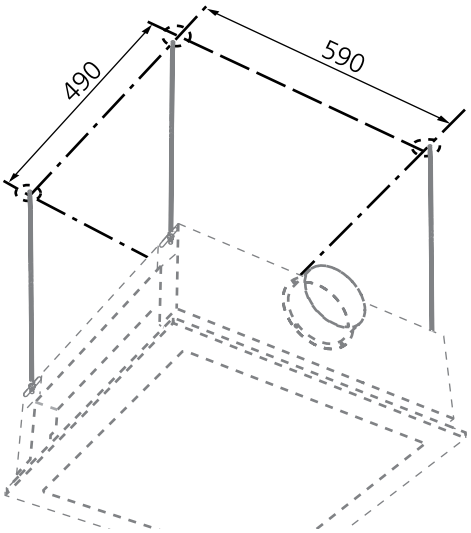
ADAPT PARASOL a

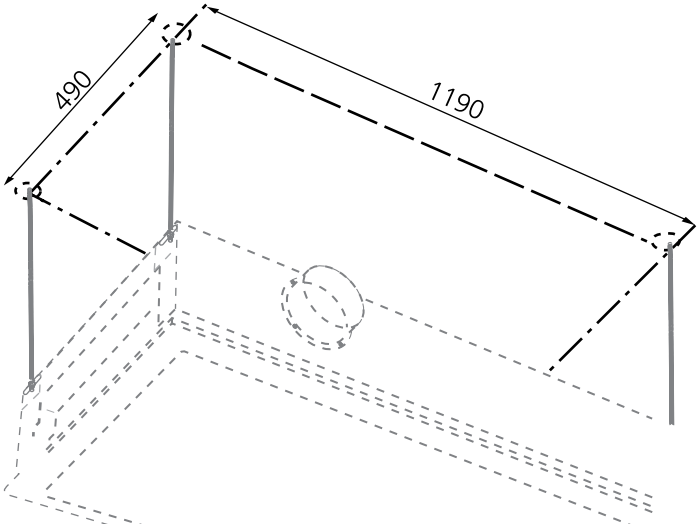
Installation - Commissioning - Maintenance

