

WISE ALS_d

Instructions for Use

31/05/2024
Art. 1546302

Key to symbols

Symbols on the machine

This product complies with applicable EU directives



Symbols in these Instructions for Use

Warning/Caution!



Risk of crushing



Application area

The product is a variable flow product or a constant flow product with integrated radio transmitter designed for comfort ventilation indoors within Swegon's system for demand-controlled ventilation WISE. The product is used to regulate the supply air flow in the ventilation duct.

The product may not be used for anything other than its intended use.

General

Read through the entire Instructions for Use before you install/use the product and save the instructions for future reference. It's not permissible to make changes or modifications to this product other than those specified in this document.



The packaging contains the following items

1 x WISE ALS

1 x Instructions for Use

Compatibility

WISE ALS is an active commissioning box intended for Swegon's WISE system for demand-controlled ventilation.

WISE ALS is compatible with the following air diffusers:

- COLIBRI C VF SMB
- LOCKZONE C VF SMB
- KITE CC SMB
- KITE CR SMB

WISE ALS and the associated diffusers are packaged separately and assembled on site.

In this document, the designation of the article bundle always refers to the WISE ALS commissioning box including the respective diffuser.

The WISE ALS commissioning box and compatible diffuser are included in the following bundles:

WISE Colibri C SMB

WISE ALS incl. COLIBRI CC VF SMB

WISE Lockzone C SMB

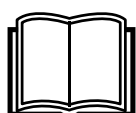
WISE ALS incl. LOCKZONE C VF SMB

WISE Kite CC SMB

WISE ALS incl. KITE CC SMB

WISE Kite CR SMB

WISE ALS incl. KITE CR SMB



The document was originally written in Swedish

Swegon

Protective equipment



Always use appropriate personal protective equipment for the work in question, in the form of gloves, respirators and protective glasses during handling, installation, cleaning and service/maintenance.

Electrical safety



Permitted voltage, see "Electrical data".

It is not permissible to insert foreign objects into the product's contactor connections or the electronics' openings; risk of short-circuit.

24 V isolation transformer to be connected should comply with the provisions of IEC 61558-1.

Cable sizing must be carried out for cabling between the product and the power supply source.

Disconnect the power supply when carrying out work on the product that does not require it to be running.

Always follow the local/national rules regarding who may carry out this type of electrical installation.

Other risks



When the product is voltage fed, the damper will either open or close. There can be a certain risk for pinch injuries, for example, to the fingers if these are placed between the damper blades.



Handling

Always use appropriate transport and lifting devices when the product is to be handled to reduce ergonomic loads.

The product must be handled with care.

Installation

- Moist, cold and aggressive environments must be avoided.
- Avoid installing the product above/near a heat source, for example, luminaires.
- Assemble the product according to applicable industry regulations.
- Install the product so that it cannot be accessed by unauthorised persons, for example in a suspended ceiling.
- Install the product for easy access during service/maintenance.
- If the product is mounted in a fixed ceiling, an inspection hatch must be available so that the product is accessible for inspection.
- If the product is mounted in cold areas, the commissioning box must be insulated on the outside against condensation.
- The product must be installed horizontally.
- It is recommended to mount the product so that the associated diffuser face can be opened.
- The product must be laid down prior to installation so that it cannot fall over.
- Check to make sure that the product doesn't have any visible defects.
- Check that the product is properly secured after it has been installed.
- Use the product's eyes to secure the cables with cable ties.
- Check that all cables are properly secured in place after installation.

Installation, dimensions and weights

WISE Colibri C SMB

Size	Dimensions (mm)										Weight (kg)
	A	B	C	ØD	Ød	E	F	G	H	K	
160	595	504	332	159	250	314	201	214	450	100	8.5
250	595	622	388	249	315	395	300	247	575	140	11.3

CL = Centreline

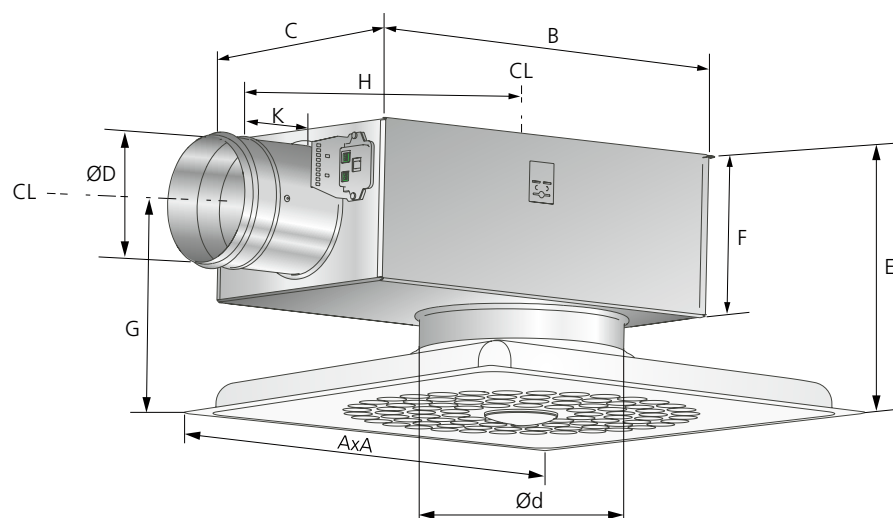


Figure 1. WISE Colibri C SMB, dimensions.

