UK/IE

DucoBox Energy Comfort (Plus)

GREEN VENTILATION

STAY UP-TO-DATE !

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DUCO

Discover the magic of zonal ventilation

Bring fresh air into your life,
at the right time, in the right room

30% less noise

40% energy savings

WHY DUCO?

One-stop-shop for your end-to-end ventilation solution

Complete range of MEV and MVHR ventilation units, air ducts & accessories.

Smart demand control

The room is **only ventilated when necessary** and in the correct amount. CO_2 concentration and air humidity are used as indicators. This helps avoiding unnecessary heat loss while guaranteeing an optimal indoor climate.

High energy conversion efficiency

The combination of dynamic air distribution filters and **high performance heat exchangers** results in very high efficiency ratios.

The quietest systems

A comfortable indoor climate is created by **whisper-quiet ventilation systems**. DUCO excels in acoustics, especially where it matters most: the living areas and bedrooms.

Connectivity

The optional Duco Connectivity Board offers the possibility of integrating the DUCO ventilation systems with home automation and building management systems through **REST API** (local or via the cloud) or **Modbus TCP** (local). Both are possible via Ethernet or Wi-Fi.

Automatic calibration

The automatic calibration, whereby the measuring and adjustment technology is based on the principles of calibration under constant pressure, always offers a 100 % guarantee of a **qualitative end result** and translates into a 50 % saving in set-up time for the installer.

DUCO introduces
DEMAND-CONTROLLED VENTILATION

Historically, MVHR-units used to run **continuously**: 24 hours a day, 7 days a week. This was deemed to be "ok" as there was "heat recovery" anyway, and so the energy losses were deemed to be small.

DUCO feels that this **"old school"-way-of-thinking** is a thing of the past and decided to go a step beyond the "normal" operation mode of a "traditional" MVHR system.

So next to offering user control options on the display or via a remote control; next to offering the possibility to make the unit function on a time-schedule, DUCO also offers true **"on demand"** solutions which result in true energetically optimised ventilation-solutions: **only ventilate when necessary, where it is necessary and as long as it is necessary!**

LOCAL detection
Sensors in the room

CO_2 or humidity

Presence detection

CENTRAL detection
Sensors in the ventilation unit

CO_2 / humidity / presence detection

→ How does it work?

Sensors permanently measure the indoor air quality in a room (or centrally, depending on the case): if the indoor air quality (CO_2 or humidity) is found to be OK, the **ventilation is put to a strict minimum** (minimum energy consumption and minimum heat losses).

On the other hand, if the indoor air quality is found to be or become worry-some, the ventilation is triggered immediately in a modular way, i.e. more or less intense according to **intelligent algorithms** (energy is only used when needed to reach healthy indoor air).

With an **"on demand"** DUCO-system, the occupant can always be assured to breathe the best possible indoor air, whilst also using the least amount of energy! **DUCO brings you the SMARTEST ventilation solutions!**

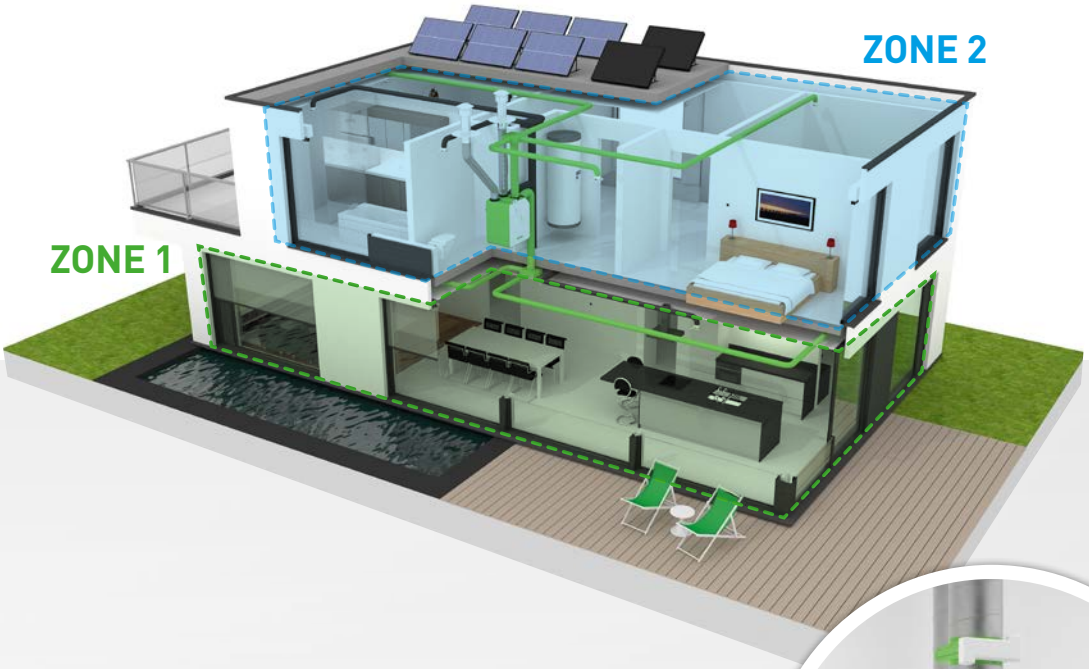
Check out our various control components from page 56 onward.

UNIQUE AT DUCO

MVHR SYSTEM

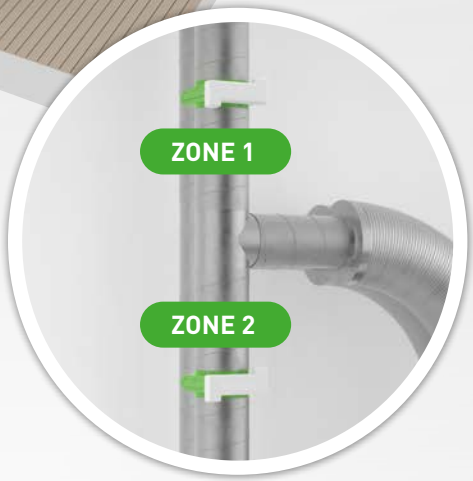
With the **DucoBox Energy Comfort (Plus) and the** DucoBox **Energy Comfort Premium** DUCO offers a unique ventilation system where 2-zone control can be realised on the supply.

If the air quality in a specific zone is found to be ok, ventilation in that zone is set to a minimum. **Cost savings for heating, lower consumption and acoustic comfort** are the logical consequences. But always with guaranteed indoor air quality!



Sensors meticulously detect the resident's movements throughout the home. This enables where, when and how much ventilation is required to be determined **automatically**.

By controlling both zones separately with an external valve, the consumption of the EC fans is significantly lower, which translates into lower electricity costs.



- Low energy consumption
- The quietest MVHR system in the market!
- Automatic calibration!

