



## Sky-Frame

### Installation instructions Alarm components

#### Installation instructions

Connecting and starting up the alarm components.



#### Sky-Frame AG

Langfeldstrasse 111  
CH-8500 Frauenfeld  
Switzerland

Phone: +41 52 724 94 94

Fax: +41 52 724 94 95

E-mail: [info@sky-frame.ch](mailto:info@sky-frame.ch)

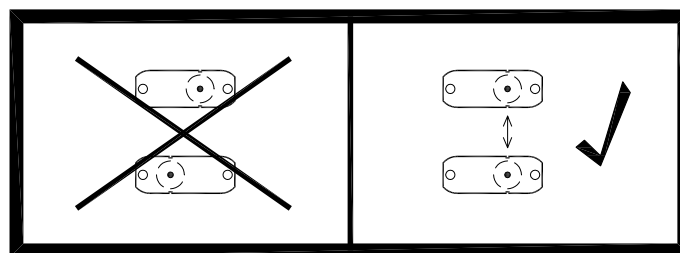
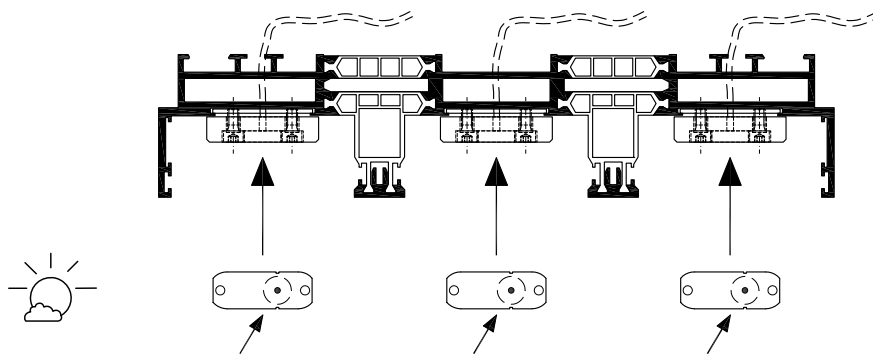
Internet: [www.sky-frame.ch](http://www.sky-frame.ch)



## Sky-Frame

### Alarm component installation instructions **ATTENTION!**

# **ATTENTION!**



Before placing the glass /  
installing the locking profile,  
be sure to check the  
**correspondence of the reference marks!**  
(Position and orientation -> Chapter 8)



## Sky-Frame

### Alarm component installation instructions Index

<b>Section 1</b>	<b>GENERAL INFORMATION</b>	page 13.3.1.1
1.1	Information concerning these instructions	page 13.3.1.1
1.2	Explanation of symbols	page 13.3.1.1
1.2.1	Safety instructions	page 13.3.1.1
1.2.2	Tips and recommendations	page 13.3.1.1
<b>Section 2</b>	<b>COMPONENT OVERVIEW</b>	page 13.3.2.1
2.1	Overview	page 13.3.2.1
2.2	Position monitoring	page 13.3.2.1
2.3	Deadbolt / glass breakage monitoring	page 13.3.2.1
<b>Section 3</b>	<b>SCHEMATIC DIAGRAMS</b>	page 13.3.3.1
3.1	Glass breakage sensor (G)	page 13.3.3.1
3.2	Position monitoring (P)	page 13.3.3.2
3.3	Deadbolt monitoring (R)	page 13.3.3.2
<b>Section 4</b>	<b>SITUATION ON SITE</b>	page 13.3.4.1
4.1	IDENTLOC processing unit (AWE)	page 13.3.4.1
4.2	Cable routing	page 13.3.4.1
<b>Section 5</b>	<b>INSTALLATION, ASSEMBLY + ADJUSTMENT</b>	page 13.3.5.1
5.1	Installation overview	page 13.3.5.1
5.2	Assembly of fixed panels	page 13.3.5.2
5.3	Adjustment	page 13.3.5.2
<b>Section 6</b>	<b>TROUBLESHOOTING</b>	page 13.3.6.1
6.1	Troubleshooting	page 13.3.6.1
6.2	General failures	page 13.3.6.1
6.3	Testing instruments	page 13.3.6.1
6.4	Testkit (SK8070)	page 13.3.6.2
6.4.1	Checking the position contact	page 13.3.6.2
6.4.2	Checking the deadbolt contact	page 13.3.6.3
6.4.3	Checking the glass breakage (slide panel)	page 13.3.6.4
6.4.4	Checking the glass breakage (fixed panel)	page 13.3.6.4
<b>Section 7</b>	<b>CERTIFICATION + WARNINGS</b>	page 13.3.7.1
7.1	Certification	page 13.3.7.1
7.2	Warnings	page 13.3.7.1
<b>Section 8</b>	<b>CHECKING THE POSITIONS</b>	page 13.3.8.1
8.1 - 8.6	Dimensioning (P), (R), (G)	page 13.3.8.1-6



## Sky-Frame

### Alarm component installation instructions General information

#### 1.1 Information concerning these instructions

These instructions are the property of R&G Metallbau AG (hereafter referred to as Sky-Frame) and are only intended for personnel authorised by Sky-Frame.

Passing on to third parties and duplication of the document or parts thereof are strictly forbidden!

#### 1.2 Explanation of symbols

Attention must be paid to the following symbols.

##### 1.2.1 Safety instructions

Safety notes are marked by symbols in these instructions that indicate the level of danger.

Adhering to the safety instructions will help to avoid accidents, injuries and damage to property.



Please take particular care not to damage any cables when opening and removing the packaging.



#### **WARNING!** (Danger to life and limb)

This symbol indicates a potentially dangerous situation that could lead to death or serious injury if it is not avoided.



#### **CAUTION!** (Risk of fault)

This symbol indicates a potential risk of fault that could lead to damage to property if it is not heeded.

##### 1.2.2 Tips and recommendations



#### **NOTE:**

This symbol highlights useful tips and recommendations for efficient and fault-free installation.



## Sky-Frame

### Alarm component installation instructions Component overview

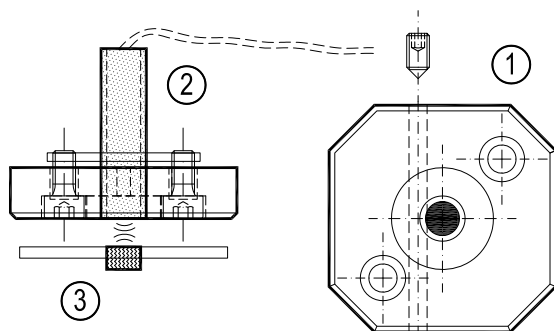
#### 2.1 Overview

Sky-Frame systems can be electronically monitored using the following three alarm sensors:

- **Glass breakage sensor** (alarm loop / alarm spider)
- **Position monitoring** (door open / closed)
- **Deadbolt monitoring** (lock open / locked)

Sky-frame alarm sensors are installed in two different alarm component carriers.

#### 2.2 Position monitoring



A magnetic contact is inserted into the carrier and secured with a set screw at the side.

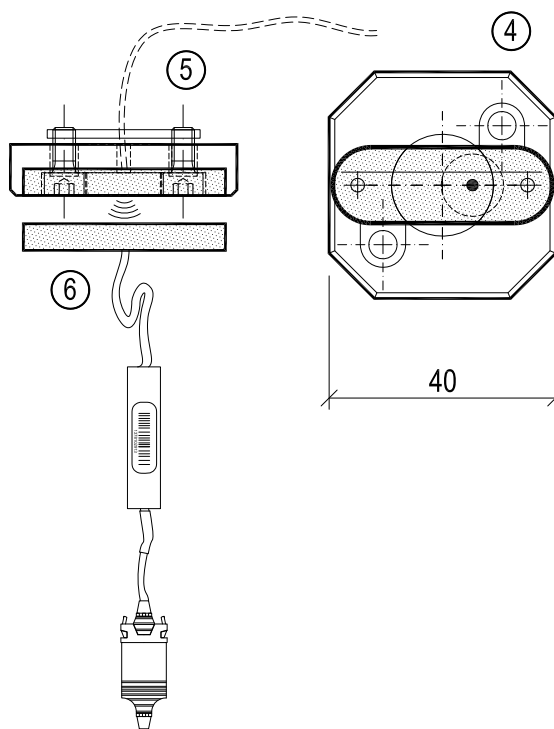
The magnetic contact is kept closed by the magnetic field of the permanent magnet. If the distance between the two parts is increased, the influence of the magnetic field is weakened. The magnetic contact then opens and interrupts the closed circuit.