WISE Lockzone C SMB

Size	Dimensions (mm)										Weight (kg)
	A	B	C	ØD	Ød	E	F	G	H	K	
160	595	504	332	159	250	314	201	214	450	100	8.7
250	595	622	388	249	315	395	300	247	575	140	11.5

CL = Centreline

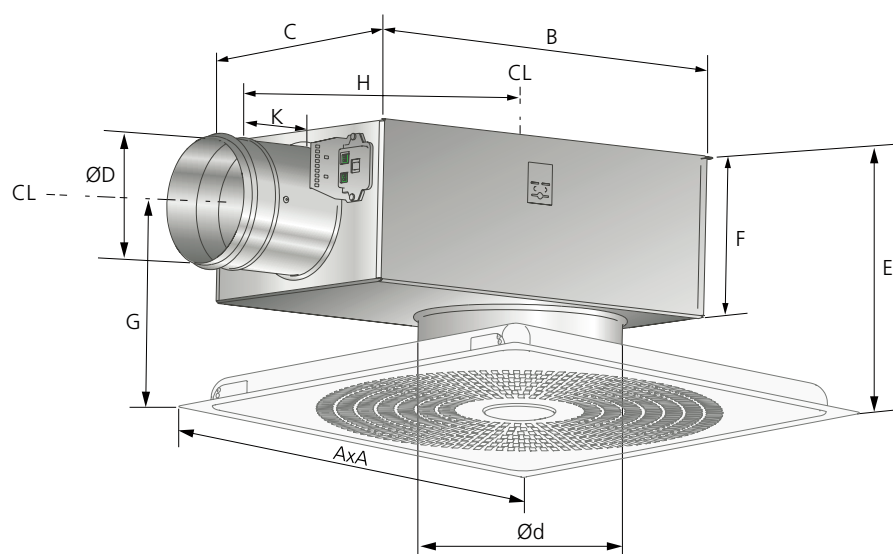


Figure 2. WISE Lockzone C SMB, dimensions.

WISE Kite CC SMB

Size	Dimensions (mm)										Weight (kg)
	A	B	C	ØD	Ød	E	F	G	H	K	
160	595	504	332	159	250	292	201	192	450	100	8.3
250	595	622	388	249	315	391	300	245	575	140	11.1

CL = Centreline

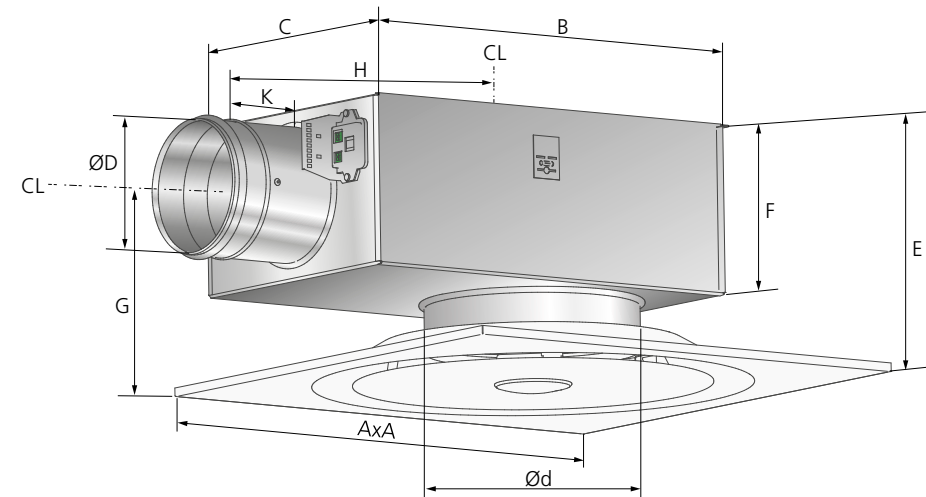


Figure 3. WISE Kite CC SMB, dimensions.

WISE Kite CR SMB

Size	Dimensions (mm)										Weight (kg)
	A	B	C	ØD	Ød	E	F	G	H	K	
160	595	504	332	159	250	284	201	184	450	100	8.2
250	595	622	388	249	315	383	300	237	575	140	10.9

CL = Centreline

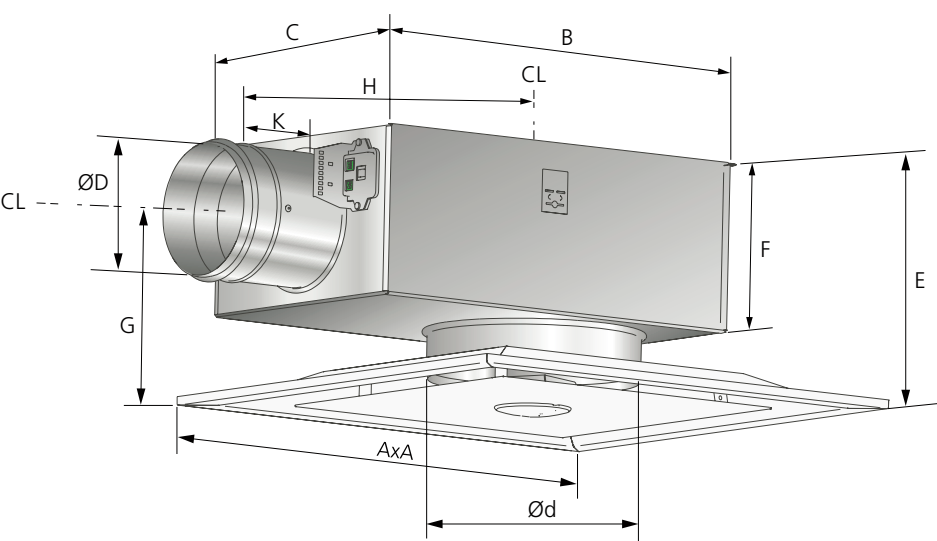


Figure 4. WISE Kite CR SMB, dimensions.