DucoBox Energy Comfort (Plus)

The **SMARTEST** MVHR system!

cool, temperate climate
CERTIFIED COMPONENT
Passive House Institute

A solution for every situation

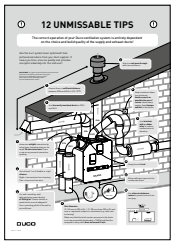
Flow rate up to 550 m³/h (at 200 Pa)

Left/right exchangeable

Exchange between left and right variant is carried out 100% by software

Automatic calibration

Calibration at constant pressure saves up to 50 % on the configuration time



Please refer to page 83 for essential installation tips!

DucoBox Energy Comfort (Plus)

MVHR

Up to **550m³/h** at 200 Pa

The DucoBox Energy Comfort is a compact and light **mechanical ventilation unit with heat recovery**. With a capacity of up to 400 m³/h, this is the basic ventilation solution for apartments and serial housing construction. In addition, the D325 variant weighs only 21 kg. In other words: easy **to install by one person**.

DucoBox Energy Comfort Plus was developed with the aim of guaranteeing an even **quieter operation** and to be able to offer **higher flow rates** (up to 550 m³/h).

Within the DucoBox Energy Comfort (Plus) range, the left/right exchange is 100% software-driven thanks to the **patented principle of the double by-pass**.

The demand control of the DucoBox Energy Comfort (Plus) results in **intelligent and energy-efficient operation**. Together with the smart demand control based on CO_2 and humidity, the dynamic air distribution filters ensure **exceptional efficiency** within this compact unit.
The compact and quick-to-install 2-zone valves provide the most energy-efficient result that can be achieved with an MVHR system. Please note that the **zone control** reduces the noise considerably! Comfort rules!

FEATURES

General features
Connection type
1 x extraction to outside (EHA)
1 x supply from outside (ODA)
1 x extraction from inside (ETA)
1 x supply to inside (SUP)
Energy label: A+
Communication:
RF and Wired. Expandable with Duco Connectivity Board (see 'Options & accessories') for REST API (local or cloud) and Modbus TCP (local), both via Ethernet / Wi-Fi

Comfort D325
Width x Height x Depth:
700 x 705 x 525 mm
Weight : 21 kg
Flow rate / pressure: 325 m³/h / 150 Pa
Number of air ducts: 4 x ∅ 160
Peak power: 2 x 59 W

Comfort D400
Width x Height x Depth:
756 x 800 x 584 mm
Weight: 31 kg
Flow rate / pressure: 400 m³/h / 200 Pa
Number of air ducts: 4 x ∅ 180
Peak power: 2 x 72,5 W

Comfort Plus D350 / D450 / D550
Width x Height x Depth:
760 x 803 x 584 mm
Weight: 47 kg
Flow rate / pressure:
D350: 350 m³/h / 200 Pa
D450: 450 m³/h / 200 Pa
D550: 550 m³/h / 200 Pa
Number of air ducts: 4 x ∅ 180
Max. power per motor:
D350: approx. 59 W
D450: approx. 98 W
D550: approx. 135 W

VENTILATION UNIT

Type of DucoBox	Passive House Certified Component	Plug	
Energy Comfort D325 (UK)	✕	G	0000-4658
Energy Comfort D400 (UK)	✕	G	0000-4757
Energy Comfort Plus D350 (UK)	✓	G	0000-4758
Energy Comfort Plus D450 (UK)	✓	G	0000-4759
Energy Comfort Plus D550 (UK)	✕	G	0000-4923

CONTROL COMPONENTS DucoBox Energy Comfort (Plus)

HUMIDITY SENSOR

This sensor is placed **in the extract air duct** (ETA) of the DucoBox Energy Comfort and centrally measures the **humidity** of the air extracted from the house. **A maximum of one Humidity Sensor (ETA) per unit.**

Peak power: < 1 W	**Communication:** via supplied cable	**Power supply:** From the DucoBox

Humidity Sensor DucoBox Energy Comfort (Plus)	0000-4723

The Humidity Sensor is installed in a borehole (∅ 10mm) in an extraction duct with diameter of your choice.

EXTERNAL 2-ZONE

The 2-zone control for the supply to the home is done quickly and discreetly by the compact iAV valves. A valve is provided for each branch to the various zones.

Peak power: 7 W	**Communication:** Wired connection to DucoBox	**Power supply:** 24 VDC (to be provided externally)

Multi-zone valve DucoBox Energy (Sensorless) ∅125	0000-4761
Multi-zone valve DucoBox Energy (Sensorless) ∅160	0000-4760

EXTERNAL CONTROL COMPONENTS

The DucoBox Energy Comfort can be linked with the following external control components.

User controls and room sensors	see page 56
Switch sensor (for switch detection)	see page 58

BASIC KITS

Basic kit Multizone D160 DucoBox Energy Comfort (Plus) Black	2 x Multi-zone valve DucoBox Energy (Sensorless) ∅160 1 x CO_2 Room sensor with control **RF/Wired Black** 1 x CO_2 Room sensor without control **RF/Wired Black** 1 x Duco Power supply 230VAC-24VDC/20W + casing	0000-4802

OPTIONS & ACCESSORIES DucoBox Energy Comfort (Plus)

Mounting Chair Standing (Energy Comfort D325)	0000-4546
Mounting chair Standing (Energy Comfort D400/Plus/Premium)	0000-4740

In situations where wall mounting of the DucoBox Energy Comfort (Plus) is not possible, this support frame enables floor mounting. Use of a flat siphon is required.

Width x Height x Depth (incl. DucoBox Energy Comfort D325): 700 x 828 x 525 mm
Width x Height x Depth (incl. DucoBox Energy Comfort D400): 700 x 933 x 525 mm
Width x Height x Depth (incl. DucoBox Energy Comfort Plus): 700 x 936 x 525 mm

Siphon flat (Energy)	0000-4376

This flat diaphragm siphon with a height of 64 mm saves space and has less of a risk of air leaks. The siphon can be installed 'dry' and does not dry out on warm days.

Filter set 2 x Coarse 65 % (Energy Comfort)	0000-4547
Filter set Coarse 65% / ePM1 55% (Energy Comfort D325)	0000-4661
Filter set 2 x Coarse 65% (Energy Comfort D400 / Comfort Plus)	0000-4741
Filter set Coarse 65% / ePM1 55% (Energy Comfort D400 / Comfort Plus)	0000-4742

The filter sets for the DucoBox Energy Comfort (Plus) include the following filters: For supply air (SUP): choice between Coarse 65% (≈ G4) or ePM1 55% filter (≈ F7). The ePM1 55% filter lets fewer fine particles through, which has a positive influence on air quality (e.g. for people who have allergies). For extract air (ETA): Coarse 65% filter (≈ G4)

Coaxial cable set 8 m	0000-4418

The set comprises an 8 m long coaxial cable with pre-fitted connectors at both ends. This set can be used to relocate the DucoBox Silent Connect, DucoBox Focus or DucoBox Energy Comfort / Premium antenna, if necessary, to a spot where the RF range is optimal.