Pos. 1 = Magnetic contact carrier (Art. 558500)

Pos. 2 = Magnetic contact (Art. 556300)

Pos. 3 = Disk magnet (Art. 556400)

#### 2.3 Deadbolt / glass breakage monitoring



The Identloc transmitter unit is secured to the carrier.

A one-off data code is stored in each sensor (unique). This code is continuously interrogated and evaluated by the customer-provided processing unit (AWE) via the transmitter unit. The code can only be received whilst the transmission unit of the sensor is within the transmission range of the transmitter unit.

In teach-in mode, the processing unit continuously stores the code of the sensor. A stored code is also retained if the power to the processing unit is switched off.

During normal operation it is not possible to replace the sensor with anything else (e.g. another sensor). This makes the system extremely manipulation-proof.

Pos. 4 = Transmitter unit carrier (Art. 558400)

Pos. 5 = Identloc transmitter unit (Art. 556100)

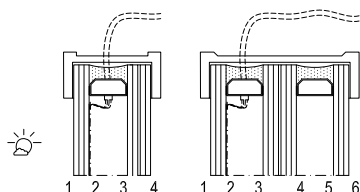
Pos. 6 = Identloc transmission unit (Art. 555900)



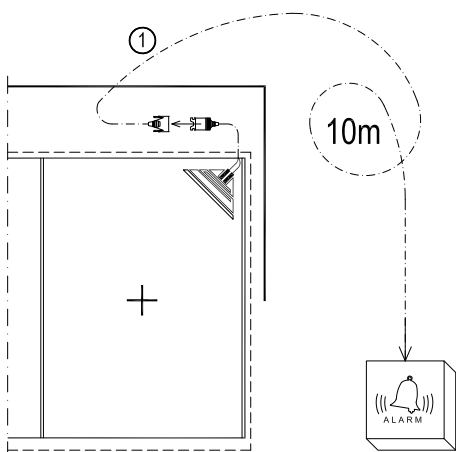
## Sky-Frame

### Alarm component installation instructions Schematic diagrams

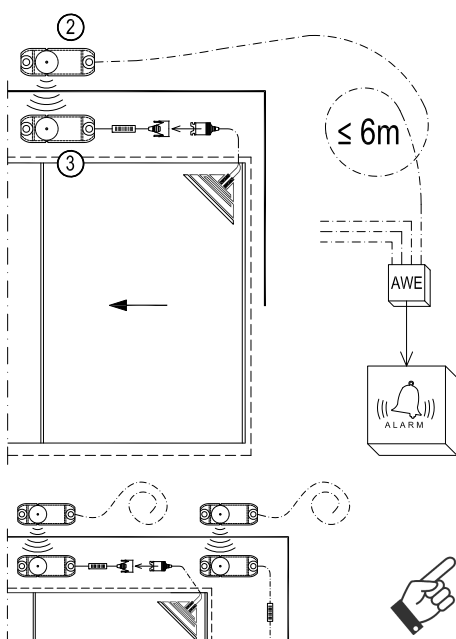
#### 3.1 Glass breakage sensor



##### Fixed panel:



##### Sliding panel:



Sky-Frame is equipped with alarm glass that can be used in sliding and fixed panels.

The screen printed metal circuit is protected in the gap between the panes at position 2 and is always positioned in the top left-hand or the right-hand corner (depending on the installation situation).

In the event of an attack with subsequent destruction of the outer pane of glass (tempered safety glass), it disintegrates into a large number of small fragments. This also interrupts the conductive screen printed metal circuit in several locations, causing the electrical circuit to be interrupted. This is detected by the connected burglar alarm, and an alarm is triggered.

#### Glass breakage sensor with fixed panel:

The alarm glass connecting cable is connected to the cable in the frame via a plug-in connection, and is therefore directly connected to the burglar alarm.

Cable length = 10m (can be extended)

Pos.1 = Fixed panel alarm glass cable (Art. 557600)

#### Glass breakage sensor with sliding panel:

Transmission takes place via an Identloc transmitter unit that is integrated in the frame at the top. This component also takes over the function of a position monitoring unit. In the event of glass breakage or door movement, the circuit is interrupted.

A customer-provided Identloc processing unit (AWE), to which up to four alarm components can be connected is needed to evaluate the signal.

Cable length = 6m (cannot be extended!)

Pos. 2 = Identloc transmitter unit (Art. 556100)

Pos. 3 = Identloc transmission unit (Art. 555900)

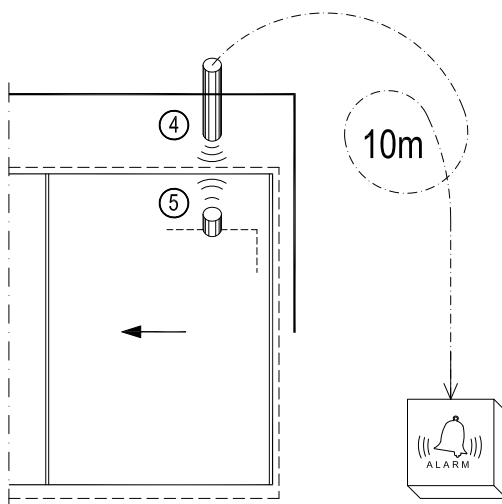
**Glass breakage sensors CAN BE COMBINED with deadbolt monitors.**



## Sky-Frame

### Alarm component installation instructions Schematic diagrams

#### 3.2 Position monitoring



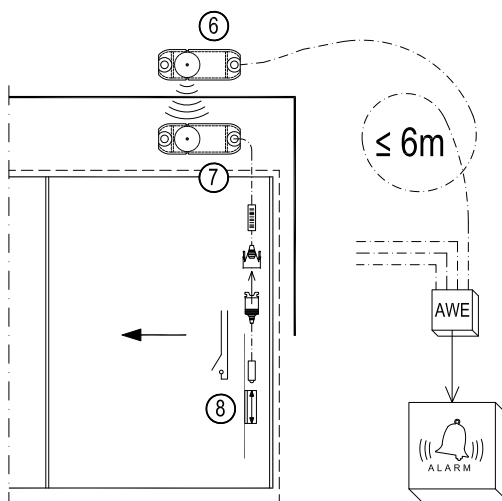
This alarm component is used to monitor the position of the sliding panels. The magnetic contact and the disk magnet are pre-installed in the frame profile and the door profile of the panel that is being protected.

The magnetic contact is kept closed by the magnetic field of the permanent magnet. If the distance between the two parts is increased, the influence of the magnetic field is weakened. The magnetic contact then opens and interrupts the closed circuit.

The position monitor can be directly connected to a burglar alarm.

Cable length = 10m (can be extended)  
Pos. 4 = Magnetic contact (Art. 556300)  
Pos. 5 = Disk magnet (Art. 556400)

#### 3.3 Deadbolt monitoring



All locking profiles can be equipped with a deadbolt monitor that also acts as a position monitor at the same time. The signal is transmitted by the transmitter unit integrated in the frame.

Lifting the handle operates a switch contact that interrupts the electrical circuit and therefore the inductive transmission. A signal is generated when the lock is opened (lifted).

If the door is moved, the transmission unit leaves the inductive zone and permanently interrupts the transmission. This means that position monitoring is also provided.

The deadbolt monitor requires a customer-provided Identloc processing unit (AWE), to which up to four alarm components can be connected.

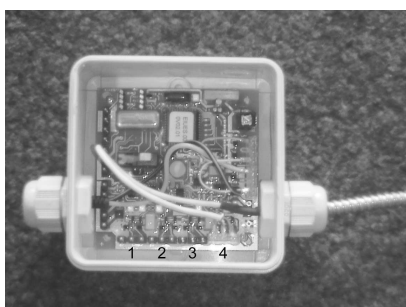
Cable length = 6m (cannot be extended!)  
Pos. 6 = Identloc transmitter unit (Art. 556100)  
Pos. 7 = Identloc transmission unit (Art. 555900)  
Pos. 8 = Deadbolt contact switch (Art. 558000)



## Sky-Frame

### Alarm component installation instructions Situation on site

#### 4.1 IDENTLOC processing unit AWE (customer-provided)



A customer-provided Identloc processing unit (AWE), to which up to four Identloc transmitter units can be connected, is needed to connect the transmitter units.