Installation

- WISE ALS air flow measurement requires a straight duct section before the product according to the installation figures.

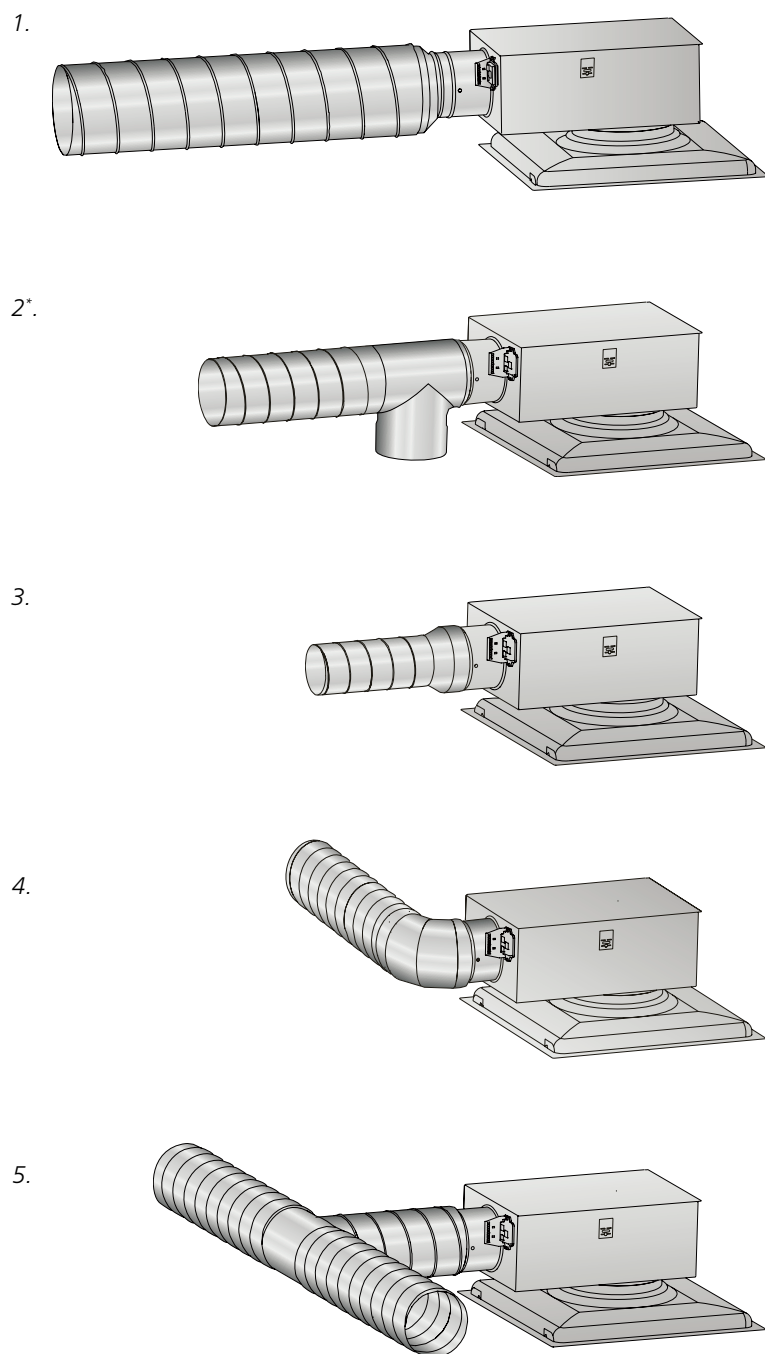


Figure 5. Straight duct section requirements.

1-3: Quantity Ø before the product: 0 x Ø.

4: Quantity Ø before the product: 1 x Ø.

5: Quantity Ø before the product: 2 x Ø.

