

# Catalogue

## VENTILATION SYSTEMS

### 2024



## GREEN VENTILATION

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# DUCO

# HOME OF OXYGEN

DUCO Ventilation & Sun Control provides every building with a healthy supply of oxygen. With a comprehensive range of innovative natural and mechanical ventilation systems, either combined with external solar shading or otherwise, DUCO offers the ultimate guarantee of a healthy and comfortable indoor climate. The occupant's health is,

therefore, central to DUCO. A well-thought-out combination of basic ventilation, mechanical extraction, purge ventilation and solar shading ensures optimum air quality. DUCO provides an innovative solution for residential buildings, offices, schools or care centres where everyone feels at home.

**DUCO, Home of Oxygen**

**DUCO**

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## MISCELLANEOUS

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**DISCLAIMER**  
Illustrations in this catalogue may differ from the actual product. Printing errors and/or changes excepted regarding prices and text. DUCO reserves the right to amend this information at any time. The statutory information stated may be subject to changes in legislation. All prices are recommended prices excluding VAT.

# 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**

## MEV SYSTEM

Mechanical extract ventilation



DucoBox **Focus**

Up to 11 zones

## MVHR SYSTEM

Mechanical ventilation with heat recovery



DucoBox  
**Energy Premium**

2 zones - day / night



**Multi-zone valve**

2 zones - day / night in combination  
with DucoBox Energy Comfort (Plus)



**START YOUR JOURNEY TO  
ZONAL VENTILATION!**

Discover the magic at [duco.eu/zonal-ventilation](https://duco.eu/zonal-ventilation)

# 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<sub>2</sub> 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.

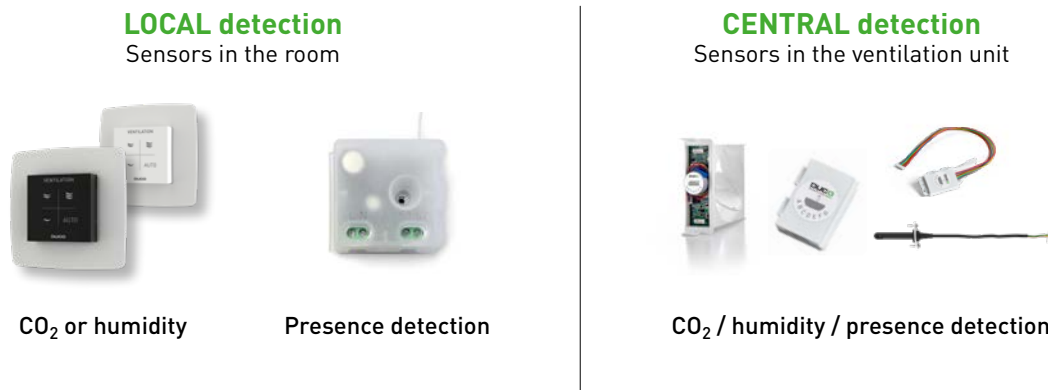


# DUCO introduces **DEMAND-CONTROLLED VENTILATION**

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!**



## → 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<sub>2</sub> 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).

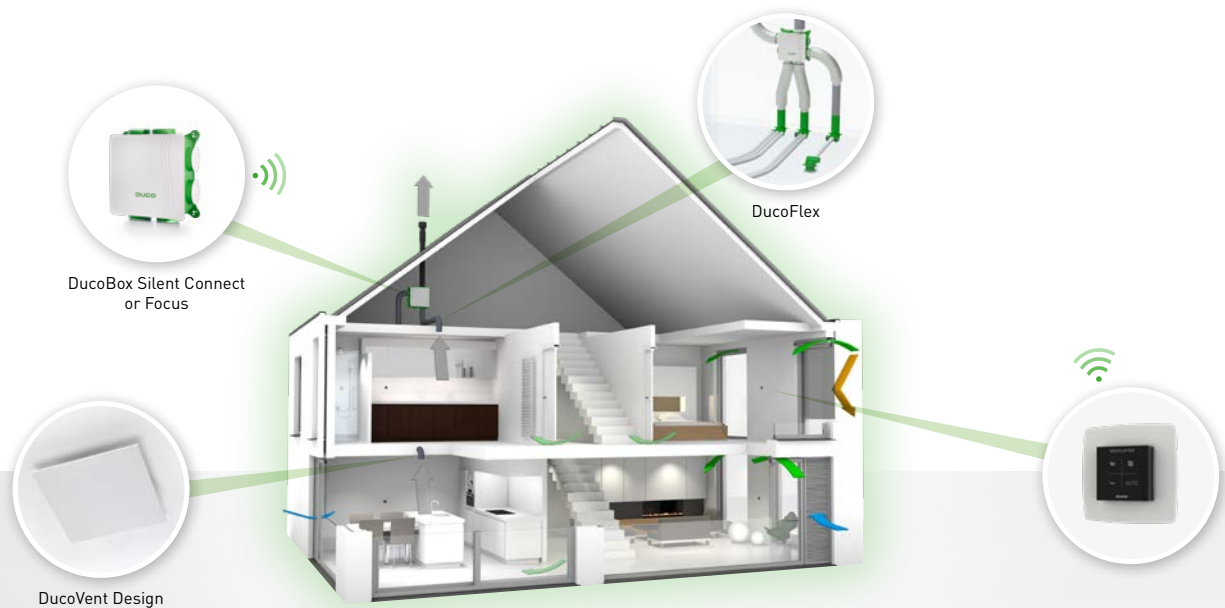
With an “**on demand**” DUCO-system, the occupant can always be assured to breathe the best possible indoor air, whilst also using the least amount of energy! **DUCO brings you the SMARTEST ventilation solutions!**

Check out our various control components from page 56 onward.

# UNIQUE AT DUCO

## MEV SYSTEM

Unlike a ventilation system that extracts air from the entire house, including healthy air, the **DucoBox Focus** is a ventilation unit that applies **zonal ventilation**. The internal control valves of the DucoBox Focus extract polluted and/or moist air zonally. This means that you only ventilate where necessary, when necessary and in the right amount, to remove the polluted air as quickly as possible.



- ✓ **100% automatic**  
Demand-controlled ventilation based on CO<sub>2</sub>, Humidity and temperature.
- ✓ **Optimal indoor climate**  
The Duco Focus System ventilates only where and when needed, and in the right amount.
- ✓ **Acoustic comfort**  
The QUIETEST and SMARTEST ventilation boxes on the market.
- ✓ **Aesthetic & minimalist**  
DucoVent Design: Aesthetic and functional aluminium vents.
- ✓ **Highest energy gain**  
Controlled supply and extraction = 100% controlled ventilation.

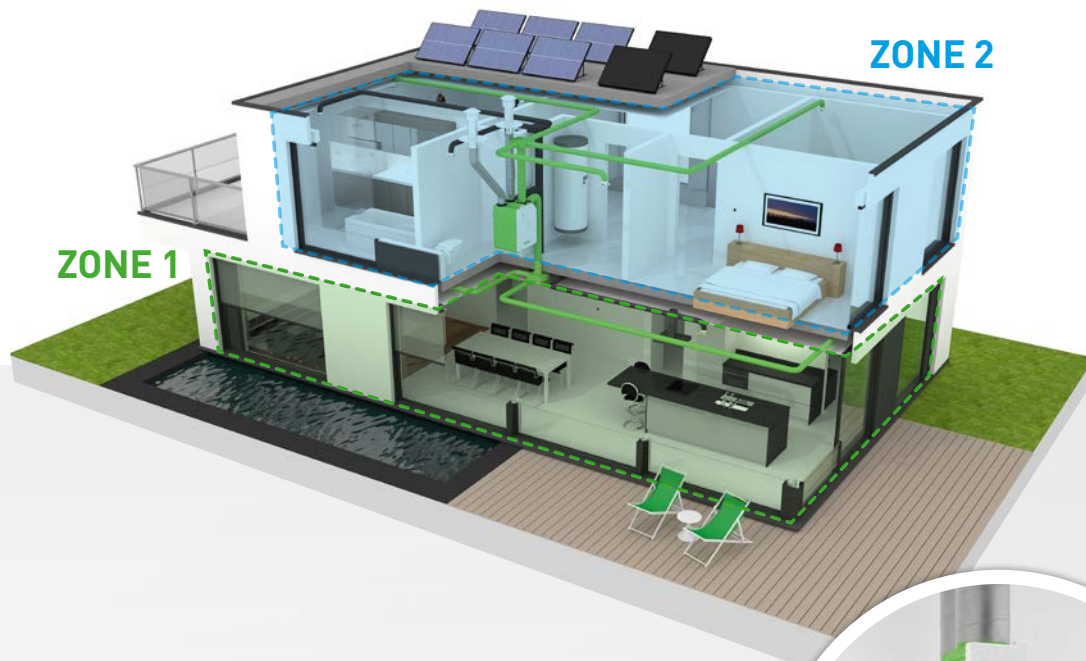


# UNIQUE AT DUCO

## 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!**



# MEV SYSTEM

The **QUIETEST** and **SMARTEST** MEV system!



### DucoBox **Silent Connect**



#### Intelligent demand control

Room or box sensors based on CO<sub>2</sub> and humidity measurement



#### Carefree night's sleep

Minimum sound power (< 27 dB(A) in occupied zones)



#### Save on your energy bill

Financially attractive thanks to energy-efficient DC motor



### DucoBox **Focus**



#### Intelligent demand control

Control valve system based on CO<sub>2</sub> and humidity measurement



#### Smart zonal control

Up to 7 zones, expandable to 11 zones with duplicator



#### Automatic calibration

Guaranteed flow at each vent

**NEW**

### DucoFlex



With DucoFlex, DUCO offers a **complete air duct system**. If you use this **installation-friendly** air-duct system you will enjoy the **energy-efficient and quiet operation** of the ventilation system.



**MVHR SYSTEM**

The **QUIETEST** and **SMARTEST** MVHR system!



**DucoBox Energy Comfort (Plus)**



**A solution for every situation**  
Flow rate up to 550m<sup>3</sup>/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



**DucoBox Energy Premium**



**Smart 2-zone control**  
Saving up to 40% through smart zone control



**Quietest MVHR on the market**  
Enjoy a good night's sleep!



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

**NEW**

**DucoFlex**



With DucoFlex, DUCO offers a **complete air duct system**. If you use this **installation-friendly** air-duct system you will enjoy the **energy-efficient and quiet operation** of the ventilation system.



# DucoBox Silent

The **QUIETEST** MEV system!



## Intelligent demand control

Room or box sensors based on CO<sub>2</sub> and humidity measurement



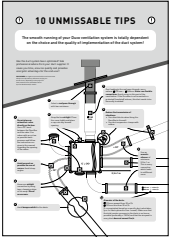
## Carefree night's sleep

Minimum sound power (< 27 dB(A) in occupied zones)



## Save on your energy bill

Financially attractive thanks to energy-efficient DC motor



Please refer to page 82 for essential installation tips!

# DucoBox Silent

**MEV system**

Up to **400 m<sup>3</sup>/h** at 150 Pa

The DucoBox Silent is an extraction fan that provides **central extraction** within DUCO's Demand-Controlled Natural Ventilation Systems (DCNVS). The DucoBox Silent is both the system's motor and the master unit to which control components can be paired.

This **quiet, compact, durable** and highly **energy-efficient extractor fan** removes moist and/or polluted air when needed and in the right quantity. Simple design and an efficient DC motor ensure long service life.

## FEATURES

<p><b>Width x Height x Depth:</b> 480 x 480 x 194 mm</p> <p><b>Weight:</b> 4,3 kg</p> <p><b>Extraction capacity at 150 Pa:</b> 400 m<sup>3</sup>/h</p> <p><b>Power supply:</b> 230 VAC</p> <p><b>Energy label:</b> class B in a system with at least two sensors</p>	<p><b>Communication:</b> RF and Wired. Expandable with Duco Connectivity Board (see 'Options &amp; accessories') for REST API (local or cloud) and Modbus TCP (local), both via Ethernet / Wi-Fi</p>	<p><b>Peak power:</b> 84 W</p> <p><b>Air duct connections:</b> Extraction areas: 7 x Ø 125 mm Extraction to the outside: 1 X Ø 125 mm</p>
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## VENTILATION UNIT



Type	Plug	
DucoBox Silent <b>Standard</b> (UK)	<b>G</b>	Only possible in All-in-one kit
DucoBox Silent <b>Connect</b> (UK)	<b>G</b>	Only possible in All-in-one kit

## ALL-IN-ONE KITS DucoBox Silent

DUCO All-in-one kits include both an extractor fan and associated control components.

<b>All-in-one DucoBox Silent (UK) + RH</b>	1 x DucoBox Silent Standard (UK) 1 x Humidity Box sensor	<b>0000-4490</b>
<b>All-in-one DucoBox Silent Connect (UK) + RH</b>	1 x DucoBox Silent Connect (UK) 1 x Humidity Box sensor	<b>0000-4808</b>



## CONTROL COMPONENTS DucoBox Silent

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### → BOX SENSORS

Box sensors can be installed very easily and quickly and provide **CO<sub>2</sub> and/or moisture measurement in an air duct**. They are wired directly to the circuit board. This means that no wiring for room sensors needs to be provided.

A DucoBox Silent contains **a maximum of two box sensors** – one CO<sub>2</sub> Box sensor and/or one Humidity Box Sensor – each of which can be clicked separately into a specific duct opening or together into one duct opening of the DucoBox.

Peak power: < 1 W	Stand-by power: < 1 W	Power supply: From the DucoBox
CO <sub>2</sub> Box sensor		0000-4216
Humidity Box sensor		0000-4218

### → EXTERNAL CONTROL COMPONENTS

The DucoBox Silent can be connected to the following external control components.

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



## OPTIONS & ACCESSORIES DucoBox Silent



### Silent Plus Kit

0000-4182

The Silent Plus Kit provides additional acoustic damping of up to 3 dB(A)! Three composite foam pads per box, placed as close to the extraction as possible, are sufficient.



### 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.



### Breech Y-piece 2 x 125 to 1 x 160

0000-4334

This piece allows a duct of  $\varnothing$  160 mm to be connected to two spigots of the DucoBox Silent (Connect)  $\varnothing$  125 mm). Splitting the flow between two ducts reduces resistance, resulting in quieter and more energy-efficient operation.



### Reducer 160/125

0000-4543

Reducer from  $\varnothing$  125 mm [DucoBox spigot] to  $\varnothing$  160 mm [air duct].



### EasySwitch

0000-5134

This 'universal' plate allows you to replace an outdated ventilation box in a renovation project without cutting and breaking with the DucoBox Silent (Connect) or Focus. After fitting against the wall, the unit can easily be clicked onto the plate, resulting in vibration-free operation during air extraction.



### Coaxial cable set 8 m

0000-4418

The set comprises an 8 m long coaxial cable with pre-fitted connectors at both ends. Using this set, the antenna of the DucoBox Silent Connect, DucoBox Focus or DucoBox Energy devices can be moved, if necessary, to a place where the RF range is optimal.



### 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 m<sup>3</sup>/h $\varnothing$ 125

0000-4836

### Flow regulator 50-100 m<sup>3</sup>/h $\varnothing$ 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.



Renovation

# Duco Silent System

MEV system | Central ventilation (1 zone | Up to 400 m<sup>3</sup>/h at 150 Pa

## ALL-IN-ONE KIT

● All-in-one kit DucoBox Silent Standard (UK) + RH 0000-4490

● All-in-one kit DucoBox Silent Connect (UK) + RH 0000-4808

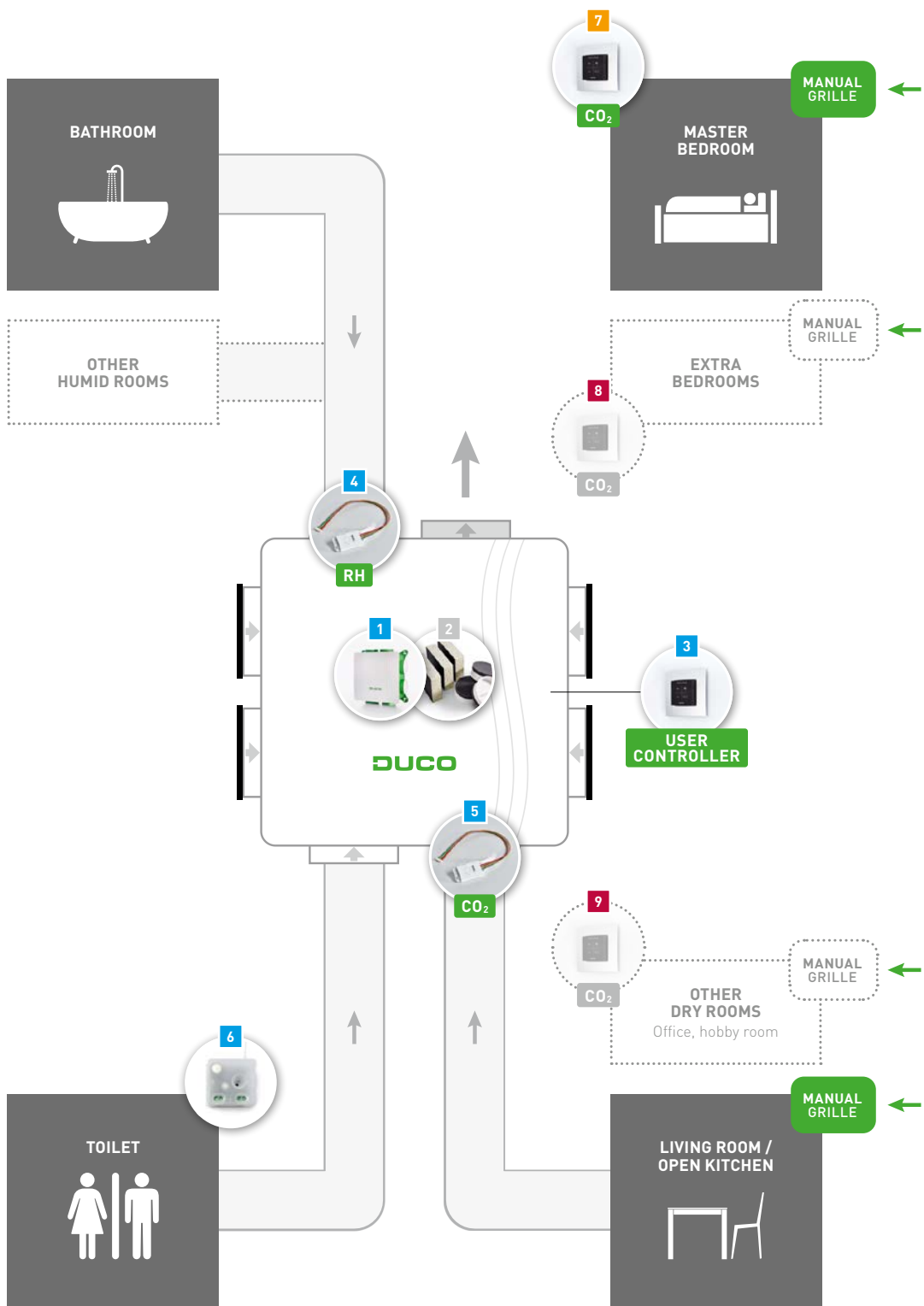
The bullet next to the item numbers below indicates which and how many components the basic kit contains.

