

# ALS

Commissioning box for diffusers



## QUICK FACTS

- The commissioning box is made of galvanized sheet steel
- Removable commissioning damper
- Fixed measurement tapings for airflow measurement
- Available with one change in dimension between the inlet and the outlet in the standard version as well as two changes in dimension for square ceiling diffusers.
- Available in a low version for square ceiling diffusers.
- The most commonly used diffusers are:  
CDD, CDK, CDR, CKD, CKP, COLIBRI C, EAGLE C,  
EAGLE S, FALCON C, HAWK C, KITE C, LOCKZONE C,  
LPA, PELICAN C
- The sound absorbent insulation is fire-resistance graded to B-s1,d0 in accordance with EN ISO 11925-2.

# Technical Description

## Design

The commissioning box in the standard version contains a removable commissioning damper, fixed measurement tappings and sound absorbent insulation.

The commissioning box is available with one or two<sup>\*)</sup> changes in dimension between the duct spigot and the diffuser connection. (Also called single-step and two-step<sup>\*)</sup>. The smallest dimension always refers to the duct spigot.) The commissioning box is also available in a low version if the space inside the ceiling void is restricted. The diffuser is then supplied without sleeve coupling on the outlet (diffuser connection).

<sup>\*)</sup>N.B.! Two changes in dimension between the inlet and outlet are available for the square ceiling diffusers only.

Air tightness class C, according to SS-EN 12237.

## Materials and finish

The ALS commissioning box is made of galvanized sheet steel and has internal sound absorbent insulation<sup>\*\*)</sup> with reinforced surface layer.

<sup>\*\*)</sup>Fire-resistance graded to B-s1,d0 in accordance with EN ISO 11925-2.

## Project design

Technical data are available in combination with each diffuser.

## Installation

Secure the commissioning box to the building structure by means of pop-nuts (1) or mounting brackets (2). See Figure 1.

The distance between the commissioning box and the diffuser can be increased with a circular duct by as much as 500 mm without having to lengthen the measuring tubes and damper adjustment cords. For details on how to install the diffuser, see the Installation and maintenance instructions for each relevant diffuser.

## Commissioning

Commissioning should always be carried out in combination with a diffuser. See the installation and maintenance instructions of the corresponding diffuser for specific commissioning procedure.

Measurement accuracy and requirement on straight duct before the commissioning box, see Figure 1. The requirement of straight duct depends on the type of disturbance before the commissioning box. Figure 1 shows a bend, a dimensional change and a T-piece. Other types of disturbances require at least 2xD straight (D = connection dimension) for measurement accuracy of ± 10% of the flow.

The commissioning box itself always has two measurement tubes: one for supply air and one for extract air.

### Supply air

Coloured measuring tube, red or blue. This tube is always marked with the text "TILLUFT / SUPPLY AIR".

- The RED measuring tube is always used if the commissioning box has one change in dimension between the duct spigot and the diffuser connection.
- The BLUE measuring tube is always used if the commissioning box has two changes in dimension between the duct spigot and the diffuser connection.

### Extract air

Transparent measuring tube; always marked with the text "FRÅNLUFT / EXTRACT AIR".

## Maintenance

The commissioning box has a removable commissioning damper, which enables cleaning of the duct system via the commissioning box. The interior surfaces of the box can be cleaned by vacuum cleaning using a brush nozzle. Turn the distribution plate inside the commissioning box to the side for access of the tubular damper casing.

Grab the handle of the tubular damper casing and rotate it out of its bayonet holder. For more info, please see the Installation and maintenance instructions for each relevant diffuser.

## Environment

The Building Material Declaration is available for downloading at [www.swegon.com](http://www.swegon.com).