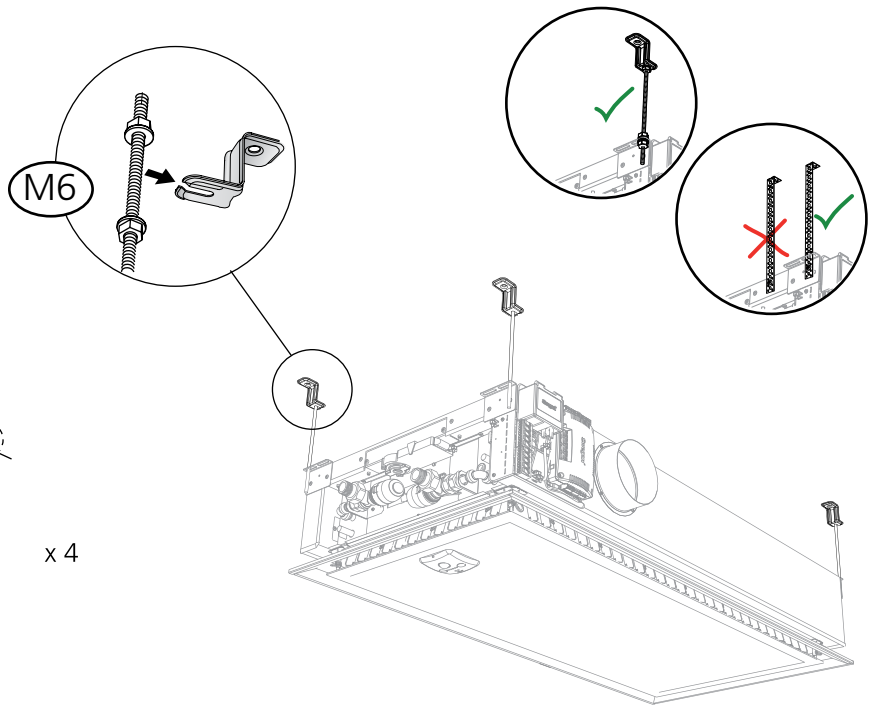
2013-12-04

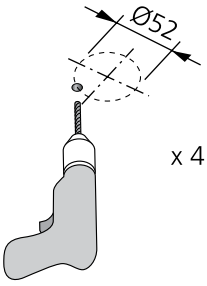
ADAPT Parasol 600 / 600 PF



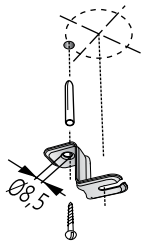
ADAPT Parasol 1200 / 1200 PF







x 4

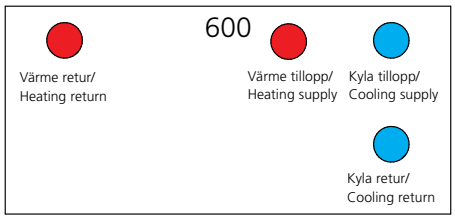


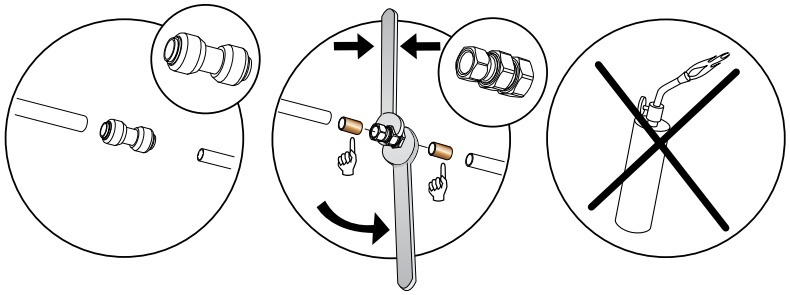
x 4

Water

Position of waterpipes

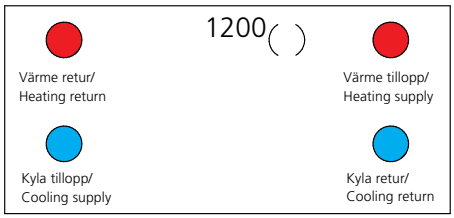
ADAPT Parasol 600 / 600 PF

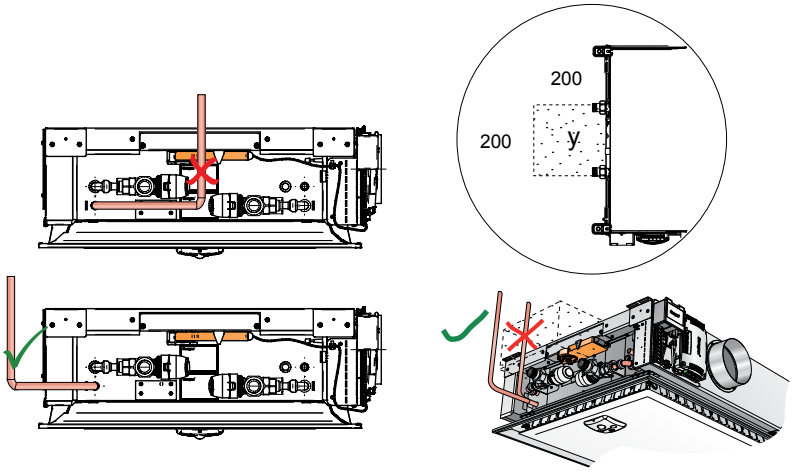




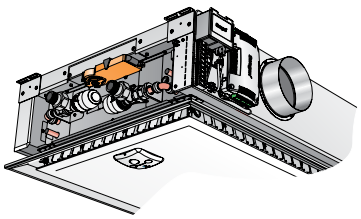
Note that clamp ring couplings require support sleeves inside the pipes.

ADAPT Parasol 1200 / 1200 PF

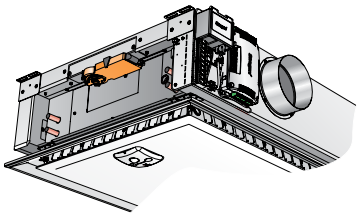




Note the need for a empty space in front of the motor in order to facilitate service.

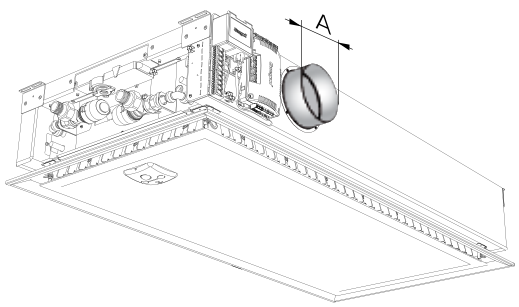


Water connections with factory-fitted valves
Connection dimensions
Cooling energy Male threads, DN15 (1/2")
Heat Male threads, DN15 (1/2")
(An ADAPT Parasol 1200 is shown in the example)