## COMPONENTS

			Component on diagram
	DucoBox Silent Standard (UK)	① only in All-in-one	
	DucoBox Silent Connect (UK)	① only in All-in-one	1
	Silent Plus Kit (3 damping pads + 3 caps) 0000-4182		2
	CO <sub>2</sub> Box sensor	0000-4216	5
	Humidity Box sensor	① ① 0000-4218	4
		Black White	
	Remote control RF / Wired	0000-4601 0000-4602	3
	Remote control RF / Battery	0000-4175 0000-4600	
	CO <sub>2</sub> Room sensor with control RF/Wired	0000-4603 0000-4604	7 8 9
	CO <sub>2</sub> Room sensor without control RF / Wired	0000-4636 0000-4637	
	Humidity Room sensor with control RF / Wired	0000-4605 0000-4606	
	Switch sensor RF/230 VAC *	0000-4174	6
	Duco Connectivity Board	0000-4810	
	Breech Y-piece 2 x 125 to 1 x 160	0000-4334	

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





Energy label	Extraction	Detection	Required components	Optional components
B	Central	High-humidity rooms	■	■
B	Central	Damp areas + master bedroom	■ + ■	■
B	Central	Damp rooms + all bedrooms	■ + ■ + ■	■

→ Extraction of stale air  
 → Supply of fresh air



# DucoBox Focus

The **SMARTEST** MEV system!



### **Intelligent demand control**

Control valve system based on CO<sub>2</sub> and humidity measurement



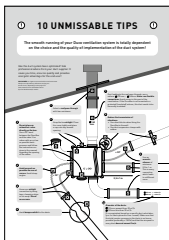
### **Smart zonal control**

Up to 7 zones, expandable to 11 zones with duplicator



### **Automatic calibration**

Guaranteed flow at each vent



Please refer to page 82 for essential installation tips!

# DucoBox Focus

**MEV system**

Up to **400 m³/h** at 150 Pa

The DucoBox Focus is an extraction fan that provides **zonal extraction** within DUCO's Demand-Controlled Natural Ventilation Systems (DCNVS). The DucoBox Focus is both the motor of the system, and the master unit to which control components can be paired.

This **quiet, compact, durable** and highly **energy-efficient extractor fan** removes moist and/or polluted air when needed and in the right quantity. Integrated control valves (to be ordered separately) also ensure that **air is exhausted only where necessary**, providing even quieter and more energy-efficient operation. Simple design and an efficient DC motor ensure long service life.

## FEATURES

<p><b>Width x Height x Depth:</b> 480 x 480 x 194 mm <b>Weight:</b> 4,3 kg <b>Extraction capacity at 150 Pa:</b> 400 m³/h <b>Power supply:</b> 230 VAC <b>Peak power:</b> 84 W</p>	<p><b>Air duct connections:</b> Extraction areas: 7 x Ø 125 mm Extraction to the outside 1 x Ø 125 mm <b>Energy label:</b> class B in a system with at least two sensors, and provided with valve control</p>	<p><b>Communication:</b> RF and Wired. Expandable with Duco Connectivity Board (see 'Options &amp; accessories') for REST API (local or cloud) and Modbus TCP (local), both via Ethernet / Wi-Fi</p>
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## VENTILATION UNIT



Type	Plug	
DucoBox Focus (UK) <b>(control valves not included!)</b>	G	<b>0000-4448</b>

At least two control valves should always be provided in the DucoBox Focus.

## BASIC KITS DucoBox Focus

DUCO basic kits contain a selection of control components at economical prices.

<p><b>Basic kit</b> <b>Duco Focus System</b></p>	<p>1 x CO<sub>2</sub> Control valve <b>75 m³/h</b> living room / open kitchen 1 x Humidity /CO<sub>2</sub> Control valve <b>50 m³/h</b> bathroom + WC 1 x CO<sub>2</sub> Control valve <b>25 m³/h</b> toilet 1 x Remote control <b>RF/Wired Black</b> 1 x Silent Plus Kit (3 damping pads + 3 caps)</p>	<p><b>0000-4646</b></p>
<p><b>Basic kit</b> <b>Duco Focus System with extraction in the bedroom(s)</b></p>	<p>1 x CO<sub>2</sub> Control valve <b>75 m³/h</b> living room / open kitchen 1 x Humidity /CO<sub>2</sub> Control valve <b>50 m³/h</b> bathroom + WC 2 x CO<sub>2</sub> Control valve <b>30 m³/h</b> bedroom(s) 1 x CO<sub>2</sub> Control valve <b>25 m³/h</b> toilet 1 x Remote control <b>RF/Wired Black</b></p>	<p><b>0000-4645</b></p>



## CONTROL COMPONENTS DucoBox Focus



### → CONTROL VALVES

The control valves, optionally equipped with a sensor for **CO<sub>2</sub> or moisture measurement**, can be integrated **into the extractor fan**. These valves ensure that only polluted and/or humid air is exhausted, where and when needed and in the right quantity.

The default set flow rate of the control valves can be manually changed during or after installation via the display menu, the Duco Network Tool or Duco Installation App.

<b>Width x Height x Depth:</b> 141 x 167 x 46.5 mm <b>Weight:</b> 0.220 kg	<b>Peak power:</b> 2.04 W <b>Standby power:</b> 0.24W	<b>Power supply:</b> From the DucoBox
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#### For CO<sub>2</sub>-controlled living areas

A CO<sub>2</sub> Control valve commands the ventilation system based on continuous measurement of both CO<sub>2</sub> (indoor climate indicator) and temperature.



CO <sub>2</sub> Control valve <b>75 m<sup>3</sup>/h</b> living room / open kitchen	<b>0000-4163</b>
CO <sub>2</sub> Control valve <b>30 m<sup>3</sup>/h</b> bedroom(s)	<b>0000-4164</b>

#### For toilet

Based on CO<sub>2</sub> measurement, this valve detects **presence** in a toilet, after which the ventilation system will extract the polluted air. Note: a CO<sub>2</sub> Control Valve for toilet works in a different mode than for living room / open kitchen / bedroom. This is necessary for correct operation of the system.



CO <sub>2</sub> Control valve <b>25 m<sup>3</sup>/h</b> toilet	<b>0000-4208</b>
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#### For sanitary / damp areas (+ WC)

The Humidity Control valve commands the ventilation system based on continuous measurement of relative **humidity** (RH) and temperature. With the Control valve for bathrooms with WC, presence in the toilet is detected based on CO<sub>2</sub> measurement.



Humidity Control valve <b>50 m<sup>3</sup>/h</b> bathroom/ laundry room	<b>0000-4162</b>
Moisture/CO <sub>2</sub> Control valve <b>50 m<sup>3</sup>/h</b> bathroom + WC	<b>0000-4644</b>

#### Various applications

For efficient extraction in areas such as a storage room, you can also opt for a Sensorless Control valve. This control valve can be combined with control components in the room, such as a switch sensor or room sensor.



Sensorless Control valve <b>25 m<sup>3</sup>/h</b> various applications	<b>0000-4165</b>
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### → EXTERNAL CONTROL COMPONENTS

The DucoBox Focus can be paired with the following external control components.

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

## OPTIONS & ACCESSORIES DucoBox Focus



### Silent Plus Kit

0000-4182

The Silent Plus Kit provides additional acoustic damping of up to 3 dB(A)! Three composite foam pads per box, placed as close to the extraction as possible, are sufficient.



### 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.



### Reducer 160/125

0000-4543

Reducer from  $\varnothing$  125 mm (DucoBox spigot) to  $\varnothing$  160 mm (air duct).



### EasySwitch

0000-5134

This 'universal' plate allows you to replace an outdated ventilation box in a renovation project without drilling or channelling with the DucoBox Silent Connect or Focus. After fitting against the wall, the unit can easily be clicked onto the plate, resulting in vibration-free operation during air extraction.



### Coaxial cable set 8 m

0000-4418

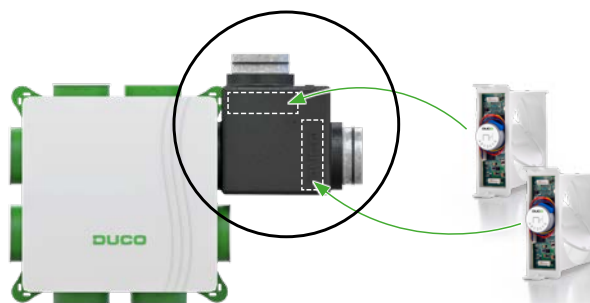
The set comprises an 8 m long coaxial cable with pre-fitted connectors at both ends. Using this set, the antenna of the DucoBox Silent Connect, DucoBox Focus or DucoBox Energy devices can be moved, if necessary, to a place where the RF range is optimal.



### Duplicator control valves

0000-4454

The Duplicator control valves offers the possibility of duplicating spigots on the DucoBox Focus. This allows a zonal ventilation system to be built up with up to 11 connections (of which a maximum of 7 connections with a CO<sub>2</sub> control valve). The connector supplied allows the wiring of these control valves to be easily looped through to the DucoBox Focus. And this, as always within DUCO systems, invisible and behind the lid!



### 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.



Renovation

# Duco Focus System

MEV system | Local ventilation | Up to 400 m<sup>3</sup>/h at 150 Pa









## BASIC KIT

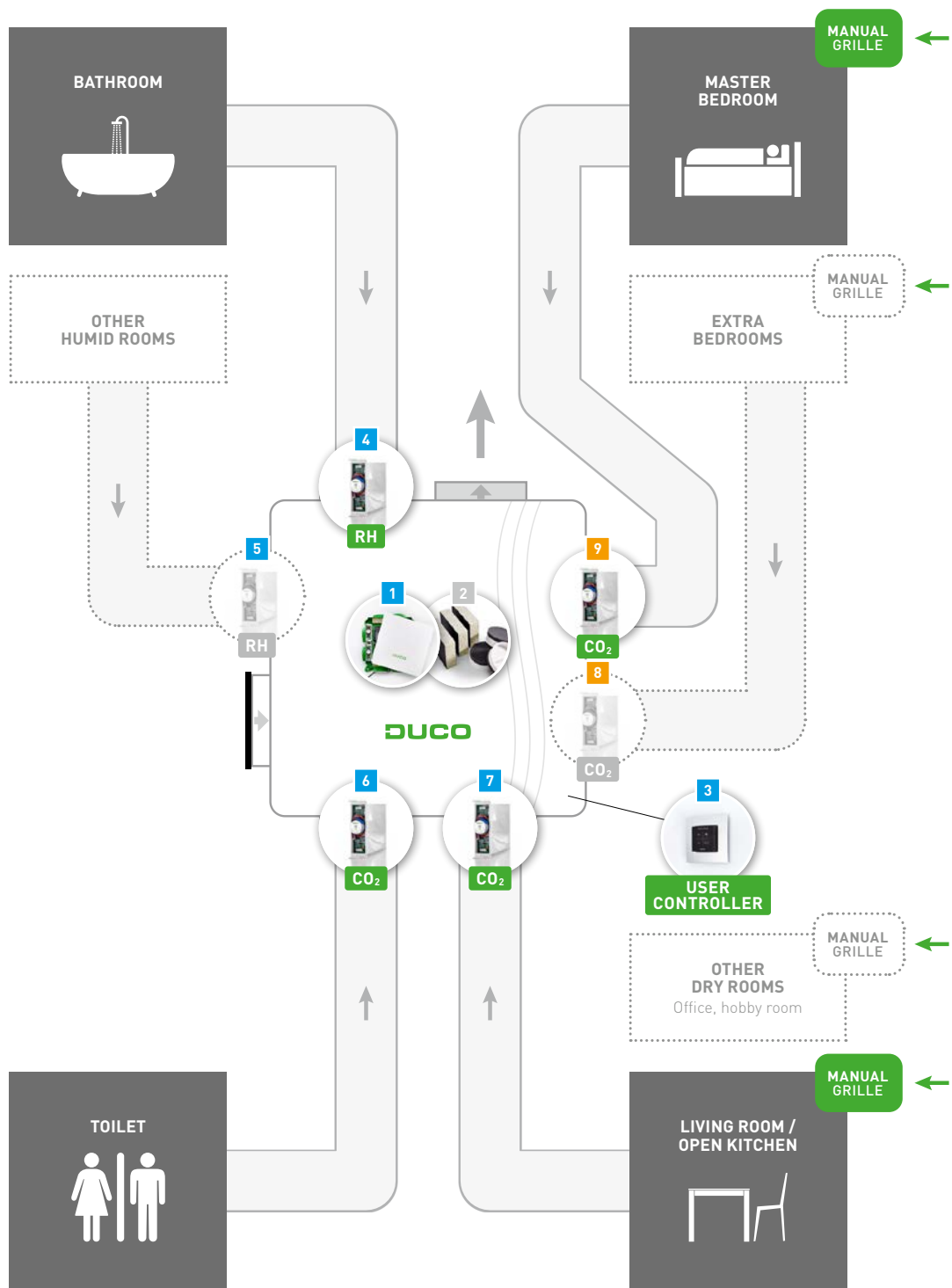
● Basic kit Duco Focus System	0000-4646
● Basic kit Duco Focus System with extraction in the bedroom(s)	0000-4645

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

## COMPONENTS

		Component on diagram	
	DucoBox Focus (UK)	0000-4448	1
	Silent Plus Kit (3 damping pads + 3 caps)	1 0000-4182	2
	CO <sub>2</sub> Control valve 75 m <sup>3</sup> /h (living room / open kitchen)	1 1 0000-4163	7
	CO <sub>2</sub> Control valve 30 m <sup>3</sup> /h (bedroom(s))	2 0000-4164	8 9
	CO <sub>2</sub> Control valve 25 m <sup>3</sup> /h (toilet)	1 1 0000-4208	6
	Humidity Control valve 50 m <sup>3</sup> /h (bathroom / laundry room)	0000-4162	4 5
	CO <sub>2</sub> /Humidity Control valve 50 m <sup>3</sup> /h (bathroom + WC)	1 1 0000-4644	
	Sensorless Control valve 25 m <sup>3</sup> /h (various applications)	0000-4165	
	Duplicator control valves	0000-4454	
	Remote control RF / Wired	1 1 Black 0000-4601 White 0000-4602	3
	Remote control RF / Battery	0000-4175 0000-4600	
	CO <sub>2</sub> Room sensor with control RF/Wired	0000-4603 0000-4604	
	CO <sub>2</sub> Room sensor without control RF / Wired	0000-4636 0000-4637	
	Humidity Room sensor with control RF / Wired	0000-4605 0000-4606	
	Switch sensor RF/230 VAC *	0000-4174	
	Duco Connectivity Board	0000-4810	

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



Energy label	Extraction	Detection	Required components	Optional components
B	Local	High-humidity rooms	■	■
B	Local	Damp rooms + bedrooms	■ + ■	■

Extraction of stale air  
 Supply of fresh air



# DucoBox Energy Comfort (Plus)

The **SMARTEST** MVHR system!



D400

D325

Plus D350  
Plus D450  
Plus D550



## A solution for every situation

Flow rate up to 550 m<sup>3</sup>/h (at 200 Pa)



## Left/right exchangeable

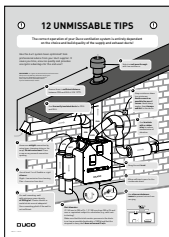
Exchange between left and right variant is carried out 100% by software



## 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 **550m<sup>3</sup>/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 m<sup>3</sup>/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 m<sup>3</sup>/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<sub>2</sub> 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

<p><b>General features</b></p> <p><b>Connection type</b></p> <ul style="list-style-type: none"> <li>1 x extraction to outside (EHA)</li> <li>1 x supply from outside (ODA)</li> <li>1 x extraction from inside (ETA)</li> <li>1 x supply to inside (SUP)</li> </ul> <p><b>Energy label:</b> A+</p> <p><b>Communication:</b></p> <p>RF and Wired. Expandable with Duco Connectivity Board (see 'Options &amp; accessories') for REST API (local or cloud) and Modbus TCP (local), both via Ethernet / Wi-Fi</p>	<p><b>Comfort D325</b></p> <p><b>Width x Height x Depth:</b> 700 x 705 x 525 mm</p> <p><b>Weight:</b> 21 kg</p> <p><b>Flow rate / pressure:</b> 325 m<sup>3</sup>/h / 150 Pa</p> <p><b>Number of air ducts:</b> 4 x Ø 160</p> <p><b>Peak power:</b> 2 x 59 W</p> <p><b>Comfort D400</b></p> <p><b>Width x Height x Depth:</b> 756 x 800 x 584 mm</p> <p><b>Weight:</b> 31 kg</p> <p><b>Flow rate / pressure:</b> 400 m<sup>3</sup>/h / 200 Pa</p> <p><b>Number of air ducts:</b> 4 x Ø 180</p> <p><b>Peak power:</b> 2 x 72,5 W</p>	<p><b>Comfort Plus D350 / D450 / D550</b></p> <p><b>Width x Height x Depth:</b> 760 x 803 x 584 mm</p> <p><b>Weight:</b> 47 kg</p> <p><b>Flow rate / pressure:</b></p> <ul style="list-style-type: none"> <li>D350: 350 m<sup>3</sup>/h / 200 Pa</li> <li>D450: 450 m<sup>3</sup>/h / 200 Pa</li> <li>D550: 550 m<sup>3</sup>/h / 200 Pa</li> </ul> <p><b>Number of air ducts:</b> 4 x Ø 180</p> <p><b>Max. power per motor:</b></p> <ul style="list-style-type: none"> <li>D350: approx. 59 W</li> <li>D450: approx. 98 W</li> <li>D550: approx. 135 W</li> </ul>
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## VENTILATION UNIT



Type of DucoBox	Passive House Certified Component	Plug	
Energy Comfort D325 (UK)	✗	G	<b>0000-4658</b>
Energy Comfort D400 (UK)	✗	G	<b>0000-4757</b>
Energy Comfort Plus D350 (UK)		G	<b>0000-4758</b>
Energy Comfort Plus D450 (UK)		G	<b>0000-4759</b>
Energy Comfort Plus D550 (UK)	✗	G	<b>0000-4923</b>



## 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
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Humidity Sensor DucoBox Energy Comfort (Plus)

0000-4723

The Humidity Sensor is installed in a borehole (Ø 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) Ø125

0000-4761

Multi-zone valve DucoBox Energy (Sensorless) Ø160

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) Ø160 1 x CO <sub>2</sub> Room sensor with control RF/Wired Black 1 x CO <sub>2</sub> Room sensor without control RF/Wired Black 1 x Duco Power supply 230VAC-24VDC/20W + casing	0000-4802
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## 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:  $\varnothing 160/\varnothing 160$ ,  $\varnothing 160/\varnothing 180$ ,  $\varnothing 180/\varnothing 180$  and  $\varnothing 180/\varnothing 200$ ... 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 m <sup>3</sup> /h	D160/D180 <b>0000-4725</b>	Pre-Heater <b>0000-4825</b>	D160/D180 <b>0000-4725</b>
	Up to 350 m <sup>3</sup> /h	D180/D180 <b>0000-4726</b>		D160/D180 <b>0000-4725</b>
D400 Plus D350 Plus D450 Plus D550	Up to 250 m <sup>3</sup> /h	D160/D180 <b>0000-4725</b>		D180/D180 <b>0000-4726</b>
	Up to 350 m <sup>3</sup> /h	D180/D180 <b>0000-4726</b>		D180/D180 <b>0000-4726</b>
	Up to 550 m <sup>3</sup> /h	D180/D200 <b>0000-4727</b>		D180/D180 <b>0000-4726</b>


**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 m<sup>3</sup>/h  $\varnothing 80$** 
**0000-4722**
**Flow regulator 15-50 m<sup>3</sup>/h  $\varnothing 125$** 
**0000-4836**
**Flow regulator 50-100 m<sup>3</sup>/h  $\varnothing 125$** 
**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.