Duco Connectivity Board	0000-4810

The optional Duco Connectivity Board can be applied within the DucoBox Silent Connect, DucoBox Focus and DucoBox Energy. This PCB enables interfacing towards home automation and building management systems via REST API (locally or via the cloud) or Modbus TCP (locally). Both are possible via Ethernet or Wi-Fi. The Duco Connectivity Board also enables the Duco Installation App to be used.

Connection piece with joint D160/D160 (M/M)	0000-4724
Connection piece with joint D180/D160 (M/M)	0000-4725
Connection piece with joint D180/D180 (M/M)	0000-4726
Connection piece with joint D200/D180 (M/M)	0000-4727

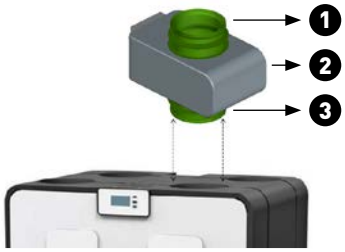
The connection pieces with joint are used to make a quick and good connection between ducts (extraction and/or supply) or between a duct and a DucoBox. Thanks to the pre-fitted rubber seal, an airtightness class of up to D can be guaranteed at the connection! They are available in 4 versions: ∅160/∅160, ∅160/∅180, ∅180/∅180 and ∅180/∅200... a solution for every situation!

Pre-Heater DucoBox Energy Comfort (Plus) (UK) **1425W**	0000-4825

The Pre-heater is a frost protection based on an electrical resistance of up to 1425W that can optionally be applied in the ODA connection of DucoBox Energy Comfort (Plus). The resistance is modulatively controlled based on various temperature readings in the ventilation unit.

The heater is attached between the unit and the air duct via connectors. The connectors depend on the type of unit and the flow rate. Refer to the table below for the right combination.

Type of unit	Flow rate	1 Connector	2 Heater	3 Connector
D325	Up to 250 m³/h	D160/D180 0000-4725	Pre-Heater 0000-4825	D160/D180 0000-4725
	Up to 350 m³/h	D180/D180 0000-4726		D160/D180 0000-4725
D400 Plus D350 Plus D450 Plus D550	Up to 250 m³/h	D160/D180 0000-4725		D180/D180 0000-4726
	Up to 350 m³/h	D180/D180 0000-4726		D180/D180 0000-4726
	Up to 550 m³/h	D180/D200 0000-4727		D180/D180 0000-4726



Duco Power supply 230VAC-24VDC/20W + casing	0000-4763

The Duco Power Supply 230VAC-24VDC/20W is the best solution to power Duco Wired components from a central 230V connection. The component comes with a surface-mounted junction box as standard. The sum of the peak power of all connected DUCO components can be 20W at most when using one Power Supply.

Flow regulator 15-50 m³/h ∅80	0000-4722
Flow regulator 15-50 m³/h ∅125	0000-4836
Flow regulator 50-100 m³/h ∅125	0000-4837

The adjustable flow regulator is an element that is placed in a duct to obtain a constant flow in a pressure range between 50 and 250 Pascal. It is used for both supply and extraction.

NO humidity measurement

1-ZONE SYSTEM

cool, temperate climate
CERTIFIED COMPONENT
Passive House Institute
*

Duco Energy Comfort (Plus) System

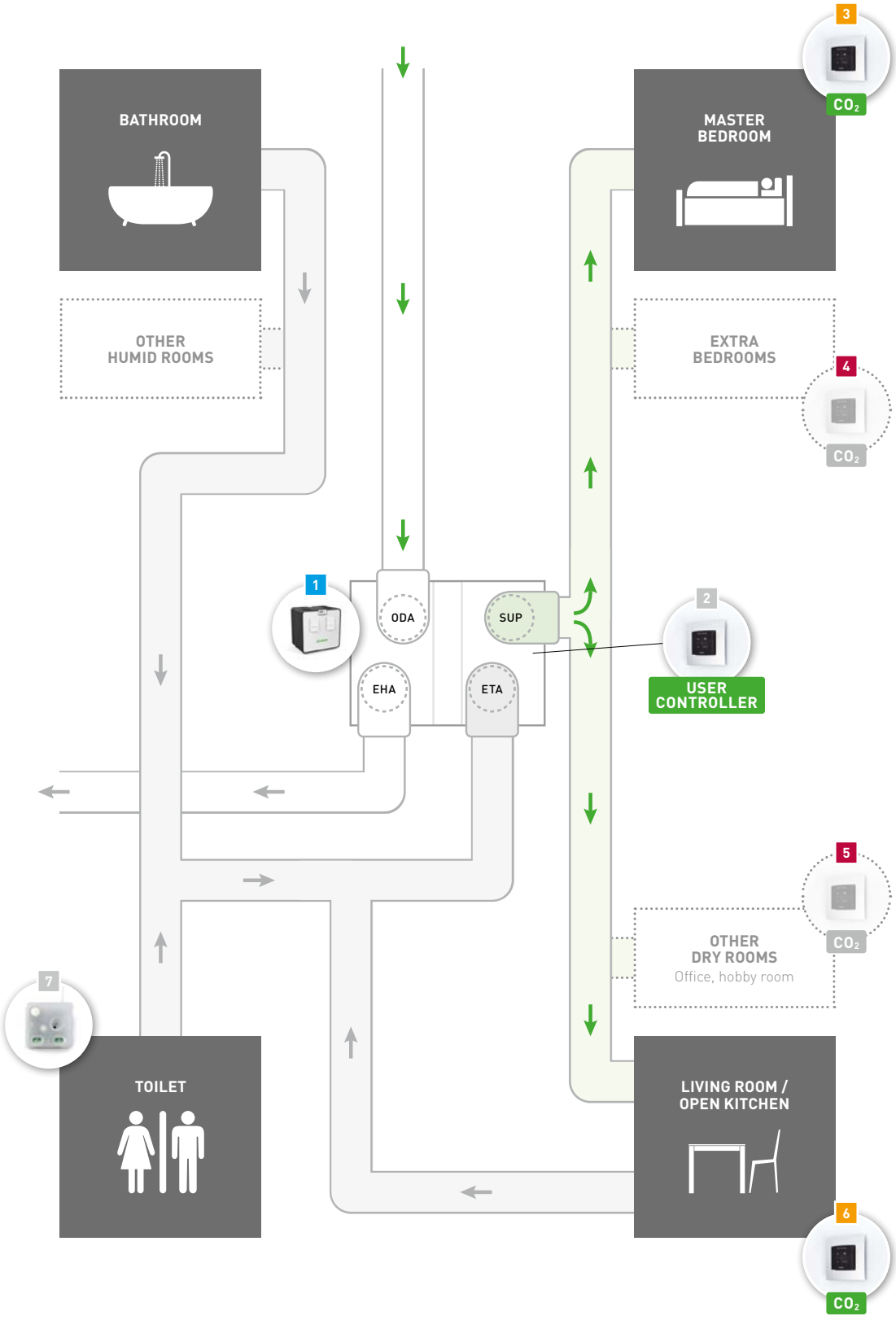
MVHR | Central ventilation (1-zone) | Up to 550 m³/h at 200 Pa