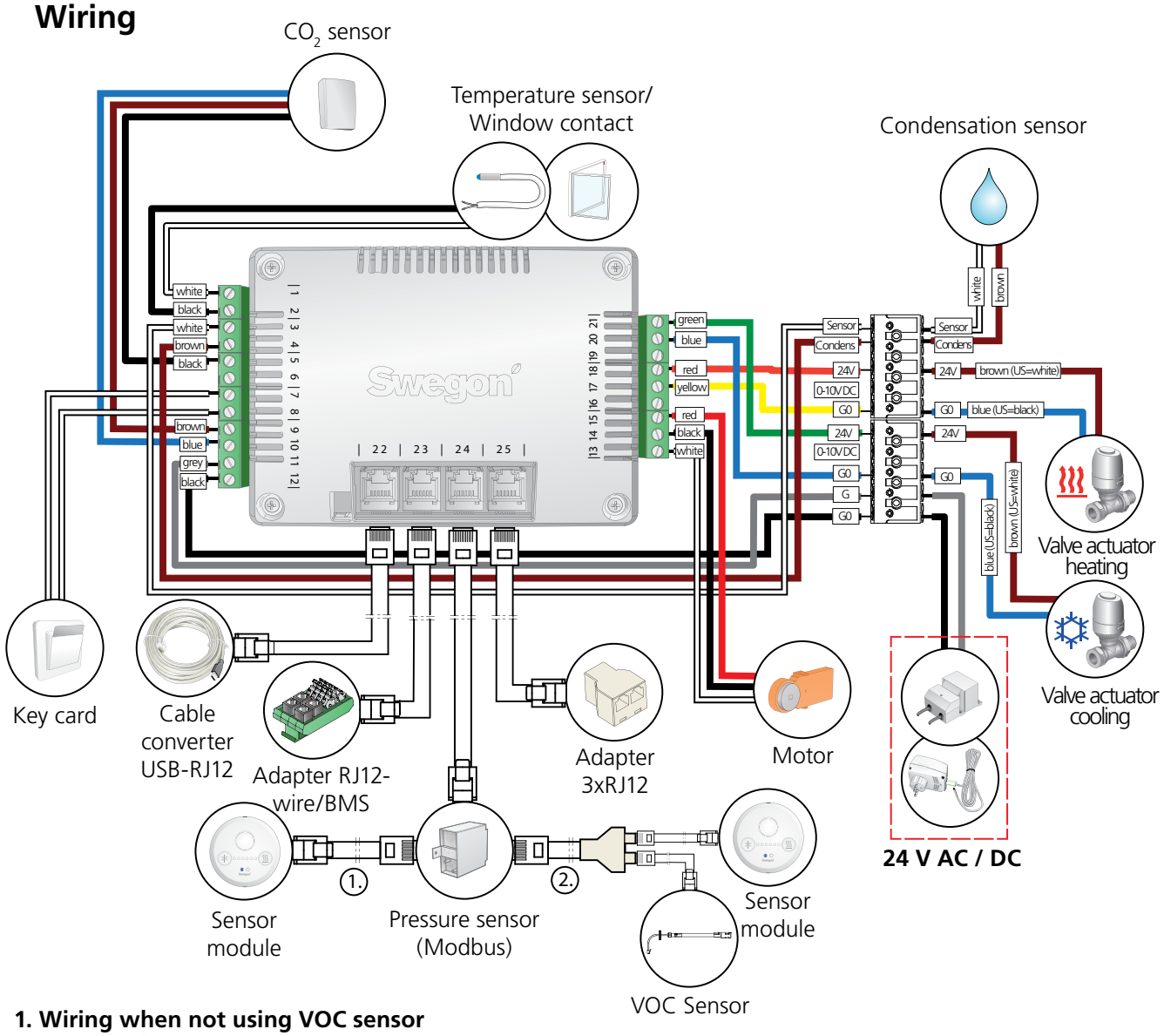
Water connections without factory-fitted valves
Connection dimensions
Cooling energy, flat tube end (Cu) Ø 12 x 1.0 mm
Heating, flat tube end (Cu) Ø 12 x 1.0 mm
(An ADAPT Parasol 1200 is shown in the example)

