EUR EC

Mode 2.03: Temperature control with additional function
Mode 2.05: Differential temperature control

Mode 4.01: Differential pressure control
Mode 6.01: Air velocity control
Mode 8.01: Differential absolute humidity control

Universal control system EUR EC
Electronic automatic controller
with 0–10 V DC control output.

■ **Area of application**
For continuously variable control or control of single and three-phase EC fans with a setpoint input of 0–10 V DC.

■ **Control functions**
Quick and easy commissioning of parameters using the integrated Commissioning assistant. The following control parameters can be controlled depending on the connected sensors:
❑ **Manual speed control,** e.g. adjustable via keyboard
❑ **Temperature** (required accessory Temperature sensor LTR 40 or LTK 40).
❑ **Temperature with additional functions** pre-programmed, (required accessory Temperature sensor LTR 40 or LTK 40).
❑ **Differential temp. control** (equired accessory Temperature sensor LTR 40 or LTK 40).
❑ **Differential pressure** (required accessory Differential air pressure sensor LDF 500).
❑ **Differential pressure with outdoor temperature compensation** (required accessory Differential air pressure and temperature sensors LDF 500 and LTR 40 or LTK 40). Ideal for central ventilation systems according to DIN 18017 in residential buildings.
❑ **Air velocity** (required accessory Air velocity sensor LGF 10).
❑ **Differential absolute humidity control** (required accessory AFS..).

The desired sensors must be ordered separately as accessories. The control ranges are freely adjustable within the sensor measurement ranges.

The controlled output voltage balancing the actual value and setpoint value lies between 0% (0 V DC) and 100% (10 V DC). The minimum and maximum values can be specified.
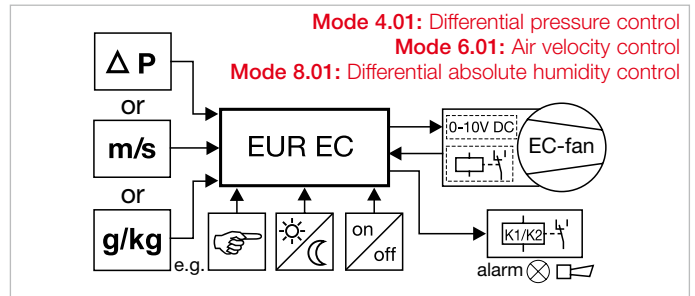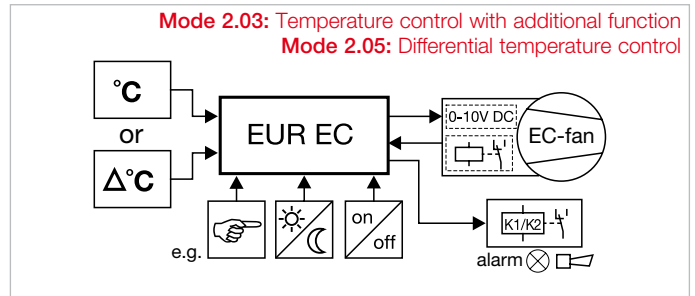
Inputs and outputs:
Outputs:
– 2 x analogue outputs 0–10 V for controlling e.g. EC motor, frequency inverter, valve.
– 2 x potential-free relay, programmable, alarm, heating or status reports.
Inputs:
– 2 x sensor inputs, programmable to the respective required sensor type.
– 2 x digital inputs, can be programmed to release, external fault, limit on/off, switching night reduction, internal/external, control/manual operation, reset, max. speed on/off.

Possible settings
– Continuously variable specification of setpoints and control range.
– Min./max. power (speed) limit.
– Minimum volume flow can be activated and deactivated.
– Connection of e.g. heating via programmable relay.
– Continuously variable specification for alarm signal if temperature is too high or low, output to display or also to relay.
– Min. and max. valve opening.
– Reversal of control function.
– Constant control of ventilation valves.
– Adjustment via a dirt-resistant membrane keyboard.

■ **Display**
❑ Multifunctional LC display.
❑ Numerical setpoint and actual value display with measurement unit.
❑ Symbols (alarm, heating, release).
❑ Bar/level display.
❑ Text display for menu, status and fault signals.

■ **Accessories**

LDF 500   Ref. no. 01322
Differential air pressure sensor, measurement range 0 to 500 Pa.

LGF 10   Ref. no. 01325
Air velocity sensor, measurement range 0 to 10 m/s.

LTA 40   Ref. no. 01336
External temperature sensor, measurement range –20 to +60 °C, protection category IP54.

LTK 40   Ref. no. 01324
Temperature sensor for rectangular duct installation, measurement range 0 to +40 °C.

LTR 40   Ref. no. 01323
Room temperature sensor, measurement range 0.5 to +40 °C.

AFS 0–10 V   Ref. no. 06532
Absolute humidity sensor, with 0–10 V control output, integrated measuring transducer and measuring transducers.

AFS set 0–10 V   No. 07376
Set consisting of 2 absolute humidity sensors, with 0–10 V control output, integrated measuring transducer and high long-term stability.

EUR EC	Ref. no. 01347
Voltage	230 V~, 50/60 Hz
Control output	0 – 10 V / max. 10 mA
Controlled output voltage	0 – 100 %
Temp. measurement range	0 – 40 °C
Pressure measurement range	0 – 500 Pa
Speed measurement range	0 – 10 m/s
Humidity measurement range	0…50 g/kg
Permissible ambient temp.	0 to + 40 °C
Protection category	IP54
Casing	Surface installation, plastic, light grey
Dim. mm	W 223 x H 200 x D 131
Weight approx.	1.0 kg
Wiring diagram no.	1084

■ **References**
If necessary, multiple fans can be connected in parallel to one EUR EC depending on the fan type to be connected.