# Duco Energy Comfort (Plus) System

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










NO humidity measurement

1-ZONE SYSTEM

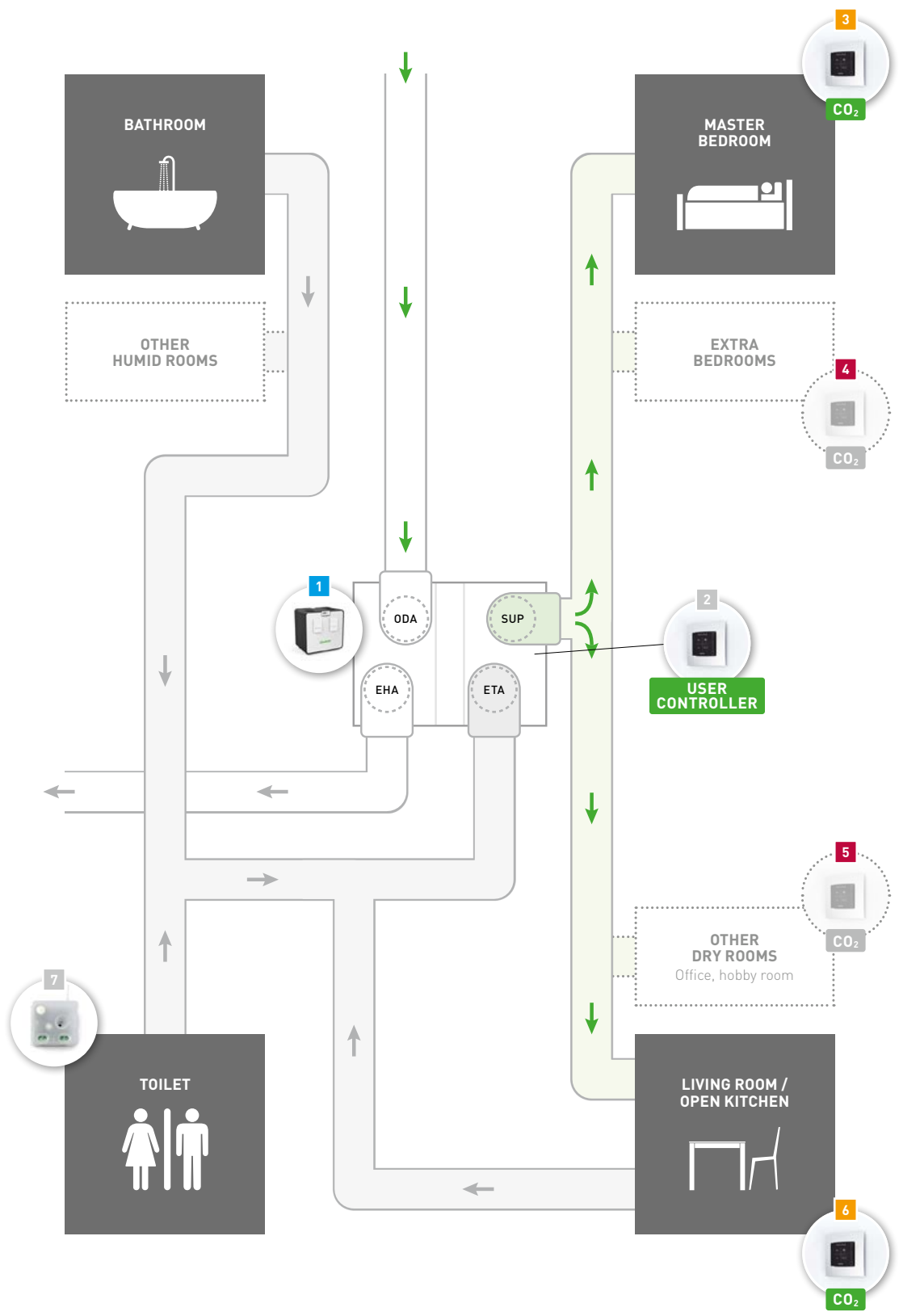


## COMPONENTS

			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 <b>RF / Wired</b>	0000-4601      0000-4602	2
	Remote control <b>RF / Battery</b>	0000-4175      0000-4600	
	CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603      0000-4604	3      6
	CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636      0000-4637	4      5
	Switch sensor <b>RF/230 VAC</b>	0000-4174	7
	Duco Connectivity Board	0000-4810	
	Pre-Heater DucoBox Energy Comfort (Plus) (UK) <b>1425W</b>	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 <sub>2</sub>		
✗	✗	■	■
✗	Main rooms	■ + ■	■
✗	All rooms	■ + ■ + ■	■

→ Extraction of stale air  
 → Supply of fresh air

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



# Duco Energy Comfort (Plus) System

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

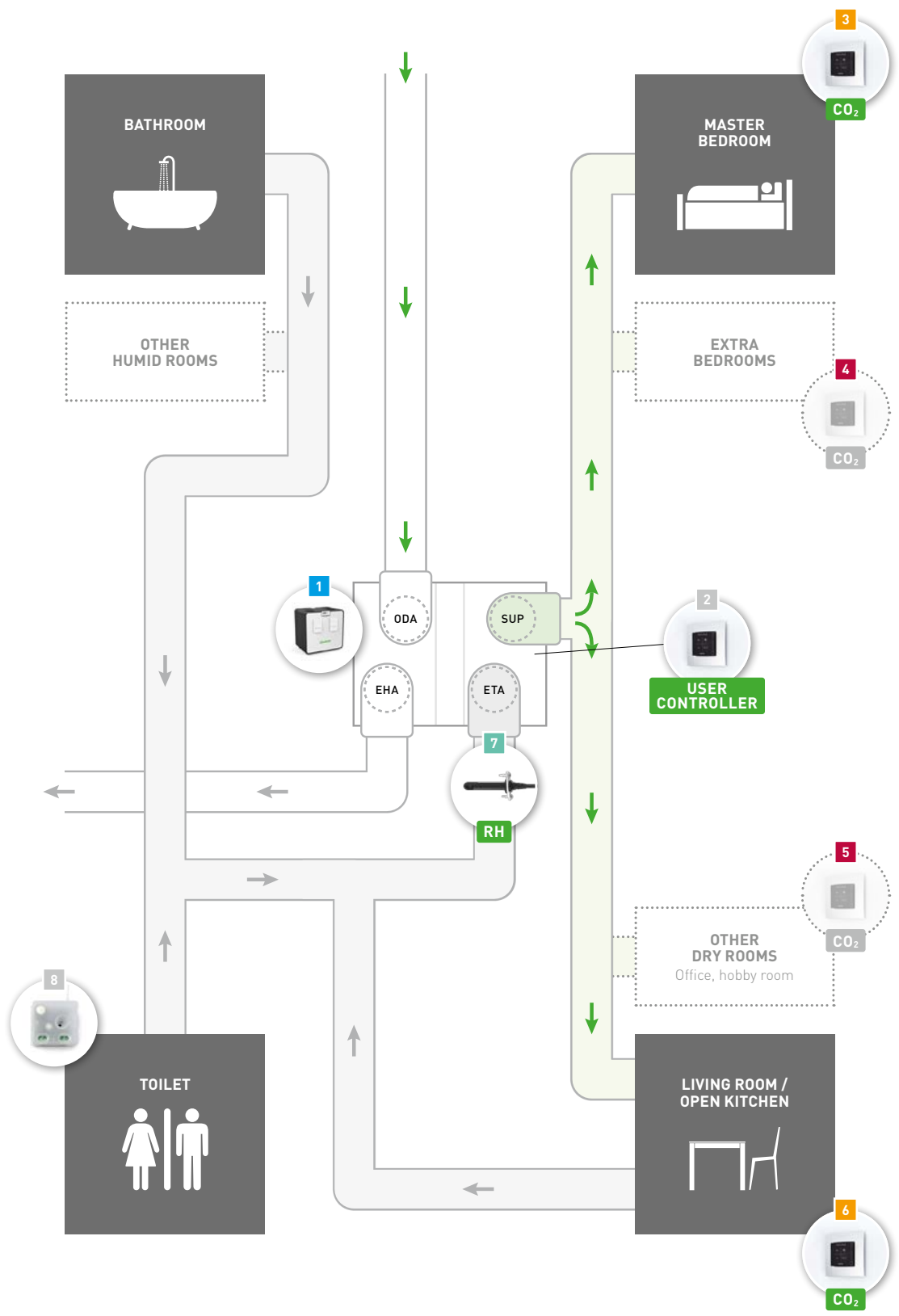
CENTRAL  
humidity  
measurement1-ZONE  
SYSTEM

## COMPONENTS

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		
Humidity Sensor DucoBox Energy Comfort (Plus)	0000-4723		7
Remote control <b>RF / Wired</b>	Black 0000-4601	White 0000-4602	2
Remote control <b>RF / Battery</b>	0000-4175	0000-4600	
CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603	0000-4604	3 6
CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636	0000-4637	4 5
Switch sensor <b>RF/230 VAC</b>	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.

\* 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 <sub>2</sub>		
Central	✗	■ + ■	■
Central	Main rooms	■ + ■ + ■	■
Central	All rooms	■ + ■ + ■ + ■	■

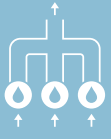
→ Extraction of stale air  
 → Supply of fresh air

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










# Duco Energy Comfort (Plus) System

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

LOCAL  
humidity  
measurement1-ZONE  
SYSTEM

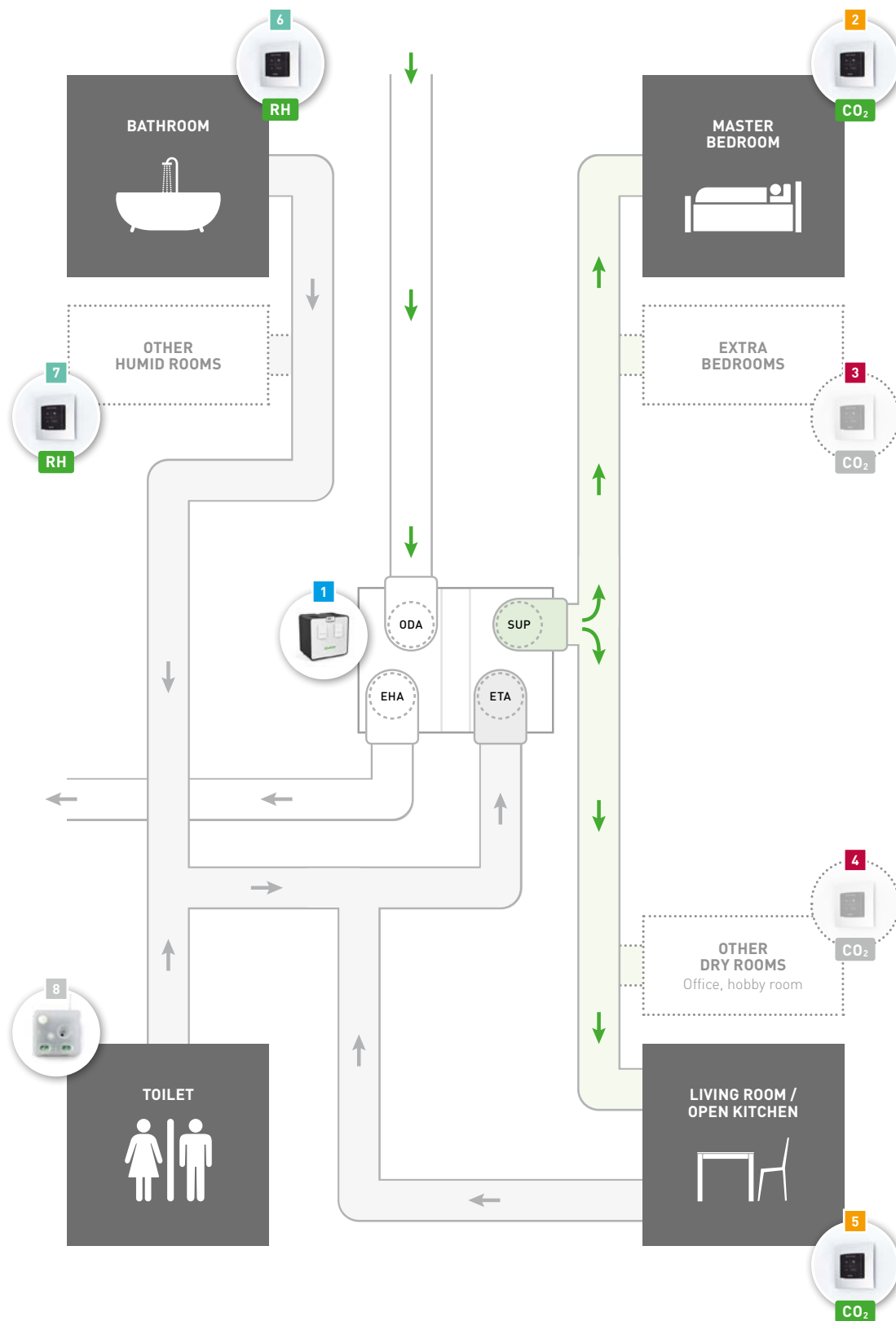
## COMPONENTS

			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	
		<b>Black</b> <b>White</b>	
	Remote control <b>RF / Wired</b>	0000-4601      0000-4602	
	Remote control <b>RF / Battery</b>	0000-4175      0000-4600	
	CO <sub>2</sub> Room sensor <b>with control</b> <b>RF/Wired</b>	0000-4603      0000-4604	2 5
	CO <sub>2</sub> Room sensor <b>without control</b> <b>RF / Wired</b>	0000-4636      0000-4637	3 4
	Humidity Room sensor <b>with control</b> <b>RF / Wired</b>	0000-4605      0000-4606	6 7
	Switch sensor <b>RF/230 VAC</b>	0000-4174	8
	Duco Connectivity Board	0000-4810	
	Pre-Heater DucoBox Energy Comfort (Plus) (UK) <b>1425W</b>	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 <sub>2</sub>		
Local	✗	■ + ■	■
Local	Main rooms	■ + ■ + ■	■
Local	All rooms	■ + ■ + ■ + ■	■

→ Extraction of stale air  
 → Supply of fresh air

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



# Duco Energy Comfort (Plus) System

MVHR | Zonal ventilation (2-zone) | Up to 550 m<sup>3</sup>/h at 200 Pa



NO humidity measurement












## BASIC KIT

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

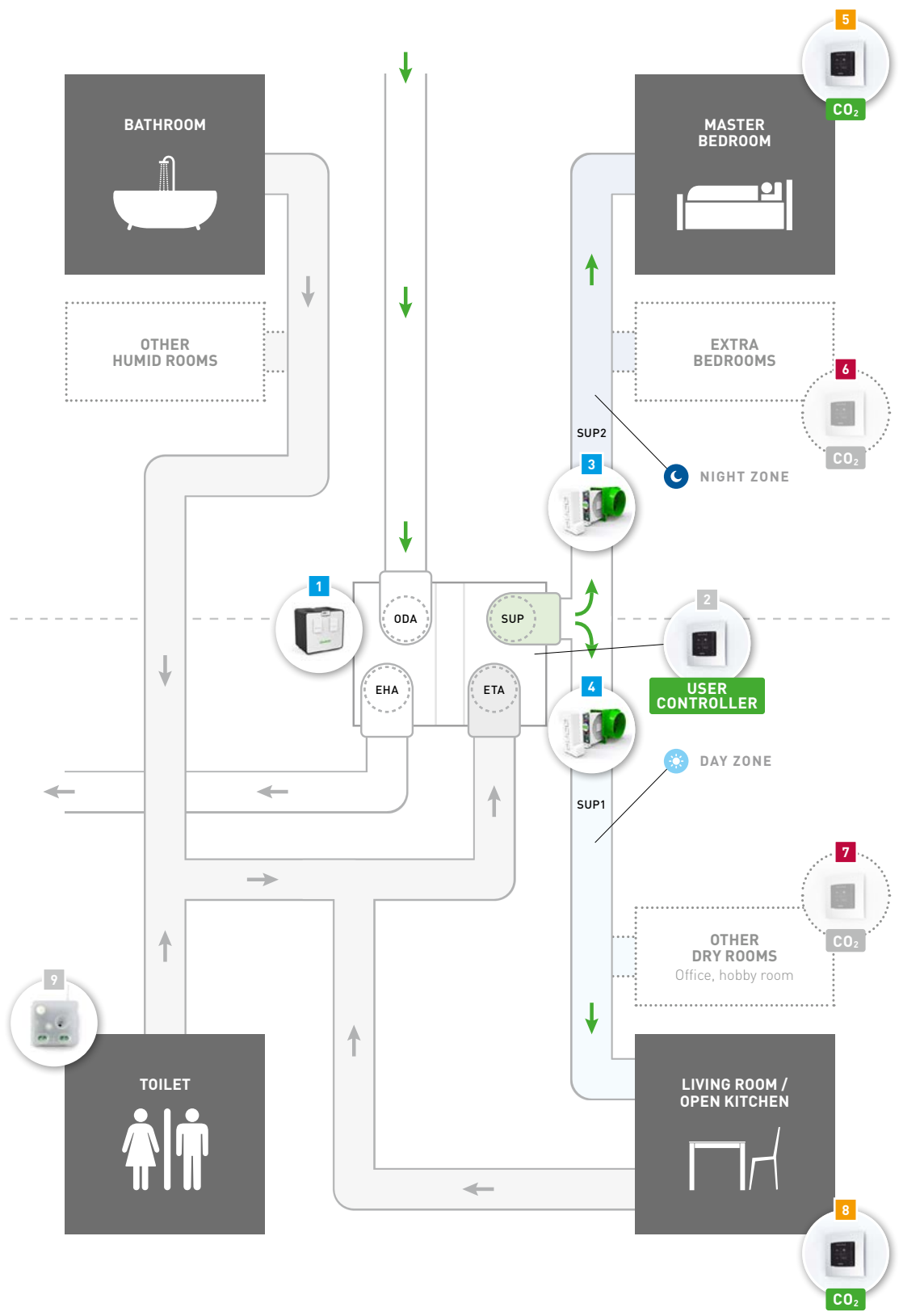
The bullet next to the item numbers below indicates which and how many components the basic kit contains.

## COMPONENTS

			Component on diagram
	DucoBox Energy Comfort D325 (UK)	0000-4658	
	DucoBox Energy Comfort D400 (UK)	0000-4757	
	DucoBox Energy Comfort Plus D350 (UK) 	0000-4758	1
	DucoBox Energy Comfort Plus D450 (UK) 	0000-4759	
	DucoBox Energy Comfort Plus D550 (UK)	0000-4923	
	Multi-zone valve DucoBox Energy (Sensorless) Ø125	0000-4761	
	Multi-zone valve DucoBox Energy (Sensorless) Ø160	2 0000-4760	3 4
	Remote control <b>RF / Wired</b>	Black 0000-4601 White 0000-4602	2
	Remote control <b>RF / Battery</b>	0000-4175 0000-4600	
	CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	1 0000-4603 0000-4604	5 8
	CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	1 0000-4636 0000-4637	6 7
	Switch sensor <b>RF/230 VAC</b>	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.

\* Passive House Institute certificate only for DucoBox Energy Comfort Plus D350/D450 units with pre-heater and a maximum flow rate between: 160 m<sup>3</sup>/h and 238 m<sup>3</sup>/h for the D350 variant and 155 m<sup>3</sup>/h and 308 m<sup>3</sup>/h for the D450 variant.



Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
✗	✗	■	■
✗	Main rooms	■ + ■	■
✗	All rooms	■ + ■ + ■	■

Extraction of stale air  
 Supply of fresh air

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



# Duco Energy Comfort (Plus) System

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



## BASIC KIT

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

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) Ø125	0000-4761	4 5
	Multi-zone valve DucoBox Energy (Sensorless) Ø160	② 0000-4760	
		Black      White	3
	Humidity Sensor DucoBox Energy Comfort (Plus)	0000-4723	
		Black      White	2
	Remote control <b>RF / Wired</b>	0000-4601      0000-4602	
	Remote control <b>RF / Battery</b>	0000-4175      0000-4600	
	CO <sub>2</sub> Room sensor <b>with control</b> <b>RF/Wired</b>	① 0000-4603      0000-4604	6 9
	CO <sub>2</sub> Room sensor <b>without control</b> <b>RF / Wired</b>	① 0000-4636      0000-4637	7 8
	Switch sensor <b>RF/230 VAC</b>	0000-4174	10
	Duco Connectivity Board	0000-4810	
	Pre-Heater DucoBox Energy Comfort (Plus) (UK) <b>1425W</b>	0000-4825	
	Duco Power supply 230VAC-24VDC/20W + casing	① 0000-4763	

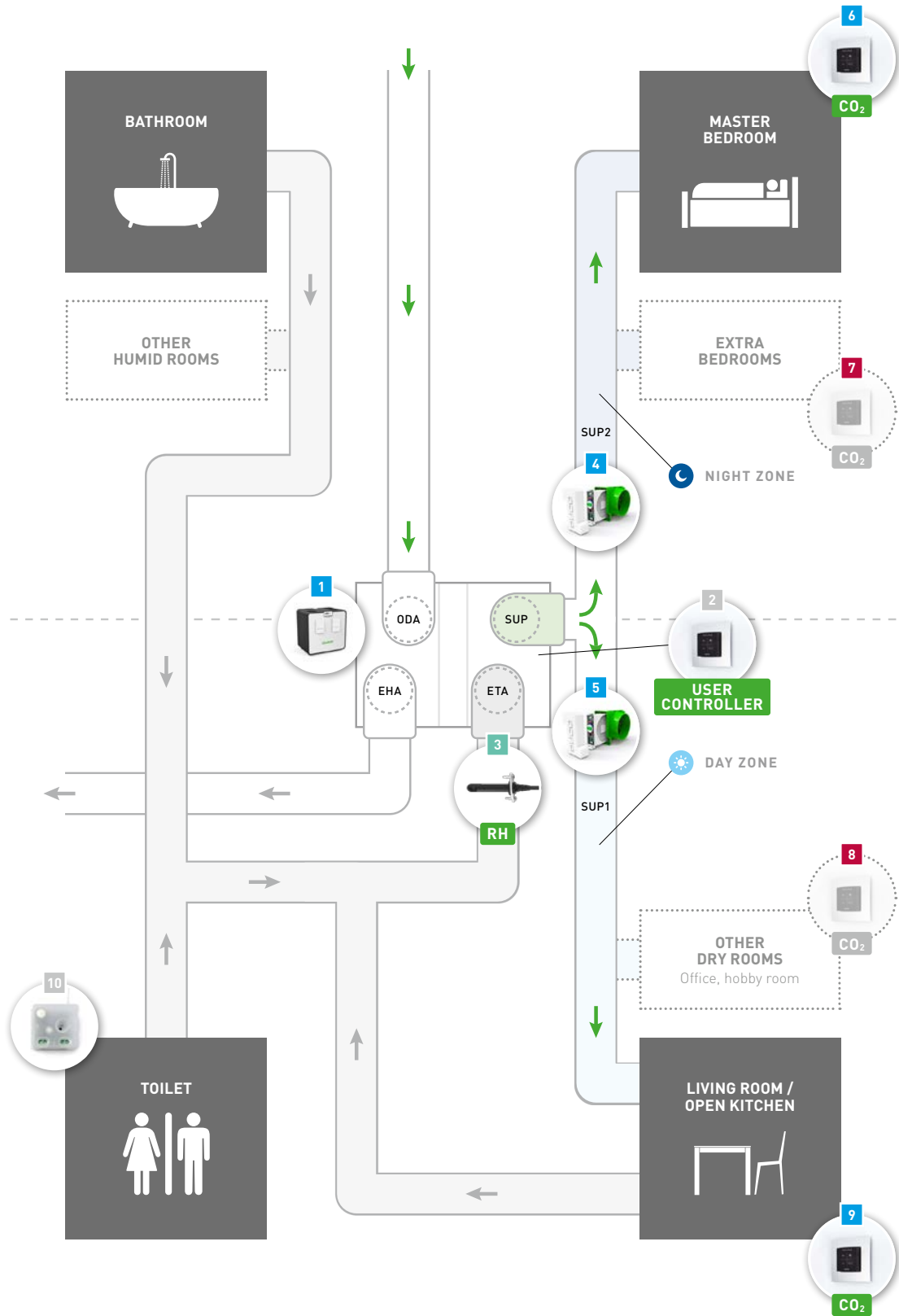
→ See chapter 'Vents' from page 66 for more information on all types of vents.

\* 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.

CENTRAL  
humidity  
measurement

2-ZONE  
SYSTEM





Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
Central	Main rooms	■ + ■	■
Central	All rooms	■ + ■ + ■	■

Extraction of stale air  
 Supply of fresh air

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



# Duco Energy Comfort (Plus) System

MVHR | Zonal ventilation (2-zone) | Up to 550 m<sup>3</sup>/h at 200 Pa



## BASIC KIT

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

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

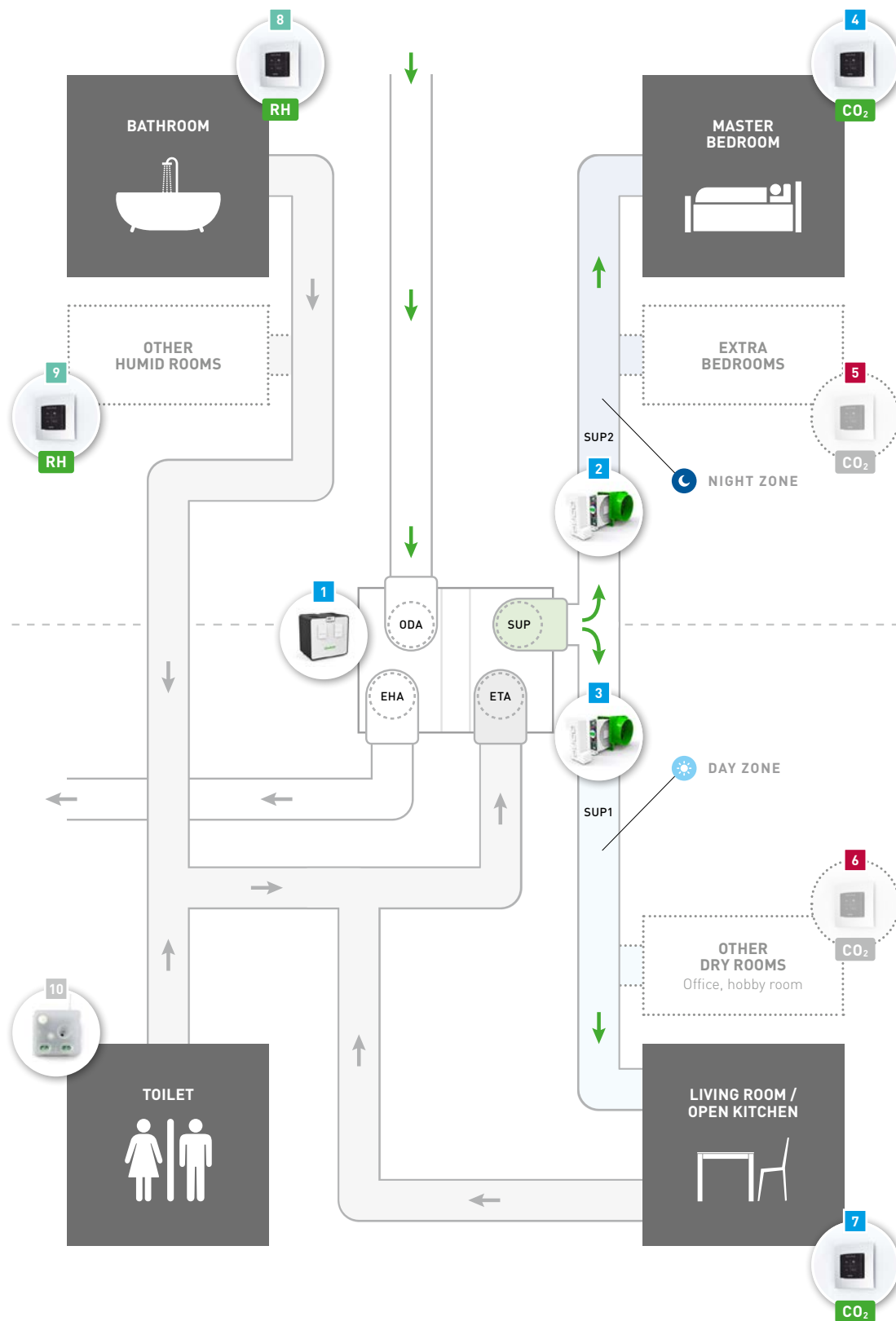
## COMPONENTS

			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) Ø125	0000-4761	2 3
	Multi-zone valve DucoBox Energy (Sensorless) Ø160	② 0000-4760	
		Black                  White	
	Remote control <b>RF / Wired</b>	0000-4601      0000-4602	
	Remote control <b>RF / Battery</b>	0000-4175      0000-4600	
	CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	① 0000-4603      0000-4604	
	CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	① 0000-4636      0000-4637	5 6
	Humidity Room sensor <b>with control RF / Wired</b>	0000-4605      0000-4606	8 9
	Switch sensor <b>RF/230 VAC</b>	0000-4174	10
	Duco Connectivity Board	0000-4810	
	Pre-Heater DucoBox Energy Comfort (Plus) (UK) <b>1425W</b>	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 m<sup>3</sup>/h and 238 m<sup>3</sup>/h for the D350 variant and 155 m<sup>3</sup>/h and 308 m<sup>3</sup>/h for the D450 variant.





Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
Local	Main rooms	■ + ■	■
Local	All rooms	■ + ■ + ■	■

→ Extraction of stale air  
 → Supply of fresh air

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



# DucoBox Energy Premium

The **QUIETEST** MVHR system!



## Smart 2-zone control

Saving up to 40% through smart zone control



## Quietest MVHR on the market

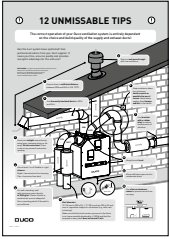
Enjoy a good night's sleep!



## 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 Premium

MVHR

Up to **400 m<sup>3</sup>/h** at 150 Pa

An **energy efficient operation** becomes more and more important as “passive” and “energy neutral”-houses become more and more widespread. The DucoBox Energy Premium fits perfectly within this evolution as a very high performance “balanced” ventilation unit, which raises MVHR (Mechanical Ventilation with Heat Recovery) to the next level.

The favourable positioning of the fan as well as high-grade absorbent material and a steel casing guarantee a **whisper-quiet operation**, especially in the living areas where this matters most (bedroom and living room)!

The DucoBox Energy Premium comes with an **A+ energy label** and is available in a 1-zone and a 2-zone version. The day and night-zone are being controlled separately by a valve which is integrated in the unit itself. This results in an **extremely efficient operation**: only ventilate when it is necessary and where it is necessary (e.g. minimal ventilation at night-time in the day-zone).

The **automatic calibration**, which is based on the principle of constant pressure, easily saves 50% of the set-up time. At the same time, it gives 100% peace of mind for a **qualitative installation** with the correct airflows.

## FEATURES

<p><b>Width x Height x Depth:</b> 740 x 957 x 585 mm</p> <p><b>Weight:</b> 47 kg</p> <p><b>Power supply:</b> 230 VAC</p> <p><b>Peak power at 150 Pa:</b> 2 x 60,5 W (325 m<sup>3</sup>/h / 460 m<sup>3</sup>/h) 2 x 91,5 W (400 m<sup>3</sup>/h / 570 m<sup>3</sup>/h)</p> <p><b>Energy label:</b> A+</p> <p><b>Efficiency in accordance with EU 1253/2014:</b> Types 325: 89% Types 400: 88%</p>	<p><b>Extraction capacity at 150 Pa:</b> Types 325: 325 m<sup>3</sup>/h Types 400: 400 m<sup>3</sup>/h</p> <p><b>Supply capacity at 150 Pa:</b> Types 325: 325 m<sup>3</sup>/h Types 400: 400 m<sup>3</sup>/h</p> <p><b>Communication:</b> RF and Wired. Expandable with Duco Connectivity Board (see 'Options &amp; accessories') for REST API (local or cloud) and Modbus TCP (local), both via Ethernet / Wi-Fi</p>	<p><b>Number of air ducts:</b> 5 ducts: 1 x extraction to outside (EHA) 1 x supply from outside (ODA) 1 x extraction from inside (ETA) 2 x supply to inside (SUP) Internal diameter Ø 160 mm External diameter Ø 190 mm</p>
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## VENTILATION UNIT

The DucoBox Energy Premium is available in a **left-hand variant** (= bevelled side left) and **right-hand variant** (= bevelled side right). On the bevelled side, an exhaust duct and supply duct are connected to the house (ETA and SUP).

The DucoBox Energy Premium is provided with frost protection through an imbalance method, which may be supplemented with an optional heater.

### → 1-ZONE VARIANT

Type of DucoBox	Passive House Certified Component	Max. air flow at 150 Pa	Heater	Plug	LEFT	RIGHT
Energy Premium <b>325-1ZS</b> (UK)	✗	325 m <sup>3</sup> /h	✗	G	0000-4456	0000-4460
Energy Premium <b>325-1ZH</b> (UK)		325 m <sup>3</sup> /h	yes	G	0000-4457	0000-4461
Energy Premium <b>400-1ZS</b> (UK)	✗	400 m <sup>3</sup> /h	✗	G	0000-4464	0000-4468
Energy Premium <b>400-1ZH</b> (UK)	✗	400 m <sup>3</sup> /h	yes	G	0000-4465	0000-4469

### → 2-ZONE VARIANT

Type of DucoBox	Passive House Certified Component	Max. air flow at 150 Pa	Heater	Plug	LEFT	RIGHT
Energy Premium <b>325-2ZS</b> (UK)	✗	325 m <sup>3</sup> /h	✗	G	0000-4458	0000-4462
Energy Premium <b>325-2ZH</b> (UK)		325 m <sup>3</sup> /h	yes	G	0000-4459	0000-4463
Energy Premium <b>400-2ZS</b> (UK)	✗	400 m <sup>3</sup> /h	✗	G	0000-4466	0000-4470
Energy Premium <b>400-2ZH</b> (UK)	✗	400 m <sup>3</sup> /h	yes	G	0000-4467	0000-4471

1Z = 1 zone | 2Z = 2 zones  
S = without heater | H = with heater

## CONTROL COMPONENTS DucoBox Energy Premium

### → BOX SENSOR

This sensor is fitted in the **DucoBox Energy Premium** and it measures the **humidity content** of the air extracted from the dwelling. A maximum of one Humidity Box sensor per unit.

Peak power: < 1 W	Stand-by power: < 1 W	Power supply: From the DucoBox
-------------------	-----------------------	--------------------------------

Humidity Box sensor (Energy Premium)	0000-4374
--------------------------------------	-----------

### → EXTERNAL CONTROL COMPONENTS

The DucoBox Energy Premium 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

## OPTIONS & ACCESSORIES DucoBox Energy Premium



Mounting chair standing (Energy Premium)	0000-4740
--	-----------

In situations where wall mounting of the DucoBox Energy Premium is not possible, this support frame makes floor mounting possible. Use of a flat siphon is required.

Width x Height x Depth (incl. DucoBox Energy Premium): 740 x 1110 x 570 mm



**Mounting chair hanging (Energy Premium)**

**0000-4422**

In situations where it is not possible to mount the DucoBox to a wall, this support frame makes floor-mounting possible. Use of a standard siphon is possible.

**Width x Height x Depth (incl. DucoBox Energy Premium):** 740 x 1290 x 640 mm



**Filter set 2 x Coarse 65% (Energy Premium)**

**0000-4417**

**Filter set Coarse 65% / ePM1 70% (Energy Premium)**

**0000-4416**

The filter sets for the DucoBox Energy Premium include the following filters. For supply air (SUP): choice between Coarse 65% (≈ G4) or ePM1 70% filter (≈ F7) (Energy Premium only). The ePM1 70% 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)



**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.



**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.



**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.



**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**



**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 Ø80**

**0000-4722**

**Flow regulator 15-50 m³/h Ø125**

**0000-4836**

**Flow regulator 50-100 m³/h Ø125**

**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.



# Duco Energy Premium System

MVHR | Central ventilation (1-zone) | Up to 400 m<sup>3</sup>/h at 150 Pa











NO humidity measurement



1-ZONE SYSTEM

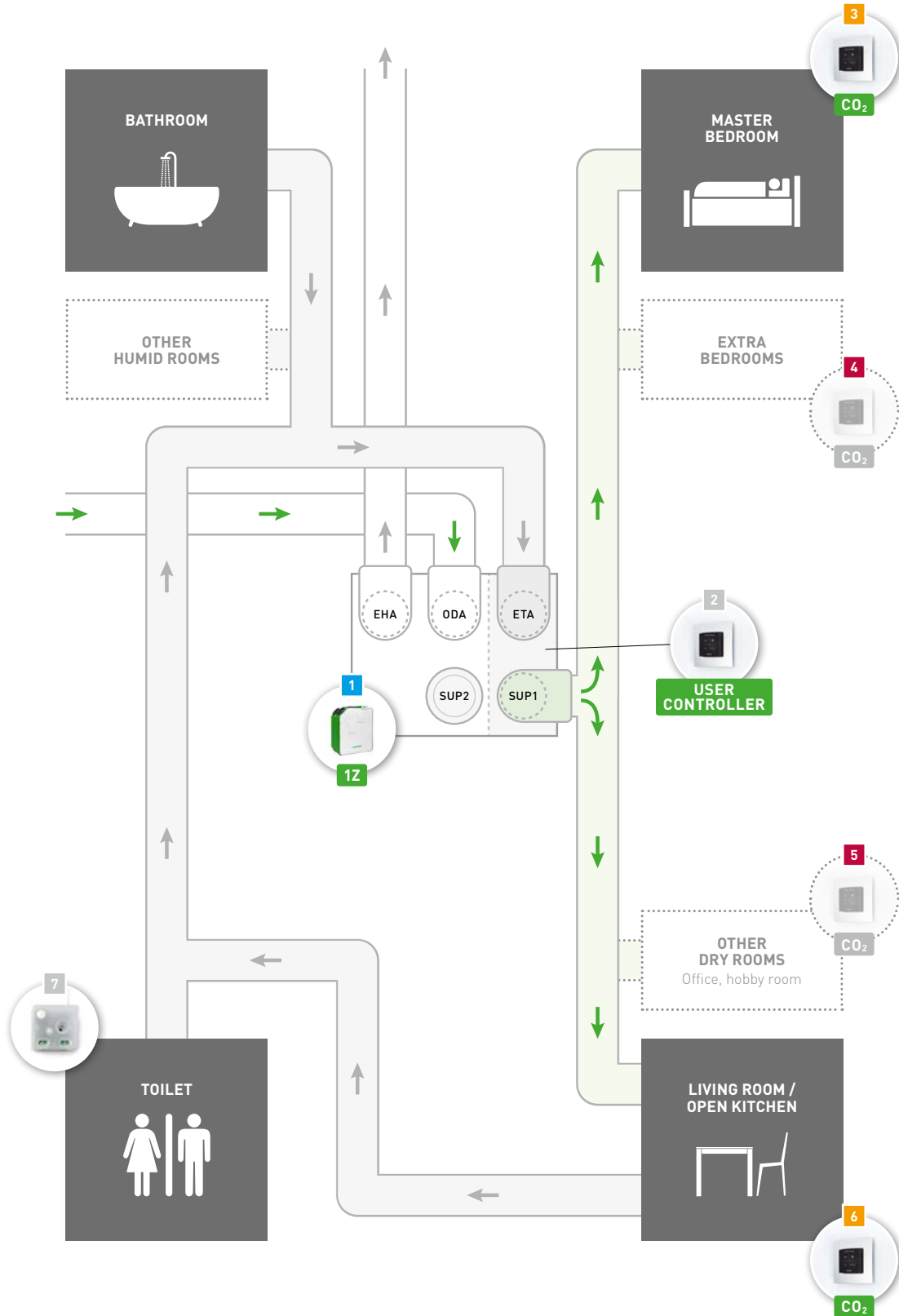


## COMPONENTS

	Left	Right	Component on diagram
 DucoBox Energy Premium <b>325-1ZS</b> (UK)	0000-4456	0000-4460	1
 DucoBox Energy Premium <b>325-1ZH</b> (UK)	0000-4457	0000-4461	
 DucoBox Energy Premium <b>400-1ZS</b> (UK)	0000-4464	0000-4468	
 DucoBox Energy Premium <b>400-1ZH</b> (UK)	0000-4465	0000-4469	
S = standard   H = with heater			
	Black	White	
 Remote control <b>RF / Wired</b>	0000-4601	0000-4602	2
 Remote control <b>RF / Battery</b>	0000-4175	0000-4600	
 CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603	0000-4604	3 6
 CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636	0000-4637	4 5
 Switch sensor <b>RF/230 VAC</b>	0000-4174		7
 Duco Connectivity Board	0000-4810		

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

\* Passive House Institute certificate only for DucoBox Energy Premium units with heater and a maximum flow rate between 119 m<sup>3</sup>/h and 239 m<sup>3</sup>/h.



Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
x	x	■	■
x	Main rooms	■ + ■	■
x	All rooms	■ + ■ + ■	■

→ Extraction of stale air  
 → Supply of fresh air

The illustration shows a right variant of the DucoBox Energy Premium.



# Duco Energy Premium System

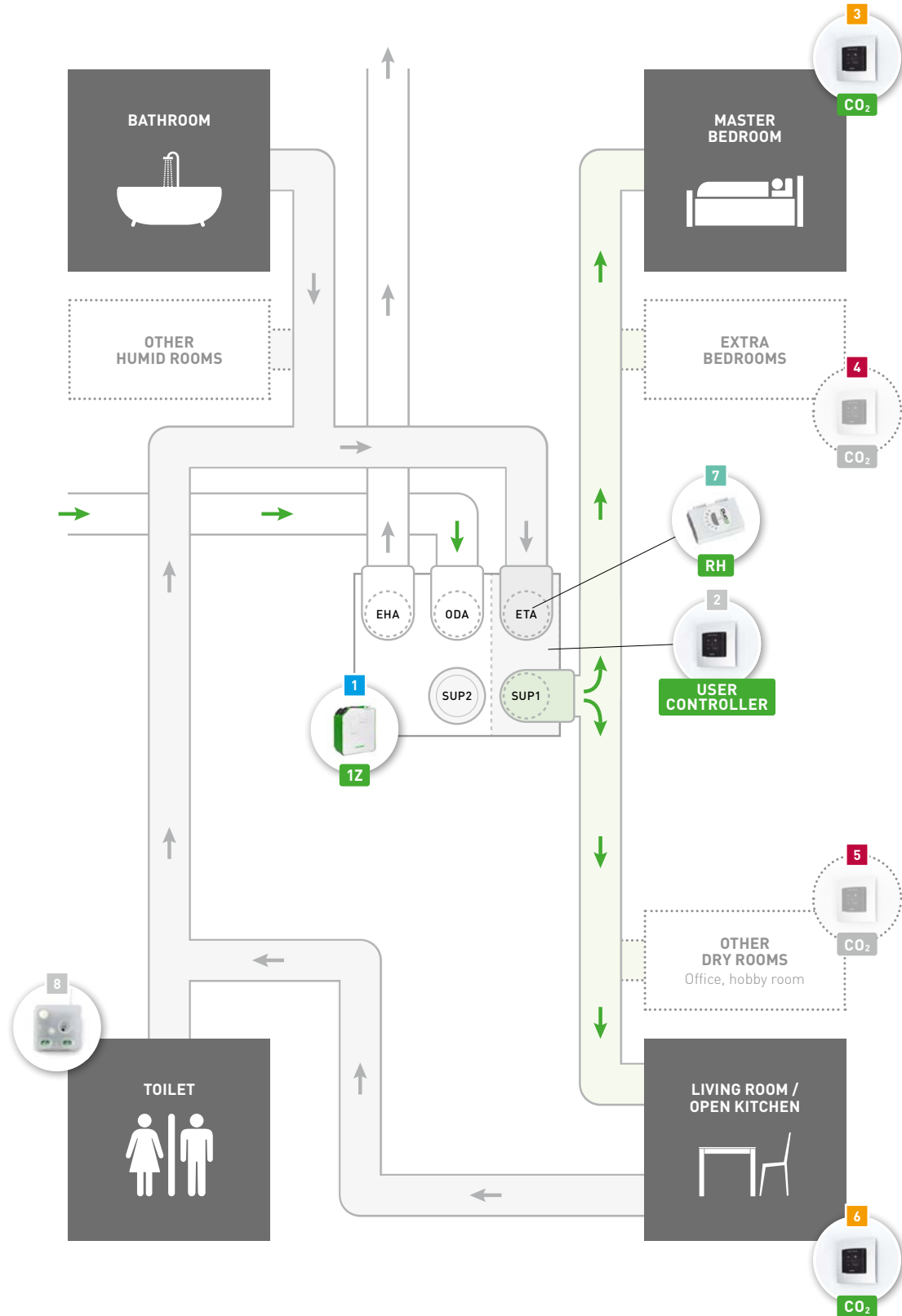
MVHR | Central ventilation (1-zone) | Up to 400 m<sup>3</sup>/h at 150 PaCENTRAL  
humidity  
measurement1-ZONE  
SYSTEM

## COMPONENTS

	Left	Right	Component on diagram
DucoBox Energy Premium <b>325-1ZS</b> (UK)	0000-4456	0000-4460	1
DucoBox Energy Premium <b>325-1ZH</b> (UK)	0000-4457	0000-4461	
DucoBox Energy Premium <b>400-1ZS</b> (UK)	0000-4464	0000-4468	
DucoBox Energy Premium <b>400-1ZH</b> (UK)	0000-4465	0000-4469	
S = standard   H = with heater			
Humidity Box sensor (Energy Premium)	0000-4374		7
	Black	White	2
Remote control <b>RF / Wired</b>	0000-4601	0000-4602	
Remote control <b>RF / Battery</b>	0000-4175	0000-4600	3 6
CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603	0000-4604	
CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636	0000-4637	4 5
Humidity Room sensor <b>with control RF / Wired</b>	0000-4605	0000-4606	
Switch sensor <b>RF/230 VAC</b>	0000-4174		8
Duco Connectivity Board	0000-4810		

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

\* Passive House Institute certificate only for DucoBox Energy Premium units with heater and a maximum flow rate between 119 m<sup>3</sup>/h and 239 m<sup>3</sup>/h.



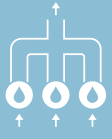
Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
Central	✗	■ + ■	■
Central	Main rooms	■ + ■ + ■	■
Central	All rooms	■ + ■ + ■ + ■	■

→ Extraction of stale air  
 → Supply of fresh air

The illustration shows a right variant of the DucoBox Energy Premium.



# Duco Energy Premium System

MVHR | Zonal ventilation (1-zone) | Up to 400 m<sup>3</sup>/h at 150 PaLOCAL  
humidity  
measurement1-ZONE  
SYSTEM

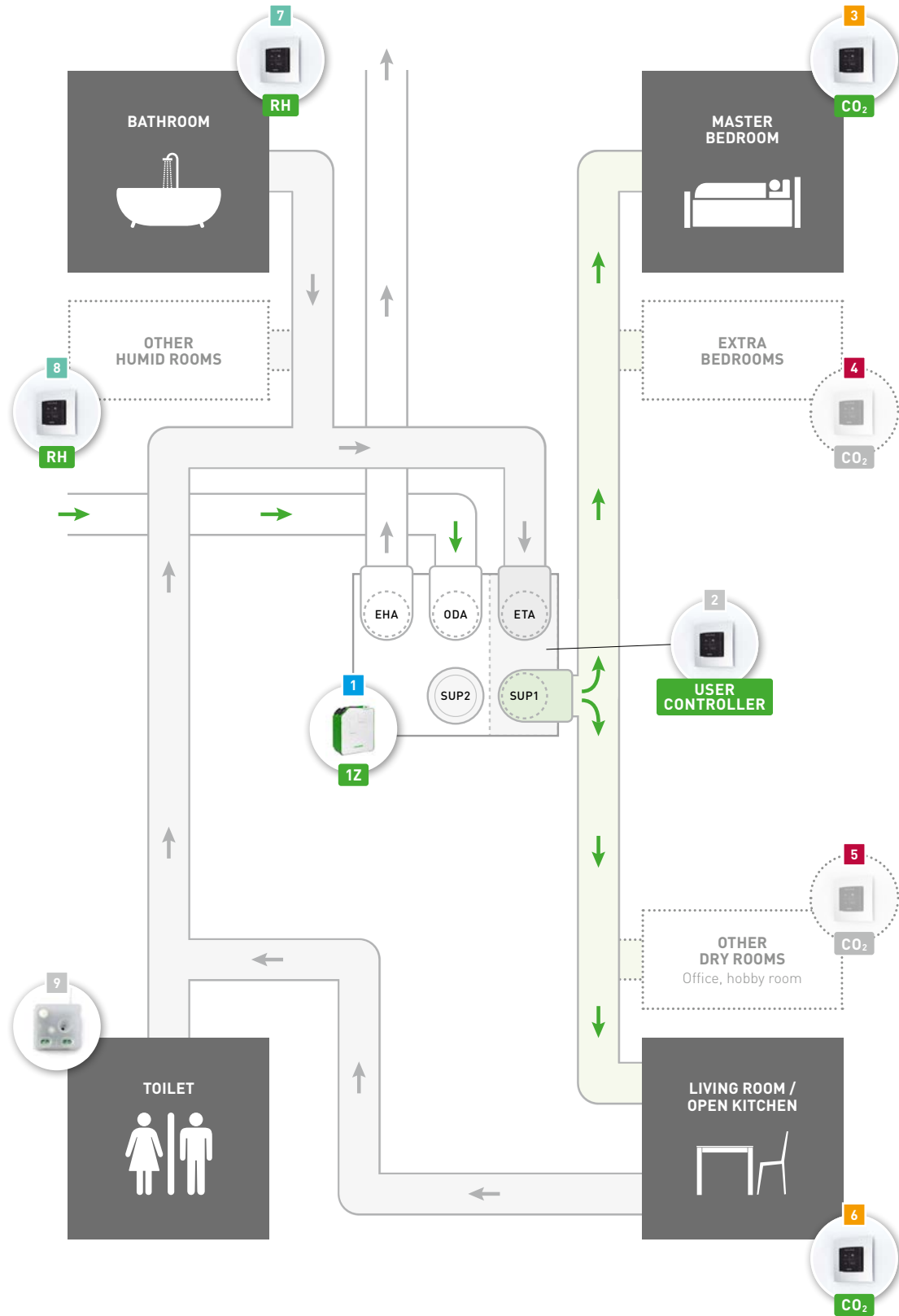
## COMPONENTS

	Left	Right	Component on diagram
DucoBox Energy Premium <b>325-1ZS</b> (UK)	0000-4456	0000-4460	1
DucoBox Energy Premium <b>325-1ZH</b> (UK)	0000-4457	0000-4461	
DucoBox Energy Premium <b>400-1ZS</b> (UK)	0000-4464	0000-4468	
DucoBox Energy Premium <b>400-1ZH</b> (UK)	0000-4465	0000-4469	
S = standard   H = with heater			
Humidity Box sensor (Energy Premium)	0000-4374		
	Black	White	
Remote control <b>RF / Wired</b>	0000-4601	0000-4602	2
Remote control <b>RF / Battery</b>	0000-4175	0000-4600	
CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603	0000-4604	3 6
CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636	0000-4637	4 5
Humidity Room sensor <b>with control RF / Wired</b>	0000-4605	0000-4606	7 8
Switch sensor <b>RF/230 VAC</b>	0000-4174		9
Duco Connectivity Board	0000-4810		

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

\* Passive House Institute certificate only for DucoBox Energy Premium units with heater and a maximum flow rate between 119 m<sup>3</sup>/h and 239 m<sup>3</sup>/h.





Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
Local	✗	■ + ■	■
Local	Main rooms	■ + ■ + ■	■
Local	All rooms	■ + ■ + ■ + ■	■

→ Extraction of stale air  
 → Supply of fresh air

The illustration shows a right variant of the DucoBox Energy Premium.



# Duco Energy Premium System

MVHR | Central ventilation (2-zone) | Up to 400 m<sup>3</sup>/h at 150 Pa

NO humidity measurement

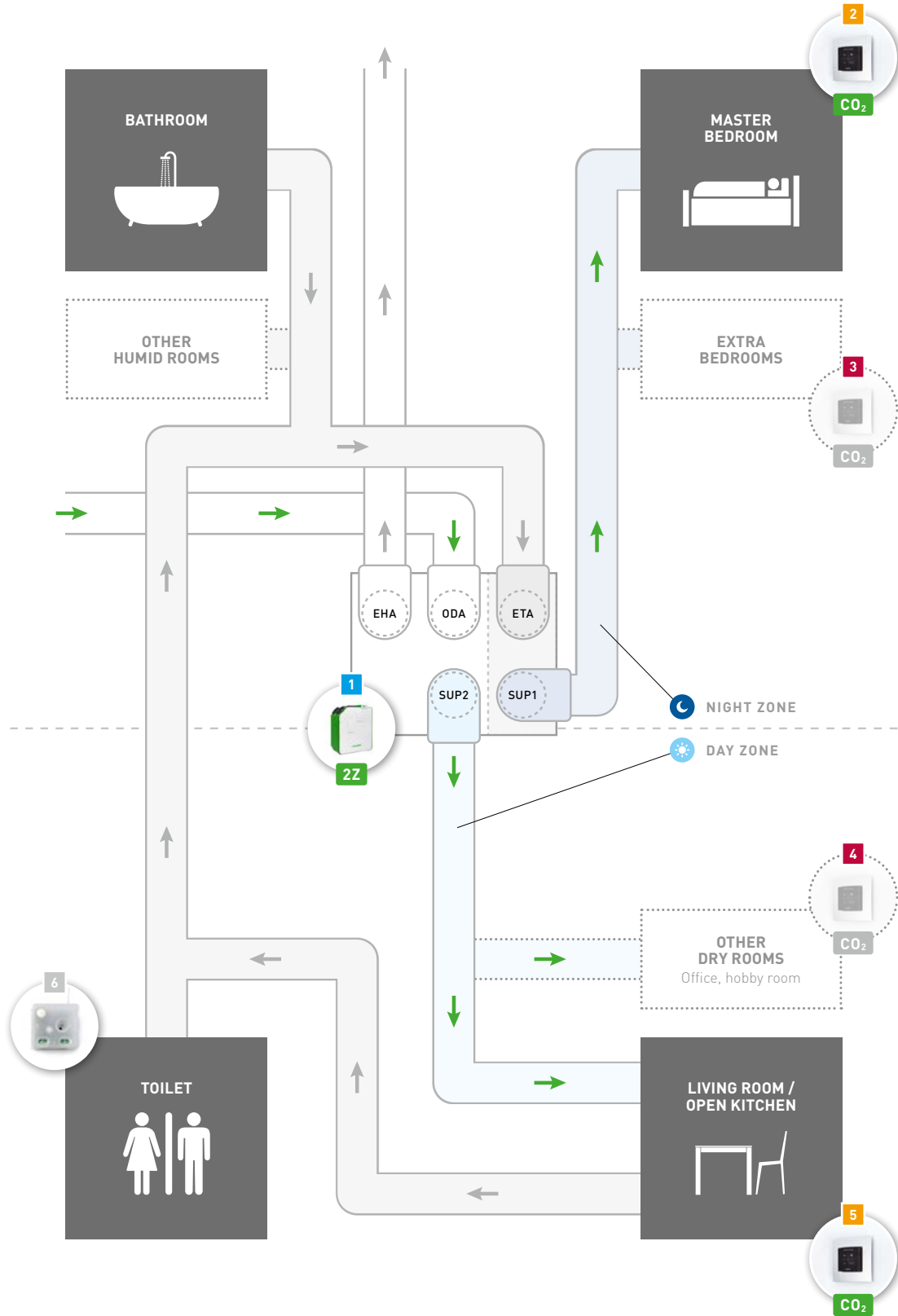


## COMPONENTS

	Left	Right	Component on diagram
DucoBox Energy Premium <b>325-2ZS</b> (UK)	0000-4458	0000-4462	1
DucoBox Energy Premium <b>325-2ZH</b> (UK)	0000-4459	0000-4463	
DucoBox Energy Premium <b>400-2ZS</b> (UK)	0000-4466	0000-4470	
DucoBox Energy Premium <b>400-2ZH</b> (UK)	0000-4467	0000-4471	
S = standard   H = with heater			
	Black	White	
Remote control <b>RF / Wired</b>	0000-4601	0000-4602	
Remote control <b>RF / Battery</b>	0000-4175	0000-4600	
CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603	0000-4604	2 5
CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636	0000-4637	3 4
Switch sensor <b>RF/230 VAC</b>	0000-4174		6
Duco Connectivity Board	0000-4810		

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

\* Passive House Institute certificate only for DucoBox Energy Premium units with heater and a maximum flow rate between 119 m<sup>3</sup>/h and 239 m<sup>3</sup>/h.



Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
✗	✗	■	■
✗	Main rooms	■ + ■	■
✗	All rooms	■ + ■ + ■	■

Extraction of stale air  
 Supply of fresh air

The illustration shows a right variant of the DucoBox Energy Premium.