#### **NOTE:**

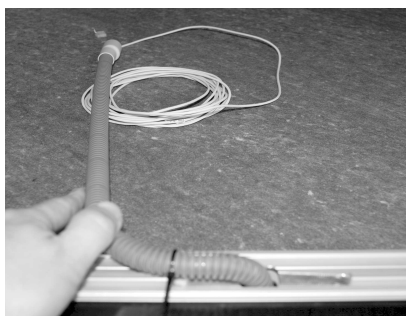
The processing units must be provided by the customer electrician or alarm system builder. All transmitter units are preassembled with 6m long cables (cannot be extended!) and connectors that can be soldered on (suitable for Identloc AWE-processing unit).

#### **Ordering from Honeywell or a Honeywell partner**

IDENTLOC processing unit AWE ([www.security.honeywell.de](http://www.security.honeywell.de))

- Conventional Art. no. 032210
- BUS-1 Art. no. 032211

#### 4.2 Cable routing



All cables must be routed in empty tubes. The cable transition takes place via a piece of M16 installation tube that has been attached to the blind frame beforehand (length=0.5m). This allows the affected alarm component to be replaced quickly and easily in the event of a fault.

#### **NOTES:**

- The alarm cable must be routed to the burglar alarm / processing unit in an empty cable tube.
- The assembled connection must also be protected with insulating tape.
- The cables have to be connected strain-relieved on the connection side.



#### **CAUTION!**

THE CABLES OF THE IDENTLOC TRANSMITTER UNITS **MUST NOT BE EXTENDED UNDER ANY CIRCUMSTANCES!** In long systems, the positions of the processing units (AWE) must therefore be planned in at an early stage.



#### **WARNING!**

The installation must only be carried out by authorised experts! Soldering and connecting work is prohibited anywhere within the system unless the power supply has been disconnected.

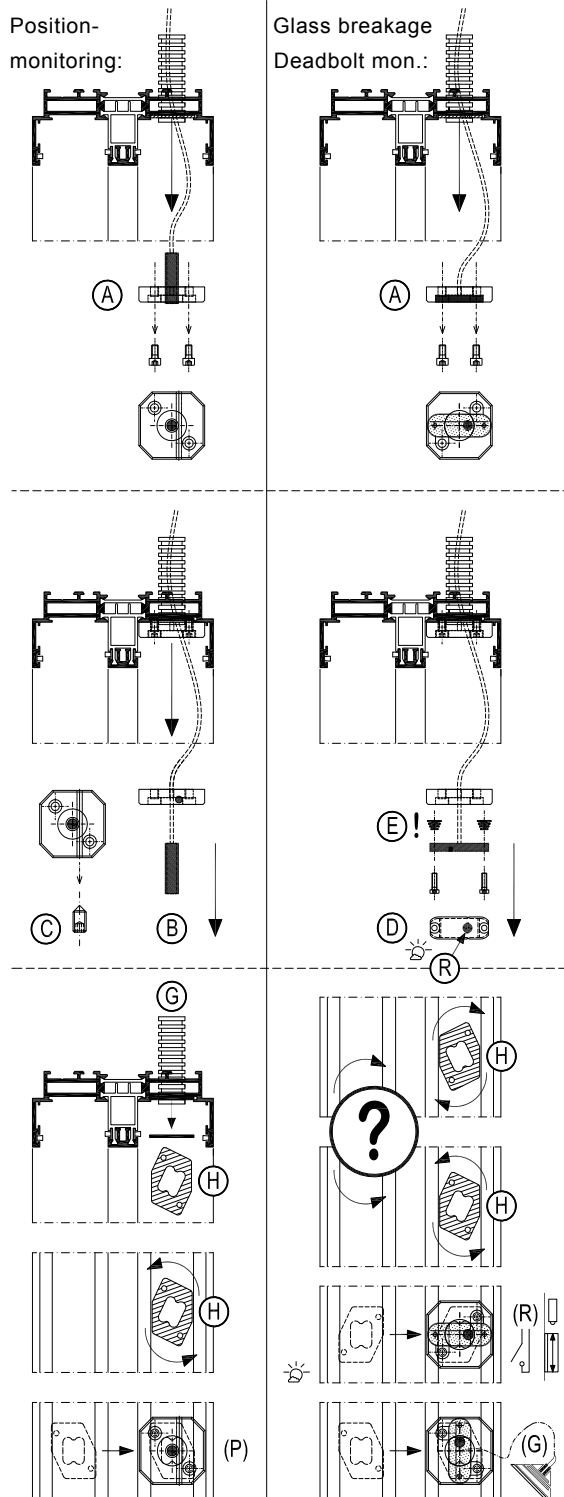




## Sky-Frame

### Alarm component installation instructions Installation overview

#### 5.1 Installation overview



The alarm components are already preassembled in the factory and must not be dismantled.

In the event of replacement, proceed as follows:

- 1.) Remove the two large Allen screws and carefully detach the alarm component carrier [A] from below.  
Caution: Do not damage cable!
- 2.) Detaching the alarm component:  
With magnetic contacts [B], first undo the set screw [C] at the side and pull out the magnetic contact [B].  
With Identloc transmitter units [D], remove the two screws and carefully pull out the components. Do not lose the two spacer springs [E]!
- 3.) Cut off defective components at end of cable. This allows the new component to be pulled in through the empty tube [G] using the old cable.
- 4.) The magnetic contact [B] for position monitoring must be pushed into the carrier [A] so that it is flush and fixed in position at the side using the set screw [C].  
The Identloc transmitter unit [D] is secured to the alarm component carrier [A] through the spacer springs [E] using the 2 provided screws.
- 5.) Then screw the alarm component carrier to the previously correctly positioned\* screw-in plate [H] using the 2 provided screws.

#### \*Note:

If the Identloc transmitter units are installed in the wrong position (e.g. vertically instead of horizontally), they must be rotated by 90°. In order to do this, the screw-in plate must be turned round (inverted) so that the two screw holes are in the correct positions again (see diagram).

#### CAUTION!

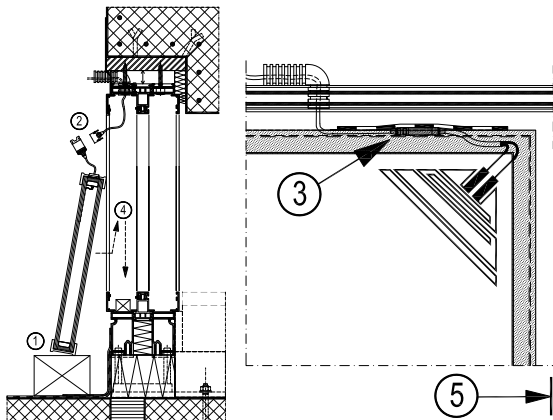
With all Identloc components the positions of the reference points [R] must correspond!  
Exact position and dimensions -> Section 8.



## Sky-Frame

### Alarm component installation instructions Assembly and adjustment

#### 5.2 Assembly of fixed panels



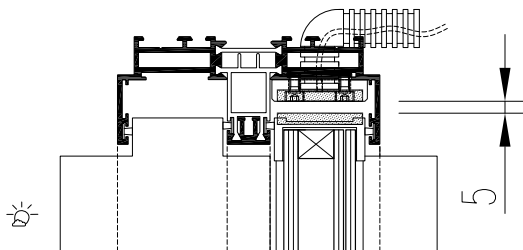
The glass breakage monitor of fixed panels is enabled by simply plugging together the connecting cables.

The 10m long alarm glass cable is always connected at the screen printed metal circuit side.

Proceed as follows during installation:

- 1.) Place glass directly IN FRONT OF the connector
- 2.) Plug glass connector into connecting cable connector
- 3.) Tape connector to GRP frame (as illustrated)
- 4.) Lift the glass into the frame
- 5.) Just a minimal amount of positioning is required at the side (cable!)

