

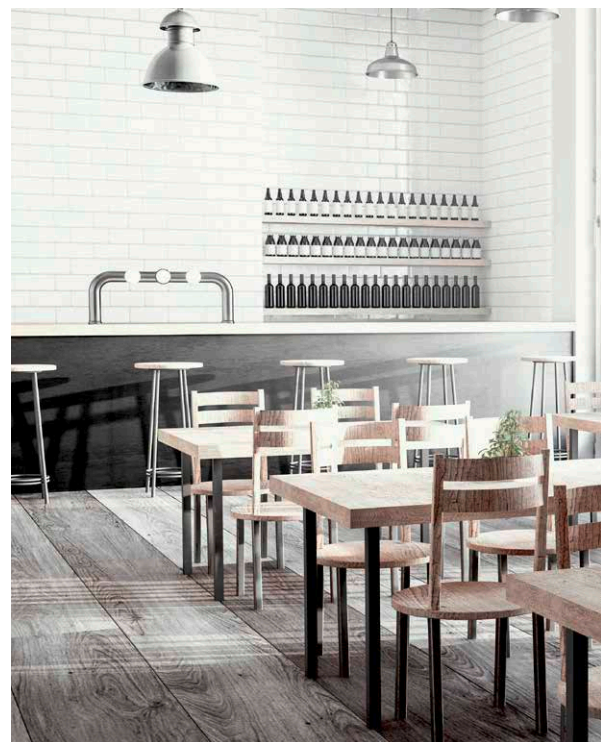
KWL 890 W

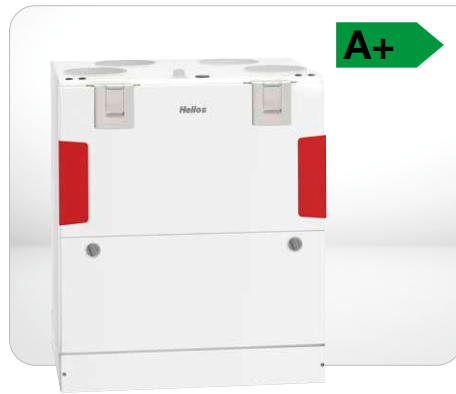
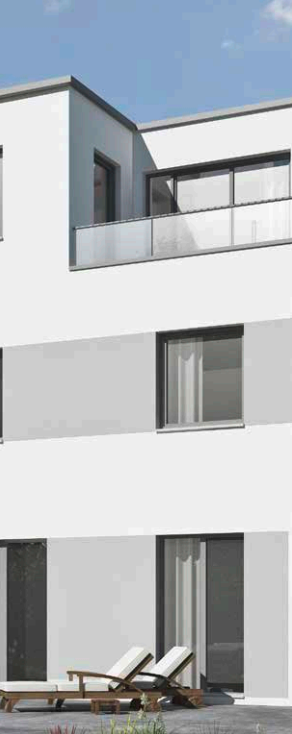
The powerful new member of the
KWL[®] family: **KWL 890 W.**