# Duco Energy Premium System

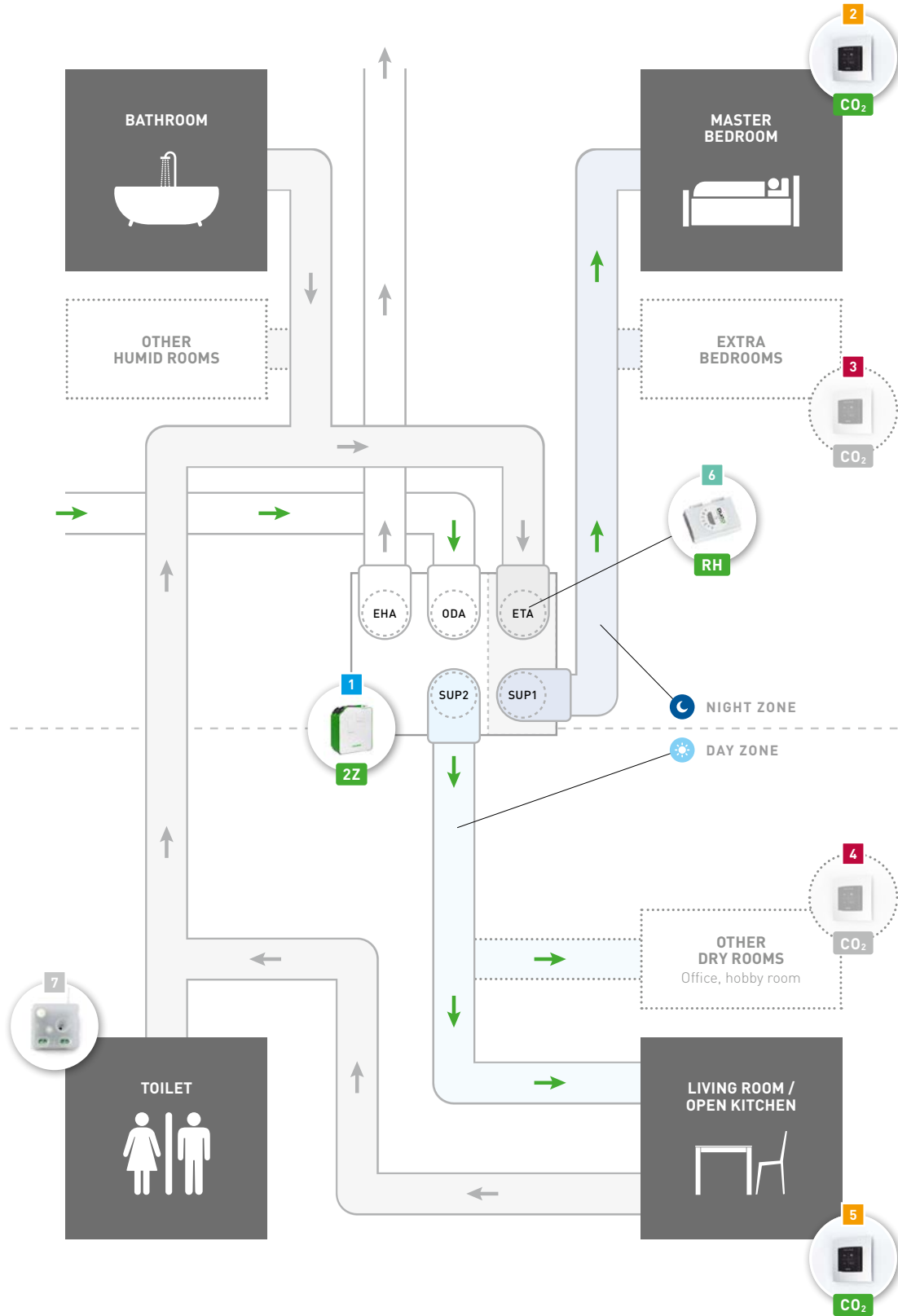
MVHR | Central ventilation (2-zone) | Up to 400 m<sup>3</sup>/h at 150 PaCENTRAL  
humidity  
measurement2-ZONE  
SYSTEM

## COMPONENTS

	Left	Right	Component on diagram
DucoBox Energy Premium <b>325-2ZS</b> (UK)	0000-4458	0000-4462	1
DucoBox Energy Premium <b>325-2ZH</b> (UK)	0000-4459	0000-4463	
DucoBox Energy Premium <b>400-2ZS</b> (UK)	0000-4466	0000-4470	
DucoBox Energy Premium <b>400-2ZH</b> (UK)	0000-4467	0000-4471	
S = standard   H = with heater			
Humidity Box sensor (Energy Premium)	0000-4374		6
	Black	White	
Remote control <b>RF / Wired</b>	0000-4601	0000-4602	2
Remote control <b>RF / Battery</b>	0000-4175	0000-4600	
CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603	0000-4604	2 5
CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636	0000-4637	3 4
Switch sensor <b>RF/230 VAC</b>	0000-4174		7
Duco Connectivity Board	0000-4810		

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

\* Passive House Institute certificate only for DucoBox Energy Premium units with heater and a maximum flow rate between 119 m<sup>3</sup>/h and 239 m<sup>3</sup>/h.



Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
Central	✗	+	
Central	Main rooms	+  +	
Central	All rooms	+  +  +	

Extraction of stale air  
 Supply of fresh air

The illustration shows a right variant of the DucoBox Energy Premium.



# Duco Energy Premium System

MVHR | Zonal ventilation (2-zone) | Up to 400 m<sup>3</sup>/h at 150 Pa

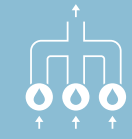


## COMPONENTS

	Left	Right	Component on diagram
DucoBox Energy Premium <b>325-2ZS</b> (UK)	0000-4458	0000-4462	1
DucoBox Energy Premium <b>325-2ZH</b> (UK)	0000-4459	0000-4463	
DucoBox Energy Premium <b>400-2ZS</b> (UK)	0000-4466	0000-4470	
DucoBox Energy Premium <b>400-2ZH</b> (UK)	0000-4467	0000-4471	
S = standard   H = with heater			
	Black	White	
Remote control <b>RF / Wired</b>	0000-4601	0000-4602	
Remote control <b>RF / Battery</b>	0000-4175	0000-4600	
CO <sub>2</sub> Room sensor <b>with control RF/Wired</b>	0000-4603	0000-4604	2 5
CO <sub>2</sub> Room sensor <b>without control RF / Wired</b>	0000-4636	0000-4637	3 4
Humidity Room sensor <b>with control RF / Wired</b>	0000-4605	0000-4606	6 7
Switch sensor <b>RF/230 VAC</b>	0000-4174		8
Duco Connectivity Board	0000-4810		

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

\* Passive House Institute certificate only for DucoBox Energy Premium units with heater and a maximum flow rate between 119 m<sup>3</sup>/h and 239 m<sup>3</sup>/h.



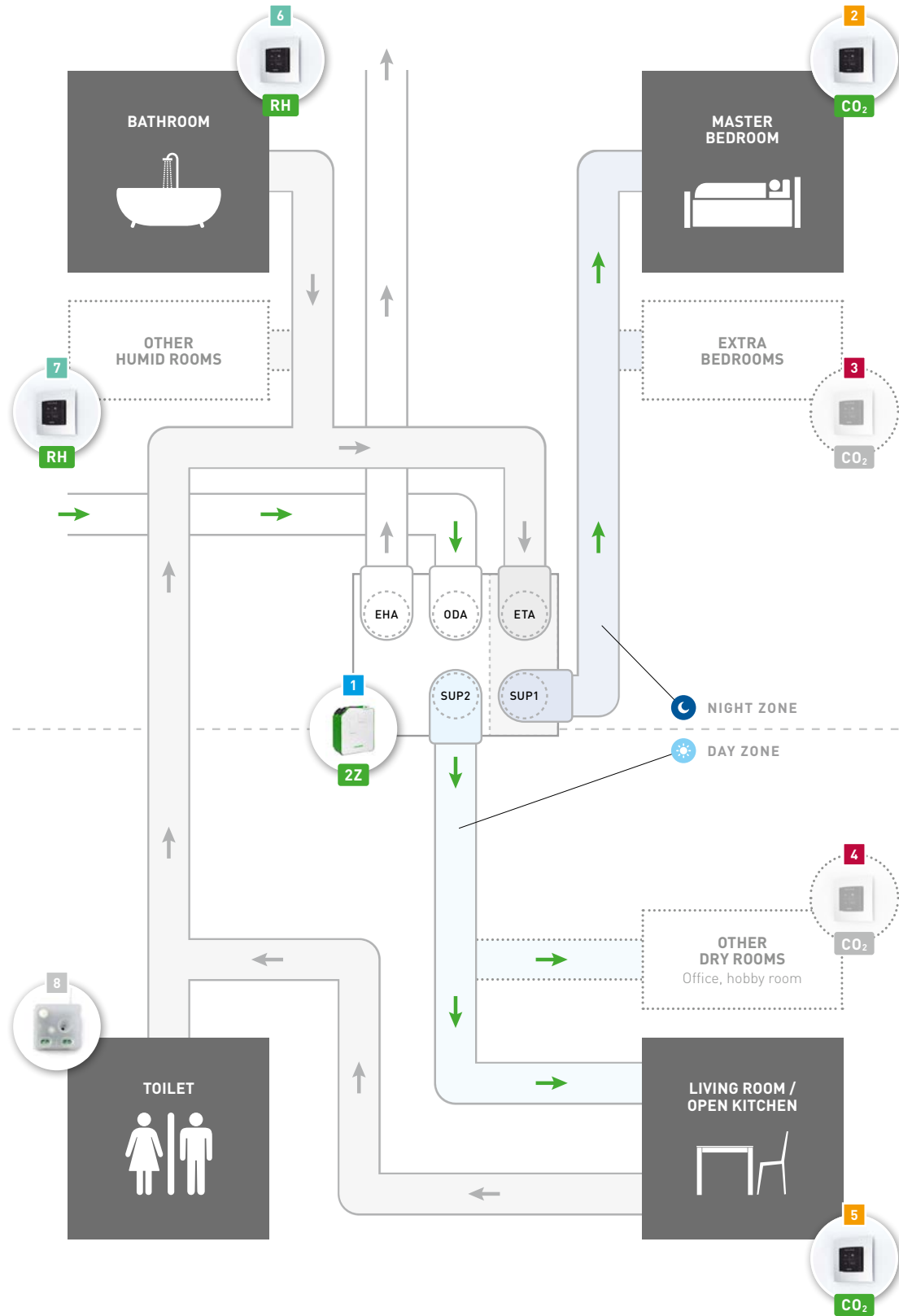
LOCAL  
humidity  
measurement



2-ZONE  
SYSTEM



CERTIFIED  
COMPONENT  
Passive House Institute



Detection		Required components	Optional components
Humidity	CO <sub>2</sub>		
Local	✗	■ + ■	■
Local	Main rooms	■ + ■ + ■	■
Local	All rooms	■ + ■ + ■ + ■	■

Extraction of stale air  
 Supply of fresh air

The illustration shows a right variant of the DucoBox Energy Premium.



## 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<sub>2</sub> 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<sub>2</sub> 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).

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



### User controllers + air quality measurement

These contain both a **user controller** and room sensors (CO<sub>2</sub> or humidity) for air quality measurement.

	Black	White
CO <sub>2</sub> Room sensor <b>with control</b> RF/Wired	0000-4603	0000-4604
Humidity Room sensor <b>with control</b> 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<sub>2</sub> sensor. Ideal for bedrooms where no user controller is necessary.

	Black	White
CO <sub>2</sub> Room sensor <b>without control</b> 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.

<b>Width x Height x Depth:</b> 41 x 37 x 20 mm <b>Weight:</b> 21 g <b>Color:</b> white	<b>Peak power:</b> 0.5 W <b>Standby power:</b> 0.4 W	<b>Power supply:</b> 230 VAC <b>Communication:</b> RF
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**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 mm<sup>2</sup> cable for this. Refer to the **Onboard dry contact information sheet (L8001001)** for connection instructions.



Switch sensor **RF/230 VAC**

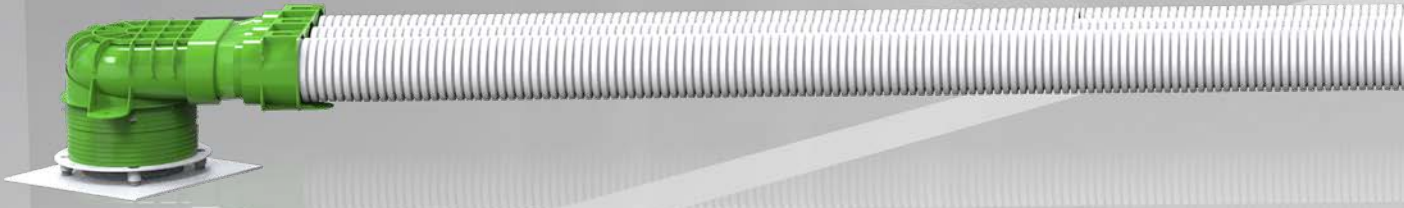
**0000-4174**



## → INTERNAL CONTROL COMPONENTS

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

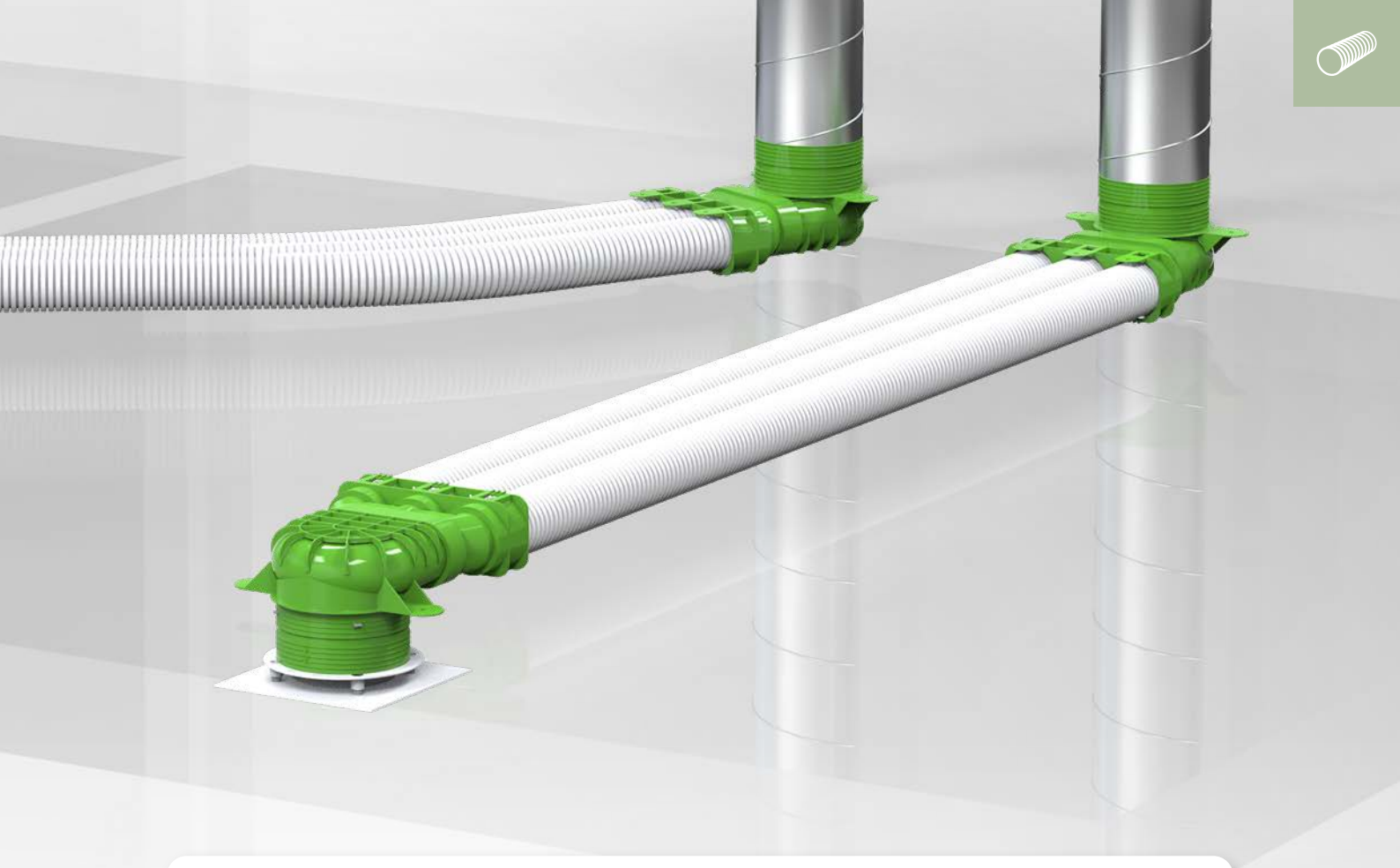
<b>DucoBox Energy Comfort</b>	see page 26
<b>DucoBox Energy Premium</b>	see page 42



## **DUCOFLEX** **AIR DUCT SYSTEM**

With DucoFlex, DUCO offers a **complete air duct system** for MEV and MVHR systems. It consists of the highest airtightness class D, the lowest air resistance and maximum acoustic comfort in combination with the quietest ventilation boxes! The result is an **energy-efficient and quiet** ventilation system.

Did you know that this complete air duct system for MEV and MVHR systems is very **installation-friendly**? This is thanks to the handy 'Click & Go' principle and minimum number of fittings. DUCO as a one-stop-shop with 100 % service provision!



## DUCOFLEX IN 3 STEPS

Are you convinced by DucoFlex, the compact and installation-friendly air duct system? In this case you will not be left on your own! DUCO will give you peace of mind for your tailor-made project.

- 1 Provide your DUCO dealer with the necessary documents:** the building plans to scale in PDF format, the chosen configuration and the intended location for the DucoBox. Then your dealer will get started!
- 2 What's next? You will receive a tailored quotation** with which you can approach your customer immediately. The calculation includes the price for the DucoBox, the system components and an estimate for the DucoFlex air-duct system.
- 3 Are you happy with the quotation? In this case you will receive a proposal for a layout plan** within 10 work days and the completed **bill of materials** for MVHR systems.\*

\* Only applicable for MVHR systems. Between the estimate (quotation phase) and the completed bill of materials, fluctuations are possible in relation to the number of metres of DucoFlex or manifold boxes, depending on the complexity of the practical development.



## STANDARD COMPONENTS



DucoFlex Round semi-rigid ducting D63 (50 m)	0000-4552
DucoFlex Round semi-rigid ducting D75 (50 m)	0000-4674
DucoFlex Round semi-rigid ducting D90 (50 m)	0000-4692

DucoFlex antistatic and antibacterial air ducting, being round and flexible, is easy to fit. When fitted correctly, its low internal resistance will contribute to an energy-efficient ventilation system.



DucoFlex Rubber O-ring D63 (10 pieces)	0000-4553
DucoFlex Rubber O-ring D75 (10 pieces)	0000-4675
DucoFlex Rubber O-ring D90 (10 pieces)	0000-4676

The DucoFlex O-ring (EPDM) provides a quick and perfectly airtight joint between air ducts and fittings.



DucoFlex Coupling D63	0000-4554
DucoFlex Coupling D75	0000-4677
DucoFlex Coupling D90	0000-4678

The coupling enables an airtight connection to be made between DucoFlex ducts. A built-in stop prevents the ducts from being inserted too far.



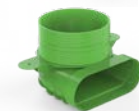
DucoFlex Elbow 90° D75	0000-4679
DucoFlex Elbow 90° D90	0000-4680

The elbow in the standard configuration enables a 90° bend to be made in flexible ducting.



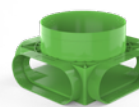
DucoFlex 90° Bend splitter vent connector long, oval D125	0000-4681
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The DucoFlex 90° Bend splitter vent connector long can be utilised multifunctionally. This makes it possible to connect a DucoFlex connector 3x63, 2x75, 3x75 or 2x90 to it.



DucoFlex 90° Bend splitter vent connector short, oval D125	0000-4682
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The DucoFlex 90° Bend splitter vent connector short can be used multifunctionally. This makes it possible to connect a DucoFlex connector 3x63, 2x75, 3x75 or 2x90 to it.



DucoFlex Manifold box (floor and ceiling) 4 x oval air ducts (F) D160	0000-4687
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The ceiling and floor manifold box can be utilised multifunctionally. It is a box with 4 oval connexions and a D160 riser duct. In combination with connectors D63, D75 or D90, it becomes a floor/ceiling plenum.



DucoFlex Manifold box (floor and ceiling) 3x oval air ducts (F) 1x oval air duct (M)	0000-4701
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The ceiling and floor manifold box can be utilised multifunctionally. It is a manifold box with 3 oval connections (F) and 1 oval connection (M). This offers the possibility to connect it to the ceiling and floor manifold box 4x oval (F) and so expand to 6x oval connections (F).



DucoFlex Manifold box (floor) 12x63 D180	0000-4563
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The D180 floor manifold box is the adapter between a maximum of 12 DucoFlex D63 ducts and a direct connection to a D180 riser duct. The smart 'Click & Go' system provides a quick and perfectly airtight joint between DucoFlex ducts.



DucoFlex Manifold box (floor) 12x63 2x oval air ducts	0000-4565
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The 2x oval floor manifold box is the adapter between up to a maximum of 12 D63 ducts and 2x DucoFlex oval. This enables the manifold box to be positioned more accessibly. The smart 'Click & Go' system provides a quick and perfectly airtight joint between DucoFlex ducts.



DucoFlex Manifold box (ceiling) 12x63 D180

0000-4564

The D180 ceiling manifold box is the adapter between up to a maximum of 12 DucoFlex D63 ducts and a direct connection to a D180 riser duct. The smart 'Click & Go' system provides a quick and perfectly airtight joint between DucoFlex ducts.



