



EU

DucoBox **Focus**

www.bpcventilation.com

The **SMARTEST** ventilation box!

Call: 028 2827 5150

info@bpcventilation.com



The **BEST** or **NOTHING.**

DUCO

We inspire at www.duco.eu

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. CO₂ 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.



Discover the magic of zonal ventilation

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



30% less noise

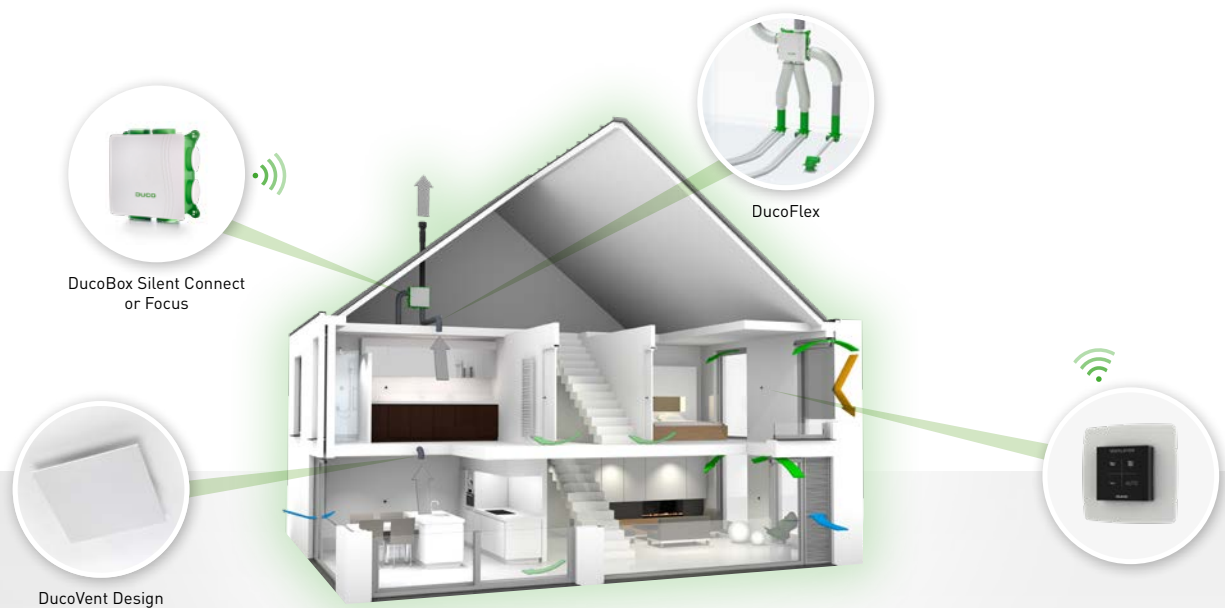


40% energy savings

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 CO₂, 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.



MEV SYSTEM

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



DucoBox **Silent Connect**



Intelligent demand control

Room or box sensors based on CO₂ 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 CO₂ 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.



MEV? OF COURSE!

Intelligent ventilation tailored to each project

DUCO has a complete range of ventilation products. Mechanical extract units combined with window vents or devices that not only extract but also supply? DUCO guarantees an **optimal and healthy indoor climate** for both.

Add air ducts and valves from DUCO to these installations to create a tailor-made solution for each project.

Quiet and smart ventilation

The DucoBox is the beating heart of DUCO's demand-controlled ventilation systems, ensuring perfect air quality in every room!

To offer a solution for every situation, this powerful extract fan is available in two variants: the quiet **DucoBox Silent** and the smart **DucoBox Focus**, which provide central and zonal air extraction respectively. Zonal control regulates the ventilation flow rate per room, resulting in extra comfort, energy savings and minimum noise levels.

NEW

DUCO INSTALLATION APP*



- ✓ Quick calibration via QR code
- ✓ Configuring installation and reading error messages
- ✓ Ventilation report in one click!

* Duco Installation App is only applicable for the Silent Connect & Focus, but not for the Silent.



DucoBox Focus

The **SMARTEST** ventilation box!