Air

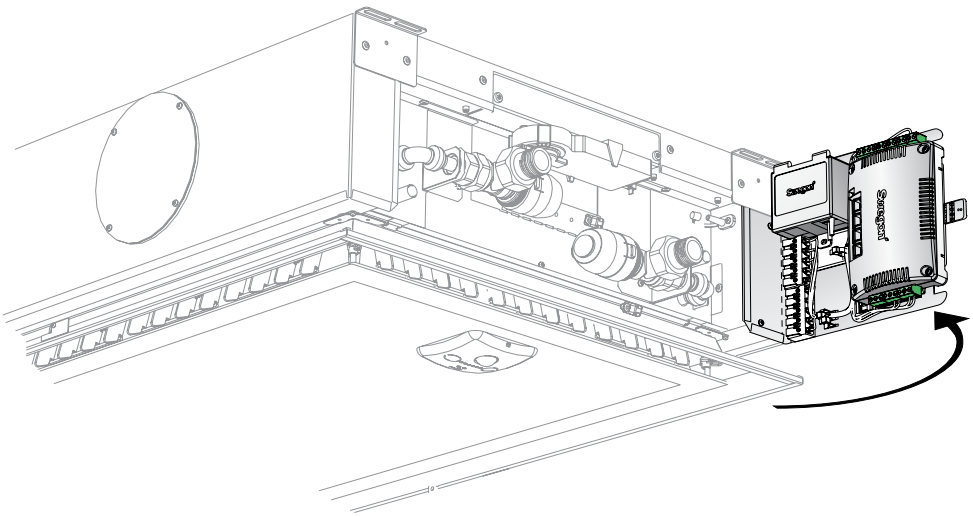


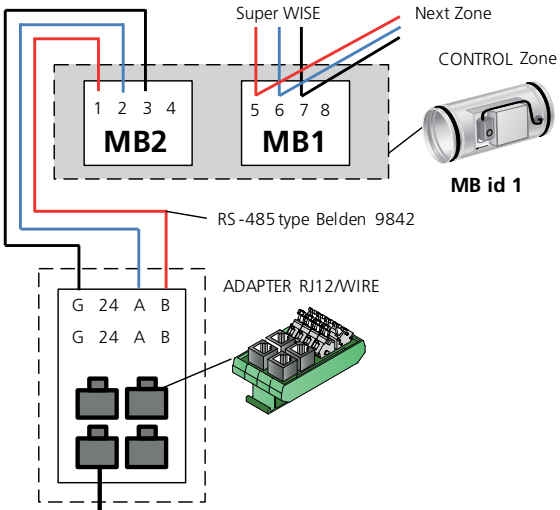
Unit	A =
ADAPT Parasol 600	Ø 125
ADAPT Parasol 600 PF	Ø 160
ADAPT Parasol 1200	Ø 125
ADAPT Parasol 1200 PF	Ø 160

