fixing channels
- 2 end caps
- 4 screws 3 x 20 mm, type SPS 7505 A2

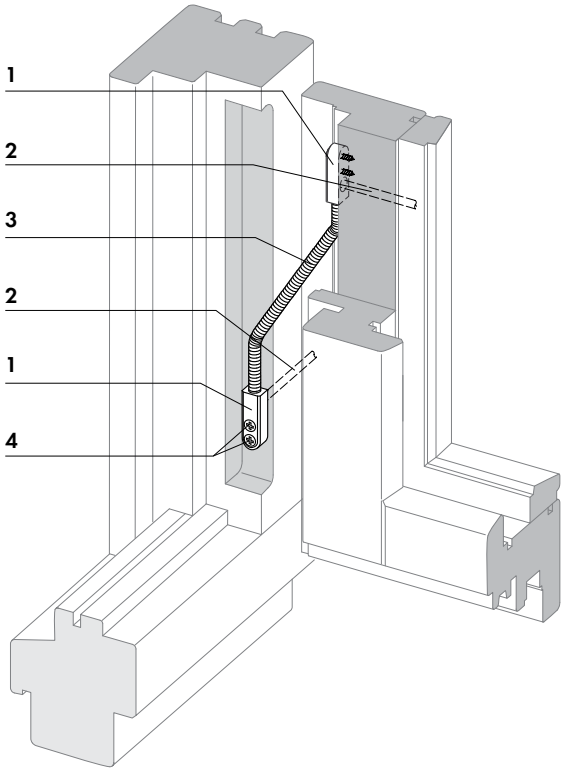
Note:
The connecting cable is not included in the scope of delivery!



Description	Material number	Colour	VPE
AEROCONTROL screw-on magnet	882627	Titanium silver	1
	270059	Titanium silver	25

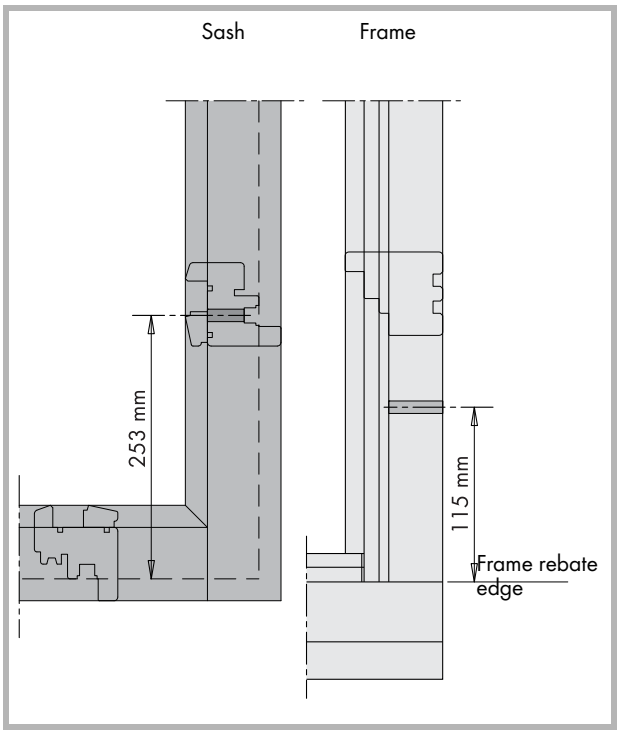
UVG cable transfer for wired alarm glass
Mounting

- Spring inner diameter Ø 5.3 mm. Max. cable thickness: 4.5 mm to 4.9 mm.
- To mount the end cap in the frame, drill a hole measuring Ø 10 mm at a distance of 115 mm below the frame rebate edge.
- For timber elements with a 4 mm airgap, a milling groove for the cable transfer must be cut out with template H-4/18-9, (mat. no. 157534). For dimensions, see fig.
- To mount the end cap in the sash, drill a hole Ø 10 mm, at a distance of 253 mm below the sash rebate edge, in the eurogroove in the direction of the glazing rebate. If the eurogroove is covered with components, the end cap should be mounted on the lock plate on the outside.
- In the case of Euro rebate/eurogroove, holes must be drilled on the frame at 10 mm or 11 mm from the inner frame edge. Use the AERO-CONTROL 12/4 jig for this purpose (mat. no. 158395).
- Pull the connecting cable, e.g. for wired alarm glass or motors, through the coil spring and couple in the glazing rebate. Seal the coupling point with a heat-shrinkable sleeve to protect it from moisture.
- Screw end caps on the sash and window frame in the correct positions.