#### 5.3 Adjustment

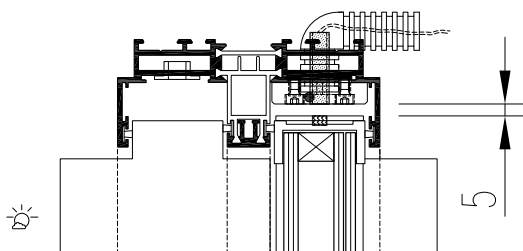


In order to ensure that the alarm components operate correctly, the positions shown in Section 8 must be checked and adjusted if necessary.

The distance between the alarm components (height) must be 5 mm.

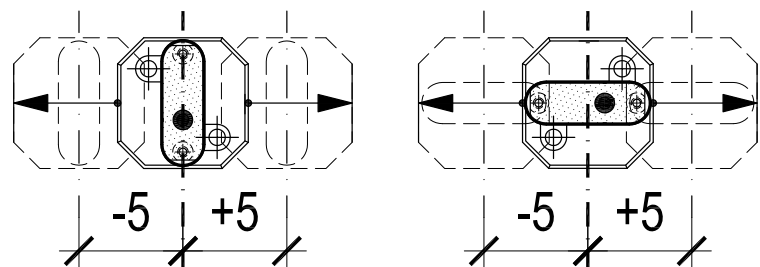
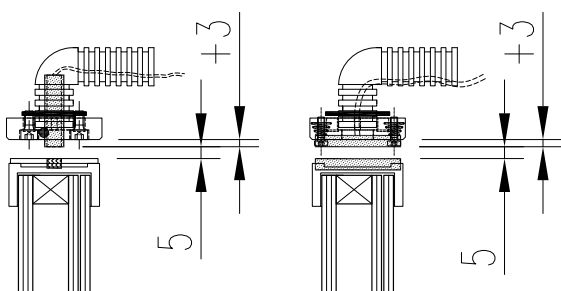


**BIGGER or SMALLER distances than 5 mm can cause false alarms!!**



#### Adjustment:

In order to cope with tolerances in the system, the height of both the magnetic contact and the Identloc transmitter unit can be adjusted by max. +3mm [Installation overview -> Sec. 5.1] and they can also be adjusted by +/-5mm in the longitudinal direction.



Longitudinal adjustment: Slacken the two large Allen screws, move the alarm component carrier and firmly tighten the two screws again.



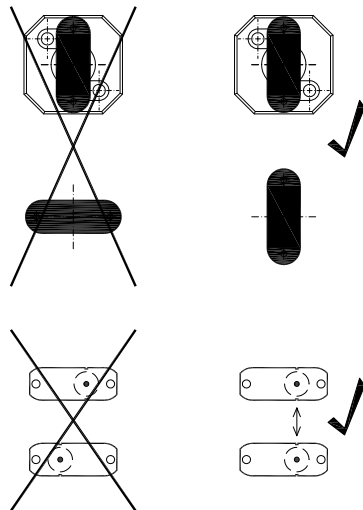
## Sky-Frame

### Alarm component installation instructions Troubleshooting

#### 6.1 Troubleshooting

The functionality of all alarm components is thoroughly tested prior to delivery. As well as this quality check, additional function testing is recommended immediately after assembly.

#### 6.2 General failures



It is advisable to proceed in the following order:

- 1.) **Wiring** properly routed / soldered?
- 2.) **Maximum cable lengths** adhered to?  
(Identloc with processing unit AWE = max. 6m)
- 3.) Are the Identloc transmission units (top+bottom) properly **aligned** in relation to each other (see left)?
- 4.) Are the **reference marks** of the transmission units properly aligned in relation to each other? (see Sec.5.1)
- 5.) Is the **maximum distance** 5mm? (see Sec.5.3)
- 6.) Do the **axes** correspond?  
-> control the positions [-> Chapter 13.3.8.x]

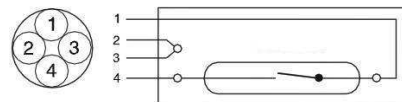
#### 6.3 Testing instruments



If the problem has not yet been solved, the functionality of the components must be checked using a tester.

#### Magnetic contacts:

The functionality can be checked using a simple continuity tester.



#### Identloc transmission units:

An processing unit with an Identloc transmitter unit (AWE) is required for monitoring.

A complet testkit can be purchased from us (see next side).



## Sky-Frame

### Alarm component installation instructions Checking

#### 6.4 Alarm component test kit



The alarm components should be checked for their function after the frame assembly using the alarm component test kit (Art. 807000) and possibly be fine-tuned.

#### Alarm component test kit (packed in sturdy PVC case)

##### Supplied with: (Art.No)

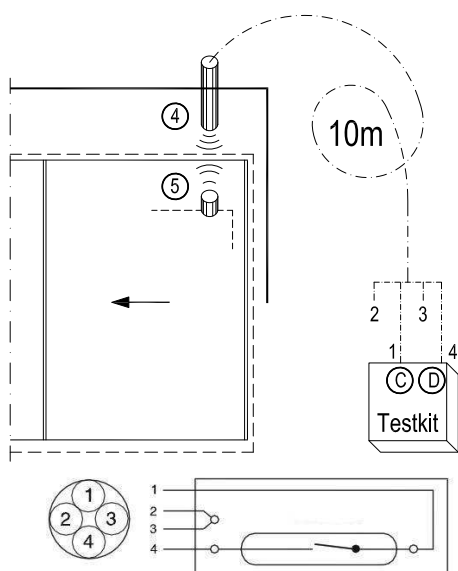
- 1 pc. 557900 Alarm component tester
- 1 pc. 556300 Magnetic contact
- 1 pc. 556100 Identloc transmitter unit
- 1 pc. 555900 Identloc transmission unit
- 1 pc. 557600 Fixed element alarm glass cable
- 1 pc. 558000 Deadbolt monitoring switch

##### Testing facilities:

- Position monitoring (magnetic contact)
- Deadbolt monitoring (Identloc)
- Alarm loop with fixed element+sliding element

Identloc Alarmkomponenten		A
LED an = Alarm	Rot	B
LED aus = Ruhe	Weiss	
	Shield	
Magnetkontakt		C
LED an = Ruhe	1	D
LED aus = Alarm	4	

#### 6.4.1 Checking the position contact



Connect switch contact «1+4» of the magnetic contact to connections «C, D» on the tester.

Window closed = Standby -> LED illuminates (left)  
Window open = Alarm -> LED is off

##### NOTE:

The cable pairs 1+4 and 2+3 are opposite each other (in the cable insulation, see diagram).

##### ATTENTION:

If cable pair 2+3 (manipulation loop) is mistakenly connected to the tester a permanent standby signal will be issued, even if the element concerned is opened.

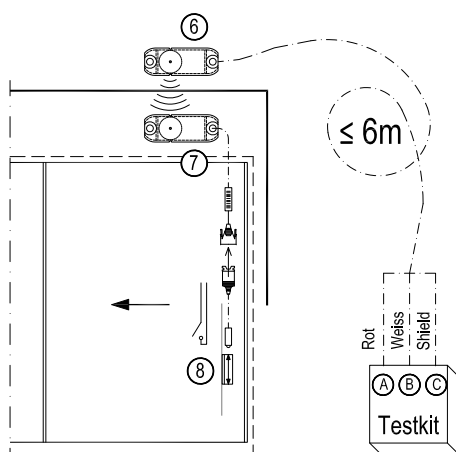
For the purpose of function testing, the switching of the magnetic contact can be also be triggered by moving a permanent magnet towards or away from it.



## Sky-Frame

### Alarm component installation instructions Checking

#### 6.4.2 Checking the deadbolt contact



Connect the three cables «red, white, shield» to connections «A, B, C» of the tester.

If the window is opened, the contact is broken and an alarm occurs at the tester (LED on right illuminates). If the window is closed, the contact is made and a standby occurs at the tester (LED on right does not illuminate).