COMPONENTS

			Component on diagram
DucoBox Energy Comfort D325 (UK)	0000-4658		1
DucoBox Energy Comfort D400 (UK)	0000-4757		
DucoBox Energy Comfort Plus D350 (UK)	0000-4758		
DucoBox Energy Comfort Plus D450 (UK)	0000-4759		
DucoBox Energy Comfort Plus D550 (UK)	0000-4923		
	Black	White	
Remote control **RF / Wired**	0000-4601	0000-4602	2
Remote control **RF / Battery**	0000-4175	0000-4600	
CO_2 Room sensor **with** control **RF/Wired**	0000-4603	0000-4604	3 6
CO_2 Room sensor **without** control **RF / Wired**	0000-4636	0000-4637	4 5
Switch sensor **RF/230 VAC**	0000-4174		7
Duco Connectivity Board	0000-4810		
Pre-Heater DucoBox Energy Comfort (Plus) (UK) **1425W**	0000-4825		

→ See chapter 'Vents' from page 66 for more information on all types of vents.

* Passive House Institute certificate only for DucoBox Energy Comfort Plus D350/D450 units with pre-heater and a maximum flow rate between: 160 m³/h and 238 m³/h for the D350 variant and 155 m³/h and 308 m³/h for the D450 variant.



Detection		Required components	Optional components
Humidity	CO_2		
✗	✗	■	■
✗	Main rooms	■ + ■	■
✗	All rooms	■ + ■ + ■	■

→ Extraction of stale air

→ Supply of fresh air

The illustration shows a right-hand variant of the DucoBox Energy Comfort (Plus).

CENTRAL
humidity
measurement

1-ZONE
SYSTEM

cool, temperate climate
CERTIFIED COMPONENT
Passive House Institute
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Duco Energy Comfort (Plus) System

MVHR | Central ventilation (1-zone) | Up to 550 m³/h at 200 Pa

COMPONENTS

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DucoBox Energy Comfort Plus D350 (UK)	0000-4758		
DucoBox Energy Comfort Plus D450 (UK)	0000-4759		
DucoBox Energy Comfort Plus D550 (UK)	0000-4923		
Humidity Sensor DucoBox Energy Comfort (Plus)	0000-4723		7
	Black	White	
Remote control **RF / Wired**	0000-4601	0000-4602	2
Remote control **RF / Battery**	0000-4175	0000-4600	
CO_2 Room sensor **with** control **RF/Wired**	0000-4603	0000-4604	3 6
CO_2 Room sensor **without** control **RF / Wired**	0000-4636	0000-4637	4 5
Switch sensor **RF/230 VAC**	0000-4174		8
Duco Connectivity Board	0000-4810		
Pre-Heater DucoBox Energy Comfort (Plus) (UK) **1425W**	0000-4825		

→ See chapter 'Vents' from page 66 for more information on all types of vents.

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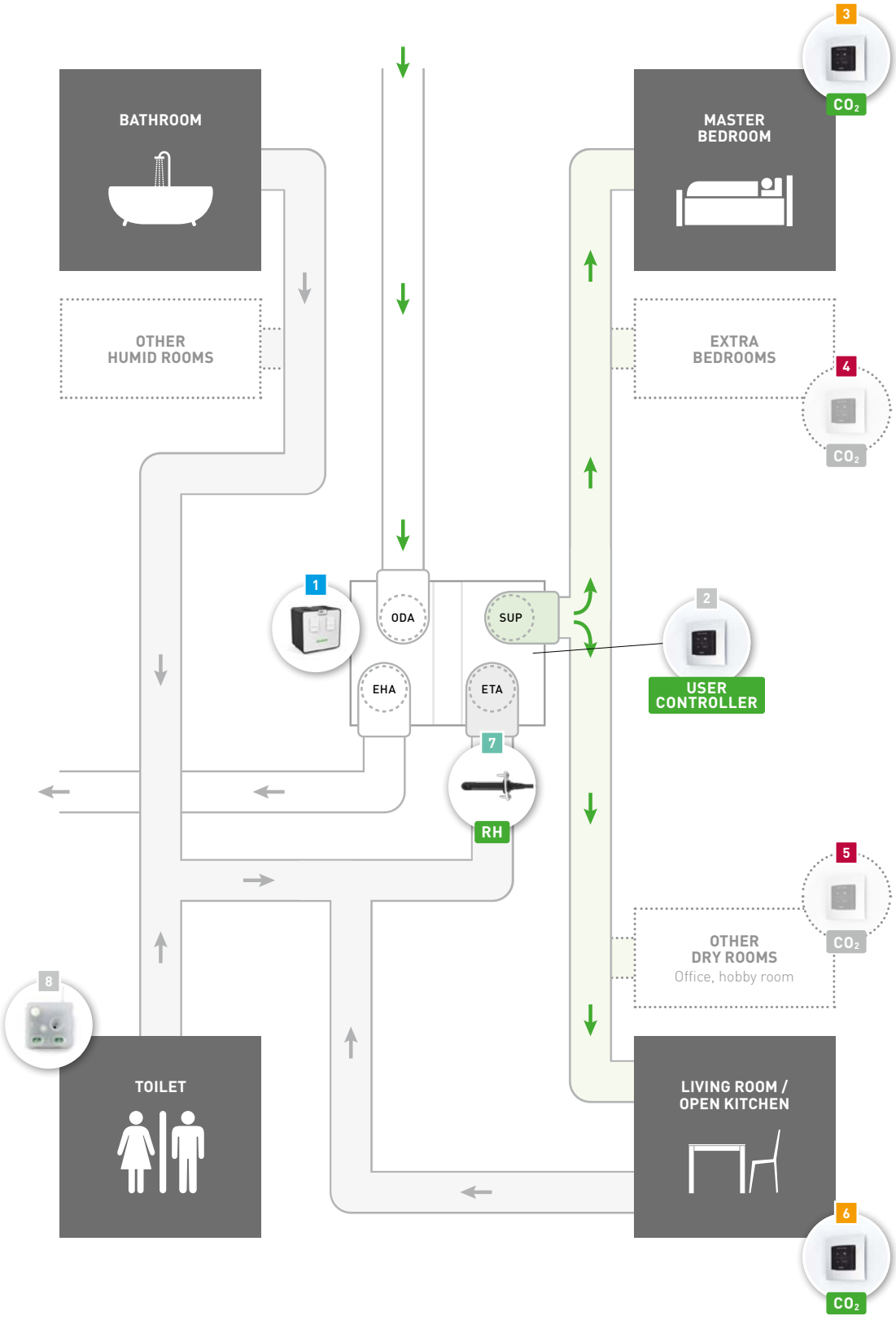

Detection		Required components	Optional components
Humidity	CO_2		
Central	✕	+	
Central	Main rooms	+ +	
Central	All rooms	+ + +	

Extraction of stale air

Supply of fresh air

The illustration shows a right-hand variant of the DucoBox Energy Comfort (Plus).