Humidity and CO₂ sensor
as standard integrated

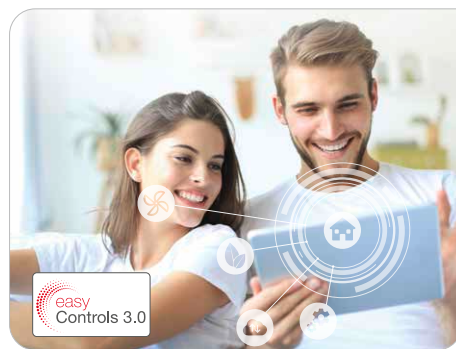






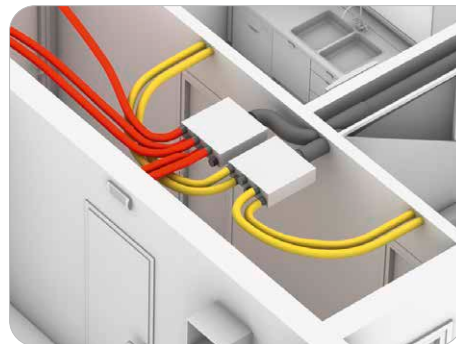
The new KWL 890 W

→ Page 4



Smart control

→ Page 6



It's all possible: System solutions

→ Page 8



The new KWL 890 W is the ideal solution for residential buildings, commercial units or doctors' surgeries, for example, with an air flow rate of up to 900 m³/h and an extremely comprehensive range of equipment. The focus is on **the system concept**: With the ultra-flexible Helios *flexpipe*^{plus} air distribution system, you can respond to almost all

of your customers' individual requirements – regardless of whether they are renovations or new builds. In addition, **the smart easyControls 3.0** system allows the ventilation unit to be controlled easily and conveniently - even when you're on the move.

Maximum power – optimal equipment.

Better safe than sorry.

The internal electric auxiliary heater (optional) ensures effective pre-heating of the supply air at very low outside temperatures (heat exchanger frost protection).

Powered by easyControls.

More flexibility, more features, more convenience – with the smart control system easyControls 3.0, operation becomes child's play. Even on the go! More on page 6 onwards.



Stable.

Adjustable feet for levelling.



The new KWL 890 W has a lot to offer. In addition to the simple, plug-in unit installation and smart control system, the unit impresses with its modular equipment:

- Wide range of internal (standard) and external (optional) air quality sensors.
- Electric auxiliary heating (optional) for optimal year-round comfort.
- Coarse and fine filters in different filter qualities (ISO Coarse 65% (G4), ISO ePM1 50% (F7)).
- 2 unit versions with highly efficient cross-counterflow or enthalpy heat exchanger – each available in a right-hand or left-hand version.



Standard integrated humidity and CO₂ sensor.

External air quality sensors are also available as an option for even greater convenience (KWL-CO2 eC, -FTF eC, -VOC eC).

Simple filter maintenance.

Completely tool-free and freely accessible via the removable front door.

Best hygiene properties.

The smooth, fully powder-coated inner surface effectively prevents deposits.

Quiet – as standard.

The sound-absorbing casing design ensures top values when it comes to acoustics!

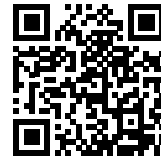
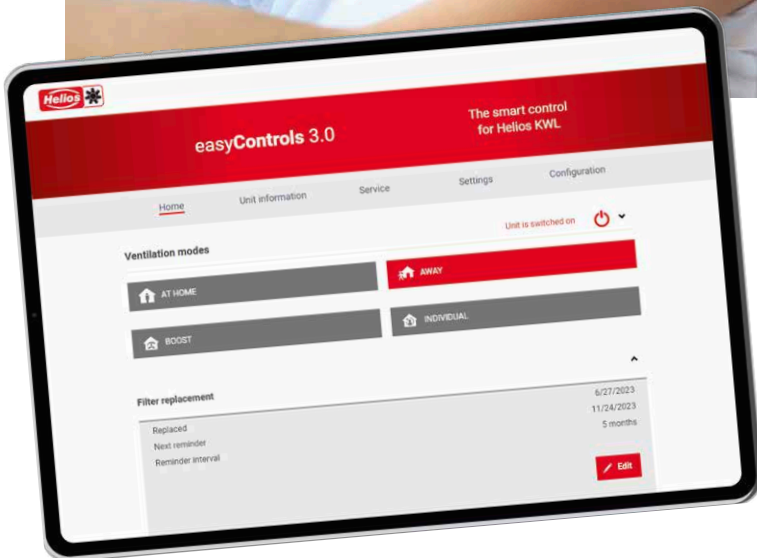
Smart, intuitive and individual: The easyControls 3.0 system

Smart ventilation that makes things easy for you and your customers! The **intuitive easyControls 3.0 concept** can be easily adapted to the individual needs of the user and, depending on your wishes, can be operated manually via a control element, internal web server or location-independently via the cloud.
It's quite simple!