*Cleaning hatch

Connection

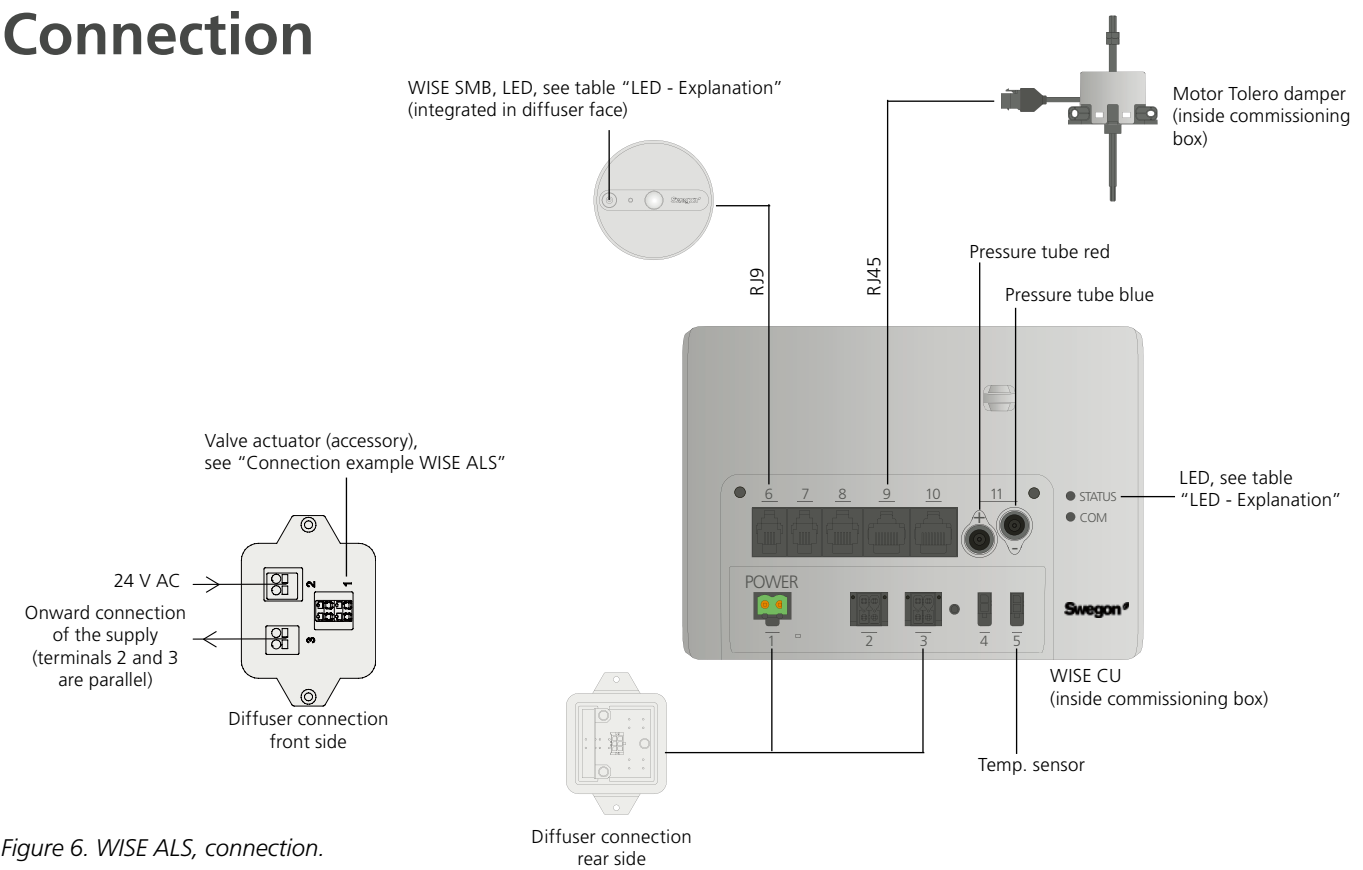


Figure 6. WISE ALS, connection.

LED - Explanation

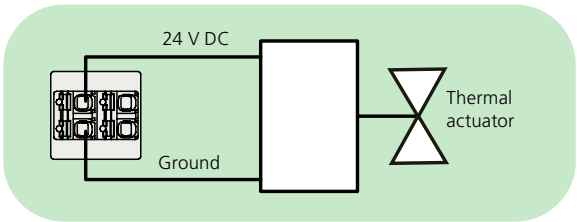
Not paired

	Colour	Type
Energised	White	Permanent
Selected in TuneWISE	White	Flashing, fast
Prepares to be added to the system	White	Flashing, slowly
Is adding to the system	White	Flashing, fast for 5 s

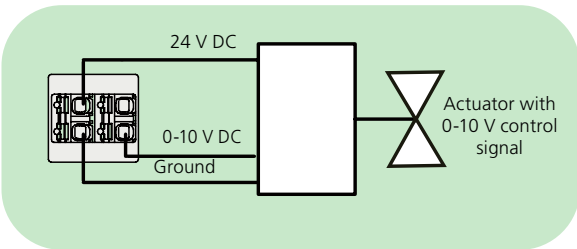
Paired

	Colour	Type
Normal operation	Green	Permanent
Restart	Blue	Permanent for 10 s
Initiation	Blue	Flashing
Air commissioning	Orange	Permanent
Water commissioning	Violet	Permanent
Commissioning air/ water	Orange/Violet	Alternating
Emergency mode	Green/Red	Alternating
Service mode	Blue	Short flash every 5 s

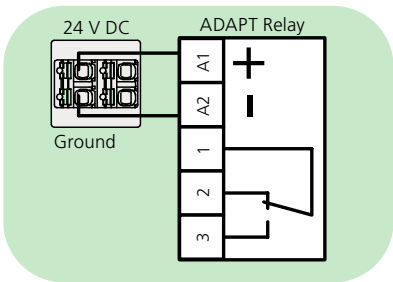
Connection example WISE ALS



Connection of thermal actuator



Connection of actuator with 0-10 V control signal.
NOTE! 24 V DC supply



Connection of relay for connection of additional actuators

Handling

Use TuneWISE for commissioning. Commissioning must be performed by qualified and trained WISE service engineers.

Use SuperWISE for settings, reading alarms, etc. See the User Manual for WISE.

Troubleshooting

The product is not shown in the system:

- Make sure that the product is energised (e.g. LED).
- Make sure that the product is paired.
- Make sure the product is in the right radio network.

The product shows incorrect/no air flow/pressure

- Make sure that the product is installed according to the recommended distance.
- Check that there is air flow/pressure.
- Make sure that the product is correctly oriented in terms of air flow direction.
- Check that the measuring tubes are mounted correctly.
- Check that the measuring tubes are undamaged.

The product does not regulate air flow/pressure

- Check that the damper insert is located correctly.
- Check that the damper cone has not become detached from its mount.
- Check that the damper motor is connected, and that it is on the right input.