LOCAL humidity measurement

1-ZONE SYSTEM

cool, temperate climate
CERTIFIED COMPONENT
Passive House Institute
*

Duco Energy Comfort (Plus) System

MVHR | Central ventilation (1-zone) | Up to 550 m³/h at 200 Pa

COMPONENTS

			Component on diagram
DucoBox Energy Comfort D325 (UK)	0000-4658		1
DucoBox Energy Comfort D400 (UK)	0000-4757		
DucoBox Energy Comfort Plus D350 (UK)	0000-4758		
DucoBox Energy Comfort Plus D450 (UK)	0000-4759		
DucoBox Energy Comfort Plus D550 (UK)	0000-4923		
	Black	White	
Remote control **RF / Wired**	0000-4601	0000-4602	
Remote control **RF / Battery**	0000-4175	0000-4600	
CO_2 Room sensor **with** control **RF/Wired**	0000-4603	0000-4604	2 5
CO_2 Room sensor **without** control **RF / Wired**	0000-4636	0000-4637	3 4
Humidity Room sensor **with** control **RF / Wired**	0000-4605	0000-4606	6 7
Switch sensor **RF/230 VAC**	0000-4174		8
Duco Connectivity Board	0000-4810		
Pre-Heater DucoBox Energy Comfort (Plus) (UK) **1425W**	0000-4825		

→ See chapter 'Vents' from page 66 for more information on all types of vents.

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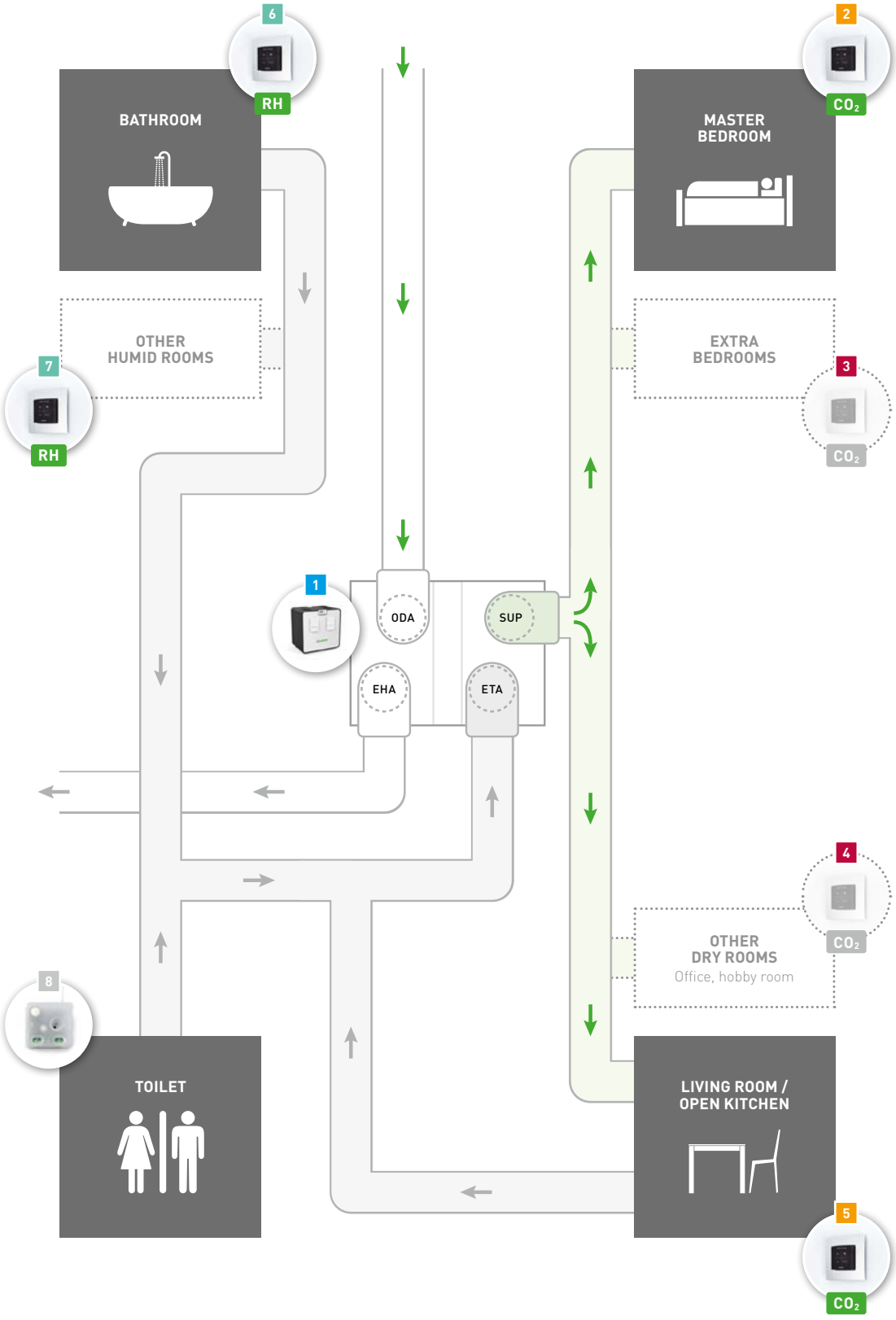

Detection		Required components	Optional components
Humidity	CO_2		
Local	✕	■ + ■	■
Local	Main rooms	■ + ■ + ■	■
Local	All rooms	■ + ■ + ■ + ■	■

→ Extraction of stale air

→ Supply of fresh air

The illustration shows a right-hand variant of the DucoBox Energy Comfort (Plus).

NO humidity measurement

2-ZONE SYSTEM

cool, temperate climate
CERTIFIED COMPONENT
Passive House Institute
*

Duco Energy Comfort (Plus) System

MVHR | Zonal ventilation (2-zone) | Up to 550 m³/h at 200 Pa

BASIC KIT

●	Basic kit Multizone D160 DucoBox Energy Comfort (Plus) Black	0000-4802

The bullet next to the item numbers below indicates which and how many components the basic kit contains.

COMPONENTS

				Component on diagram
DucoBox Energy Comfort D325 (UK)		0000-4658		1
DucoBox Energy Comfort D400 (UK)		0000-4757		
DucoBox Energy Comfort Plus D350 (UK)		0000-4758		
DucoBox Energy Comfort Plus D450 (UK)		0000-4759		
DucoBox Energy Comfort Plus D550 (UK)		0000-4923		
Multi-zone valve DucoBox Energy (Sensorless) ∅125		0000-4761		3 4
Multi-zone valve DucoBox Energy (Sensorless) ∅160	2	0000-4760		
		Black	White	
Remote control **RF / Wired**		0000-4601	0000-4602	2
Remote control **RF / Battery**		0000-4175	0000-4600	
CO_2 Room sensor **with** control **RF/Wired**	1	0000-4603	0000-4604	5 8
CO_2 Room sensor **without** control **RF / Wired**	1	0000-4636	0000-4637	6 7
Switch sensor **RF/230 VAC**		0000-4174		9
Duco Connectivity Board		0000-4810		
Pre-Heater DucoBox Energy Comfort (Plus) (UK) **1425W**		0000-4825		
Duco Power supply 230VAC-24VDC/20W + casing	1	0000-4763		

→ See chapter 'Vents' from page 66 for more information on all types of vents.