Wiring

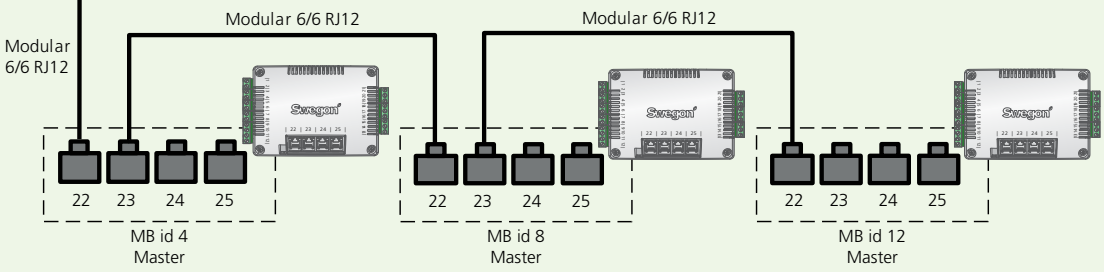


1. Wiring when not using VOC sensor
2. Wiring when using VOC sensor

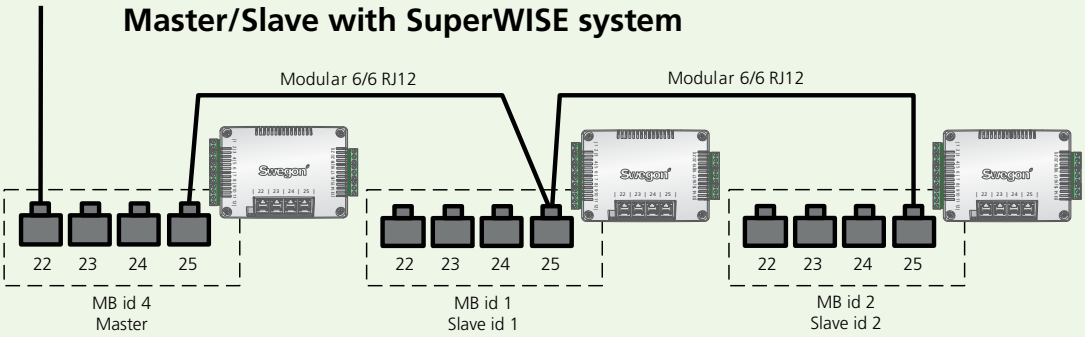




Master/Master with SuperWISE system

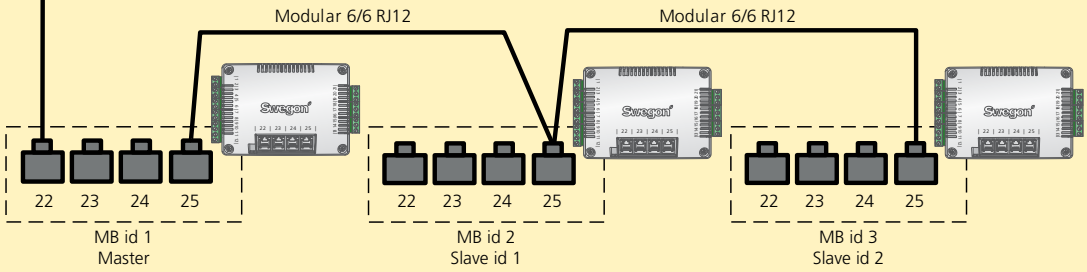


Master/Slave with SuperWISE system



BMS
RS 485

Master/Slave with BMS sytem

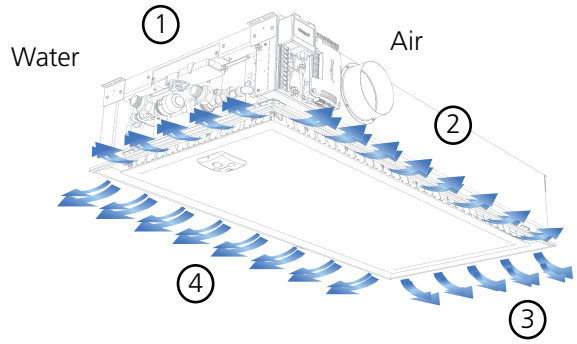


ADAPT PARASOL a

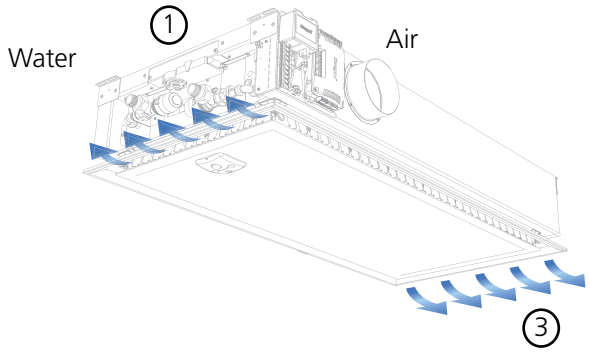
Installation - **Commissioning** -Maintenance

2013-12-04

K factor side 1 + 2 + 3 + 4 = k2 = max. flow



K factor side 1 + 3 = k1 = min. flow



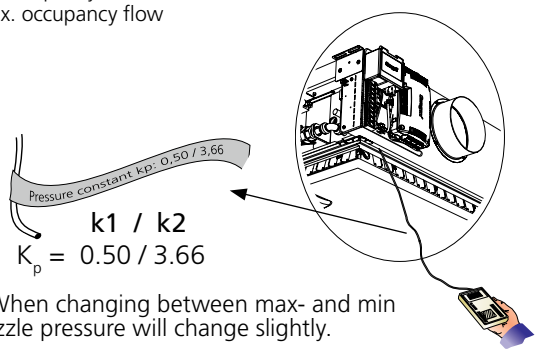
ADAPT Parasol	Nozzle setting per side	Side	k-factor per side *	**
600	L	1&3	0.253	0.253
600	L	2&4	0	0.253
600	M	1&3	0.44	0.44
600	M	2&4	0	0.44
600	H	1&3	0.693	0.693
600	H	2&4	0	0.693
600 PF	L	1&3	0.28	0.82
600 PF	L	2&4	0	0.745
600 PF	M	1&3	0.435	0.98
600 PF	M	2&4	0	0.905
600 PF	H	1&3	0.685	1.23
600 PF	H	2&4	0	1.15
1200	L	1&3	0.253	0.253
1200	L	2&4	0	0,665
1200	M	1&3	0.44	0.44
1200	M	2&4	0	1,16
1200	H	1&3	0.693	0.693
1200	H	2&4	0	1,825
1200 PF	L	1&3	0.28	0.82
1200 PF	L	2&4	0	2,05
1200 PF	M	1&3	0.435	0.98
1200 PF	M	2&4	0	2,43
1200 PF	H	1&3	0.685	1.23
1200 PF	H	2&4	0	2,98

*) = k-factor for adjusting the min. flow.
**) = k-factor for adjusting the max. flow.