Highlights:

- Smart touch control element in black or white, compatible with almost every switch range.
- Customised ventilation: adjustable weekly programme or fully automatically via room air quality sensors.
- Unit access via PC or Smartphone – also on the move via the easyControls 3.0 Cloud.





Find out more
on our YouTube channel!

Smart ventilation, simple control system

- Location-independent control of the KWL system via the integrated web server or with the easy-Controls Cloud, as required.
- Individual access rights through selectable profiles.
- Assistant-supported, fast commissioning.
- Easy integration into the BMS thanks to Modbus interface (RTU) and KNX module.

Customised comfort

- Establishment of a personal weekly programme.
- Individual configuration of up to four ventilation programmes.
- Compact overview of current status and the measured values of the connected sensors.

Everything from a single source. It makes sense.

Always the perfect solution with flexpipe^{®plus}.

- Suitable for solid, timber or prefabricated house construction.
- Installation in concrete ceilings, on unfinished flooring, in walls or in suspended ceilings.
- Vertical and horizontal adapters allow any desired combination round/oval, oval/oval, round/round for maximum flexibility.



Universal, flexible and individual. The flexpipe^{®plus} distribution boxes.

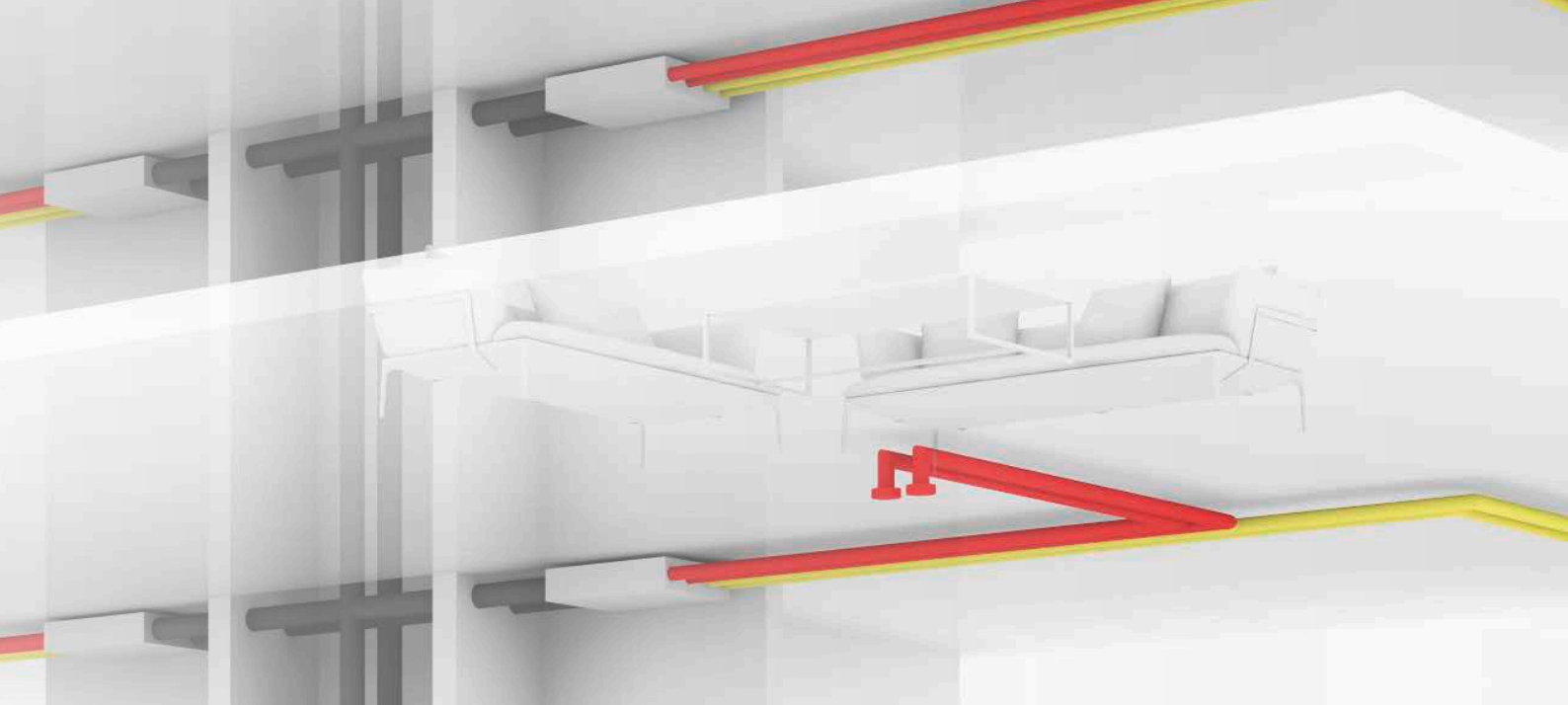
- The sophisticated distribution concept from Helios offers the ideal solution for all installation requirements.¹⁾
- All connections to the distributors are freely selectable, whether they are on the front, offset by 90° or combined.
- Mixed installation with round and oval connectors is possible depending on the requirements.