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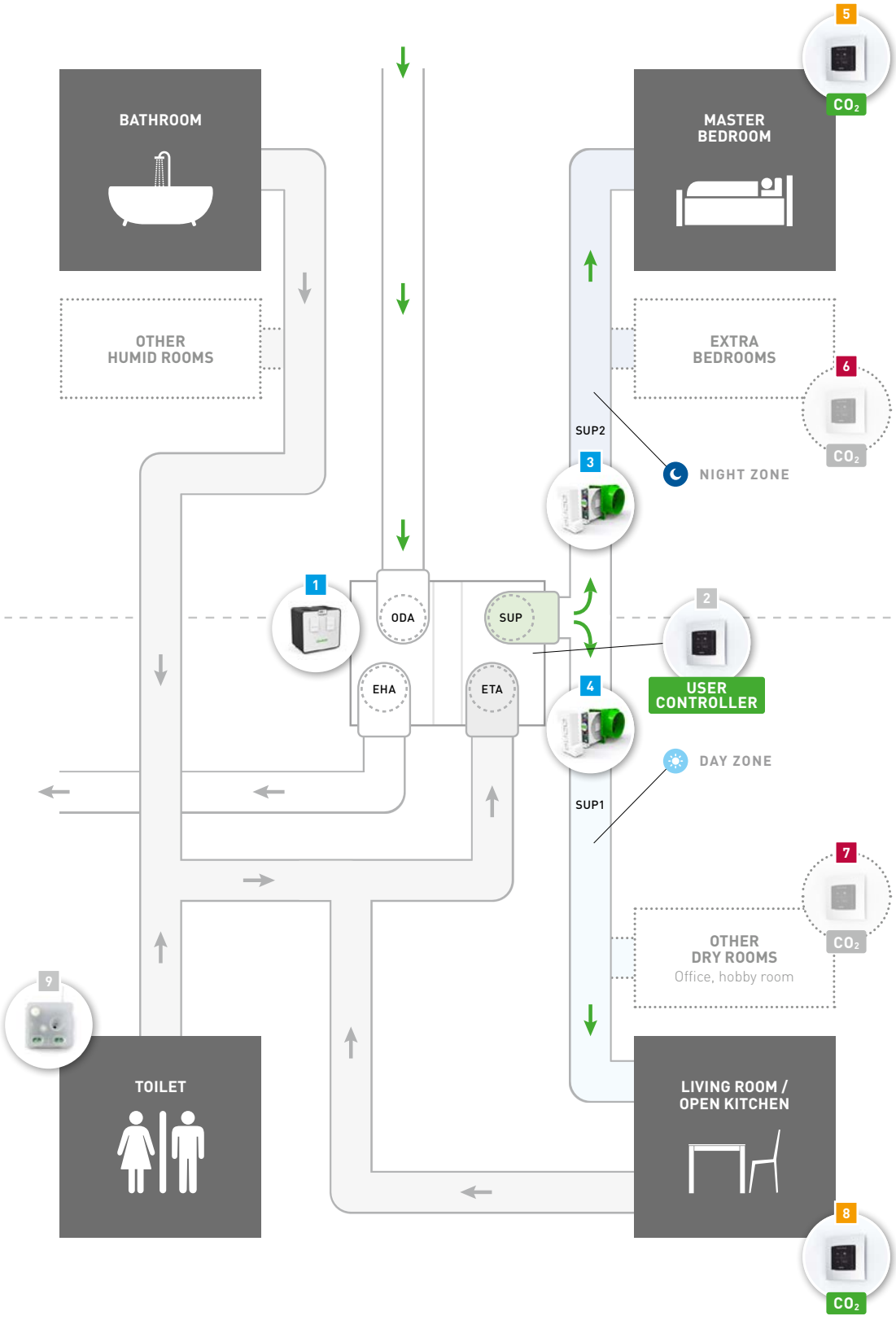

Detection		Required components	Optional components
Humidity	CO_2		
✗	✗	■	■
✗	Main rooms	■ + ■	■
✗	All rooms	■ + ■ + ■	■

→ Extraction of stale air

→ Supply of fresh air

The illustration shows a right-hand variant of the DucoBox Energy Comfort (Plus).

CENTRAL
humidity
measurement

2-ZONE
SYSTEM

cool, temperate climate
CERTIFIED COMPONENT
Passive House Institute
*

Duco Energy Comfort (Plus) System

MVHR | Zonal ventilation (2-zone) | Up to 550 m³/h at 200 Pa

BASIC KIT

●	**Basic kit Multizone D160** **DucoBox Energy Comfort (Plus) Black**	0000-4802

The bullet next to the item numbers below indicates which and how many components the basic kit contains.

COMPONENTS

				Component on diagram
	DucoBox Energy Comfort D325 (UK)		0000-4658	1
	DucoBox Energy Comfort D400 (UK)		0000-4757	
	DucoBox Energy Comfort Plus D350 (UK)		0000-4758	
	DucoBox Energy Comfort Plus D450 (UK)		0000-4759	
	DucoBox Energy Comfort Plus D550 (UK)		0000-4923	
	Multi-zone valve DucoBox Energy (Sensorless) ∅125		0000-4761	4 5
	Multi-zone valve DucoBox Energy (Sensorless) ∅160	● 2	0000-4760	
			Black / White	
	Humidity Sensor DucoBox Energy Comfort (Plus)		0000-4723	3
			Black / White	
	Remote control **RF / Wired**		0000-4601 / 0000-4602	2
	Remote control **RF / Battery**		0000-4175 / 0000-4600	
	CO_2 Room sensor **with** control **RF/Wired**	● 1	0000-4603 / 0000-4604	6 9
	CO_2 Room sensor **without** control **RF / Wired**	● 1	0000-4636 / 0000-4637	7 8
	Switch sensor **RF/230 VAC**		0000-4174	10
	Duco Connectivity Board		0000-4810	
	Pre-Heater DucoBox Energy Comfort (Plus) (UK) **1425W**		0000-4825	
	Duco Power supply 230VAC-24VDC/20W + casing	● 1	0000-4763	

→ See chapter 'Vents' from page 66 for more information on all types of vents.