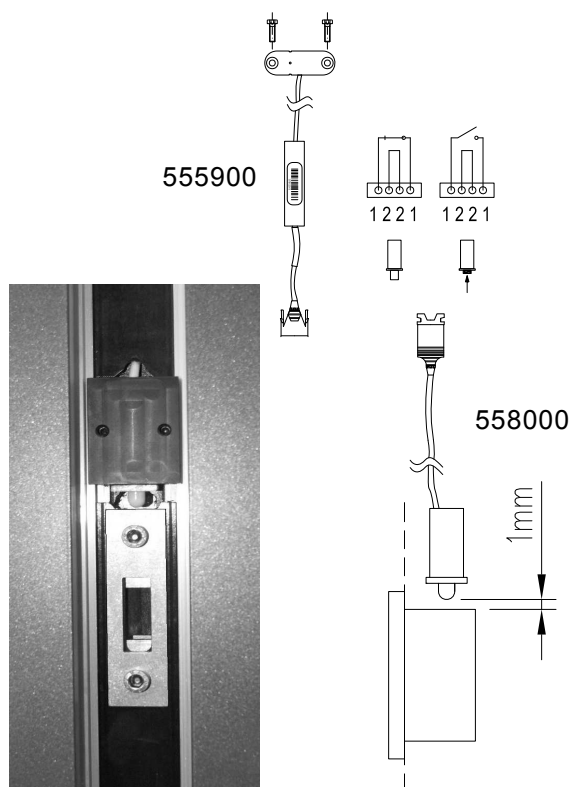
Lock down	= Standby	-> LED is off
Lock up	= Alarm	-> LED illuminates (right)

If this does not work as expected, the reference points, the distance and the side offset between the transmission unit and the transmitter unit of the transmission station must be checked (see point 6.2).

If it is suspected that the Identloc transmitter unit in the frame is damaged, the locking profile with the deadbolt monitoring can alternatively be tested directly using the transmitter unit in the test kit. In order to do this, the transmitter unit connected to the tester is held above the transmission unit installed in the locking profile.

If the fault has not yet been remedied, the locking mechanism and the deadbolt monitoring switch must be checked:

- 1.) Remove locking profile.
- 2.) Check functionality of deadbolt monitoring switch.  
There must be a 1mm gap between the locking plate and the switch (in the locked state).
- 3.) Check functionality of switch with a continuity tester.  
To do this, remove cable protection cover above contact switch and disconnect the plug-in connection between the transmission unit and the contact switch. Then the contact switch is measured using a continuity tester at the outer two pins of the connector.  
The contact switch is connected as a normally closed switch so that the contact is INTERRUPTED when the switch is operated. The contact between the two centre pins must remain closed (manipulation loop).

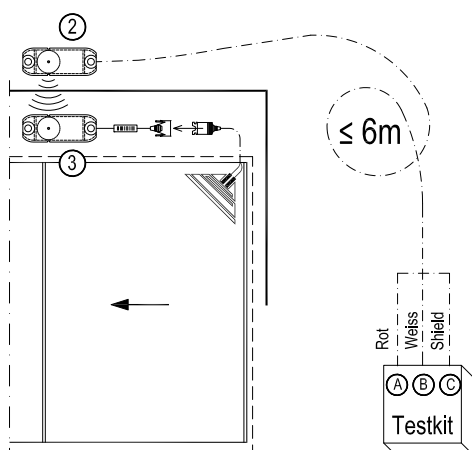




## Sky-Frame

### Alarm component installation instructions Checking

#### 6.4.3 Checking the glass breakage (slide panel)



#### Sliding element:

Connect the three cables «**red, white, shield**» of the sliding element to connections «A, B, C» of the tester.

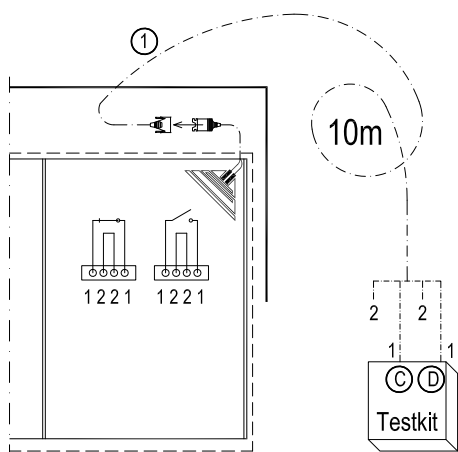
If the window is opened, the contact is broken and an alarm occurs at the tester (LED on right illuminates). If the window is closed, the contact is made and a standby occurs at the tester (LED on right does not illuminate).

Window closed	= Standby	-> LED is off
Window open	= Alarm	-> LED illuminates (right)

If this does not work as expected, the reference points, the distance and the side offset between the communication unit and the transmitter unit of the transmission station must be checked (see point 6.2).

If it is suspected that the Identloc transmitter unit in the frame is damaged, the alarm glass with the alarm loop can alternatively be tested directly using the transmitter unit in the test kit. In order to do this, the transmitter unit connected to the tester is held above the transmission unit installed in the alarm glass.

#### 6.4.4 Checking the glass breakage (fixed panel)



#### Fixed element:

Connect cables «**1+1**» to connections «C, D» on the tester.

Alarm loop intact	= Standby	-> LED illuminates (left)
Alarm loop defective	= Alarm	-> LED is off

#### NOTE:

The cable pairs «1+1» / «2+2» are opposite each other in this case, as they are in the magnetic contact.

The manipulation loop (cables «2+2») can be tested in the same way as described above.





## Sky-Frame

### Alarm component installation instructions Certification and warnings

#### 7.1 Certification



The alarm components are VdS certified: ([www.vds.de](http://www.vds.de))

#### Magnetic contact:

Telenot Electronic GmbH, model: MK 30 - VdS no. G104511  
VdS class: **B** (corresponds to RC4 / EN 50131-1 Grade 3)

#### Identloc transmission units: (Honeywell Identloc)

Novar GmbH, model: Slimline 032238 - VdS no. G101519  
VdS class: **C** (corresponds to RC5 / EN 50131-1 Grade 4)

#### Deadbolt monitoring switch:

Novar GmbH, model: Stiftkontakt 031001 - VdS-Nr. G17208  
VdS class: **C** (corresponds to RC5 / EN 50131-1 Grade 4)

#### Alarm glass with glass breakage sensor:

Thiele Glas GmbH, model: tg-Alarm - VdS-Nr. G100036  
VdS class: **C** (corresponds to RC5 / EN 50131-1 Grade 4)

#### 7.2 Warnings

In order to minimise health hazards and avoid dangerous situations, the safety instructions listed here and in the other chapters of this manual must be followed.



#### **DANGER!**

#### **Risk of fatality due to electric current!**

Coming into contact with live components will result in a direct risk of fatality due to electrocution. Damage to the insulation of individual components can be life-threatening.

- Never undo screws on the system and remove the service cover.
- Have all work on the electrical system carried out by professional electricians.
- In the event of damage to the insulation, switch off immediately and have it repaired.
- Keep moisture away from life components. This can lead to short circuits.