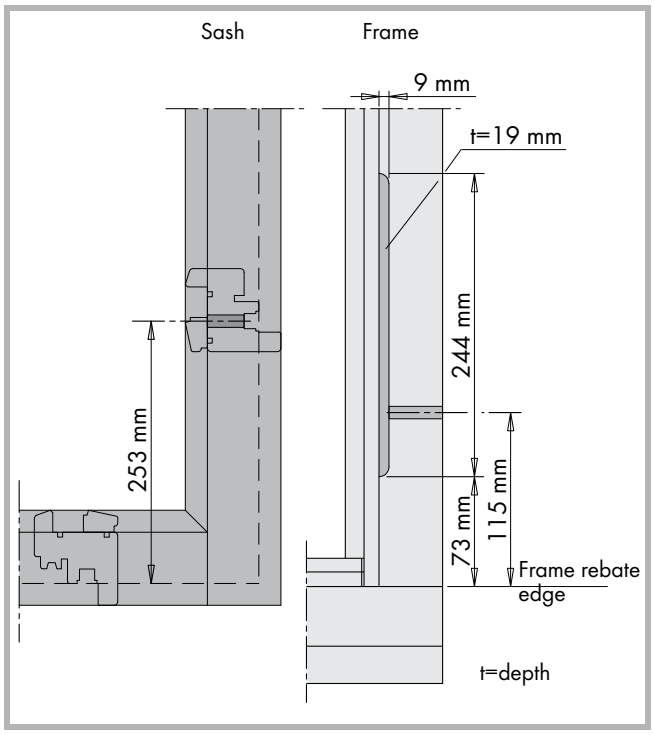


1	End cap
2	Cable
3	Spring
4	Screws 3x20 type SPS 7505 A2

Installation, timber 12 mm and PVC

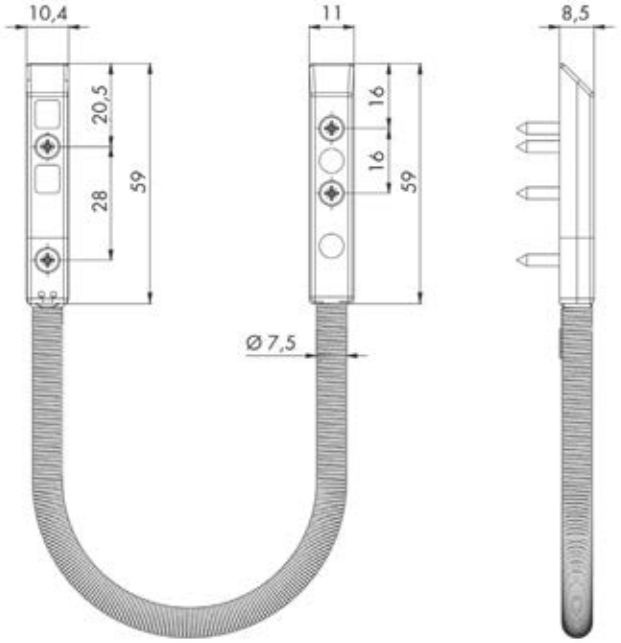


Installation, timber 4 mm



Separable cable transfer
Technical data

- 6-pin design, cable Ø 4.9 mm
- Max. voltage 48 V DC, max. current consumption 3.0 A
- Flexible stainless steel spiral spring cable protector
- Line material is lead, cadmium, CFC and halogen-free



Scope of delivery:
- 1 fixing strip, sash side
- 1 cable with spiral spring
- 1 plug, frame side
- 1 base plate, frame side
- 4 fixing screws 2.9 x 19 mm, A2, DIN 7982

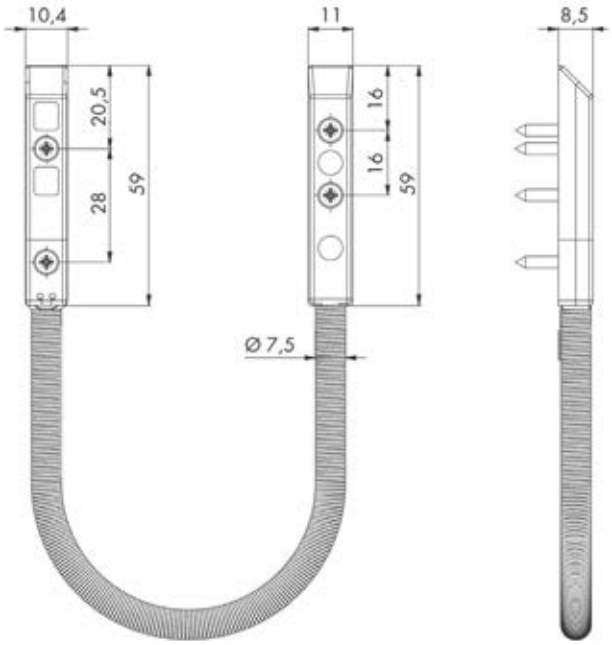
Separable cable transfer GZKT0010:
- 1 cable, sash side, 4 m
- 1 cable, frame side, 6 m

Separable cable transfer GZKT0020:
- 1 cable, sash side, 1 m
- 1 cable, frame side, 2 m

Description	Material number	Colour	VPE
Separable cable transfer	GZKT0010-021010	RAL 7035 Light grey	1

Separable cable transfer with alarm glass plug-in connection
Technical data

- VdS class C for wired alarm glass
- 6-pin design, cable Ø 4.9 mm
- Flexible stainless steel spiral spring cable protector
- Line material is lead, cadmium, CFC and halogen-free



Scope of delivery:
- 1 fixing strip, sash side
- 1 cable with spiral spring
- 1 plug, frame side
- 1 base plate, frame side
- 4 fixing screws 2.9 x 19 mm, A2, DIN 7982
- 1 cable, sash side, 0.33 m
- 1 cable, frame side, 6 m