DucoFlex Riser duct connector, round D160 &gt; 2x oval

0000-4566

The riser duct connector can be utilised multifunctionally. It is an adapter between 2x DucoFlex oval and a D160 riser duct. In combination with connectors D63, D75 or D90, it becomes a floor/ceiling plenum.



DucoFlex Adapter 3x63 oval

0000-4684

DucoFlex Adapter 2x75 oval

0000-4685

DucoFlex Adapter 3x75 oval

0000-4841

DucoFlex Adapter 2x90 oval

0000-4686

The adapter allows connecting 3x DucoFlex D63/D75 or 2x DucoFlex D75/D90 to a DucoFlex oval connection. The smart "Click & Go" system provides a quick and perfectly airtight joint between DucoFlex ducts.



DucoFlex Rigid oval ducting W163 x H68 x L1150

0000-4567

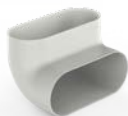
Rigid DucoFlex oval ducting combined with the D160 - 2x oval connector enables a manifold box to be provided in a favourable location.



DucoFlex Horizontal elbow 90°/45° Rigid oval duct

0000-4609

The horizontal bend in the standard configuration enables a 90° bend to be made in rigid oval ducting. It is possible to cut this component down to a 45° bend.



DucoFlex Vertical elbow 90° Rigid oval duct

0000-4699

The vertical elbow in the standard version enables a vertical 90° bend to be made in rigid oval ducting.



DucoFlex Oval duct coupling

0000-4568

The oval coupling provides a quick and perfectly airtight connection between DucoFlex oval ducting and connections.



DucoFlex horizontal connector D125 oval

0000-4638

The D125 oval connector provides a horizontal connection between D125 round duct and DucoFlex oval duct or an optional connector for DucoFlex.



DucoFlex Horizontal connector 2x Oval D160

0000-4700

The D160 2x oval connector provides a horizontal connection between D160 round ducts and 2x DucoFlex oval ducts or an optional connector for DucoFlex.



DucoFlex oval cap

0000-4713

The DucoFlex oval cap makes it possible to close an oval connection of a manifold box

## TOOLS



DucoFlex Duct cutter D63

0000-4599

DucoFlex Duct cutter D75

0000-4688

DucoFlex Duct cutter D90

0000-4689

The DucoFlex duct cutter ensures that ducting can be cut easily as well as nice and straight. This is recommended for airtight system assembly.



## INSULATED DUCTING



DucoFlex Insulated circular duct with integrated coupler D160 L1000 mm	0000-4569
DucoFlex Insulated circular duct with integrated coupler D180 L1000 mm	0000-4570
DucoFlex Insulated circular duct with integrated coupler D200 L1000 mm	0000-4905
<b>available Q2/2024</b>	

The DucoFlex Insulated circular duct is a smooth and insulated ventilation duct made of EPS. The good insulating properties of this product prevent a thermal bridge and therefore condensation when polluted air is extracted or outside air is supplied. Energy losses from ventilation air are also avoided. In addition to the good thermal insulation value, the material used also dampens noise and is very easy to handle. A connection piece is supplied as standard which connects the various EPS components quickly and airtight.



DucoFlex Insulated 90° bend with integrated coupler D160	0000-4571
DucoFlex Insulated 90° bend with integrated coupler D180	0000-4572
DucoFlex Insulated 90° bend with integrated coupler D200	0000-4906
<b>available Q2/2024</b>	

The DucoFlex Insulated 90° bend is a smooth and insulated elbow for ventilation ducts made of EPS. The good insulating properties of this product prevent a thermal bridge and therefore condensation when polluted air is extracted or outside air is supplied. Energy losses from ventilation air are also avoided. In addition to the good thermal insulation value, the material used also dampens noise and is very easy to handle. A connection piece is supplied as standard which connects the various EPS components quickly and airtight.



DucoFlex Insulated 45° bend with integrated coupler D160	0000-4573
DucoFlex Insulated 45° bend with integrated coupler D180	0000-4574
DucoFlex Insulated 45° bend with integrated coupler D200	0000-4907
<b>available Q2/2024</b>	

The DucoFlex Insulated 45° bend is a smooth and insulated elbow for ventilation ducts made of EPS. The good insulating properties of this product prevent a thermal bridge and therefore condensation when polluted air is extracted or outside air is supplied. Energy losses from ventilation air are also avoided. In addition to the good thermal insulation value, the material used also dampens noise and is very easy to handle. A connection piece is supplied as standard which connects the various EPS components quickly and airtight.



DucoFlex Insulated coupler D160	0000-4575
DucoFlex Insulated coupler D180	0000-4576
DucoFlex Insulated coupler D200	0000-4908
<b>available Q2/2024</b>	

The DucoFlex Insulated coupler is a practical connection piece that connects the various EPS components in a quick and airtight manner.





## SILENCERS



DucoFlex Silencer flexible D125 L1000 mm

0000-4586

The DucoFlex Silencer D125 is a (semi-) flexible silencer composed of a flexible antibacterial inner duct (non-woven) and a polyester-laminated aluminium outer jacket. The space between the inner and outer jacket is filled with 25 mm sound absorbing material.

Both ends are taped to allow the silencer to be easily connected to the ventilation unit or the rigid ventilation ducts of diameter D125.



DucoFlex Silencer flexible D125 (M/F) L1000 mm

0000-4630

DucoFlex Silencer flexible D200 (M/F) L1000 mm

0000-4918

available Q1/2024

The DucoFlex Silencer (M/F) is a (semi-)flexible silencer consisting of a flexible antibacterial inner channel (non-woven) and an aluminium outer jacket laminated in polyester. The space between the inner and outer jacket is filled with 25 mm sound absorbing material.

The silencer comes standard with stainless steel caps on both ends of which 1 M and 1 F connection. This allows quick, easy and airtight connection of the damper to the ventilation unit or rigid ventilation ducts of diameter D125 or D200.



DucoFlex Silencer flexible D160 (M/M) L1000 mm

0000-4631

DucoFlex Silencer flexible D180 (M/M) L1000 mm

0000-4632

The DucoFlex Silencer (M/M) is a (semi-) flexible silencer composed of a flexible antibacterial inner duct (non-woven) and a polyester-laminated aluminium outer jacket. The space between the inner and outer jacket is filled with 25 mm sound absorbing material. The silencer is provided with stainless steel caps on both ends (2 x M connection). This allows the silencer to be connected quickly, easily and airtight to the ventilation unit or the rigid ventilation ducts of diameter D160 or D180.



DucoFlex Silencer semi rigid D160 (M/M) L1000 mm

0000-4587

DucoFlex Silencer semi rigid D180 (M/M) L1000 mm

0000-4588

DucoFlex Silencer semi rigid D200 (M/M) L1000 mm

0000-4919

available Q1/2024

The DucoFlex Silencer semi-rigid (M/M) is a semi-rigid (bendable) silencer composed of a profiled and perforated aluminium inner duct and a two-layered profiled outer jacket. The space between the inner and outer jacket is filled with 50 mm sound absorbing material.

The silencer is provided with aluminium caps on both ends (2 x M connection). This allows quick, easy and airtight connection of the damper to the ventilation unit or rigid ventilation ducts of diameter D160, D180 or D200.

## CONNECTION PIECES



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



## VENTS

The vents are installed in ducts for the extraction of stale air or supply of fresh air. DUCO does not lose sight of the aesthetic or the functional aspect here either.





## WHICH VENTS TO CHOOSE?

	DucoVent <b>Basic</b> see p. 68 	DucoVent <b>Comfort</b> see p. 68 	DucoVent <b>Design</b> see p. 69 	DucoVent <b>Premium</b> see p. 68 
Type of DucoBox	DucoBox <b>Silent (Connect)</b> DucoBox <b>Focus</b> DucoBox <b>Energy Comfort (Plus)</b> DucoBox <b>Energy Premium</b>			
Type of vent	Supply Extraction	Supply Extraction	Supply* Extraction <small>* With the exception of 'Standard' vents</small>	Supply Extraction
Air flow	Up to 75 m <sup>3</sup> /h	Extract air: up to 75 m <sup>3</sup> /h Supply air: up to 75 m <sup>3</sup> /h	Extract air: up to 75 m <sup>3</sup> /h Supply air: up to 50 m <sup>3</sup> /h	Up to 50 m <sup>3</sup> /h
Design	★	★★★★	★★★★★	★★★★★
Shape	Round	Round	Round Square <small>Standard and XL</small> Rounded Square <small>Standard and XL</small>	Round (trimless)
Material	Plastic	Plastic (ASA)	Aluminium	Plastic
Colour	White	White	All RAL	White (can be painted)
Sound absorption	★	★★★★★	★★★★★	★★★★★
Ease of maintenance	★★	★★★★	★★★★★	★★★★
Mounting	To be clamped in DucoFlex	Sealing joint in DucoFlex	To be clamped in DucoFlex	Sealing joint in DucoFlex + plastering
Setting the flow rate	Fine-tuning via rotary adjuster	11 adjustable positions	Preregulation with flow rings + Fine-tuning via rotary adjuster	32 adjustable positions
Price	€	€€	€€€	€€€€€

Extraction

Supply

## STANDARD VENT All systems

## DucoVent Basic

The DucoVent Basic is the standard vent that is manufactured from plastic and is suitable for ceiling and wall mounting. Fine adjustment is by means of a cone that screws in and out. Suitable for both extraction and supply.

Maximum flow rate: 75 m<sup>3</sup>/h

Colour: White

Connection diameter: 125 mm



Suitable for

DucoVent Basic

Extraction  
+ Supply

0000-4178

Extraction

Supply

## STANDARD VENT All systems

## DucoVent Comfort

A vent where both aesthetics and ease of adjustment are central. This is what DucoVent Comfort stands for! Thanks to a clever principle of adjustment positions, the vent can be adjusted both in advance and during installation. The ideal addition to all Duco ventilation systems in serial construction where the copy function saves a lot of time!

Maximum flow rate: 75 m<sup>3</sup>/h

Colour: White

Connection diameter: 125 mm



Suitable for

DucoVent Comfort

Extraction  
+ Supply

0000-4769

Extraction

Supply

## STANDARD VENT All systems

## DucoVent Premium

(by Prado)

The DucoVent Premium is by far the finest vent in the market that can be used for both supply and extraction. A 'trimless' integration into the plasterwork makes the vent almost invisible. The well-thought-out design ensures a diffuse air supply via the Coanda effect and therefore guarantees optimal comfort. Aesthetics and quality in one product! A perfect combination with DUCO's high-quality ventilation solutions!

Maximum flow rate: 50 m<sup>3</sup>/h

Colour: White (can be painted over)

Connection diameter: 125 mm



Suitable for

DucoVent Premium

Extraction  
+ Supply

0000-4903



Extraction

Supply

## SOUND ABSORBING DESIGN VENT All systems

### DucoVent Design

The DucoVent Design is an **aesthetic vent**, available with five different cover plates: square (standard and XL), rounded square (standard and XL) or fully circular. The sleek design, combined with simple installation thanks to its magnetic fastening, ensures **virtually invisible integration** into any room where air extraction or supply is provided. The acoustic rings provide optimal **sound absorption** and easy calibration. Suitable for ceiling and wall mounting. Easy to clean without disturbing the settings.

The DucoVent Design Round and all XL models are also suitable for use as supply vents. Two inserts are included which can be used to reduce the exhaust angle, when positioning the vent close to a wall or in a corner, for example.

<b>Maximum flow rate:</b> Extraction: 75 m <sup>3</sup> /h Supply: 50 m <sup>3</sup> /h	<b>Noise level:</b> <15 dB(A) at 50 m <sup>3</sup> /h <b>Colour:</b> White (RAL 9010 structure [AE03059901020]), other RAL colours on request <b>Duct diameter:</b> 125 mm
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#### Square

	Dimensions	Suitable for
DucoVent Design Square <b>Standard AK</b>	<b>Width / Height:</b> 180 mm <b>Depth:</b> 52 mm	<b>Extraction</b> <b>0000-4179</b>
DucoVent Design Square <b>XL AK</b>	<b>Width / Height:</b> 215 mm <b>Depth:</b> 52 mm	<b>Extraction + Supply</b> <b>0000-4226</b>



#### Round

	Dimensions	Suitable for
DucoVent Design Round <b>AK</b>	<b>Diameter:</b> 215 mm <b>Depth:</b> 52 mm	<b>Extraction + Supply</b> <b>0000-4210</b>



#### Rounded

	Dimensions	Suitable for
DucoVent Design Rounded Square <b>Standard AK</b>	<b>Width / Height:</b> 180 mm <b>Depth:</b> 52 mm	<b>Extraction</b> <b>0000-4211</b>
DucoVent Design Rounded Square <b>XL AK</b>	<b>Width / Height:</b> 215 mm <b>Depth:</b> 52 mm	<b>Extraction + Supply</b> <b>0000-4227</b>



## AIR FLOW

DUCO supplies a wide range of grilles for extraction and supply for every conceivable use. Please refer to the DUCO website for the complete range.



Please refer to our website for more supply and feed-through options. DUCO offers a wide range of products ranging from standard self-regulating grilles which can be fitted in any kind of window or installation situation, including grilles with sound deadening, fire-resistant grilles, customised grilles for high-rise buildings, as well as ventilation and solar shading in a single product or electronically-controlled grilles with preheating.



MEV system

## FEED-THROUGH VIA FACADE Inside + outside

# Silenzio

The Silenzio is a wall damper that is excellent for **renovation**. Not only has its appearance been given a complete makeover, but from now on the Silenzio also features an SR flap so it can easily be used in one of our ventilation systems. This **sound absorbing** ventilator has been developed specifically for situations where high noise levels are an issue.

The Silenzio SR and Silenzio Retro SR are **suitable for wall thicknesses from 250 mm**. For a deviant pipe length, contact your DUCO dealer.

For more information such as drawings, flow rates and other specifications, consult the brochure "Window and sound-absorbing ventilation" or [www.duco.eu](http://www.duco.eu).

<p><b>Diameter of tube:</b> 250 mm  <b>Length of tube:</b> 300 mm (suitable for wall thicknesses from 250 mm)          For a deviant pipe length, contact your DUCO dealer.</p>	<p><b>Silenzio SR</b>  <b>Interior and exterior colours:</b> standard RAL 9010, other RAL colours possible on request.  <b>Maximum flow rate:</b>          Silenzio SR: 59.4 m<sup>3</sup>/h [2 Pa]          Silenzio SR AK: 36.4 m<sup>3</sup>/h [2 Pa]</p>	<p><b>Silenzio Retro SR</b>  <b>Colour of inner part:</b> standard RAL 9010, other RAL colours available on request.  <b>Colour DUCO external louvre grille:</b> RAL 7048 (mother of pearl mouse grey)  <b>Maximum flow rate:</b>          Without external louvre grille: 54.7 m<sup>3</sup>/h [2 Pa]          With DUCO external louvre grille: 46.5 m<sup>3</sup>/h [2 Pa]</p>
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### Silenzio SR

The AK variant is extra sound absorbing.

Silenzio SR	7352-4055
Silenzio SR <b>AK</b>	7372-4055



### Silenzio Retro SR

The retro variant is specifically suitable for listed buildings with a protected façade. This grille integrates invisibly into the façade (by means of a weep hole) or can be fitted with a discreet external louvre grille (DUCO external louvre grille or external section of your choice).

Silenzio Retro SR <b>without external louvre grille</b>	7512-4055
Silenzio Retro SR <b>with DUCO external louvre grille</b>	7502-4055

MEV system

MVHR system

**FEED-THROUGH VIA FACADE** Outside

## DucoFlex Wall feed-through

The DucoFlex Wall feed-through can be used as a supply and extraction point with **very low pressure losses**. The fitted flange with a diameter of 160 or 180 provides a quick and air-tight connection to the DucoFlex ISO D160 or D180 pipes without any need for **connecting pieces**. The pre-fitted condensation strip prevents the possible undesired settling of dripping condensate. The sleek design and black or white colour enable the unit to be used discretely in **any type of façade**.



	White	Black
DucoFlex Wall feed-through <b>D160</b>	0000-4627	0000-4584
DucoFlex Wall feed-through <b>D180</b>	0000-4628	0000-4585
DucoFlex Wall feed-through <b>D180</b> available Q1/2024	0000-4913	0000-4914

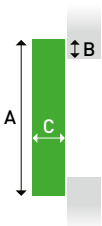
MEV system

**FEED-THROUGH VIA FACADE** Inside

## DucoGrille Close M100

DucoGrille Close M 100 is a **closable** surface mounted internal louvre grille. The plastic slides provide adjustable ventilation. Thanks to the small punching, this grille is **insect repellent**. Contact DUCO for deviating sizes and colours.

Material: aluminium | Colour: anodisation SAA (15-20 µm)



	Width (mm)	Height (mm)
DucoGrille Close M 100	200	200

A = Width x Height (see table) | B = 12 mm | C = 13 mm





MEV system

## FEED-THROUGH VIA DOOR

MVHR system

## DoorVent

The DoorVent is a transfer grille that **can be installed discretely in internal doors**. Unlike gaps under the door, the DoorVent thereby avoids draughts and **attenuates intrusive noise**.

**Dimensions:**  
 Overall (Width x Height):  
 436 x 58 mm  
 Recessed fitting (Width x Height):  
 417 x 48 mm  
**Airflow:** 70 cm<sup>2</sup>  
**Door thickness:** 37-47 mm



DoorVent <b>RAL 9001</b>	<b>1030-0800</b>
DoorVent <b>RAL 9010</b>	<b>1030-0700</b>
DoorVent <b>other DUCO300RAL</b>	<b>1030-0500</b>

RAL colours other than those described above on request.

MEV system

## FEED-THROUGH VIA FACADE Outside

MVHR system

DucoGrille **Solid 30Z**

The height and width of these **customised grilles** can be determined to the millimetre, both in rectangular and round format. The DucoGrille Solid 30Z is vandal-resistant thanks to its **extra sturdy louvres** and can also be made burglary-resistant. Available for various construction situations (recessed, surface mounted, glass replacement) and in variants with vermin and insect protection.

Please refer to the 'Wall and window louvre grilles' brochure for more information.





MEV system

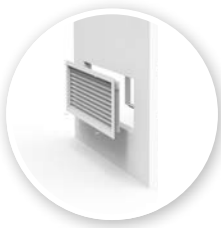
MVHR system

## FEED-THROUGH VIA INTERIOR WALL &amp; DOOR

DucoGrille **Transfer**

This **transfer grille** can easily be installed in **doors and walls**. The frame depth can be adjusted. The grille can be fitted **with or without a counterframe**. The DucoGrille Transfer is ideally suited for larger airflows between interior spaces, but can also be used between interior and exterior spaces (e.g. exterior doors). Contact DUCO for deviating sizes and colours.