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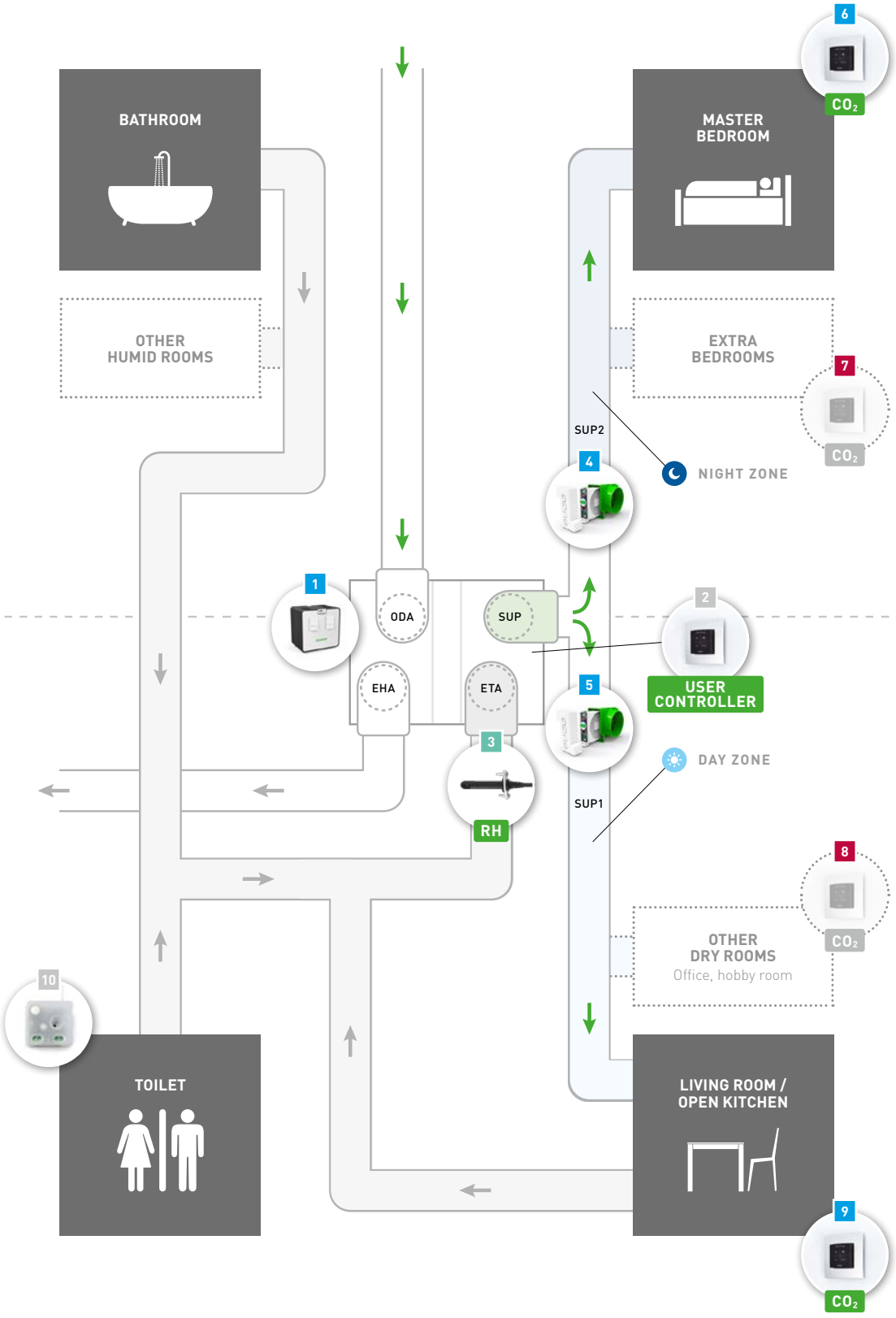


Detection		Required components	Optional components
Humidity	CO_2		
Central	Main rooms	+	
Central	All rooms	+ +	

Extraction of stale air

Supply of fresh air

The illustration shows a right-hand variant of the DucoBox Energy Comfort (Plus).

LOCAL humidity measurement

2-ZONE SYSTEM

cool, temperate climate
CERTIFIED COMPONENT
Passive House Institute
*

Duco Energy Comfort (Plus) System

MVHR | Zonal ventilation (2-zone) | Up to 550 m³/h at 200 Pa

BASIC KIT

● Basic kit Multizone D160 DucoBox Energy Comfort (Plus) Black	0000-4802

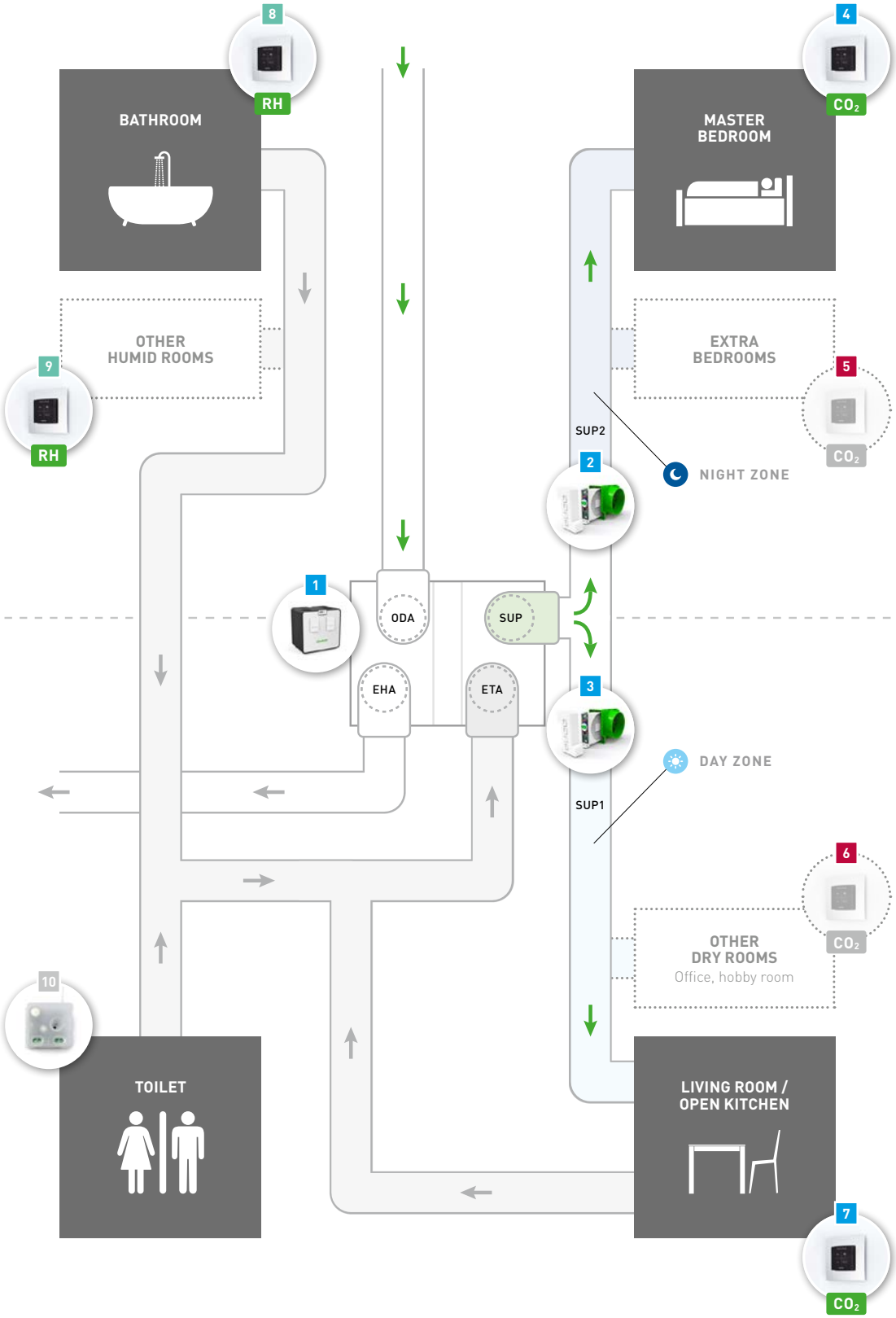
The bullet next to the item numbers below indicates which and how many components the basic kit contains.