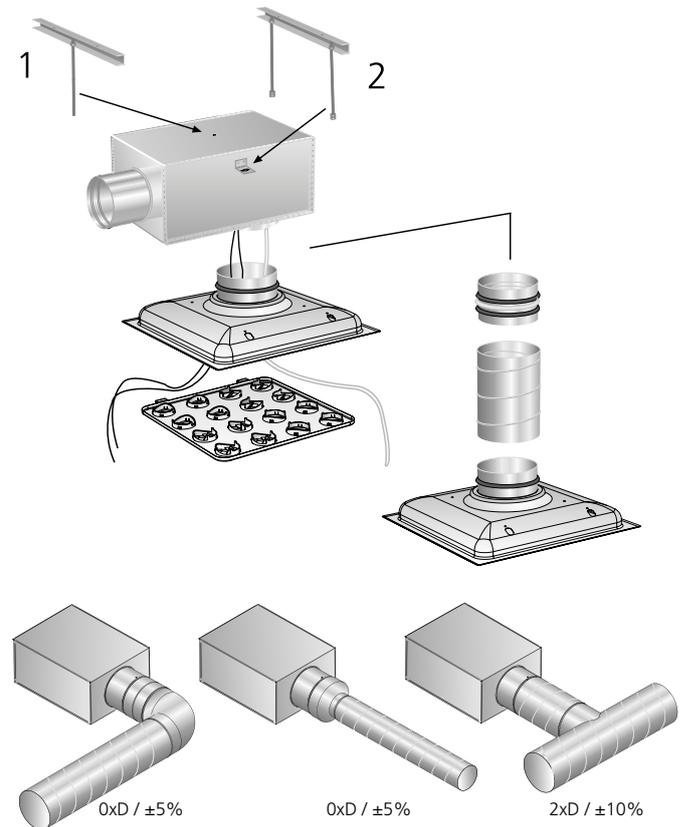


Figure 1. Installation  
1 = Pop-nuts  
2 = Mounting brackets

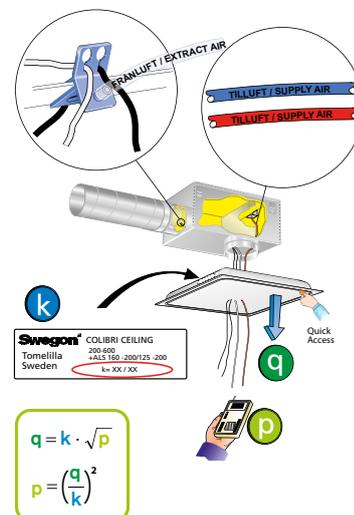


Figure 2. Measurement tubes for commissioning.

# Dimensions and weights Ordering key

Size	B	C	ØD	Ød	Weight, kg
80-100	227	192	79	100	1,5
100-125	282	217	99	125	2.1
100-160	342	252	99	160	2.0
125-160	342	252	124	160	2.9
125-200	404	288	124	200	3.5
160-200	404	288	159	200	4.1
160-250	504	332	159	250	5.2
200-250	504	332	199	250	5.7
200-315	622	388	199	315	7.8
250-315	622	388	249	315	8.5
315-400	767	488	314	400	11.8
400-500	887	588	399	500	18.5

Size	E*)	F	G	H	K
80-100	122	162	90	200	50
100-125	140	180	100	275	80
100-160	140	180	100	320	80
125-160	164	204	112	320	80
125-200	164	204	112	360	80
160-200	199	239	130	382	100
160-250	199	239	130	455	100
200-250	239	279	150	477	120
200-315	239	279	150	560	120
250-315	300	340	175	587	145
315-400	-	400	212	722	188
400-500	-	510	280	795	195

CL = Centre line

\*)E also refers to low installation height without a spigot.

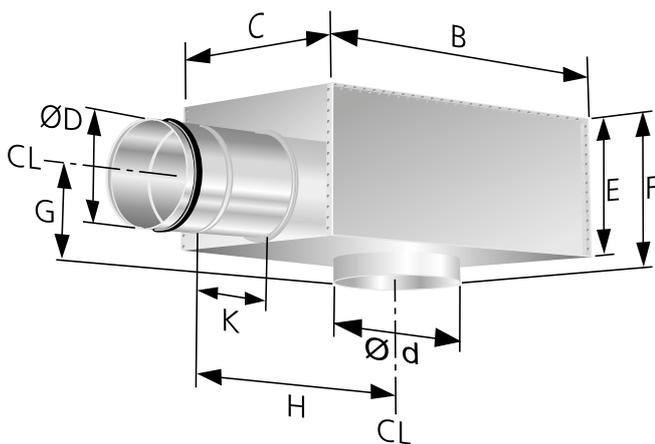


Figure 3. Dimensions and weights.

## Product

Commissioning box      ALS   d   -aaa -bbb   -c

### Version

aaa = Duct connection (ØD)  
bbb = Diffuser connection (Ød)

- Sizes:
- 80-100
  - 100-125
  - 100-160\*\*)
  - 125-160
  - 125-200\*\*)
  - 160-200
  - 160-250\*\*)
  - 200-250
  - 200-315\*\*)
  - 250-315
  - 315-400 (Not L-design)
  - 400-500 (Not L-design)

Low installation height: L\*\*\*)  
Specified only if low installation height is desired.

\*\*\*) ALS with two changes in dimension between the inlet and outlet can be selected in combination with square ceiling diffusers only.

\*\*\*) Low installation height can be selected in combination with square ceiling diffusers available in low versions.

## Specification text

Swegon's ALS commissioning box with the following functions:

- Removable commissioning damper
- Method of measurement with low method error
- Internal sound absorbing lining with fibre-migration-proof surface layer

Size:                      ALSd aaa-bbb-c                                      xx items