Note:
- Max. voltage 48 V DC
- Max. current consumption 2.0 A

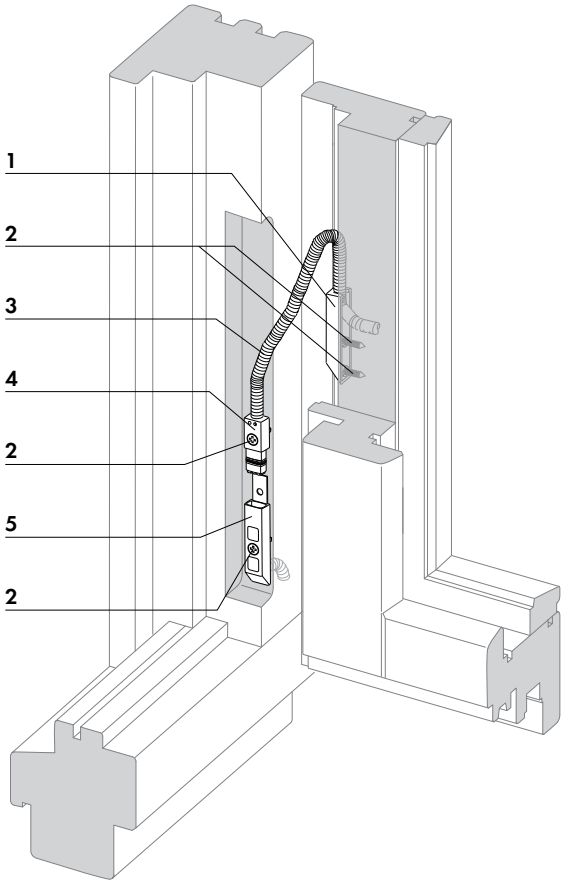
Description	Material number	Colour	VPE	VdS class
Separable cable transfer, VdS	GZKT0030-021010	RAL 7035 Light grey	1	**C**

Separable cable transfer
Mounting

- The inner diameter of the spring is 5.3 mm. The cable thickness is 4.9 mm.
- To install the plug and base plate in the frame, drill a hole measuring Ø 7 mm.
- For timber elements with a 4 mm airgap, a milling groove for the cable transfer must be cut out with template H-4/18-9, mat. no. 157534. For dimensions, see page 7.6.
- To install the fixing strip in the sash, drill a hole measuring Ø 7 mm at the same height as or next to the eurogroove, in the direction of the glazing rebate. If the eurogroove is covered with components, the fastening strip should be mounted on the lock plate on the outside (see page 7.6).
- Screw the base plate, plug and fastening strip onto the sash and window frame in the correct positions

⚠ NOTICE

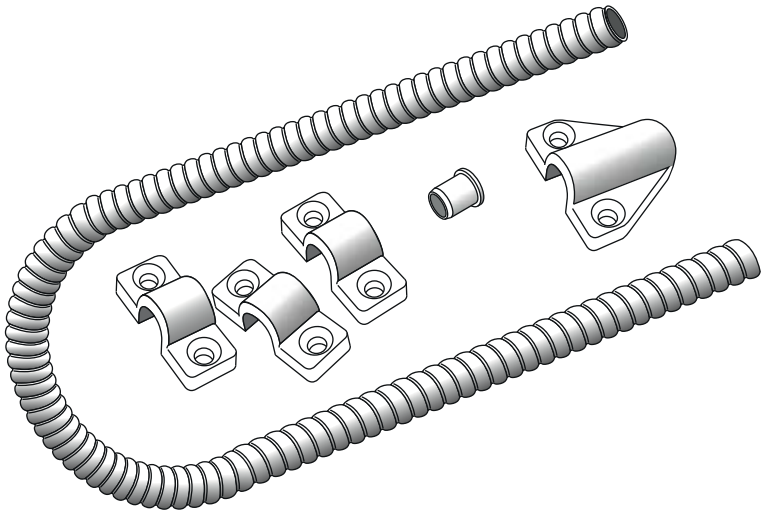
It is necessary to ensure that the cable for the fastening strip is sufficiently looped over the 7 mm drill hole on the sash side for the purposes of opening and closing the window sash (i.e. that there is enough play in the cable).



1	Fastening strip
2	Screw 2.9x19 A2 DIN 7982
3	Cable with spiral
4	Plug
5	Base plate

Flexible protective tube

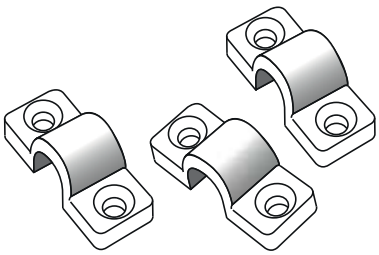
Scope of delivery:
- 1 flexible PVC hose
- 1 terminal sleeve
- 1 end piece
- 3 mounting clips



Description	Material number	VPE
Flexible PVC protective tube	882412	1

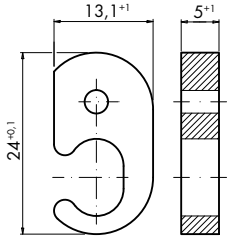
Accessories for protective hose

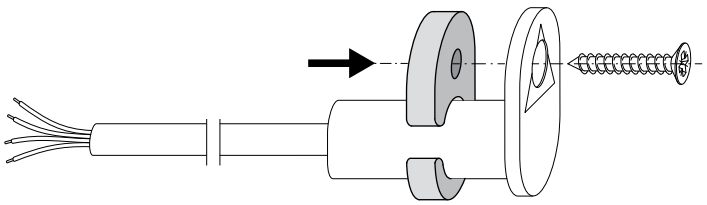
Scope of delivery:
- 3 mounting clips



Description	Material number	VPE
Accessories for protective hose	315712	1

Distance plate accessories





Depending on the installation situation, the distance plate can be used to put under the magnetic switch.
Possible magnetic switches: UMS001, UMS002 and UMS003

Description	Material number	VPE
Distance plate silver	MRDZ0010-040040	25

Safety extraction switch set
Technical data

Scope of delivery:
- 1 safety extraction switch with safety bracket and 6 m connecting cable with plug
- 1 magnetic switch set (magnetic switch,
  4 fixing screws 2.2x6.5 mm,
  magnets for fitting systems Titan IP/AF or FAVORIT)
- 1 set of operating instructions
- 1 warning sticker