The product shows incorrect/no temperature

- Make sure that the temperature sensor does not hang outside the product.
- Check that the temperature sensor is connected, and that it is on the right input.

Cleaning

Ideally, the product should be cleaned in connection with the cleaning of the rest of the ventilation system.

Cleaning of electrical components

- If needed, use a dry cloth to clean the components.
- Never use water, detergent and cleaning solvent or a vacuum cleaner.

External cleaning

- If necessary use tepid water and a well-wrung cloth.
- Never use detergent and cleaning solvent or a vacuum cleaner.

Internal cleaning

- The damper insert must be dismantled when cleaning the ventilation system.
- Cleaning equipment such as whisks and the like must not be fed through the damper insert.
- If necessary, remove dust and other particles that may be present in the product.
- Never use detergent and cleaning solvent or a vacuum cleaner.

Service/maintenance

- The product does not require any maintenance, except for any cleaning when necessary.
- In connection with a service, mandatory ventilation inspection or cleaning of the ventilation system, check that the general condition of the product appears to be good. Pay particular attention to the suspension, cables and that everything is firmly in place.
- It's not permissible to open or repair electrical components.
- If you suspect that the product or a component is defective, please contact Swegon.
- A defective product or component must be replaced by an original spare part from Swegon.

Materials and surface treatment

Commissioning box WISE ALS

- All sheet-metal parts are galvanised sheet steel (Z275).
- Internal sound-absorbing material is made of PET (polyethylene terephthalate), fire rating: B-s1, d0.

Air diffuser

See product data sheet for relevant diffuser.

Disposal

Waste must be handled according to local regulations.

Product warranty

The product warranty or service agreement will not be valid/extended if: (1) the product is repaired, modified or changed, unless such repair, modification or change has been approved in writing by Swegon AB; or (2) the serial number on the product has been made illegible or is missing.

Suspension of WISE ALS with diffuser and connection of WISE SMB

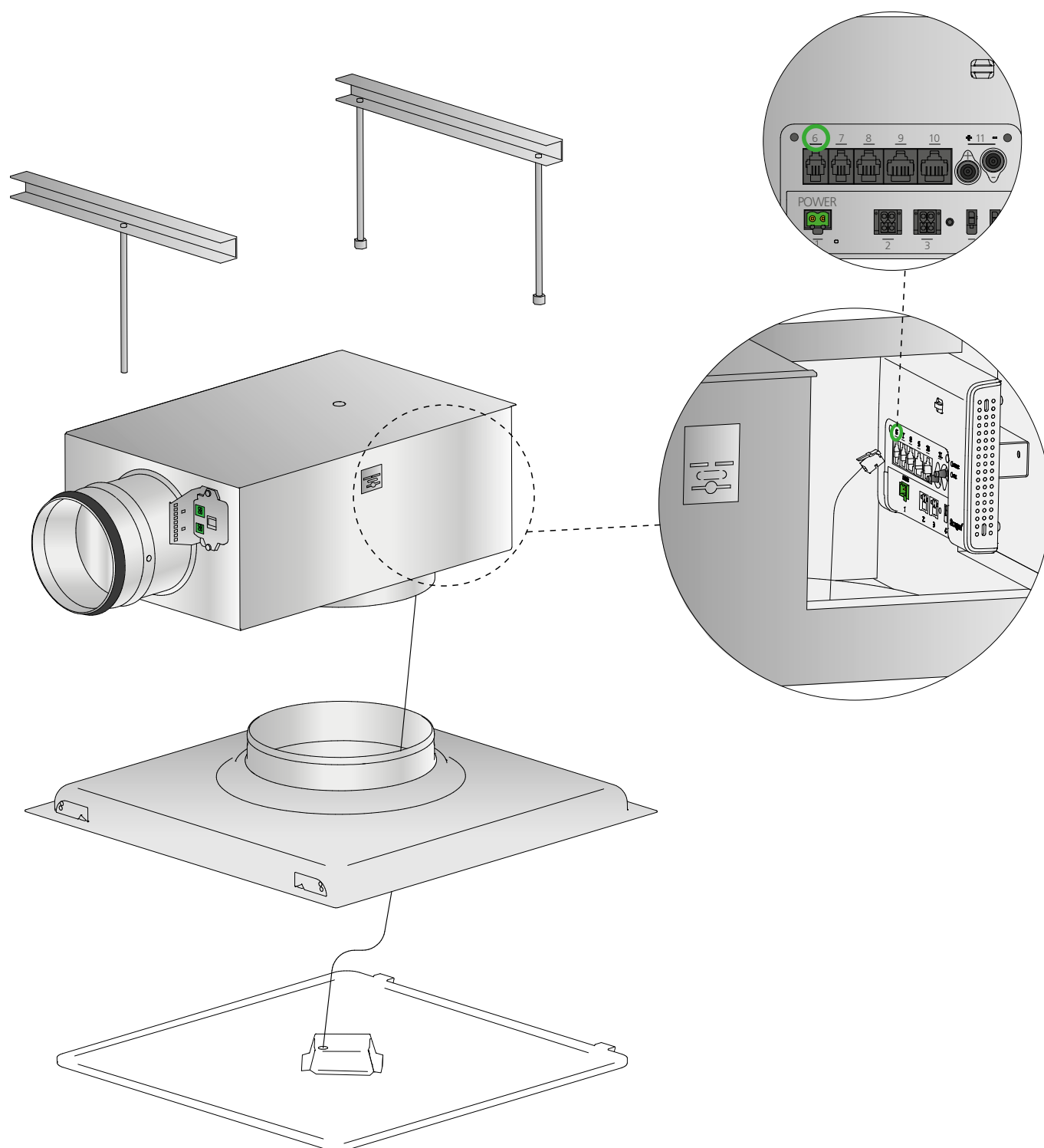
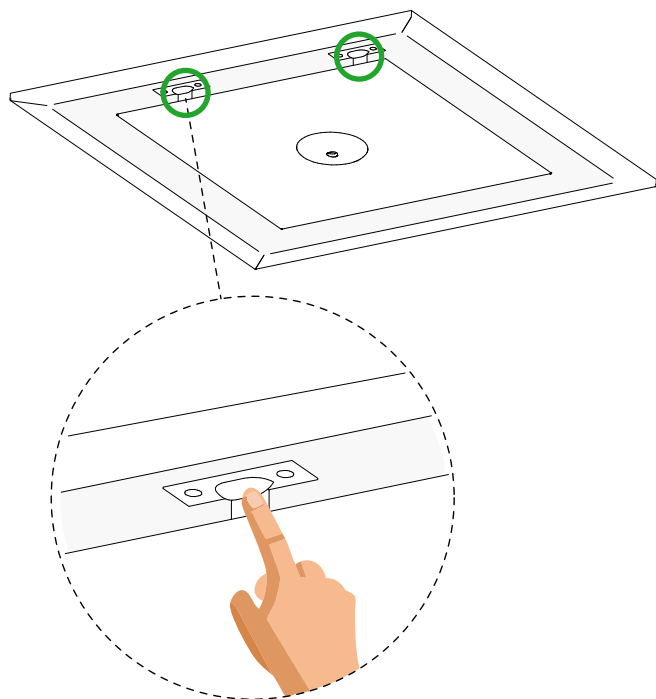