Up to
11 zones

The **DucoBox Focus** is the smartest ventilation box. The integrated and patented control valves, based on CO₂ and humidity control, guarantee **smart and efficient extraction** only where and when needed and in the right quantity!

Thanks to the integrated **NightBoost** function in the DucoBox Focus, the risk of overheating is reduced.



**SMART AND
ENERGY-
EFFICIENT**



**Discover the magic
of zonal ventilation**

duco.eu/zonal-ventilation

THE DUCOBOX IN FIGURES



Physical characteristics

Dimensions (W x H x D)	480 x 480 x 194 mm
Weight	4,3 kg
Connections	Extract areas 7 x Ø 125 mm Exhaust to the outside 1 x Ø 125 mm

Technical properties

Flow rate (m³/h)	Pressure (Pa)	Power consumption (W)	Maximum power (W)	Sound power level (db(A))*	
				Supply	Casing radiation
LOW DUCTING RESISTANCE					
100	70	10	11	39	35
100	100	13	13	43	36
150	100	15	16	44,5	37
250	100	27	29	50	43,5
300	100	42	44	53,5	44
350	100	57	59	57,5	46,5
HIGH DUCTING RESISTANCE					
150	150	20	22	47,5	39,5
225	150	32	43	50	41,5
250	150	34	48	53	43
300	150	48	63	54,5	46,5
325	150	58	72	55,5	48
350	150	60	76	57,5	49
400	150	81	84	60	52

* tested according to EN ISO 5135/3741



**Discover the magic
of zonal ventilation**

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DucoBox Focus

The **SMARTEST** MEV system!



Intelligent demand control

Control valve system based on CO₂ and humidity measurement



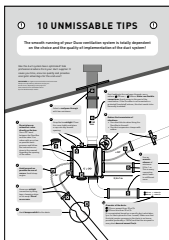
Smart zonal control

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



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

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>Basic kit Duco Focus System</p>	<p>1 x CO₂ Control valve 75 m³/h living room / open kitchen 1 x Humidity /CO₂ Control valve 50 m³/h bathroom + WC 1 x CO₂ Control valve 25 m³/h toilet 1 x Remote control RF/Wired Black 1 x Silent Plus Kit (3 damping pads + 3 caps)</p>	<p>0000-4646</p>
<p>Basic kit Duco Focus System with extraction in the bedroom(s)</p>	<p>1 x CO₂ Control valve 75 m³/h living room / open kitchen 1 x Humidity /CO₂ Control valve 50 m³/h bathroom + WC 2 x CO₂ Control valve 30 m³/h bedroom(s) 1 x CO₂ Control valve 25 m³/h toilet 1 x Remote control RF/Wired Black</p>	<p>0000-4645</p>



CONTROL COMPONENTS DucoBox Focus



→ CONTROL VALVES

The control valves, optionally equipped with a sensor for **CO₂ 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.

Width x Height x Depth: 141 x 167 x 46.5 mm Weight: 0.220 kg	Peak power: 2.04 W Standby power: 0.24W	Power supply: From the DucoBox
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For CO₂-controlled living areas

A CO₂ Control valve commands the ventilation system based on continuous measurement of both CO₂ (indoor climate indicator) and temperature.



CO ₂ Control valve 75 m³/h living room / open kitchen	0000-4163
CO ₂ Control valve 30 m³/h bedroom(s)	0000-4164

For toilet

Based on CO₂ measurement, this valve detects **presence** in a toilet, after which the ventilation system will extract the polluted air. Note: a CO₂ 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 ₂ Control valve 25 m³/h toilet	0000-4208
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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 CO₂ measurement.