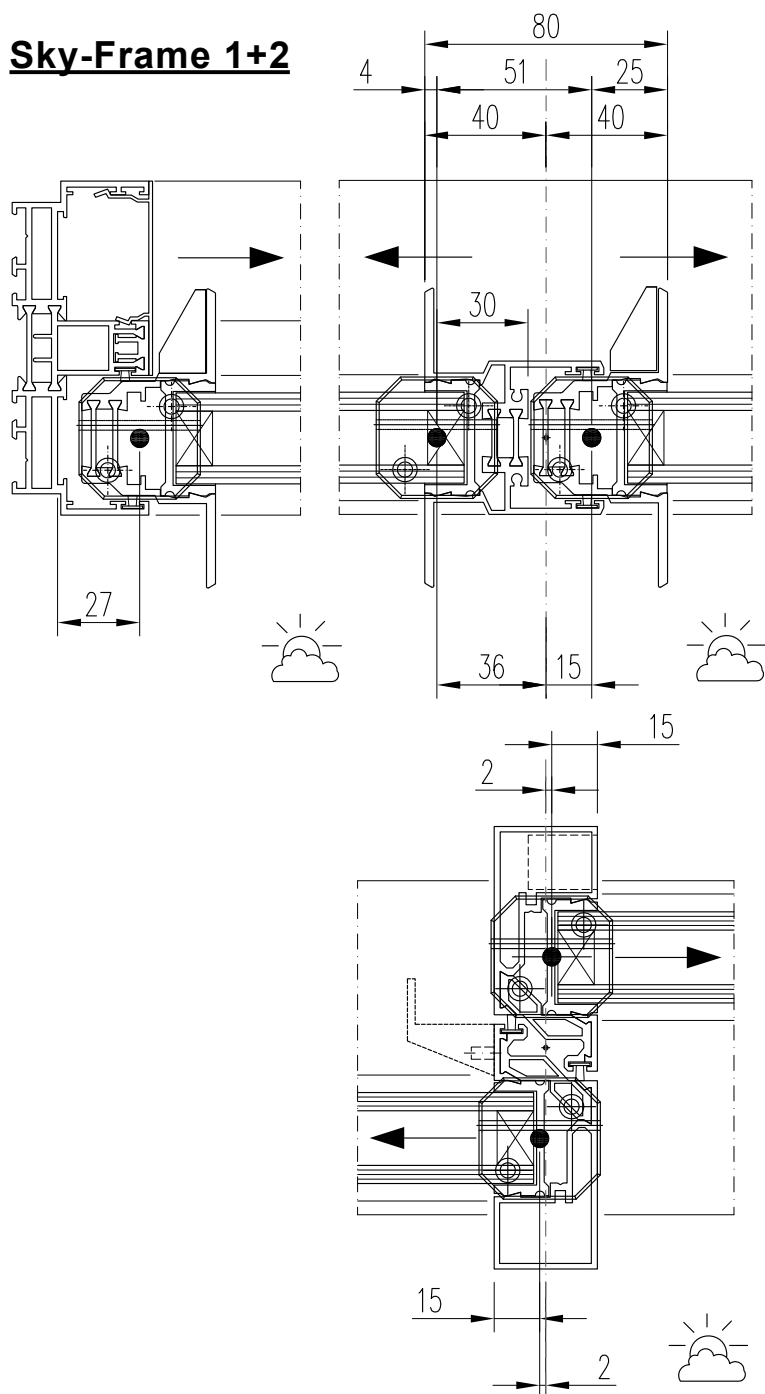
## Sky-Frame 1+2

### Alarm component installation instructions Inspection: Position monitoring (P)

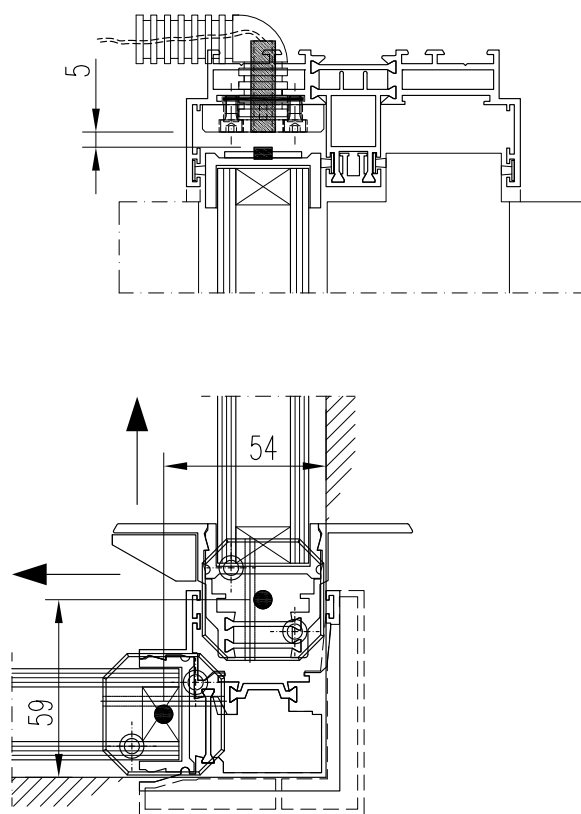
#### 8.1 Checking the positions Position monitoring (P)

The spacing of the position monitoring (magnets) can be checked from the theoretical axis and also the internal width.

#### Sky-Frame 1+2



Vertical spacing of magnets = 5mm



Dimension checking with corner opening from:

- Inner edge of outer flange
- Inner edge of centre flange





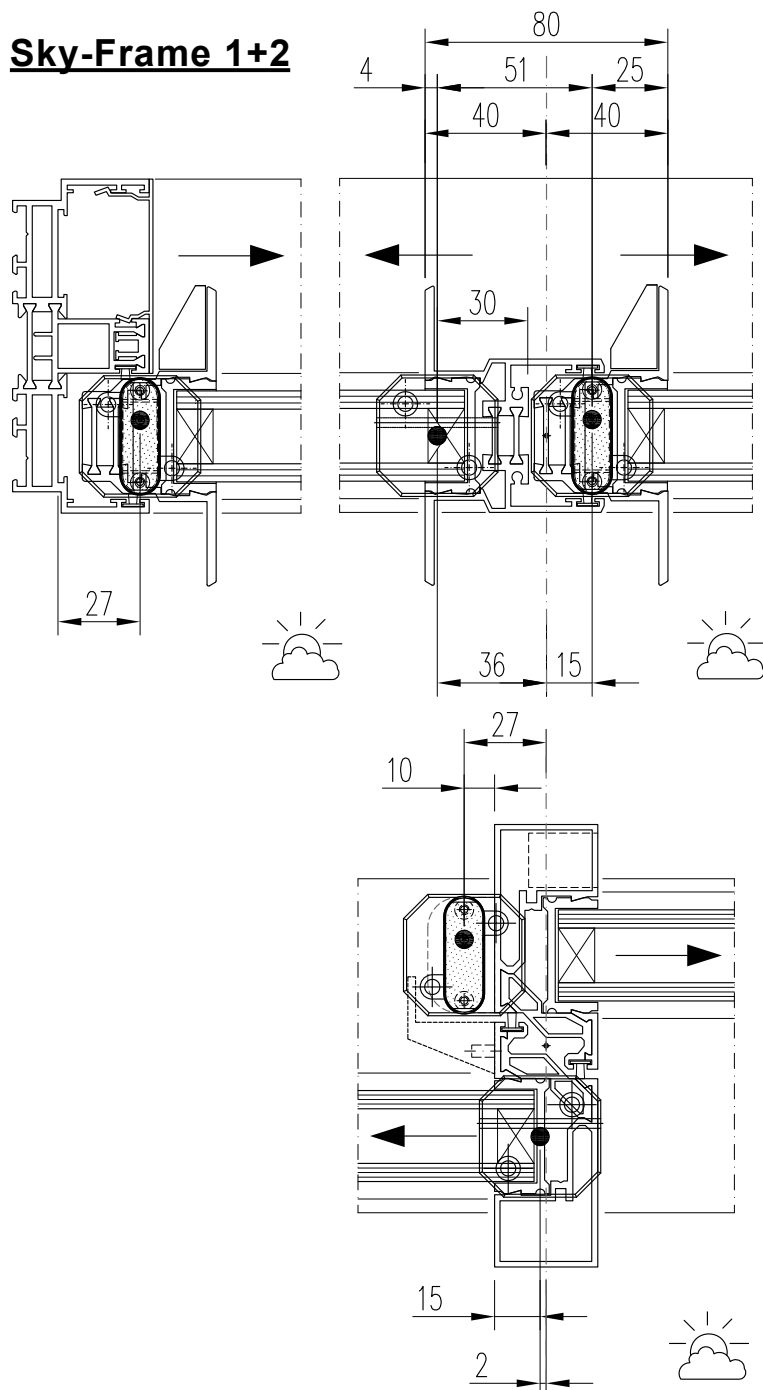
## Sky-Frame 1+2

### Alarm component installation instructions Inspection: Deadbolt monitoring (R)

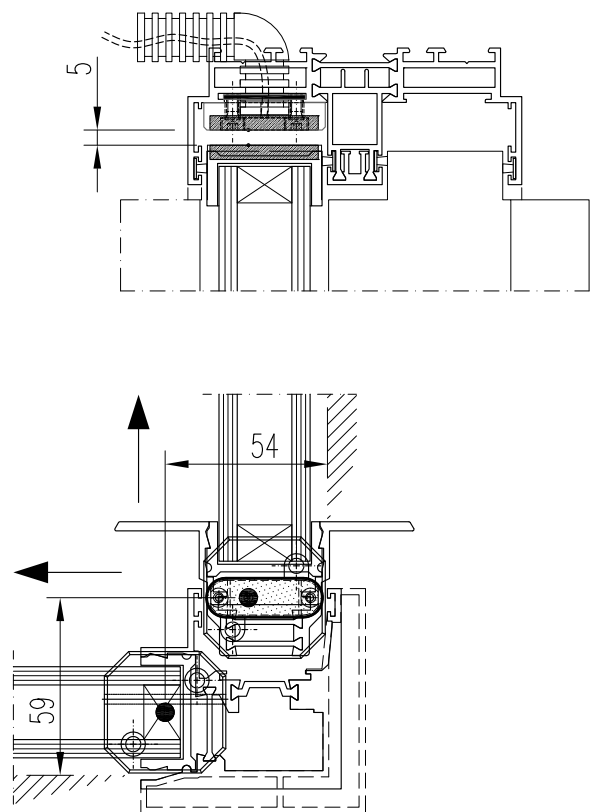
#### 8.2 Checking the positions Deadbolt monitoring (R)

The spacing of the deadbolt monitoring (Identloc) can be checked from the theoretical axis and also the internal width.

#### Sky-Frame 1+2



Vertical spacing of magnets = 5mm



Dimension checking with corner opening from:  
- Inner edge of outer flange  
- Inner edge of centre flange





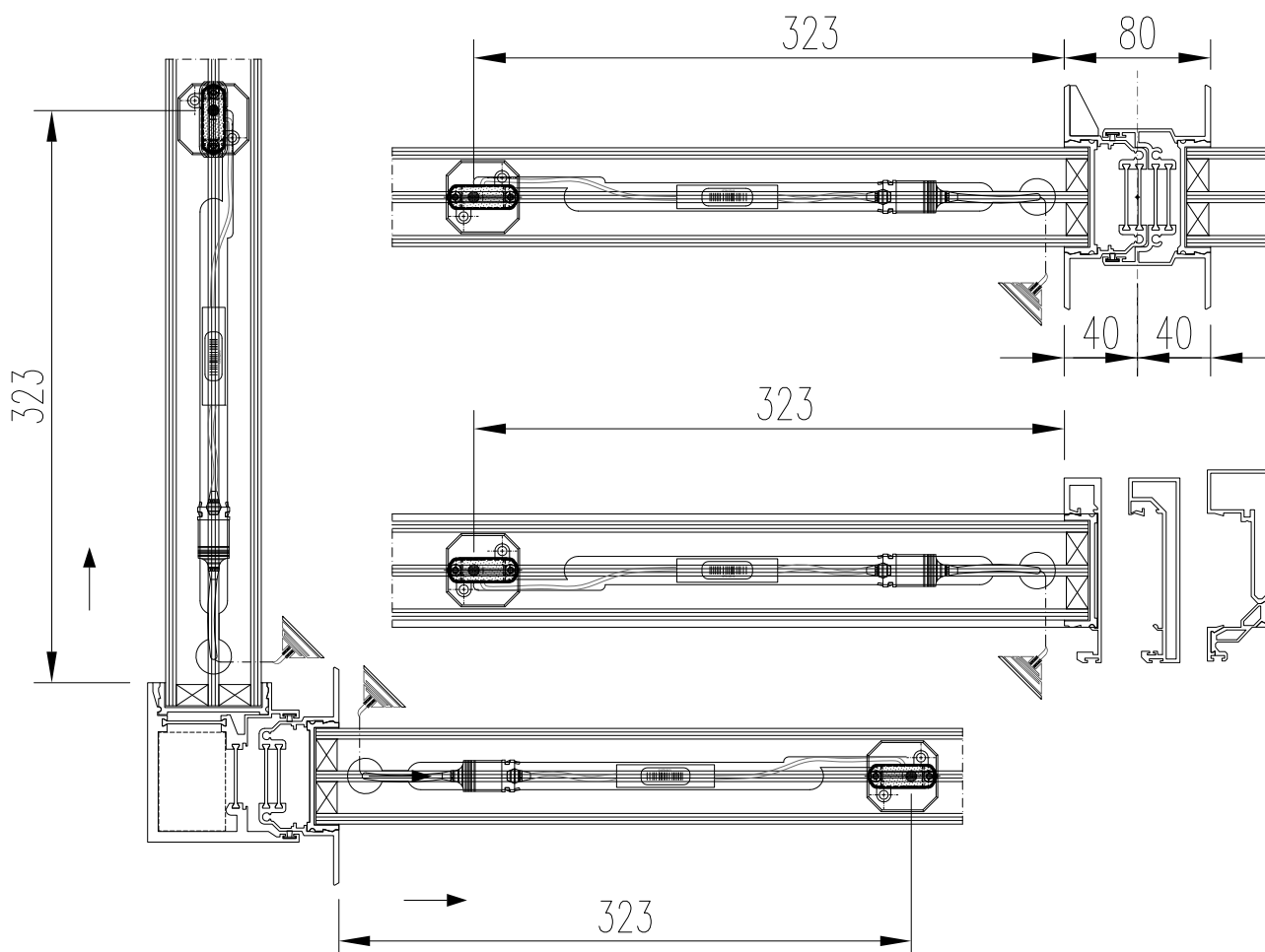
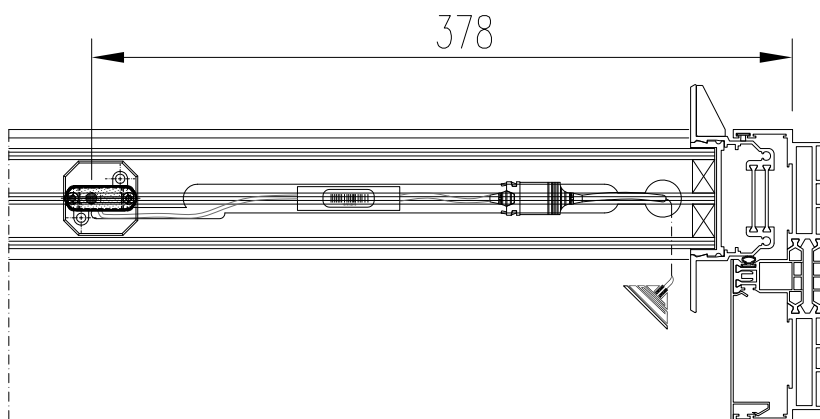
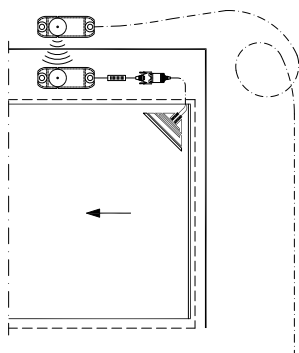
## Sky-Frame 3

### Alarm component installation instructions Inspection: Glass breakage monitoring (G)

#### 8.4 Checking the positions Glass breakage monitoring (G)

The spacing of the glass break monitoring (Identloc axis) is usually = 323mm from the frame (internal width).