Figure 7. Suspension of WISE ALS with diffuser, connection of WISE SMB.

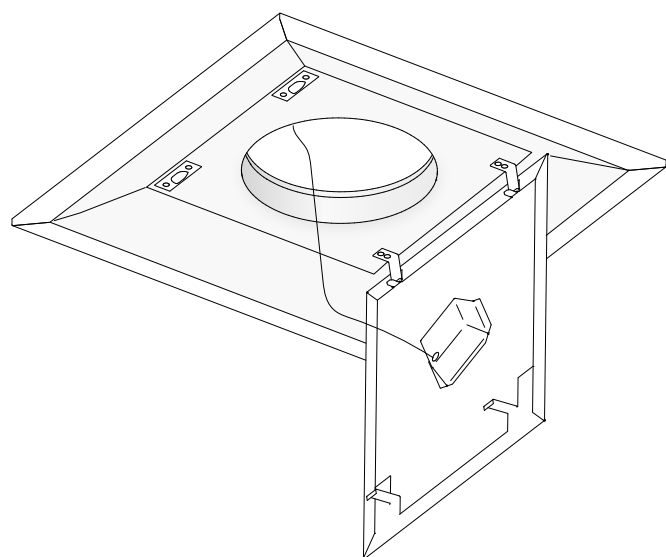
Dismantling the air diffuser face

Easy Access

Applies to the following air diffusers: KITE CC SMB, KITE CR SMB.



1. Locate the diffuser face's locking devices (2 pcs).
2. Press the spring fasteners (2 pcs) towards the centre of the diffuser, which releases the diffuser face.

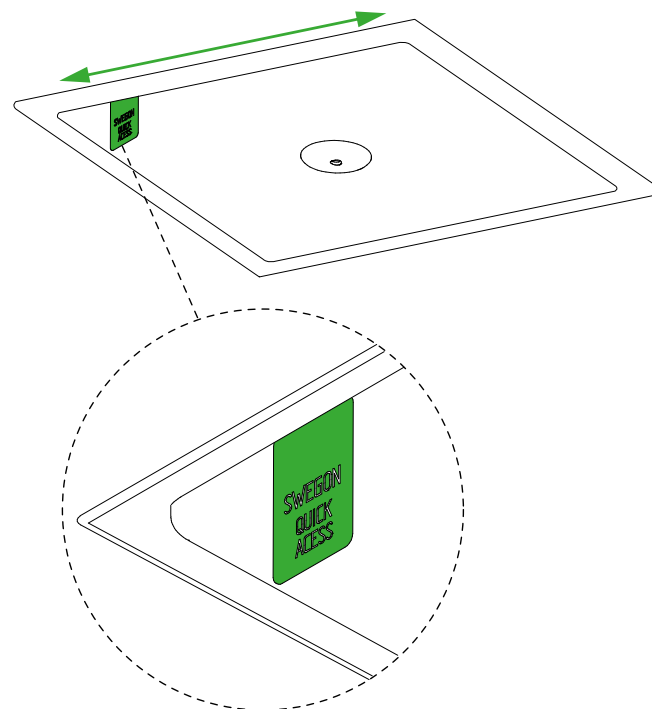


The diffuser face hangs on the corresponding side by the hinge.