Humidity Control valve 50 m³/h bathroom/ laundry room	0000-4162
Moisture/CO ₂ Control valve 50 m³/h bathroom + WC	0000-4644

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 25 m³/h various applications	0000-4165
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→ EXTERNAL CONTROL COMPONENTS

The DucoBox Focus can be paired 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 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

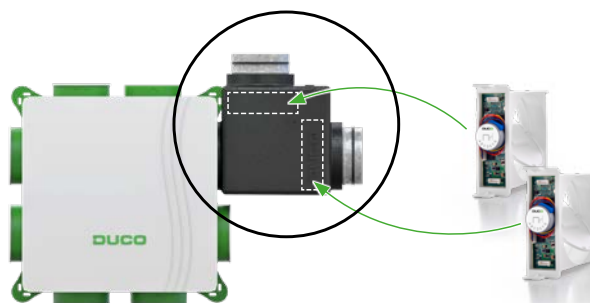
The set comprises an 8 m long coaxial cable with pre-fitted connectors at both ends. Using this set, the antenna of the DucoBox Silent Connect, DucoBox Focus or DucoBox Energy devices can be moved, if necessary, to a place where the RF range is optimal.



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 CO₂ 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 m³/h at 150 Pa



BASIC KIT

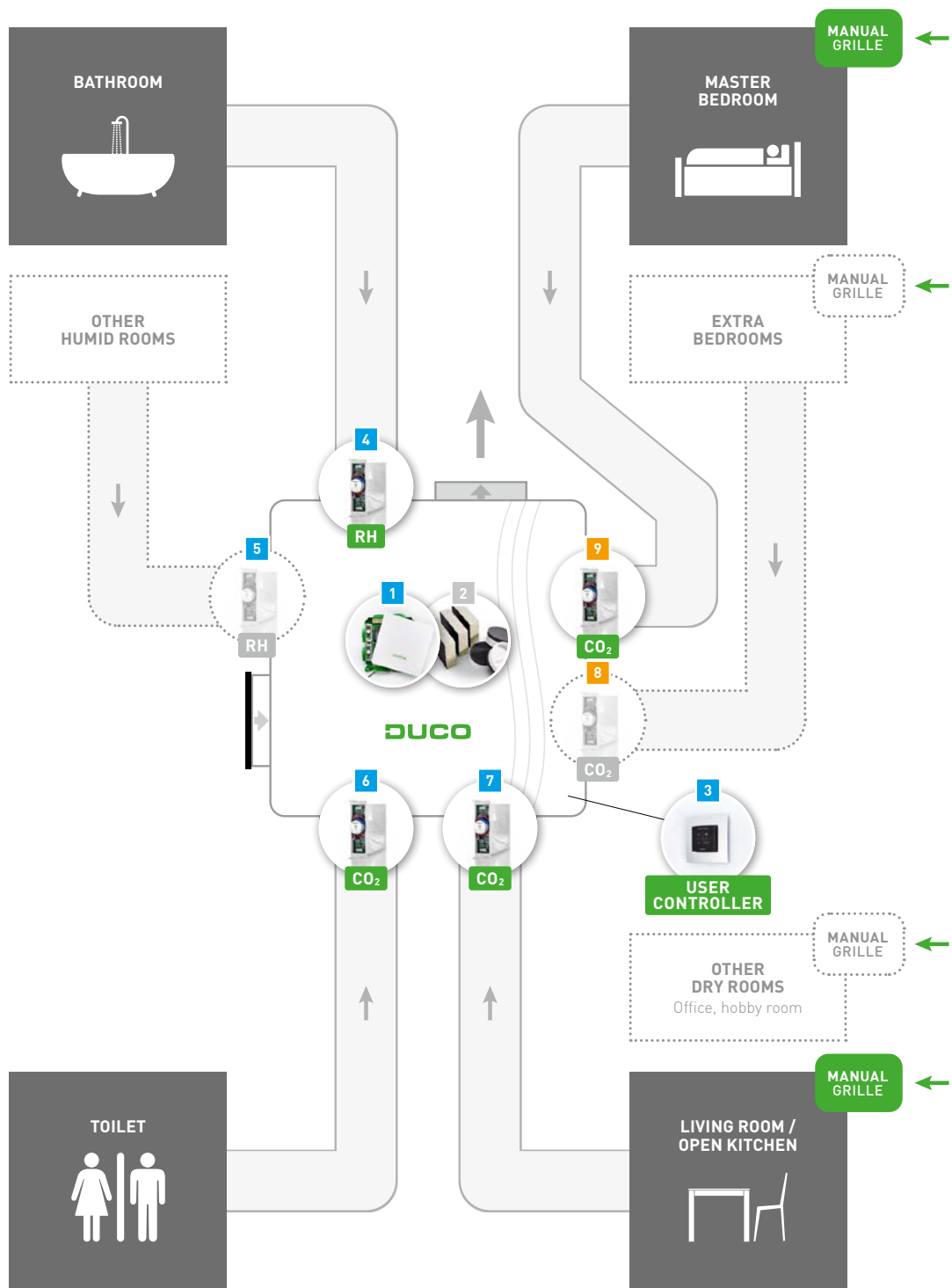
●	Basic kit Duco Focus System	0000-4646
●	Basic kit Duco Focus System with extraction in the bedroom(s)	0000-4645