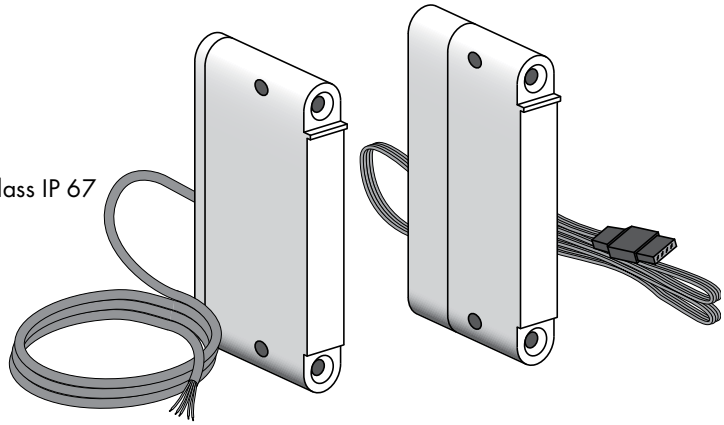
Description	Material number	VPE
Safety extraction switch set	GMAS0010-096010	1

Technical data

Power supply	230 V AC/50 Hz
Power consumption	Approx. 3 W
Switching capacity	230 V AC, 6 A, 1400 W, unipolar
Dimensions	L = 135 mm, W = 65 mm, H = 75 mm
Weight	Approx. 350 g
Protection class	I
Degree of protection	IP 20
Material	ABS

Contactless transformer for wired glass
Technical data

- Transmitter and receiver for contactless connection of wired alarm glass/alarm wire loops to a intruder alarm system
- Protection in accordance with IEC 529, protection class IP 67



Scope of delivery:
- 1 transmitter with connecting cable, white, 6 m long
- 1 receiver with wired glass connecting cable, white, length 0.5 m, 4-pin socket plug and yellow protection cap
- 2 fixing flanges, white, for mounting the transmitter and receiver casing on the front side
- 4 countersunk screws, 2.9 x 13, V2A, DIN 7982
- 4 countersunk screws, 2.9 x 19, V2A, DIN 7982
- 4 countersunk screws, 2.9 x 38, V2A, DIN 7982
- 1 set of assembly instructions

Description	Material number	VPE
Contactless transformer for wired glass	ZUKU0010-096010	1

Technical data

Operating voltage	9 - 15 V DC
Permissible ripple	Max. 1.0 Vpp
Idle current consumption at 12 V	Approx. 7 mA (max. 12 mA)
Working current triggered at 12 V	Max. 22 mA
Power consumption at 12 V	264 mW
Mounting distance transmitter/receiver	Min. 2 mm to max. 10 mm
Lateral mounting offset	Max. 3 mm
Distance to metal parts (reinforcement)	At least 2 mm
Transmission frequencies	145 kHz and 290 kHz ±5 kHz
Alarm output	Electronic switch
Max. switching capacity	24 V DC, 200 mA, 300 mW
Contact resistance	Approx. 5 Ω
Parallel capacitance	Approx. 10 nF
Connecting cable	LIYY 6 x 0.14 mm² Cu, tin-plated, LSA-PLUS, suitable for cable insulation displacement
Inner conductor	4 black, 1 red, 1 blue
Cable dimensions	Ø 3.8 mm and 6 m length
Casing dimensions	68 x 30 x 10 mm
Casing material	A-B-S
Colour	White
Temperature range	-25 °C to +70 °C
Degree of protection	VdS environmental class IV; IP 67
Plug-in connection to wired glass	Type LINK M1370, socket on transformer: B 4-pin, plug on alarm glass: S 4-pin
Opening monitoring **VdS approval no. class B**	G104510

Contactless transformer for wired glass

Intended use

- The transmitter and receiver are mounted by screwing them into the window profile.
- The transmitter is fully installed in the frame.
- When installing the receiver in the sash, you must pay attention to the marking of the installation direction after mounting the window and adjusting the window sash.
- Ferromagnetic materials (such as iron and nickel) in the direct vicinity of the transmission path between the transmitter and receiver can limit the range (seals are allowed).
- Installation in ferromagnetic materials is not allowed.
- To achieve optimal transmission between the transmitter and receiver, a distance of at least 2 mm from ferromagnetic materials must be maintained. If it is not possible to guarantee this distance, checks should be made on an individual basis as to whether the transmission range will be sufficient.
- Installation in aluminium frames and sashes is possible without limiting the range by using the contactless transformer for LM (mat. no. ZUKU0020-_____; see distance diagram). Only the front side of transmission surfaces must remain free.
- The **lateral mounting offset of max. 3 mm** must be maintained to ensure functionality in the event of movement tolerances at the place of installation.

Plug-in connection

- Remove the yellow protection cap from the socket of the connection line. If there is a protective plug on the wired glass plug, remove this as well.
- Connect the socket and the wired glass plug to one another.

⚠ NOTICE **Do not remove the protection cap and protective plug until just before mounting! Check the plug connection to make sure it is mechanically sound. There must be no foreign objects or moisture in the plug area.**

- Before connecting the alarm group (black inner conductor) on the transmitter side, recheck the peak connection between lines 2 and 4 by measuring it (e.g. using the SIEGENIA magnetic switch test unit (mat. no. ZUPG0010-_____) or a multimeter).
- The transmission resistance of the wired alarm glass/alarm wire loops should not exceed 1 k Ω under no-load conditions.
- For each alarm group, a max. of four contactless transformers may be used on one window front.
- The **fixing flanges** supplied for installation on the front side, are asymmetrical and must be fixed according to the installation situation (on the transmitter and receiver), using instant adhesive. Additional system-specific installation examples are available on request.