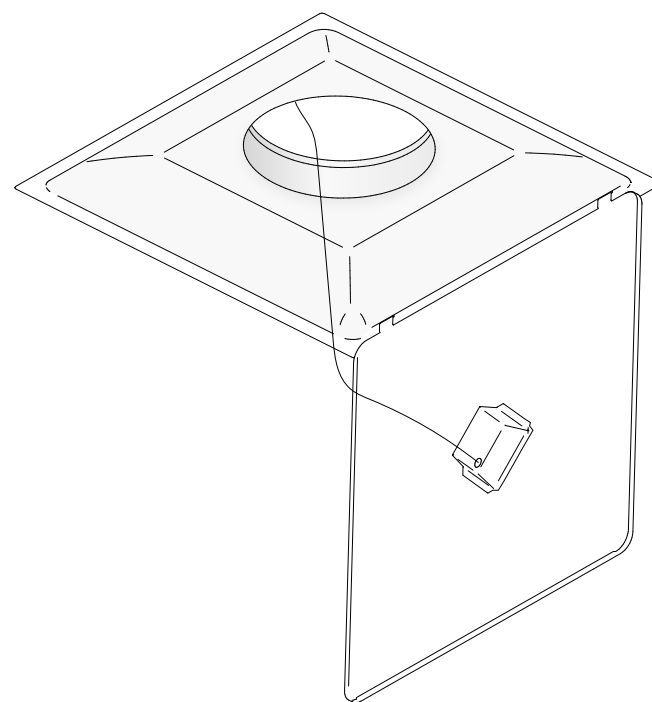
Figure 8. Dismantling of diffuser face for air diffusers with Easy Access.

Quick Access

Applies to the following air diffusers: COLIBRI CC VF SMB, LOCKZONE C VF SMB.



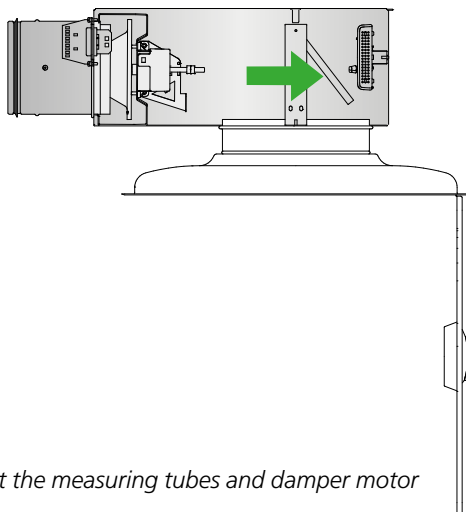
1. Be sure to have a Quick Access card or equivalent thin object available.
2. Pull the card into the gap on the diffuser face, which releases the diffuser face.



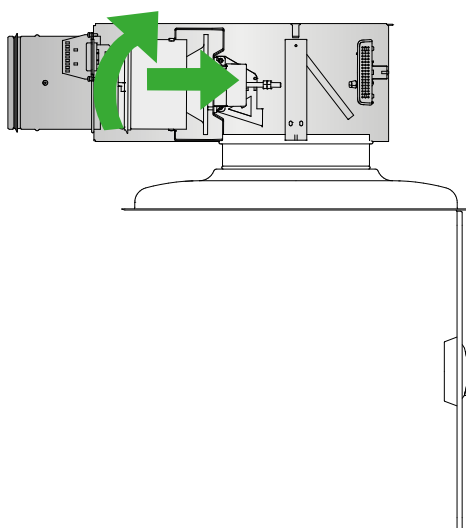
The diffuser face hangs on the corresponding side by the hinge.

Figure 9. Dismantling of diffuser face for air diffusers with Quick Access.

Dismantling the damper insert



1. Disconnect the measuring tubes and damper motor cable.
Fold away the perforated mesh.



2. Turn the damper insert so that the bayonet fitting releases.
Pull out the damper insert.

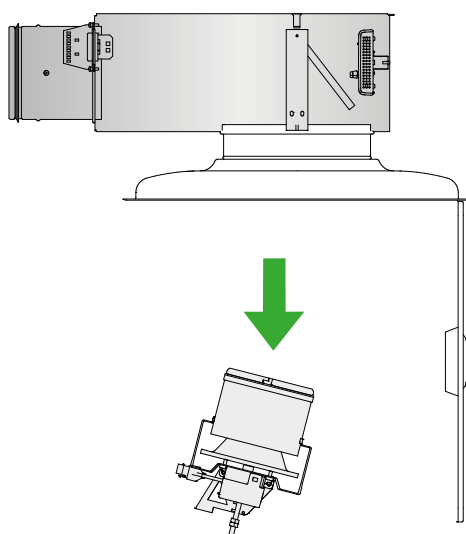
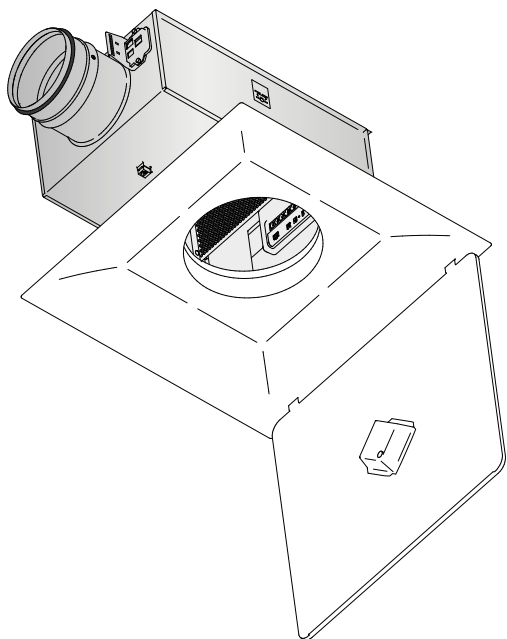
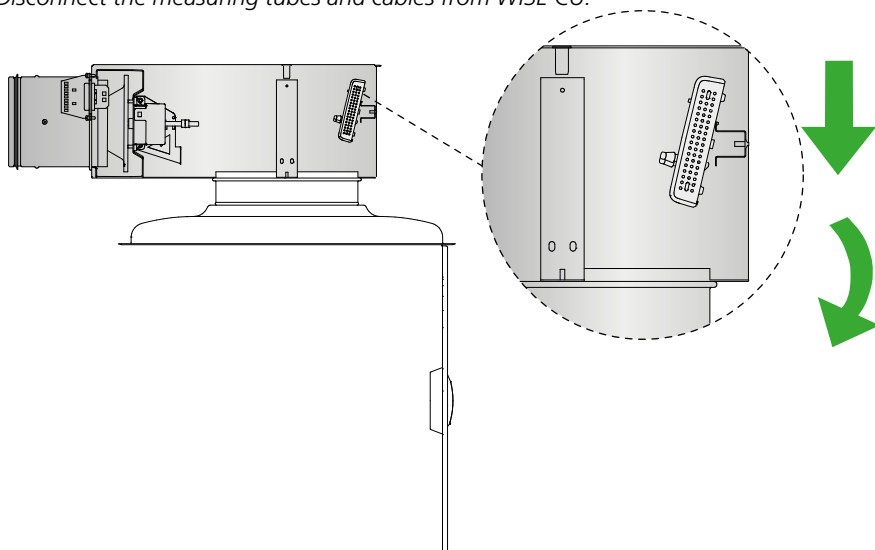