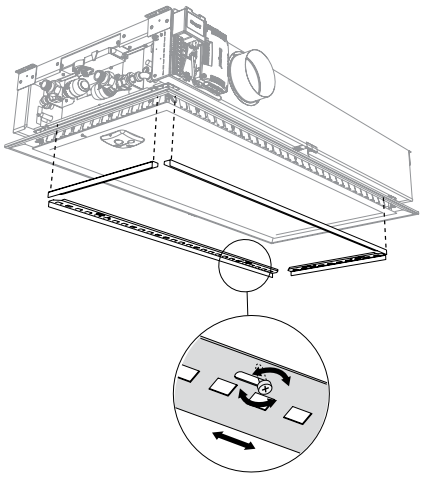
$$p_i = \left(\frac{q}{k}\right)^2 \ [Pa]$$
$$q = k \cdot \sqrt{p_i} \ [l/s]$$
[pi Pa]
q [l/s]
k = k-factor

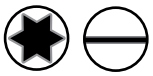
ADAPT Parasol	Example nozzle setting ***)	k_{pl} k1	k2
600	LLLL	0.51	1.01
600	LHLH	0.51	1.89
600	MMMM	0.88	1.76
600	HHHH	1.39	2.77
600 PF	LLLL	0.56	3.13
600 PF	LHLH	0.56	3.95
600 PF	MMMM	0.87	3.77
600 PF	HHHH	1.37	4.76
1200	LLLL	0.51	1,84
1200	LHLH	0.51	4,16
1200	MMMM	0.88	3,20
1200	HHHH	1.39	5,04
1200 PF	LLLL	0.56	5,74
1200 PF	LHLH	0.56	7,61
1200 PF	MMMM	0.87	6,82
1200 PF	HHHH	1.37	8,42

***) All four sides on the unit can be set individually. The designation of the nozzle setting follows the order of figures above.
k1 = No occupancy flow
k2 = Max. occupancy flow



NOTE: When changing between max- and min flow nozzle pressure will change slightly.

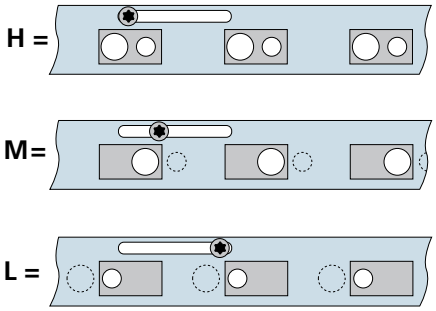


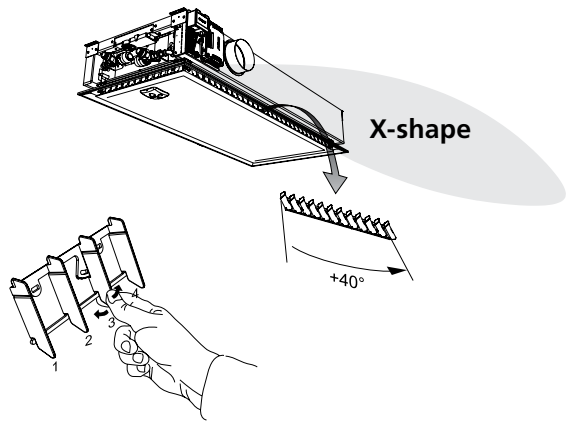


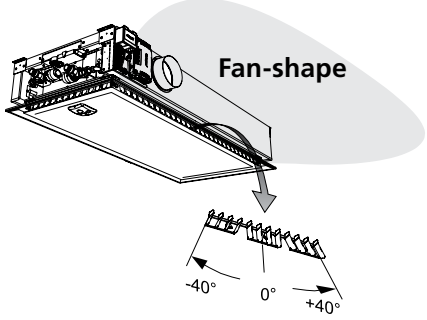
T-25 1 x 8

Nozzle configuration

H → M → L







Commissioning/checking the airflows

Constant pressure in the zone with zone damper CONTROL Zone or equivalent.

