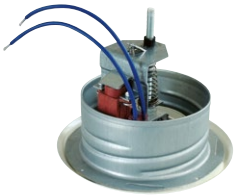
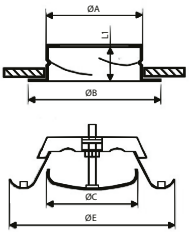
KEL – electrically operated plate valves 12V

Soler&Palau Ventilation Group

reaction to fire certificate
safe voltage 12 V





Technical parameters

Designed for air discharge (supply), with adjustable centre element for flow control. The valves are made of steel sheet coated with white paint (RAL 9010). Mounting frames are made of galvanized sheet metal and the seal to the frame is secured with elastic tape.

- Electrical control 12 V AC/DC
- IP20 protection
- ideal for DCV systems (demand controlled ventilation)
- suitable for renovation of prefabricated houses without interference with the HVAC ductwork
- min. flow adjustment by turning the disc
- low noise and crosstalk values
- ambient temperature up to 100 ˚C

Type	Ø A [mm]	Ø B [mm]	Ø C [mm]	Ø E [mm]	L1 [mm]
KEL 100	98	125	76	142	50
KEL 125	123	150	100	167	50

Installation

The valves are inserted into the mounting frame included in the delivery. The mounting frame is used to fix the valve to a ceiling structure, to a wall or to a circular pipe. By rotating the centre disc, the minimum continuous flow rate of the closed valve can be adjusted.

Electrically operated valves are not equipped with a timer. A suitable timer should be added according to the number of valves with regard to their power (approx. 4 W). If one single valve is to be connected, only a safety transformer with an 8 minute time switch CTE 12/708 can be used for power supply. The maximum number of valves is limited by the switching current of the time switches.

Application

KEL electrically operated metal plate valves are suitable for DCV (demand controlled ventilation) systems. The systems operate on the principle of constant pressure control in the riser pipe. The plate valves can be controlled manually by switches, CO2 sensors, hygrostats or programmable weekly switching clocks.

Functions

When the light is switched on in the bathroom or toilet, the plate valve opens and the pressure in the pipework drops. The differential pressure sensor of the CTB and CRxB N Ecowatt fans with control electronics will increase the speed to adjust to the previous pressure value.

Measurement and control

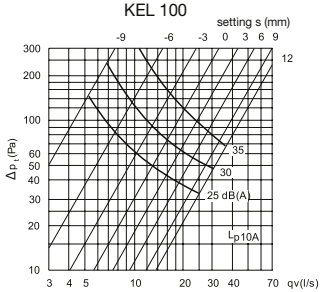
Airflow control is accomplished by rotating the center disc to vary the valve opening "s" (mm). Air flow measurement is performed as a pressure differential measurement using a measuring tube. See diagrams for further details.

Notice

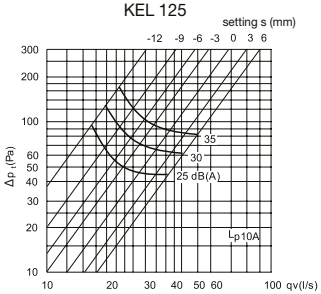
In the closed state of the disc valve, the temperature of the linear actuator can reach up to 70 °C, therefore only installation in spirotubes or fittings with free flowing air is possible. The valve must not be used in flammable air ducts without air flow.

Characteristics

KEL 100

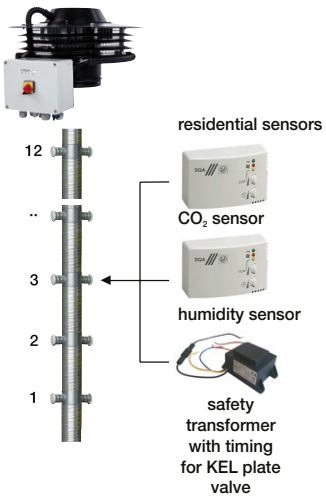


KEL 125



Additional illustration

DCV
controlled ventilation systems
actual demand



The KEL is an electrically controlled plate exhaust valve suitable for central ventilation systems with CRVB-N, CRHB-N and CTB Ecowatt Plus fans, which can be controlled e.g. by bathroom and toilet lighting, CO2 sensors, humidity sensors, thermostats, programmable time switches.

Warning:
Metal plate valves are certified for reaction to fire. When designing, it is necessary to respect EN 73 08 72, EN 13 501-1. Safe 12 V power supply for bathrooms.

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