#### Sky-Frame 3





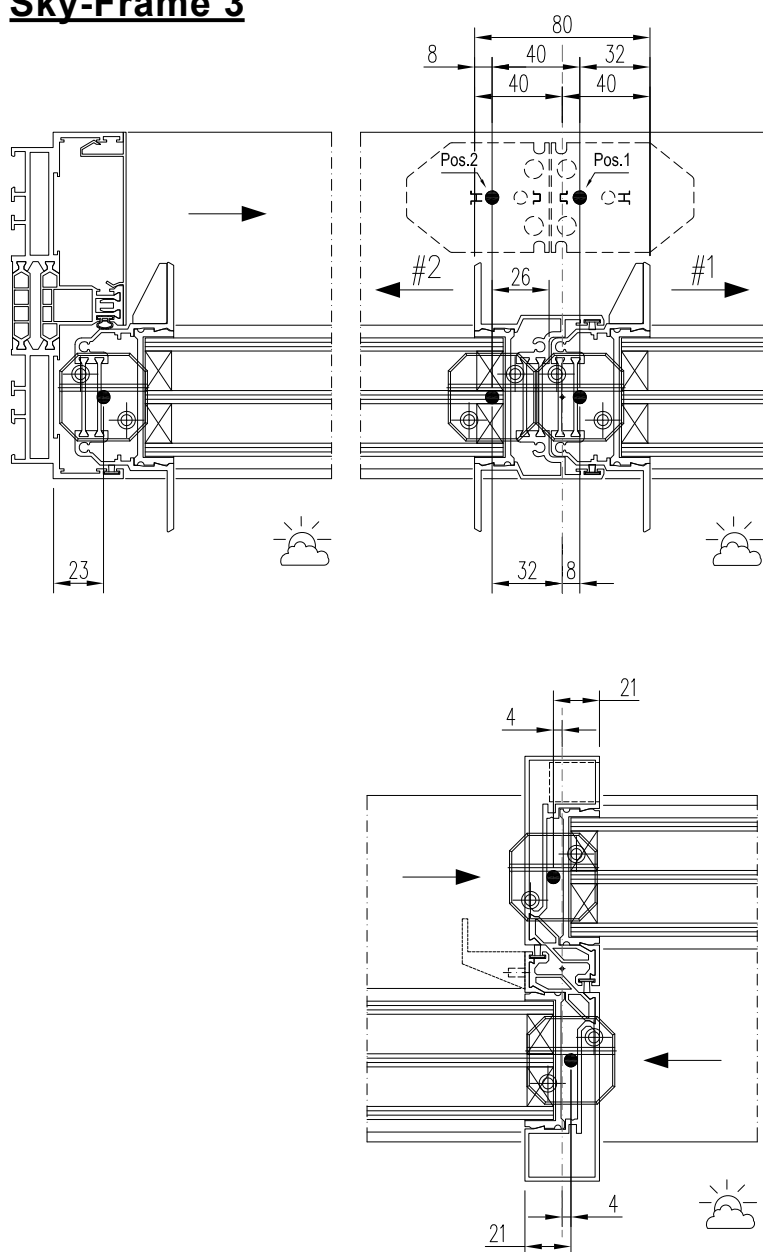
## Sky-Frame 3

### Alarm component installation instructions Inspection: Position monitoring (P)

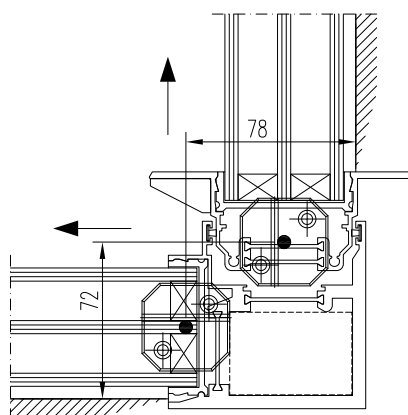
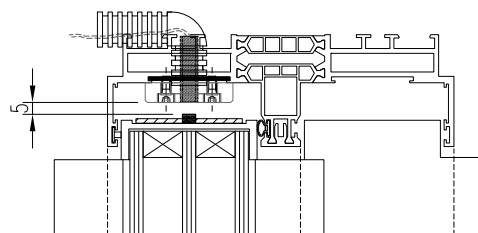
#### 8.5 Checking the positions Position monitoring (P)

The spacing of the position monitoring (magnets) can be checked from the theoretical axis and also the internal width.

### Sky-Frame 3



Vertical spacing of magnets = 5mm



Dimension checking with corner opening from:

- Inner edge of outer flange
- Inner edge of centre flange



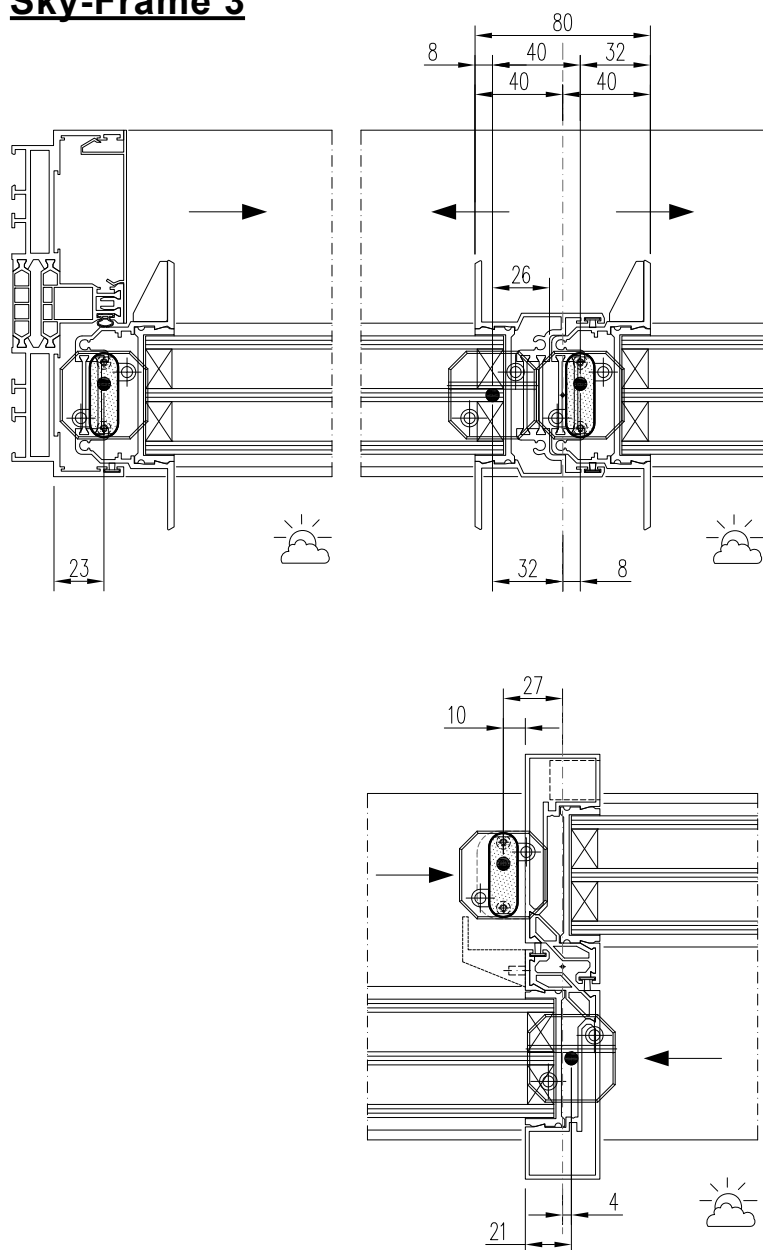
## Sky-Frame 3

### Alarm component installation instructions Inspection: Deadbolt monitoring (R)

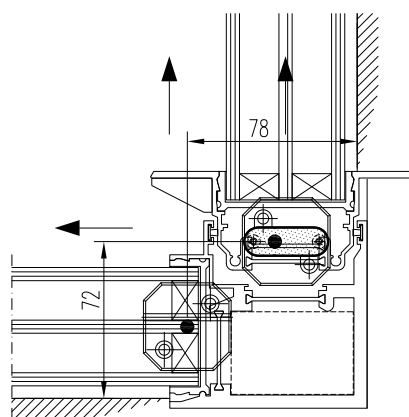
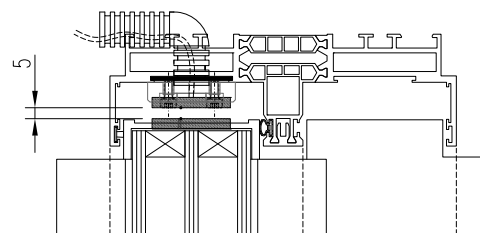
#### 8.6 Checking the positions Deadbolt monitoring (R)

The spacing of the deadbolt monitoring (Identloc) can be checked from the theoretical axis and also the internal width.

#### Sky-Frame 3



Vertical spacing of magnets = 5mm



Dimension checking with corner opening from:  
- Inner edge of outer flange  
- Inner edge of centre flange



## Sky-Frame

---

### Alarm component installation instructions

---