COMPONENTS

	Black	White	Component on diagram
DucoBox Energy Comfort D325 (UK)	0000-4658		1
DucoBox Energy Comfort D400 (UK)	0000-4757		
DucoBox Energy Comfort Plus D350 (UK)	0000-4758		
DucoBox Energy Comfort Plus D450 (UK)	0000-4759		
DucoBox Energy Comfort Plus D550 (UK)	0000-4923		
Multi-zone valve DucoBox Energy (Sensorless) ∅125	0000-4761		2 3
Multi-zone valve DucoBox Energy (Sensorless) ∅160	● 2 0000-4760		
Remote control **RF / Wired**	0000-4601	0000-4602	
Remote control **RF / Battery**	0000-4175	0000-4600	
CO_2 Room sensor **with** control **RF/Wired**	● 1 0000-4603	0000-4604	4 7
CO_2 Room sensor **without** control **RF / Wired**	● 1 0000-4636	0000-4637	5 6
Humidity Room sensor **with** control **RF / Wired**	0000-4605	0000-4606	8 9
Switch sensor **RF/230 VAC**	0000-4174		10
Duco Connectivity Board	0000-4810		
Pre-Heater DucoBox Energy Comfort (Plus) (UK) **1425W**	0000-4825		
Duco Power supply 230VAC-24VDC/20W + casing	● 1 0000-4763		

→ See chapter 'Vents' from page 66 for more information on all types of vents.

* Passive House Institute certificate only for DucoBox Energy Comfort Plus D350/D450 units with pre-heater and a maximum flow rate between: 160 m³/h and 238 m³/h for the D350 variant and 155 m³/h and 308 m³/h for the D450 variant.



Detection		Required components	Optional components
Humidity	CO_2		
Local	Main rooms	+	
Local	All rooms	+ +	

Extraction of stale air

Supply of fresh air

The illustration shows a right-hand variant of the DucoBox Energy Comfort (Plus).

CONTROL COMPONENTS

With DUCO each ventilation system can be custom assembled using modular control components.

USER CONTROLS AND ROOM SENSORS

User controllers and room sensors contain **one or both** of the following functions:

User controller

Using the buttons, the user sets the operation of the ventilation system to the desired level:

- Automatic mode (recommended): CO_2 and/or humidity measurements determine the operation of the ventilation system via intelligent algorithms. This guarantees optimum air quality in the most efficient way.
- Manual settings: the ventilation system ventilates at 10% (setting 1), 50% (setting 2) or 100% (setting 3) of the maximum ventilation capacity.

Measuring air quality

Sensors continuously measure the CO_2 or humidity level (as well as temperature) in the rooms where they are installed. The measurements determine the operation of the ventilation system when it is in automatic mode.

All controls and room sensors also function as RF repeaters (except battery-operated controls).

RF/ Wired models	Battery-powered model
Power supply: RF: 230 VAC | Wired: 24 VDC **Width x Height x Depth:** 69 x 69 x 55 mm **Display:** 4 RGB LEDs **Peak power:** 1.8 W | **Stand-by power:** 1.2 W **Communication:** RF and wired **Colour:** Control: black or white | Supplied cover plate: white	**Battery:** CR2430 3V coin cell battery **Width x Height x Depth:** 69 x 69 x 17 mm **Display:** 1 bicolor LED **Communication:** RF **Colour:** Control: black or white | Supplied cover plate: white

User controllers + air quality measurement

These contain both a **user controller** and room sensors (CO_2 or humidity) for air quality measurement.

	Black	White
CO_2 Room sensor **with** control **RF/Wired**	0000-4603	0000-4604
Humidity Room sensor **with** control **RF / Wired**	0000-4605	0000-4606

User controller only

These contain only a **user controller**. Ideal in rooms where measurement is not required, or where measurement is done by other means (in the duct).

	Black	White
Remote control **RF / Battery**	0000-4175	0000-4600
Remote control **RF / Wired**	0000-4601	0000-4602

Air quality measurement only

Room sensors that are only equipped with a **CO_2 sensor**.
Ideal for bedrooms where no user controller is necessary.

	Black	White
CO_2 Room sensor **without** control **RF / Wired**	0000-4636	0000-4637

WIRED COMPONENTS

Wired / 24 VDC components require a **transformer from 230 VAC to 24 VDC**. It is possible to work with a Duco Power supply as a central power supply to power the component from the wall socket. See "Options & accessories" for the ventilation unit.

SWITCH SENSOR

The Switch Sensor can perform either or both of the following functions:

Switch detection: the ventilation system will perform a function when closing a (two-pole) dry contact. Suitable for toilet detection or overrule setting (only one function per switch sensor).

Repeater: the switch sensor is ideally suited as a repeater to strengthen the signal in the event of RF communication problems. In that case the switch sensor must be positioned in such a way that the distance to be bridged and/or interference by obstacles is reduced.

A switch sensor is easy to conceal thanks to its small size.

Width x Height x Depth: 41 x 37 x 20 mm **Weight:** 21 g **Color:** white	**Peak power:** 0.5 W **Standby power:** 0.4 W	**Power supply:** 230 VAC **Communication:** RF

Note: An external switch sensor is not required if a switch is connected to the onboard dry contact on the circuit board of the 'master' unit (DucoBox or IQ unit). Use a double-pole switch or relay and a 2 x 0.8 mm²cable for this. Refer to the **Onboard dry contact information sheet (L8001001)** for connection instructions.

Switch sensor **RF/230 VAC**	**0000-4174**

INTERNAL CONTROL COMPONENTS

Control components which are specific for a certain ventilation unit can be found on the corresponding ventilation unit page:

DucoBox Energy Comfort	see page 26
DucoBox Energy Premium	see page 42