

KWL EC 70



Efficiency class

A+

KWL EC 70



Compact ventilation unit with heat recovery for wall mounting – on or in the exterior wall. In addition to the room in which it is installed, another room can also be ventilated or deaerated. KWL EC 70 offers an efficient solution for ensuring comfortable indoor air quality while maintaining high energy efficiency. The space-saving design allows flexible use in many living and usage situations. Ideal for smaller residential units such as flats, hotel rooms, retirement homes, residential homes or student accommodation. Equipped with economical EC fans, highly efficient cross-counterflow or enthalpy heat exchangers and user-friendly operation.

■ Casing

- Universal housing concept. Unit made of highly insulating EPP. Maintenance-friendly access to filters via hinged inner panel. Automatic supply and exhaust air dampers. Easy-to-maintain filter access via hinged inner cover. Surface mounting: easy retrofitting during renovation. Partially integrated into wall: discreet appearance, connection to second room possible (supply/extract air).

■ Heat exchanger

- Large-area cross-counterflow heat exchanger made of plastic, with a heat recovery rate of up to 87 %.
- Type 'ET' is equipped with a highly efficient enthalpy heat exchanger for additional moisture recovery.

■ Fans

- Two quiet, high-performance centrifugal fans with energy-saving EC motors ensure air supply and extraction.

■ Condensate drainage

- If condensate forms due to air conditions, it is reliably drained via the facade cover or the soffit element.

■ Air filter

- Clean outdoor air supply via ISO Coarse 65% (G4) filter or alternatively through ISO ePM₁ 60% (F7) or activated carbon filter. The extract air side is equipped with an ISO Coarse 65% (G4) filter before the heat exchanger. Easy filter maintenance without opening the unit is possible.

■ Frost protection for the heat exchanger

- The standard frost monitoring system automatically adjusts the supply air volume.

■ Control

- The casing features a discreet membrane keypad with 5 ventilation settings.
- Operating modes: Pure supply air / Pure extract air / Heat recovery.
- After a pre-set time interval, the user is reminded of the filter replacement via an optical signal.
- The unit features an integrated humidity sensor for demand-based automatic operation. Additional air quality sensors (VOC, CO₂) are available for integration into the device or external variants for installation in the room.

■ Electrical connection

- Fixed line connection via an NYM cable 3 x 1.5 mm².

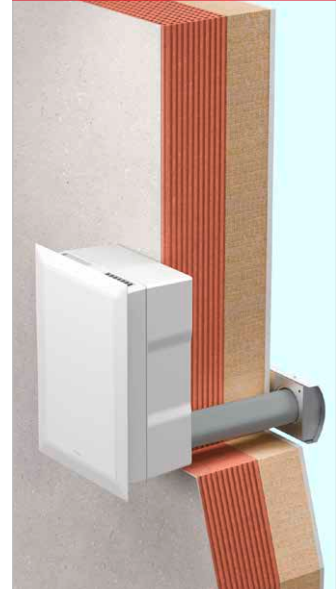
■ Commissioning

- Easy configuration of the KWL EC 70 using the setup tool (PC/laptop) via USB connection.
- Commissioning and parameter

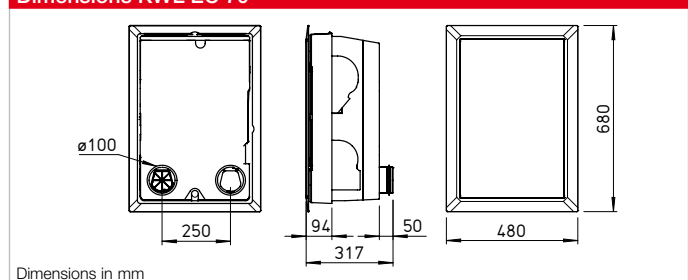
With second room connection



Surface mounting



Dimensions KWL EC 70



entry (e.g. filter change, minimum fan speed) are easily carried out via the programme interface with context-sensitive help texts.

- Configurations can be saved on a PC/laptop and reloaded as required.
- The configuration can be saved and transferred to other devices. This makes commissioning in larger properties particularly easy.
- The set values can be secured in the software using a PIN.