Eye-catching with added value: The KWL[®] design wall grilles.

The elegant wall grilles are available in three designs (in stainless steel or signal white). They fit perfectly in any room atmosphere and provide for a pleasant and draught-free supply air flow.



¹⁾ The KWL 890 W ventilation unit must be connected to the distribution box on site.



Multiple floors with different requirements?

Volume flow control, sound insulation, air distribution and intelligent system control – the KWL MultiZoneBox comprises a large number of components in a compact housing. In combination with the new KWL 890 W, it silently ensures the needs-based supply and extract ventilation of residential and commercial units.



- A wide range of connection options – from the classic spiral ducts to the highly flexible **flexpipe^{plus}** pipe system.
- One box instead of many individual components for less planning effort and minimal installation space.
- Subdivision of large units into zones, each with a KWL MultiZoneBox for individual air volumes – ideal in medical practices, for example.
- Maintenance-free and whisper-quiet operation.

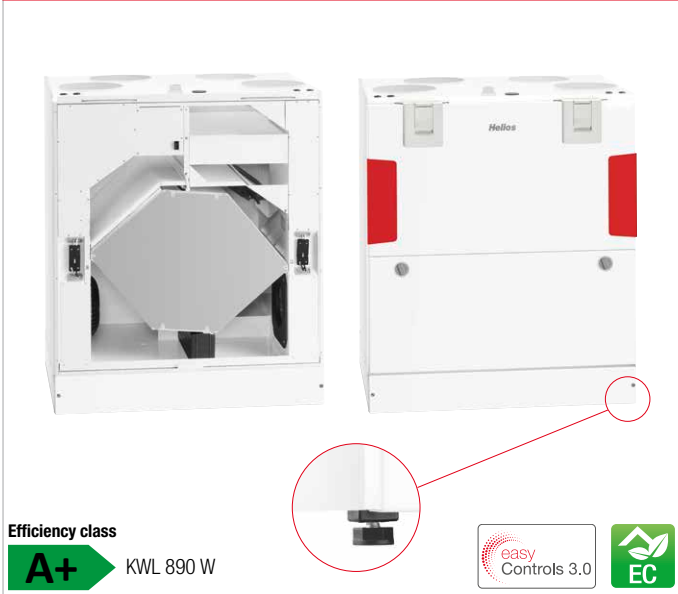


Ground-to-brine and ground-to-air heat exchangers for maximised system efficiency:

- Geothermal heat exchangers SEWT and LEWT significantly increase the efficiency of ventilation units with heat recovery!
- They save even more energy and bring heating costs down to a minimum. The optimal addition to a Helios KWL system with heat recovery.

Additional system components such as silencers or design valves can be found in the Helios KWL catalogue (ref. no. 90529), available at www.helios.com.