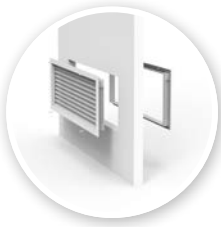
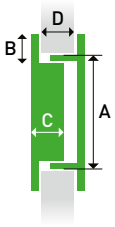
Material: aluminium | Colour: aluminium colour



## Without counterframe

	Width (mm)	Height (mm)	
DucoGrille Transfer without counterframe	190	90	S5201001
	290	90	S5201002
	290	190	S5201003
	390	90	S5201004
	390	190	S5201005
	390	290	S5201006
	490	290	S5201007
	590	390	S5201008

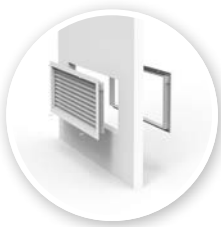
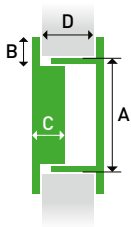
A = Width x Height (see table) | B = 21 mm | C = 36 mm | D = 31 mm



## With counterframe (wall depth 28-54 mm)

	Width (mm)	Height (mm)	
DucoGrille Transfer with counterframe 28-54 mm	200	100	S5301001
	300	100	S5301002
	300	200	S5301003
	400	100	S5301004
	400	200	S5301005
	400	300	S5301006
	500	300	S5301007
	600	400	S5301008

A = Width x Height (see table) | B = 21 mm | C = 36 mm | D = 28-54 mm



## With counterframe (wall depth 54-84 mm)

	Width (mm)	Height (mm)	
DucoGrille Transfer with counterframe 54-84 mm	200	100	S5401001
	300	100	S5401002
	300	200	S5401003
	400	100	S5401004
	400	200	S5401005
	400	300	S5401006
	500	300	S5401007
	600	400	S5401008

A = Width x Height (see table) | B = 21 mm | C = 36 mm | D = 54-84 mm



MEV system

MVHR system

## FEED-THROUGH VIA FLAT &amp; SLOPING ROOF

## DucoFlex Roof feed-through



DucoFlex Roof feed-through Compact D160 - <b>Slate</b>	0000-4582
DucoFlex Roof feed-through Compact D160 - <b>Terracotta</b>	0000-4580
DucoFlex Roof feed-through Compact D200 - <b>Slate</b> available Q1/2024	0000-4920
DucoFlex Roof feed-through Compact D200 - <b>Terracotta</b> available Q1/2024	0000-4921

The DucoFlex Roof feed-through Compact can be used as a supply and extraction point. The dark grey or terracotta colour and the design allow this unit to be used very discretely in a **sloping roof**. The pre-fitted lead sheet ensures quick and water-tight installation.

The smart design ensures that this compact roof feed-through is hardly sensitive to atmospheric turbulences. The connection piece fits seamlessly into DucoFlex ISO pipes D160 or D200.



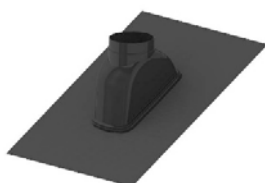
DucoFlex Universal Roof feed-through D160/180 (1.0m)	0000-4578
DucoFlex Universal Roof feed-through D200 (1.0m) available Q3/2024	0000-4915

The DucoFlex Universal Roof feed-through can be used as a supply and extraction point on **both flat and sloping roofs**. This unit can also be used at higher air flow rates thanks to its low air-resistance. The pre-assembled connection piece is 635 mm, allowing the roof feed-through to be used in any possible situation. The insulated end piece fits for DucoFlex ISO D160 pipes, D180 pipes as well as D200 pipes.



DucoFlex Roof feed-through plate flat roof D204	0000-4581
DucoFlex Roof feed-through plate flat roof D210 available Q3/2024	0000-4916

The DucoFlex Roof feed-through plate **flat roofs** can be combined with the Universal Roof feed-through D160/180 or D200. The base plate has a diameter of 420 mm. It is made completely of aluminium, making it suitable for all standard finishes of roof feed-throughs in flat roofs.



DucoFlex Universal Roof feed-through tile D205	0000-4579
DucoFlex Universal Roof feed-through tile D210 available Q3/2024	0000-4917

The DucoFlex Universal Roof feed-through tile can be combined with the Universal Roof feed-through D160/180 or D200. The unit is a 2-tile solution which is suitable for **sloping roofs** with a pitch between 25° and 50°. The pre-mounted plastic flashing flange ensures quick and water-tight installation.

# PART F

## BUILDING REGULATIONS

Please find below the ventilation requirements in line with Part F of the building regulations for UK & Ireland

### UK

A continuous rate is given for the general operation of the fan and a high rate for when additional extraction is required.

#### Minimum extract ventilation rates for continuous extract systems<sup>1</sup>:

Room	High rate (L/S)	Continuous rate
Kitchen	13	The sum of all extract ventilation in the dwelling on its continuous rate should be at least the whole dwelling ventilation rate given in the table below.
Utility Room	8	
Bathroom	8	
Sanitary accommodation	6	

<sup>1</sup> If the continuous rate of ventilation provided in a room is equal to or higher than the minimum high rate specified in the table, no extra ventilation is needed.

The minimum whole dwelling ventilation rate for the supply of air to the habitable rooms in a dwelling should meet both of the following conditions

- A minimum rate of 0.3 litres per second per m<sup>2</sup> of internal floor area
- A minimum rate determined by the number of bedrooms, as specified in the below table.

#### Minimum whole dwelling ventilation rates determined by the number of bedrooms:

Number of bedrooms <sup>2</sup>	Minimum ventilation rate by number of bedrooms (l/s)
1	19
2	25
3	31
4	37
5	43

<sup>2</sup> If the dwelling only has one habitable room, a minimum ventilation rate of 13 l/s should be used. For each additional bedroom, add 6 l/s to the values in the table above.

## Ireland

The minimum capacity of a centralized continuous ventilation system should be based on the calculated general ventilation rate. The calculated general ventilation rate to be provided by is determined as the greater of:

- a. 5 l/s plus 4 l/s per person, e.g. 25 l/s for a five person, 3-bedroom semi-detached dwelling. This is based on two occupants in the main and second bedrooms, and a single occupant in the third bedroom. This should be used as the default value, if a greater level of occupancy is expected, then add 4 l/s per occupant.

OR

- b. 0.3 l/s per m<sup>2</sup> internal floor area, e.g. 30 l/s for a 100 m<sup>2</sup> dwelling.

In order to meet extract requirements, the system may require a higher extract or boost capacity depending on the number of wet rooms (kitchens, bathrooms, etc.) and sanitary accommodation. The minimum boost extract rate to be provided for each wet room and sanitary accommodation is specified in the table below. The required overall minimum boost extract rate is calculated by adding together the relevant individual extract rates.

### Centralized continuous mechanical extract ventilation systems: minimum boost extract rates<sup>3</sup>

Wet rooms	Minimum extract rate (l/s)
Kitchen	13 <sup>4</sup>
Utility Room	8
Bathroom	8
Sanitary accommodation (no bath or shower)	6 <sup>5</sup>

<sup>3</sup> The above are minimum boost extract rates and may need to be increased to achieve the general ventilation rate.

<sup>4</sup> Excludes cooker hood extract.

<sup>5</sup> As an alternative, an opening window provided for purge ventilation may be relied on for extract.

### (only for MVHR)

Supply and extract rates should be nominally balanced. Airflow supply rates should be greater or equal to extract rates. In all cases, the supply airflow rate should be no greater than 15% above extract airflow rate.

# SERVICE PLEASE!

## STUDY SERVICE **Tailored advice**

Thanks to years of know-how in the field of ventilation, DUCO's design department has all the expertise in house to offer the installation best suited to your project. In addition to tailored advice, it is also possible to request a **layout plan for the ventilation ducts** for each project. For this purpose please contact your trusted DUCO distributor or DUCO contact, or submit your project via the website:

[www.duco.eu/yourproject](http://www.duco.eu/yourproject)



## HELP DESK **Let yourself be guided**

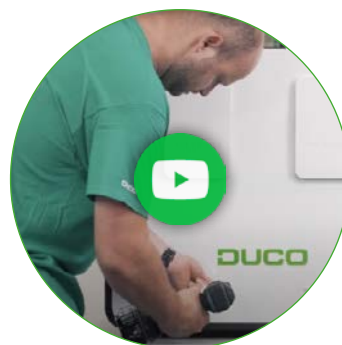
Your DUCO dealer is available to provide you with **support for all possible practical challenges**. If you need support during design or installation, feel free to consult them: their experts are trained by DUCO.

[info@duco.eu](mailto:info@duco.eu)

## DUCO.TV **Instructional videos**

Our **short instruction videos** will help you step-by-step during installation or maintenance of DUCO products.

[duco.tv](http://duco.tv)



## BIM LIBRARY **Consult online**

The construction market is becoming increasingly centralised and thus efficiently managed with BIM as a guiding principle. DUCO has anticipated this since the early days by making an **Autodesk Revit product library** available online. In addition, DUCO products are also included in the internationally oriented platform **BIM Object**.

[duco.eu/bim](http://duco.eu/bim)

[www.bimobject.com](http://www.bimobject.com)







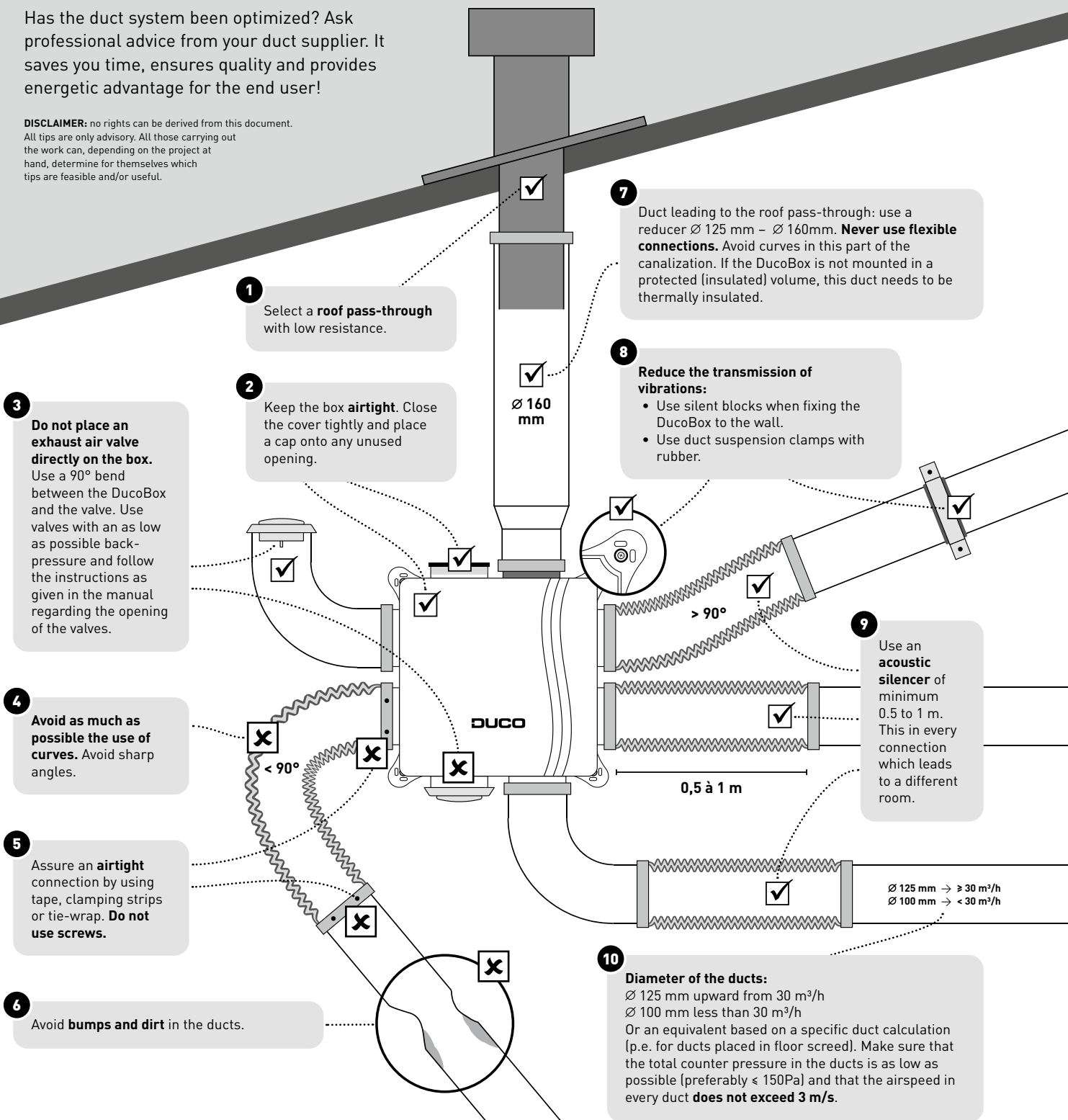


# INSTALLATION TIPS DUCOBOX SILENT CONNECT / FOCUS

The smooth running of your Duco ventilation system is totally dependent on the choice and the quality of implementation of the duct system!

Has the duct system been optimized? Ask professional advice from your duct supplier. It saves you time, ensures quality and provides energetic advantage for the end user!

**DISCLAIMER:** no rights can be derived from this document. All tips are only advisory. All those carrying out the work can, depending on the project at hand, determine for themselves which tips are feasible and/or useful.



**1** Select a **roof pass-through** with low resistance.

**2** Keep the box **airtight**. Close the cover tightly and place a cap onto any unused opening.

**3** **Do not place an exhaust air valve directly on the box.** Use a 90° bend between the DucoBox and the valve. Use valves with an as low as possible back-pressure and follow the instructions as given in the manual regarding the opening of the valves.

**4** **Avoid as much as possible the use of curves.** Avoid sharp angles.

**5** Assure an **airtight** connection by using tape, clamping strips or tie-wrap. **Do not use screws.**

**6** Avoid **bumps and dirt** in the ducts.

**7** Duct leading to the roof pass-through: use a reducer  $\varnothing$  125 mm –  $\varnothing$  160mm. **Never use flexible connections.** Avoid curves in this part of the canalization. If the DucoBox is not mounted in a protected (insulated) volume, this duct needs to be thermally insulated.

**8** **Reduce the transmission of vibrations:**

- Use silent blocks when fixing the DucoBox to the wall.
- Use duct suspension clamps with rubber.

**9** Use an **acoustic silencer** of minimum 0.5 to 1 m. This in every connection which leads to a different room.

**10** **Diameter of the ducts:**  
 $\varnothing$  125 mm upward from 30 m<sup>3</sup>/h  
 $\varnothing$  100 mm less than 30 m<sup>3</sup>/h  
 Or an equivalent based on a specific duct calculation (p.e. for ducts placed in floor screed). Make sure that the total counter pressure in the ducts is as low as possible (preferably  $\leq$  150Pa) and that the airspeed in every duct **does not exceed 3 m/s.**

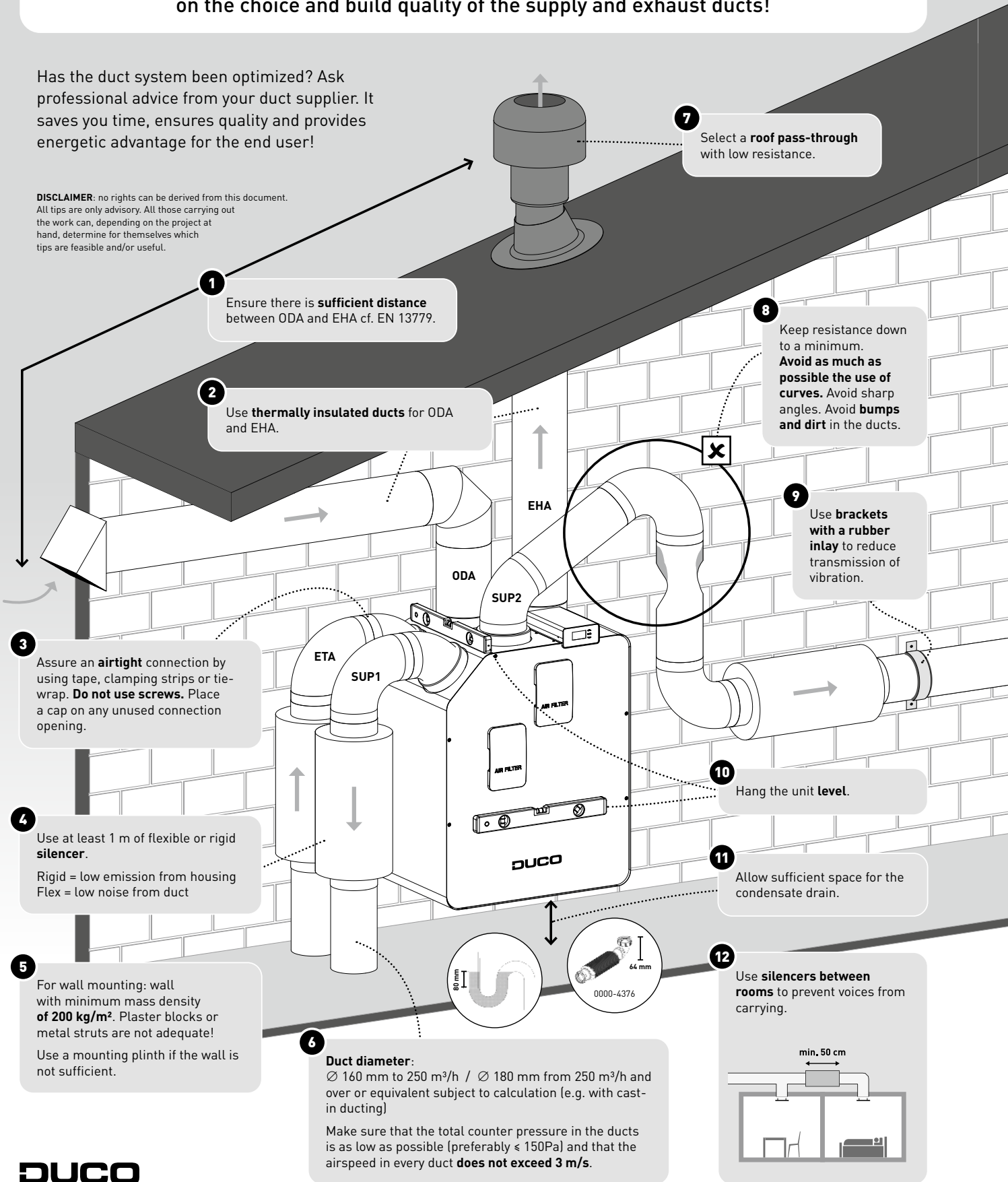
# INSTALLATION TIPS

## DUCOBOX ENERGY COMFORT / PREMIUM

The correct operation of your Duco ventilation system is entirely dependent on the choice and build quality of the supply and exhaust ducts!

Has the duct system been optimized? Ask professional advice from your duct supplier. It saves you time, ensures quality and provides energetic advantage for the end user!

**DISCLAIMER:** no rights can be derived from this document. All tips are only advisory. All those carrying out the work can, depending on the project at hand, determine for themselves which tips are feasible and/or useful.



**1** Ensure there is **sufficient distance** between ODA and EHA cf. EN 13779.

**2** Use **thermally insulated ducts** for ODA and EHA.

**3** Assure an **airtight** connection by using tape, clamping strips or tie-wrap. **Do not use screws.** Place a cap on any unused connection opening.

**4** Use at least 1 m of flexible or rigid **silencer**.  
Rigid = low emission from housing  
Flex = low noise from duct

**5** For wall mounting: wall with minimum mass density of **200 kg/m<sup>2</sup>**. Plaster blocks or metal struts are not adequate!  
Use a mounting plinth if the wall is not sufficient.

**6** **Duct diameter:**  
Ø 160 mm to 250 m<sup>3</sup>/h / Ø 180 mm from 250 m<sup>3</sup>/h and over or equivalent subject to calculation (e.g. with cast-in ducting)  
Make sure that the total counter pressure in the ducts is as low as possible (preferably < 150Pa) and that the airspeed in every duct **does not exceed 3 m/s**.

**7** Select a **roof pass-through** with low resistance.

**8** Keep resistance down to a minimum. **Avoid as much as possible the use of curves.** Avoid sharp angles. Avoid **bumps and dirt** in the ducts.

**9** Use **brackets with a rubber inlay** to reduce transmission of vibration.

**10** Hang the unit **level**.

**11** Allow sufficient space for the condensate drain.

**12** Use **silencers between rooms** to prevent voices from carrying.

min. 50 cm

Manuals  
Instruction videos  
Technical data sheets  
...



Please visit our website  
[www.duco.eu](http://www.duco.eu)

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