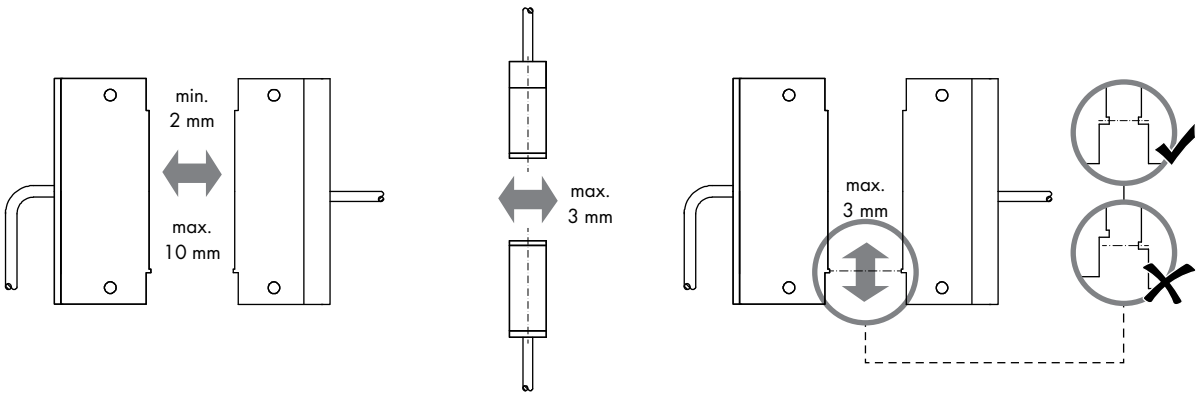
⚠ NOTICE **The use of the contactless transformer for wired glass as an opening alarm is not permitted.**

Contactless transformer for wired glass

Application range

The electronic transformer (mat. no. ZUKU0010-_____) allows the contactless connection of wired alarm glass/alarm wire loops to an intruder alarm system. The two-part arrangement consists of a transmitter and a receiver unit. The transmitter is mounted in the frame of a window which is to be monitored. The receiver is mounted on the opposite side, on the moving part of the window (sash).

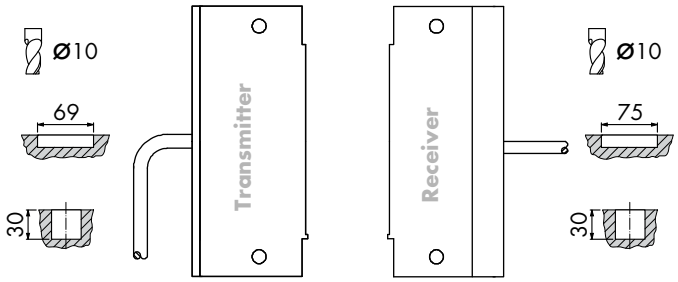
Mounting offset



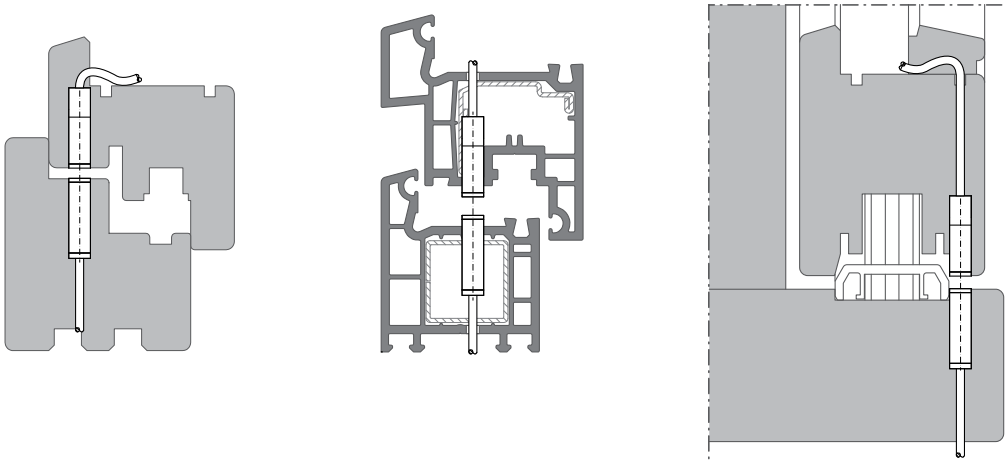
Milling groove

Transmitter
Mounting in sash

Receiver
Mounting in frame



Installation examples



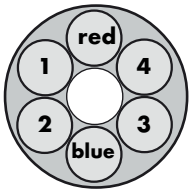
Contactless transformer for wired glass

Test instructions for contactless transformer

- Before installing the contactless transformer, you must check whether its connection socket matches the wired glass plug (see technical data). If the plug-in connection is incompatible, the wires can be individually soldered and a heat-shrinkable sleeve can be applied to each. Additional information can be found on the instruction leaflet "Incompatible plug-in connection for contactless transformer/wired glass" (included with product).
- If the wired glass is not yet mounted and connected, the two inner and two outer contacts must be bridged at the 4-pin socket plug.
- Two of the 4 black wires on the 6-wire cable of the transmitter are connected (2 and 4). This must be determined using a continuity tester or ohmmeter. Afterwards, the continuity tester or testing lamp should be connected to the other two black wires (1 and 3).
- Then apply voltage to the + (red) and - (blue) wires (must be between 9 and 15 V DC). For this, a power pack corrector with 12 V DC or a battery holder with 8 x 1.5 V batteries (AAA) can be used. A 9-volt block battery can also be used, but after testing several contactless transformers, it will quickly become too weak.
- With voltage applied, the continuity tester/testing lamp must now go on and off when the window is opened and closed (see also paragraph 1).

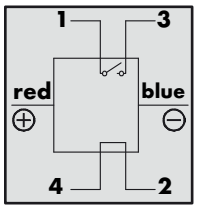
Transmitter connection

Before connecting, the supply lines should be measured electrically



Connecting cable

Before connection, the supply lines should be measured electrically.