KWL 890 W



Efficiency class



KWL 890 W



Compact unit with heat recovery for the central supply and extract ventilation of residential buildings, commercial units and practices. Perfectly prepared for modern communication and operation with the new Helios easyControls 3.0 control system incl. integrated network connection. Equipped with EC fans for low energy consumption and highly efficient aluminium or enthalpy heat exchangers for additional moisture recovery.

■ Casing

Made of galvanised steel sheet, powder-coated in white, double-walled, with heat and sound insulation on all sides. Installation-friendly and maintenance-friendly. All elements are easily accessible through removable front panels. Adjustable feet for balancing.

■ Heat exchanger

- Large cross counterflow heat exchanger made of aluminium, heat recovery efficiency up to 86 %.
- Type "ET" is equipped with highly efficient enthalpy heat exchanger for additional moisture recovery.

■ Fans

Two low-noise high-performance centrifugal fans with energy-saving EC motors of the latest generation ensure the air supply and extraction.

■ Ducts

Installation-friendly connection of intake, exhaust, extract and supply air through ducts with NW 250 mm. Direct connection

of e.g. Aluflex pipe by means of an external double nipple joint.

■ Condensate connection

Double condensate drain at the bottom; ball siphons included in delivery. On-site connection to drain pipe.

■ Air filter

Clean outdoor air supply via ISO Coarse 75% (G4) filter and 2nd filter stage ISO ePM₁, 50% (F7). Extract air side equipped with an ISO Coarse 75% (G4) filter in front of the heat exchanger. Easy filter maintenance.

■ Summer operation

Equipped with automatic bypass function and heat exchanger cover as standard.

■ Heat exchanger anti-frost protection

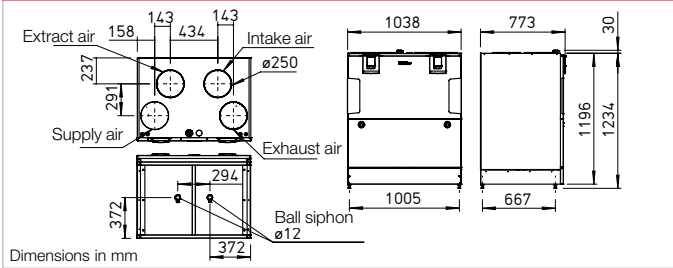
The standard frost monitoring system automatically controls the supply air flow volume and the optionally internal electrical postheater (KWL-ENH 890 W, accessories).

■ Control system

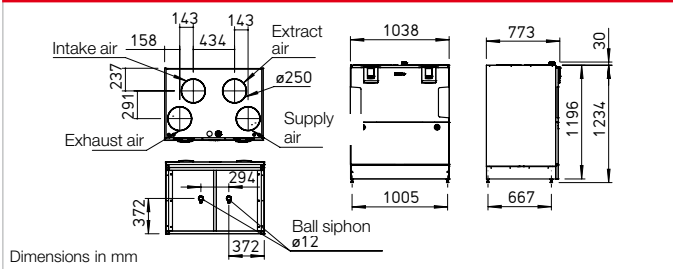
EasyControls 3.0 is the new, modern control system for all KWL compact units from Helios. The standard LAN interface allows the simple integration of the KWL unit in a network and the integration in Helios Cloud. The unit is optionally controlled via an external control element, on PC/laptop, tablet and Smartphone via the integrated web browser or on the move via the Cloud. Helios easyControls 3.0 is prepared for:

- The control elements KWL-BE ECO and KWL-BE Touch (optional accessories)

Dimensions KWL 890 W R



Dimensions KWL 890 W L



- The humidity- and CO₂-Sensor integrated as standard** and other optionally available external air quality sensors (KWL-CO₂ eC, -FTF eC, -VOC eC, accessories) enable automatic, demand-controlled ventilation.

- Connection to building control system via integrated Modbus interface or optional KNX module (KWL-KNX Connect, accessories).