1. Check that all the Wise products are energised.
2. Ensure that all the ADAPT Parasol modules have their correct k-factors and minimum and maximum flows preset. Ensure that all are set to the maximum flow commissioning position, (3 blue + 3 red LEDs are lit).
3. Check the present flow compared with the maximum flow in the zone; adjust the pressure setpoint until the correct flow is obtained with TUNE Control. If Max. flow is not attained, temporarily close another zone damper / other zone dampers.
4. Measure and record airflow in the max flow position on one ADAPT Parasol in the zone.
5. Reset to the min flow position, measure and record airflow.
6. Set back to maximum flow.
7. Perform the same procedure on all the ADAPT Parasol modules in the zone.
8. Reduce the pressure setpoint setting on the zone damper if pressure is required for other zones, e.g. 5 Pa.
9. Commission the remaining zones, following the same procedure.
10. Check/commission the previous shut-off zones in the same way.
11. Restore the pressure setpoints on all the zone dampers.
12. Identify the reference zone, i.e. the zone with the lowest flow compared with the design maximum flow (e.g. by checking present airflow across each zone damper; using the TUNE Control hand unit).
13. Set the minimum flow on a number of ADAPT Parasol modules or use the zone damper for setting the minimum flow so that the ventilation system responds to the simultaneous load.
14. Now adjust the air handling unit's pressure setpoint until the zone damper of the reference zone is 85-90% open, (done by the SuperWISE, if it is used).
15. Restore all the settings and set all the ADAPT Parasol modules to normal position.

Menu:

To reach the menu, hold the left-hand and right-hand buttons down for five seconds.

With the left-hand button (❄) you advance through the menus. With the right-hand button (♨) you confirm your selection and return to the menu.

Press the left-hand button and select:
1. Alarm list
2. Commissioning
6. Return to menu

Press the right-hand button to confirm your selection

1. Alarm list: See the complete alarm list to the right.

2. Commissioning:

There are then six selections in the commissioning menu, (press the left-hand button to advance in the menu). When you have marked a selection, the controller goes directly to that operating mode.

2.1. Min airflow holiday ○ ○ ● ● ○ ○

2.2. Min airflow unoccupied ○ ● ○ ○ ● ○

2.3. Min airflow occupied ● ○ ○ ○ ○ ●

2.4. Max airflow occupied ● ● ● ● ● ●

2.5. Open cool valve ● ● ● ○ ○ ○

2.6. Open heat valve ○ ○ ○ ● ● ●

Press the right-hand button to return to the menu.

1 and 3 are not used if ECOPulse and 2Step are in use

3, 4, 5: Not used

6. Return to menu:

Alarm list for the sensor module

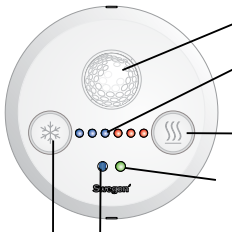
Alarm no.	Type of alarm	32	16	8	4	2	1
Alarm 1	Supply voltage low						●
Alarm 2	Supply voltage critically low					●	
Alarm 3	Ext temp missing					●	●
Alarm 4	Ext temp error				●		
Alarm 5	Condensation sensor error				●		●
Alarm 6	SM temp sensor error				●	●	
Alarm 7	SM button error				●	●	●
Alarm 8	CO_2 sensor missing			●			
Alarm 9	VOC Error			●			●
Alarm 10	Low pressure			●		●	
Alarm 17	SM comm error		●				●
Alarm 18	Slave comm error		●			●	
Alarm 19	Pressure sensor comm error		●			●	●
Alarm 20	VOC sensor comm error		●		●		
Alarm 21	No master request (slave)		●		●		●
Alarm 22	Slave incompatible version		●		●	●	
Alarm 25	Heating comfort alarm		●	●			●
Alarm 26	Cooling comfort alarm		●	●		●	
Alarm 27	Temp. Set point overlap alarm		●	●		●	●
Alarm 28	Air quality comfort alarm		●	●	●		
Alarm 29	Condensation		●	●	●		●
Alarm 33	24 V Out 1 overload error	●					●
Alarm 34	24 V Out 2 overload error	●				●	
Alarm 35	24 V Out 3 overload error	●				●	●
Alarm 41	Slave input common alarm	●		●			●
Alarm 42	Slave output common alarm	●		●		●	

The alarm is displayed by a number of diodes when you have selected Alarm list (1) in the menu.

Each diode represents a number as shown in the table above and the numbers should be added up to form an alarm number.

Ex. The centremost blue and the two last red diodes are lit (xoxxoo)

The centremost blue one corresponds to 16, the penultimate red one to 2 and the last red one to 1. The sum of these is 19, which is the alarm number.