The switch is open when one of the following is true:

- The receiver is not close enough to the transmitter.
- At least one of the connected connection points for the wired alarm glass/alarm wire loops is disconnected (tamper protection for 4-wire alarm or alarm loop).
- The power supply of the transmitter is interrupted or is insufficient.

CE

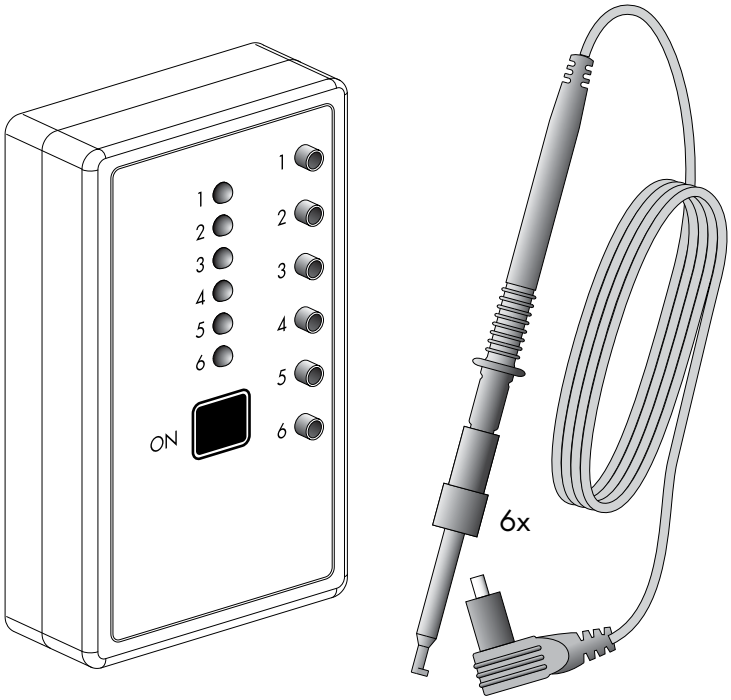
We, SIEGENIA-AUBI KG, declare under our own responsibility that the product complies with the regulations of Directive 2008/108/EC of the Council of the European Union.

Environmental protection

Although our products do not fall within the scope of the German Electrical and Electronic Equipment Act (ElektroG), SIEGENIA-AUBI KG will continue, as before, to meet the requirements imposed by the Act and will also 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.

Magnetic switch test unit
Technical data

- For testing all magnetic switches (except UMS010-LSN)



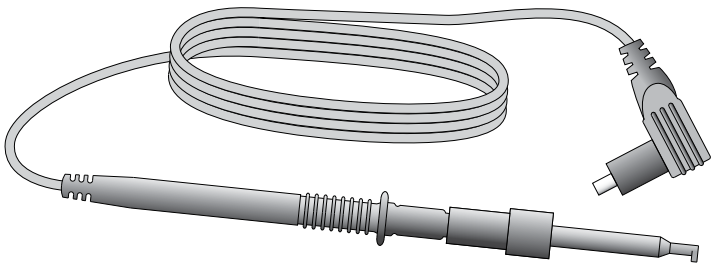
Scope of delivery:
- 1 test unit
- 6 test terminals
- 1 battery
- 1 set of operating instructions

Description	Material number	VPE
Magnetic switch test unit	ZUPG0010-096010	1

Technical data

Battery	9-volt E-block, IEC 6LR61
Automatic switch-off	After approx. 10 minutes
Combined locking and opening monitoring	IP 20
Dimensions	115 mm x 65 mm x 30 mm

Accessories for test unit



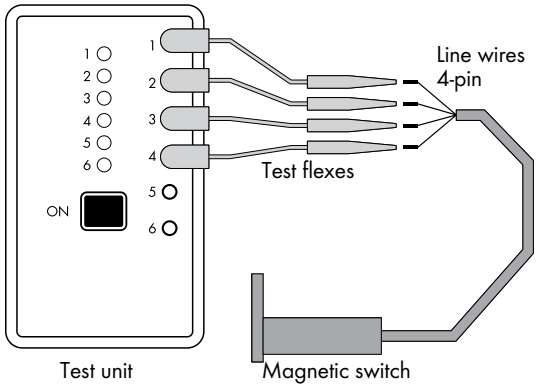
Description	Material number	VPE
Individual test terminal for magnetic switch test unit	ZUPK0010-099010	1

Magnetic switch test unit
Application and switching examples

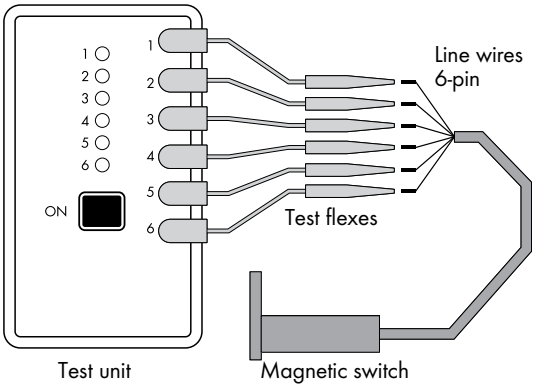
The magnetic switch is connected to the test unit by connecting the spring terminals of the test flexes to the line wires of the magnetic switch (see fig.). **The sequence does not matter.**

Switch on the test unit using the ON button and activate the window or handle.
The device switches itself off automatically after 10 minutes.