■ Replacement air filters

- 2 pc. ISO Coarse 65% (G4)
ELF-KWL EC 70/2x Coarse 65%
Ref. no. 40849
- 1 pc. ISO ePM₁ 60% (F7)
ELF-KWL EC 70/ePM1 60%
Ref. no. 40868
- 1 pc. ISO ePM₁₀ 80% (AK/M6)¹⁾
ELF-KWL EC 70/ePM10 80% AK
Ref. no. 40869

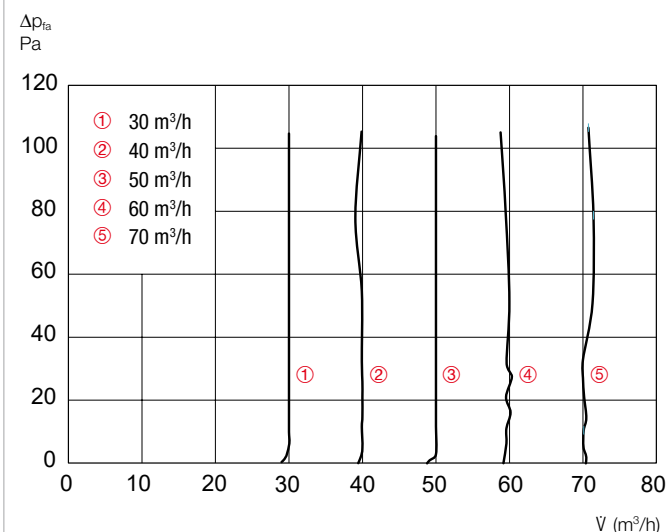
■ Reference

Enthalpy heat exchanger (accessories) for retrofitting:
KWL-ET 70 Ref. no. 40957

Technical data	With cross-counterflow heat exchanger			With enthalpy heat exchanger		
	Type	Ref. no.		Type	Ref. no.	
	KWL EC 70	40787		KWL EC 70 ET	40788	
Heating capacity	87 %			85 %		
Levels	1	2	3	4	5	
Ventilation levels V m³/h	30	40	50	60	70	
Sound power L _{WA} dB(A)	33	38	40	43	45	
Sound pressure L _{PA} dB(A) at 3 m	15	20	22	25	27	
Power consumption fans 2xW	2.5	3.5	5	7	9.5	
Rated current A	0,36					
Max. electrical input power W	50					
Standard sound level difference D _{n,e,w} dB	53					
Temperature operating range	– 20 °C to + 40 °C					
Voltage/Frequency	1~, 230 V, 50 Hz					
Wiring diagram no.	1535					
Weight approx. kg	9					

¹⁾ AK = Activated carbon filter

Performance curves KWL EC 70



Wall installation element

KWL 70 WEE Ref. no. 40852
made of EPS, incl. 2 wall installation sleeves (500 mm) with protective cover, as well as rectangular protective cover for the unit insert.

Adaptor

KWL 70 PS Ref. no. 40853
For completing the KWL EC 70 WEE with a full wall opening.

Second room connection

KWL 70 ZAS Ref. no. 40854
For the connection of an additional room. Set consists of:
2 × connectors for FRS-R 75
4 × bracket FRS-FK
1 × Closing cover for supply or extract air side
2 × sealing ring 75 mm

Ceiling/wall box DN 125

FRS-DWK 2-75/125 No. 03857
Ceiling/wall box for max. 2 round ducts FRS-R 75. For connection of supply/extract air valves DN 125. Height marks can be shortened to fit. Includes 1 blind cover DN 75 and DN 125. Integr. mounting clips, duct mounting brackets (4 pcs.), made of impact-resistant polypropylene.

Flexible ventilation duct

FRS-R 75/20* Ref. no. 40973
Corrugated plastic pipe made of PE-HD in quality-assured quality. Outer diameter: 75 mm, inner diameter: 63 mm. For volume flows up to 30 m³/h. Packaging unit: 1 bundle of 20 running metres.