■ Electrical connection

Fixed connection via a mains connection cable 3 x 1.5 mm², approx. 2 m with wire end ferrules.

■ Accessories – Functional description (see right for details)

KWL 890 W can be individually expanded with the following accessories:

- Control element ECO**
 - Three ventilation profiles selectable via slide switch.
 - Control voltage can be measured directly on the control element.
 - LED for visual indication of operating statuses, e.g. filter replacement and faults.

Control element Touch

Touch control element with graphic display and user-friendly menu navigation:

- Commissioning assistant.
- Selection of four ventilation profiles.
- Adjustment of an individual weekly programme.
- Adjustment of parameters for room sensors.
- Indication of e.g. filter replacement, operating statuses and error messages.
- Different access authorisations and child lock.

– Other functions (see operating instructions).

KNX/EIB module

For connecting the ventilation unit to the building control system via the KNX Connect module.

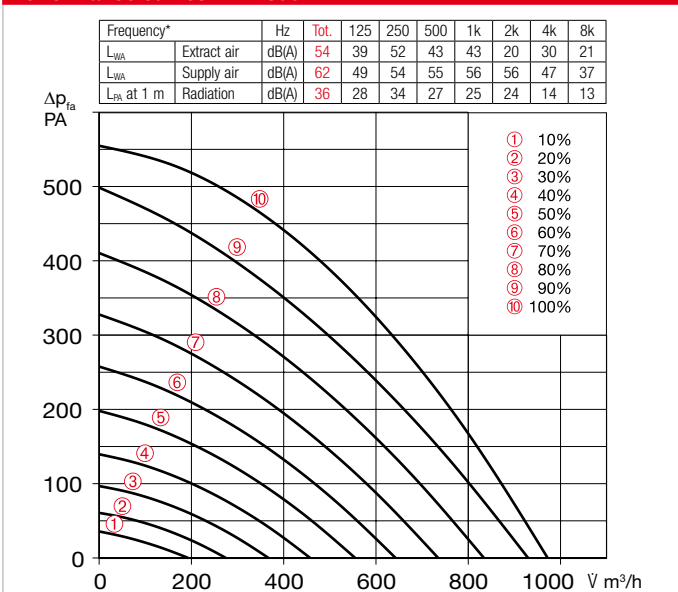
Room sensors

Room sensors, which measure the mixed gas, CO₂ concentration or relative room air humidity, are available for automatic operation and optimal air exchange.

External post-heating

Helios easyControls 3.0 can be used with an electric post-heating element (EHR with KWL-LTK, accessories). The autonomous operation of the warm water heating element can be controlled via an air temperature control (WHS HE, accessories) independently from Helios easyControls 3.0.

Performance curves KWL 890 W



*Sound information relate to Vref. according to ERP data sheet.

Slide switch control element

KWL BE ECO Ref. no. 20246

Three-step slide switch including operation indicator, for flush-mounted installation. Function see left.

Dim. mm (W x H x D) 80 x 80 x 37

Casing for surface installation

KWL APG Ref. no. 04270

Dim. mm (W x H x D) 83 x 83 x 41



Touch control element

KWL BE Touch bl

(black) Ref. no. 20244

KWL BE Touch wh

(white) Ref. no. 20245

With graphic display, for flush-mounted installation. Function see left. Connection of up to 6 pcs.

possible (additional power supply unit may be required). Can be integrated in common switch ranges with the dimensions mm (W x H x D) 55 x 55 x 35.

Dim. with frame mm (W x H x D) 88 x 88 x 35

Casing for surface installation

KWL APG Touch bl No. 40178

KWL APG Touch wh No. 40177

Dim mm (W x H x D) 85 x 85 x 25



Control line cable

KWL-SL eC 5m Ref. no. 40179

KWL-SL eC 10m Ref. no. 40180

Control line cables in 5 or 10 meters, suitable for KWL-BE ECO / Touch as well as room sensor.