UMS001



UMS002 and UMS003

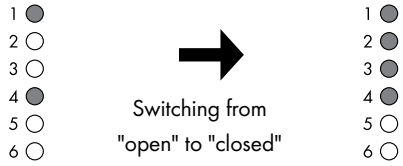


⚠ NOTICE **The test sockets must not be connected to live lines, since this could destroy the test unit**

Switching examples

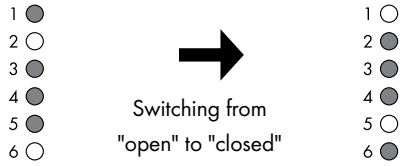
UMS001/UMS011-EN

Any 2 diodes light up when magnetic switch UMS001 is connected to the test unit and is switched on.
After switching the handle on the window from "open" to "closed", 2 further diodes light up.
The magnetic switch is working



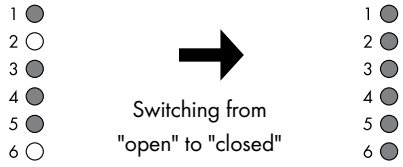
UMS002

Any 4 diodes light up when magnetic switch UMS002 is connected to the test unit and is switched on.
After switching the handle on the window from "open" to "closed", 2 further diodes light up. At the same time, 2 other diodes go out.
The magnetic switch is working.

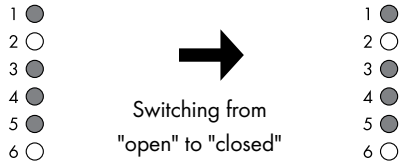


UMS003

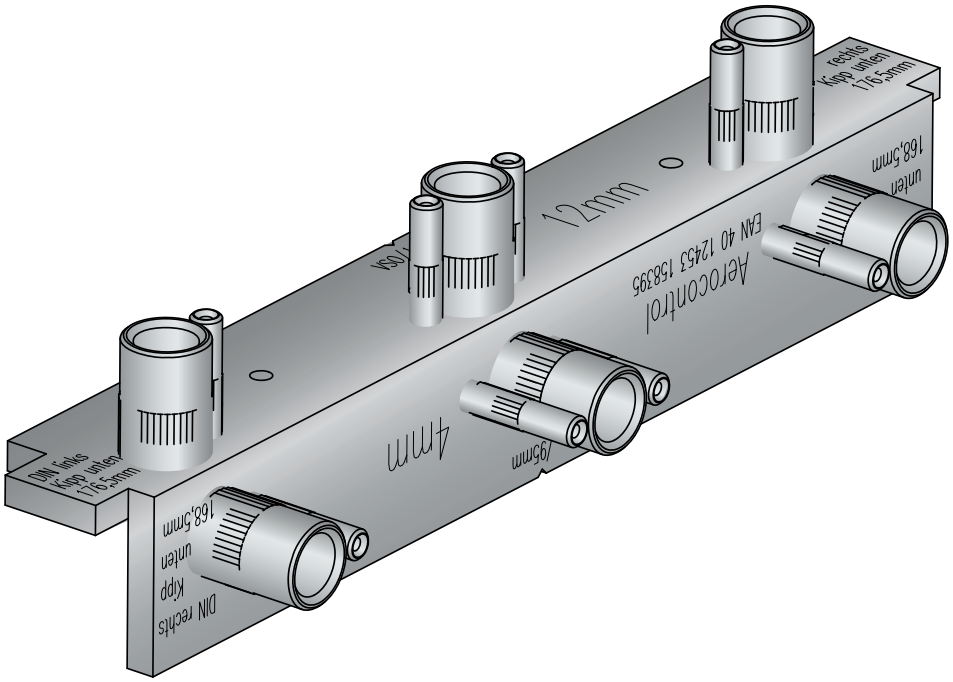
Any 4 diodes light up when magnetic switch UMS003 is connected to the test unit and is switched on.
After switching the handle on the window from "open" to "closed", 2 further diodes light up.



The magnetic switch must be readjusted if, after switching the handle from "open" to "closed", the external magnetic field contact switches the magnet off and 4 diodes are still lit up after this.
Be sure to check the distance from the magnet to the magnet switch!