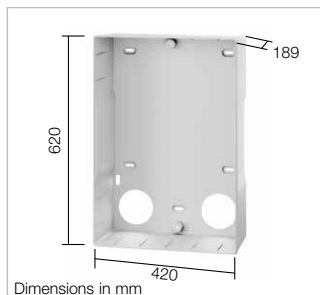
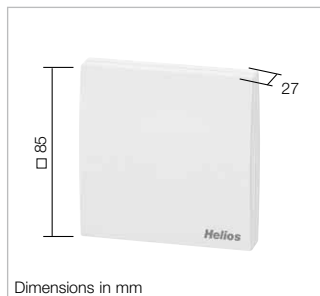
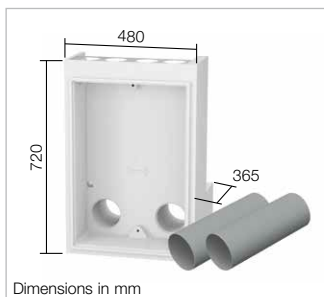
Seal ring for ventilation duct 75 mm

FRS-DR 75 Ref. no. 02916
Seal ring for FRS-R 75. Required at every connection point. Set of 10 pcs.

Design ventilation valve

DLV 125 Ref. no. 03049
With integrated filter for supply and extract air, DN 125, adjustable.

DLV 125 black Ref. no. 40786



Room sensors

AIR1/KWL-VOC 0-10V No. 20250

AIR1/KWL-CO2 0-10V No. 20251

AIR1/KWL-FTF 0-10V No. 20252

For detecting the CO₂, mixed gas (VOC) concentration or relative room air humidity.

Dim. mm (W x H x D) 85 x 85 x 27

Internal sensors

KWL 70 VOC-I Ref. no. 40867

KWL 70 CO2-I Ref. no. 40866

Internal sensor for detecting the CO₂, or mixed gas (VOC) concentration.

Surface-mounted housing

KWL 70 AG Ref. no. 40865

For installing the KWL EC 70 on the wall. Material: Plastic. Colour: white (similar RAL 9003)

Wall installation sleeve

Length 500 mm

KWL 70 WH Ref. no. 40855

Set consisting of 2 pieces. Diameter 110 mm. Material: PPS. Includes 4 building protection covers and 2 mounting templates for hygienic closure during the shell construction phase.

Length 800 mm

KWL 70 WH-L Ref. no. 40856



Facade panel

KWL 70 FB-E Ref. no. 40857

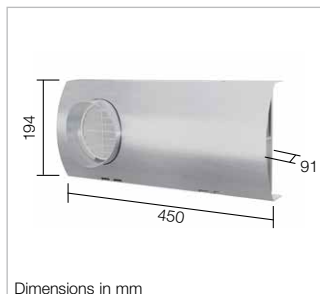
Stainless steel panel for the external facade.

KWL 70 FB-B Ref. no. 40858

With additional coating for environments with high levels of air pollution or high salt concentrations in the air (near the coast).

KWL 70 FB-W Ref. no. 40859

With white coating.



Installation kit Soffit

KWL 70 LE-RP Ref. no. 40860

Soffit channel with plaster frame and adapter. Made of EPP, fire protection class B1. Can be installed on the left or right side of the window.



Stainless steel soffit grille

KWL 70 LG-E Ref. no. 40861

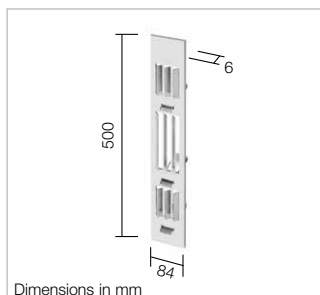
External grille including stainless steel condensate drain and seal.

KWL 70 LG-B Ref. no. 40862

With an additional coating for environments with high air pollution or elevated salt levels in the air (near the coast).

KWL 70 LG-W Ref. no. 40863

With white coating.



Insect screen

KWL 70 ISL Ref. no. 40864

Made of stainless steel. For installation kit Soffit (KWL 70 LE-RP). Suitable for retrofitting.

* Also available with 50 m duct length, see page 163.