Presence detector

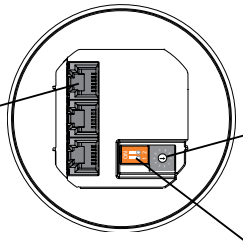
Diodes for temperature, commissioning or alarm indication

Function button

Diode-indicating function
- Green = Ok
- Flashing Green = Condensation alarm
- Yellow = Alarm
- Green/Yellow=Comfort alarm (not acute)

Temperature sensor

Function button



3 parallel RJ12 ports (Modbus) for connecting a controller, another sensor module or a computer, for example, by means of a Cable converter USB-RJ12

Dial for addressing the appropriate sensor module if several are used in the same loop. 10 senormodules can be connected to the same master, and each and one of them need an unique address.

Switch/Termination resistance. Switch 1 should be "on" for the last sensormodule in the loop.

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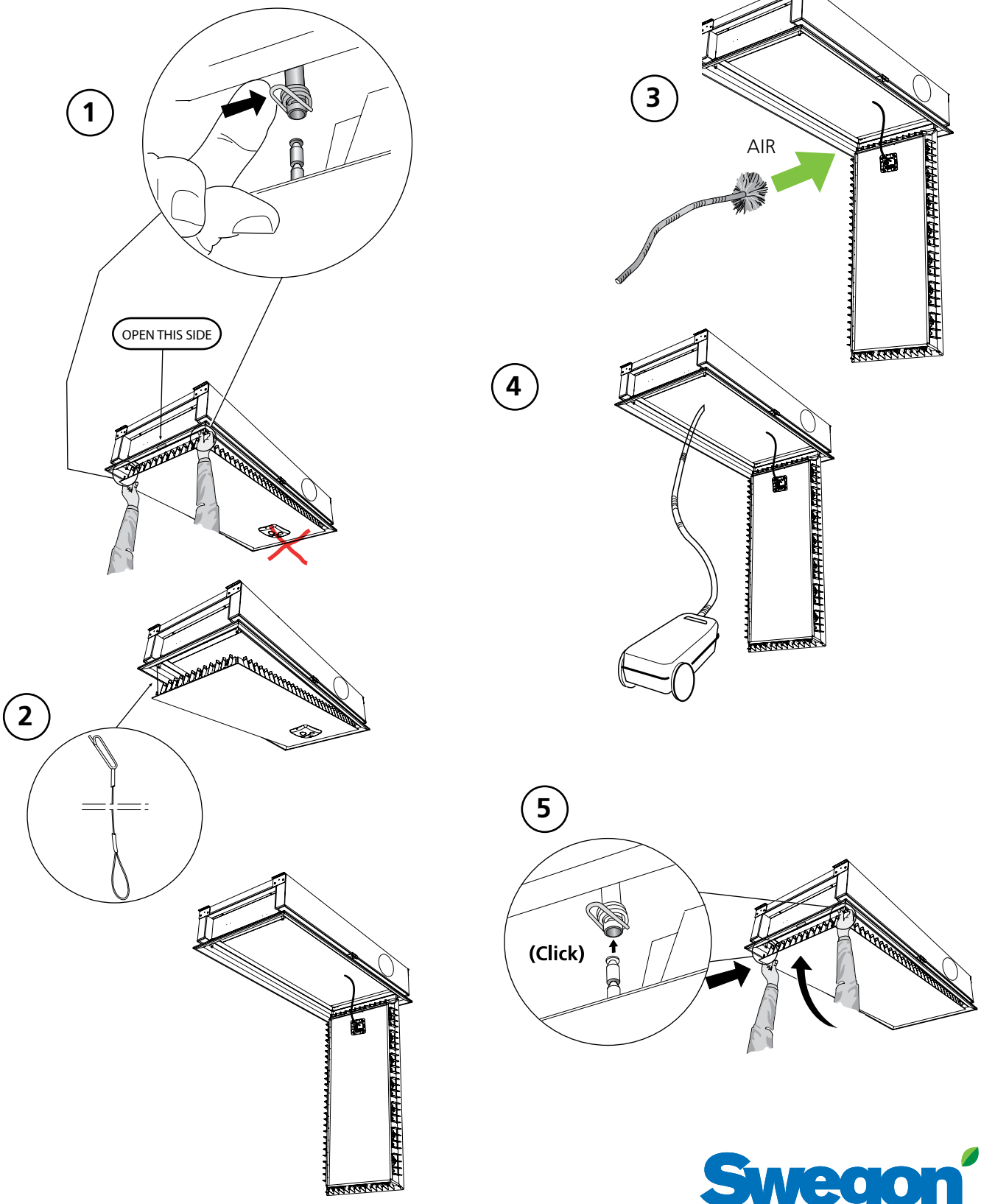

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