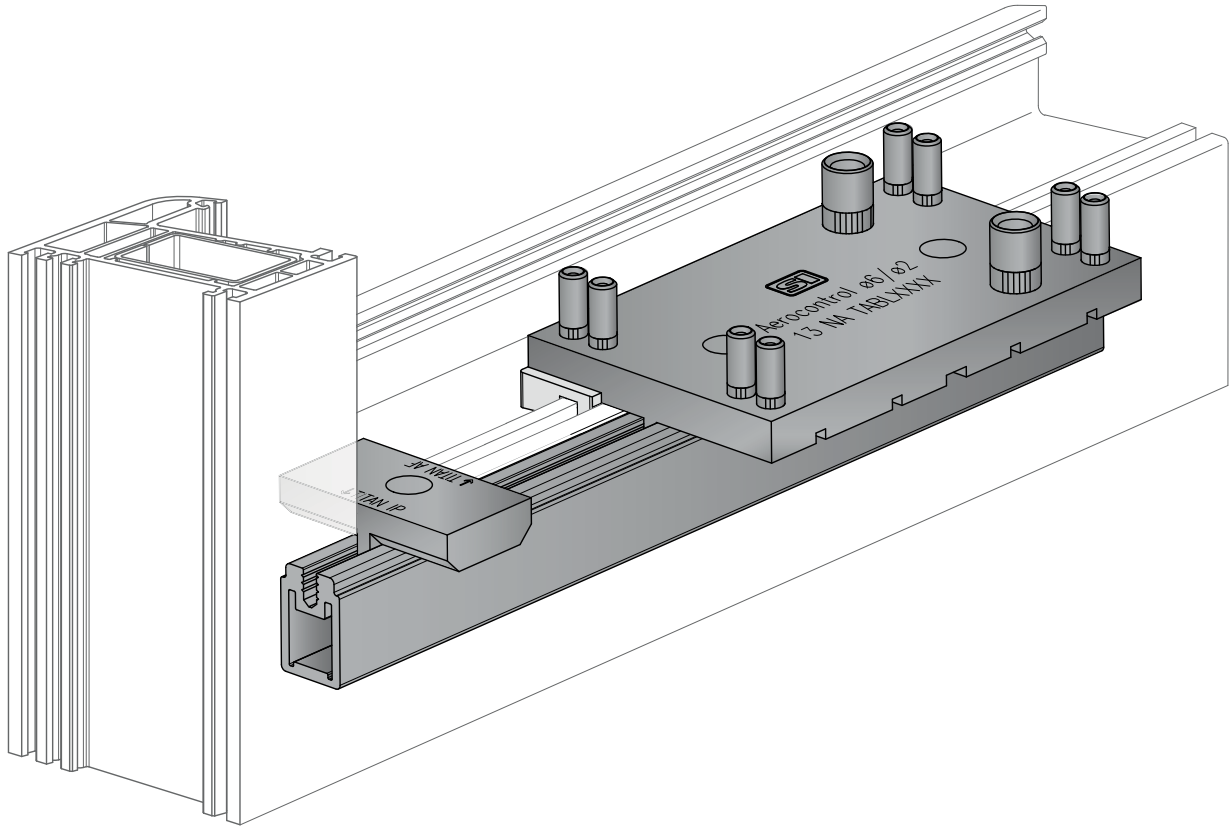


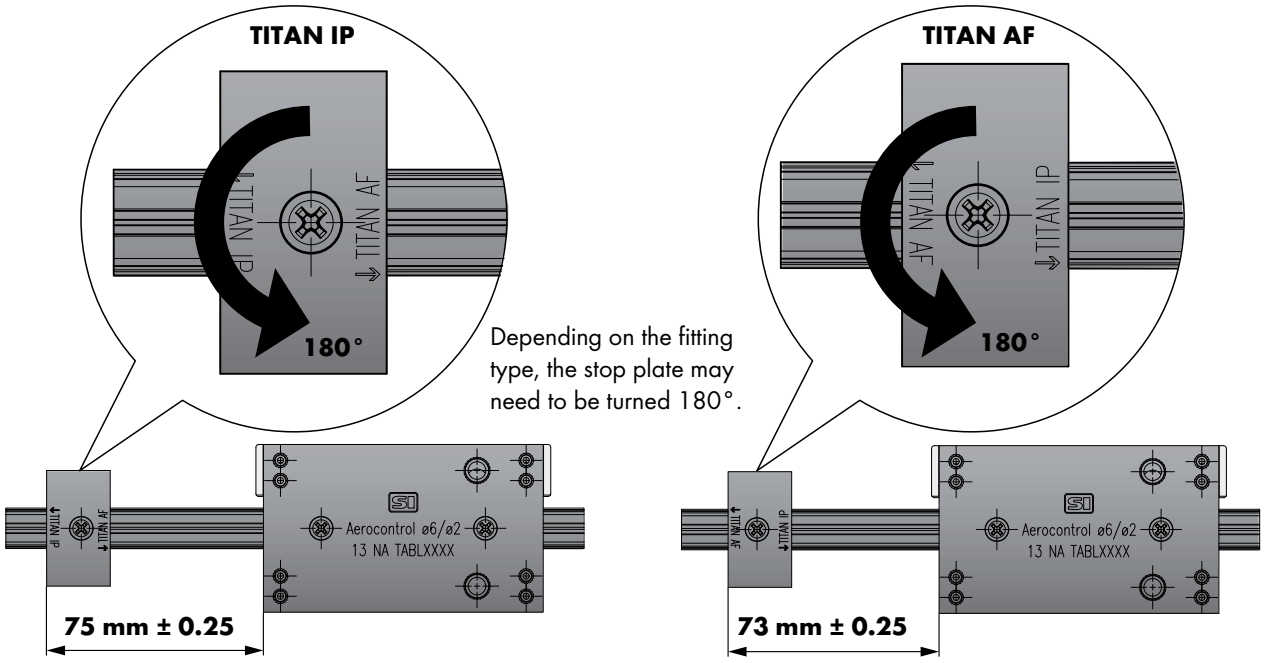
Jig for magnetic switches UMS001, UMS002, UMS003, UMS1080



Description	Material number
Jig 12/4MM EV1 (for magnetic switches UMS001, UMS002, UMS003, UMS1080)	158395

Jig for magnetic switch UMS011-EN





Description	Material number
Jig (for magnetic switch UMS011-EN)	TABL0360-5H9010

SIEGENIA®

Head Office:
Industriestraße 1–3
57234 Wilnsdorf
GERMANY

Phone: +49 271 3931-0
Telefax: +49 271 3931-333
info@siegenia.com
www.siegenia.com

You can find address details for our international sites at: www.siegenia.com

SIEGENIA worldwide:
Austria Phone: +43 6225 8301
Belarus Phone: +375 17 3121168
Benelux Phone: +32 9 2811312
China Phone: +86 316 5998198
France Phone: +33 3 89618131
Germany Phone: +49 271 39310
Great Britain Phone: +44 2476 622000
Hungary Phone: +36 76 500810
Italy Phone: +39 02 9353601
Poland Phone: +48 77 4477700
Russia Phone: +7 495 7211762
South Korea Phone: +82 31 7985590
Switzerland Phone: +41 33 3461010
Turkey Phone: +90 216 5934151
Ukraine Phone: +380 44 4637979

Contact your dealer:

H4006.2257EN/2014-07/7