Technical data	With aluminium heat exchanger					With enthalpy heat exchanger				
	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
	KWL 890 W L	40721	KWL 890 W ET L	40723						
	KWL 890 W R	40722	KWL 890 W ET R	40724						
Flow rate at level ¹⁾	⑩	⑨	⑧	⑦	⑥	⑤	④	③	②	①
Supply air/extract air V m ³ /h	972	834	735	555	275	996	860	668	480	295
Power consumption fans 2xW ¹⁾	161	105	53	23	8	159	106	54	24	8
Voltage/Frequency	1~, 230 V, 50 Hz									
Rated current A – ventilation	1.4									
– postheating	12.1									
– max. total	1.4 (13.6 incl. postheater, accessories)									
Electric postheater kW	3.0 kW (accessories)									
Summer bypass	automatic (adjustable), with heat exchanger cover									
Wiring diagram no.	1433									
Temperature operating range	–20 °C to +40 °C									
Installation temperature	+5 °C to +40 °C (90% rel. humidity, non-condensing)									
Weight approx. kg	179					174				

¹⁾ At 0 Pa, performance levels adjustable.

KNX/EIB module

KWL-KNX Connect No. 20253

For integrating the ventilation unit in a KNX system. For switch cabinet installation (1 space unit required).



Room sensors

KWL-CO2 eC Ref. no. 20248

KWL-FTF eC Ref. no. 20249

KWL-VOC eC Ref. no. 20247

For measuring the CO₂, mixed gas (VOC) concentration or relative room air humidity. Please note the maximum number of sensors, additional power supply unit may be required.

Dim. mm (W x H x D) 98 x 98 x 33



Electric postheater, internal

KWL-ENH 890 W No. 40728

Electrical postheater for simple, plug-in unit installation. For postheating the supply air at very low outdoor temperatures (heat exchanger anti-icing protection). Mandatory for passive houses. Output: 3000 W.



Extension module

KWL-EM eC Ref. no. 40155

For controlling external post-heating elements.

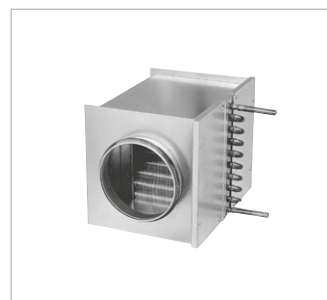
Dim. mm (W x H x D) 210 x 210 x 100



Motion detector

BWM Ref. no. 08323

Motion detector for detecting the presence of persons in the room. Surface-mounted wall installation (cable entry at top or bottom) or installation in flush-mounted box Ø 55 mm (cable entry at back).



Electric postheater, external

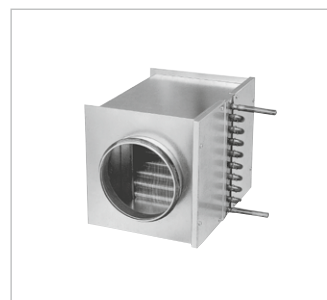
For additional supply air heating.

EHR-R 6/250 Ref. no. 05296



Rectangular duct temp. sensor

KWL-LTK eC (1 pc. req.) No. 40156



Warm water post-heating element

For additional supply air heating.

WHR 250 Ref. no. 09483

Rectangular duct temp. sensor

KWL-LTK eC (2 pc. req.) No. 40156

Hydraulic unit

WHS HE 24 V (0-10 V) No. 08318

Alternative:

Air temperature control

WHST 300 T38 Ref. no. 08817

Replacement air filters

– Filter Set (G4 + F7)

ELF-KWL 890/4/4/7 No. 40729

Reference

Enthalpy heat exchanger

(accessories) for retrofitting:

KWL-ET 890 No. 40730



Helios Ventilatoren GmbH + Co KG · Lupfenstraße 8 · 78056 Villingen-Schwenningen · Germany
Phone +49 77 20 / 606 - 0 · Fax +49 77 20 / 606 - 257 · export@heliosventilatoren.de · www.heliosventilatoren.de

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