Figure 10. Dismantling the damper insert.
Reassemble in the reverse order.

Replacement of WISE CU



1. Disconnect the measuring tubes and cables from WISE CU.



2. Pull WISE CU downwards and angle out from the holder.

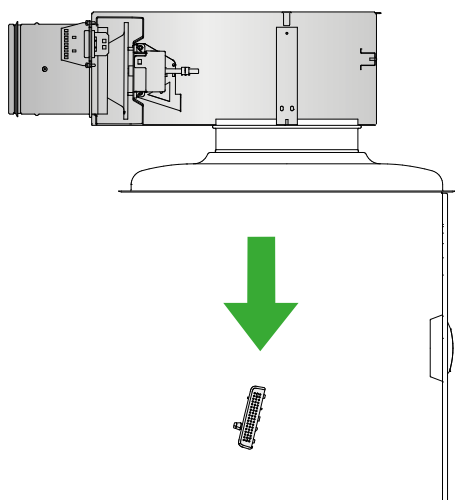


Figure 11. Replacement of WISE CU. Reassemble in the reverse order, and connect hoses and contacts to WISE CU, see "Connection". Apply the new supplied QR codes over the existing QR codes on the product.

Technical data

Output (ERP):	50 mW
Frequency band:	2.45 GHz, IMS band (2400-2483 MHz)
Temperature sensor:	0 – 50°C ± 0.5°C
Pressure sensor:	0 – 300 Pa
Flow tolerance:	Q±5%, however at least ±2 l/s
IP class:	IP20
Corrosivity class:	C3
Leakage class casing according to SS-EN 1751:	C
Running time open/close:	110 s
Ambient temperature	
Operation:	0 – 50°C
Storage:	-20 – +50°C
RH:	10 – 95% (non condensing)
CE marking:	2016/42/EC (MD) 2014/53/EU (RED) 2011/65/EU (RoHS)

Electrical data

Power supply:	24 V AC ±15% 50 – 60 Hz
Connections pipe dim.	
Power:	Push-in spring force connections max. 2.5 mm²
Valve actuator:	Push-in spring force connections, max. 1.5 mm²
Max. power consumption:	See table below

Variant	VA			
	Standard	+1 valve actuator	+2 valve actuator	+3 valve actuator
Ø160, Ø250	8	15	22	29


Declaration of Conformity

Swegon AB hereby affirms that:
WISE Colibri C SMBa, WISE Lockzone C SMBa, WISE Kite CR SMBa and WISE Kite CC SMBa with integrated radio, comply with the essential characteristic demands and relevant regulations specified in the following directives: 2006/42/EC (MD), 2014/53/EU (RED) and 2011/65/EU (RoHS2):

The following standards have been observed:

EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk mitigation
EN 60204-1:2006	Safety of machinery - Electrical equipment of machines - Part 1: Generic standards
EN 60730-1:2011	Automatic electrical control and control unit for household use - Part 1: Generic standards
EN 60730-2-14:2009	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electric actuators
IEC 60529:1992+A2:2013	Degrees of protection provided by enclosures (IP code)
EN 61000-6-2:2007	Electromagnetic compatibility (EMC). Generic standards. Immunity for industrial environments
EN 61000-6-3:2007	Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments
EN 300328 V1.9.2, V1.9.1, V1.8.1	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Wideband Transmission systems - Data transmission



Person responsible for this declaration:
Name: Freddie Hansson, R&D Manager Tomelilla
Address: Industrigatan 5, 273 21 Tomelilla, Sweden
Date: 15/04/2024 

This declaration is applicable only if the product has been installed according to the instructions in this document and if no modifications or changes have been made on this product.

References

- www.swegon.com
- Building Materials Declaration
- WISE Colibri Ceiling product data sheet
- WISE Lockzone Ceiling product data sheet
- WISE Kite Ceiling product data sheet
- WISE System Guide
- WISE User Manual
- WISE Project Planning Guide – Heating, cooling & ventilation
- WISE Project Planning Guide – Electricity & control