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 ₂ Control valve 75 m ³ /h (living room / open kitchen)	1 1 0000-4163	7
	CO ₂ Control valve 30 m ³ /h (bedroom(s))	2 0000-4164	8 9
	CO ₂ Control valve 25 m ³ /h (toilet)	1 1 0000-4208	6
	Humidity Control valve 50 m ³ /h (bathroom / laundry room)	0000-4162	4 5
	CO ₂ /Humidity Control valve 50 m ³ /h (bathroom + WC)	1 1 0000-4644	
	Sensorless Control valve 25 m ³ /h (various applications)	0000-4165	
	Duplicator control valves	0000-4454	
	Remote control RF / Wired	1 1 0000-4601 0000-4602	3
	Remote control RF / Battery	0000-4175 0000-4600	
	CO ₂ Room sensor with control RF/Wired	0000-4603 0000-4604	
	CO ₂ 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



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): CO₂ 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 CO₂ 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>RF/ Wired models Power supply: RF: 230 VAC Wired: 24 VDC Width x Height x Depth: 69 x 69 x 55 mm Display: 4 RGB LEDs Peak power: 1.8 W Stand-by power: 1.2 W Communication: RF and wired Colour: Control: black or white Supplied cover plate: white</p>	<p>Battery-powered model Battery: CR2430 3V coin cell battery Width x Height x Depth: 69 x 69 x 17 mm Display: 1 bicolor LED Communication: RF Colour: Control: black or white Supplied cover plate: white</p>
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User controllers + air quality measurement

These contain both a **user controller** and room sensors (CO₂ or humidity) for air quality measurement.

	Black	White
CO ₂ Room sensor with control RF/Wired	0000-4603	0000-4604
Humidity Room sensor with control RF / Wired	0000-4605	0000-4606



User controller only

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

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



Air quality measurement only

Room sensors that are only equipped with a CO₂ sensor. Ideal for bedrooms where no user controller is necessary.

	Black	White
CO ₂ Room sensor without control RF / Wired	0000-4636	0000-4637

WIRED COMPONENTS

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



SWITCH SENSOR

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

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

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

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

Width x Height x Depth: 41 x 37 x 20 mm Weight: 21 g Color: white	Peak power: 0.5 W Standby power: 0.4 W	Power supply: 230 VAC Communication: RF
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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 mm² cable for this. Refer to the **Onboard dry contact information sheet (L8001001)** for connection instructions.



Switch sensor **RF/230 VAC**

0000-4174

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



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

DUCO.TV **Instructional videos**

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

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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

www.bimobject.com

SERVICE PLEASE!

100% SERVICE

Tailored advice

Thanks to **years of experience** and know-how in the field of natural ventilation, our engineering department has all the expertise to offer the most suitable installation for your project.

www.duco.eu/yourproject



DUCO INSTALLATION APP

Ready-made ventilation report

Unburdening the installer is a priority at DUCO. Thanks to the Duco Installation App, the installer not only gets **step-by-step guidance during the** ventilation system adjustment, but also a solution to deliver a delivery report in a quick and easy way.

en.duco.eu/duco-installation-app



CATALOGUE

Your guide to ventilation systems

Looking for a user-friendly tool to quickly and easily guide you through **DUCO's demand-controlled ventilation systems and their components**? Then the DUCO catalogue is the solution of choice, bundling all information accurately in a single document!

www.duco.eu/catalogue



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