



Warsaw

GENERAL SPECIFICATION

CO₂ CONTROLLER

AirTECH eko

with INFRA-RED Sensor
series U

PURPOSE

AirTECH eko is an ventilation controller to monitor indoor carbon dioxide concentration at the range of 0 ÷ 2000 ppm (optionally up to 3000 ppm).

In particular, the unit is designed to be used in offices, schools, bars, restaurants, cinemas, and apartments. Measurement of CO₂ is realized by state-of-the-art non-dispersive infrared sensor.

AirTECH eko is supplied with relay outputs to control the ventilation system according to ventilation requirements. AirTECH eko maintains the high indoor air quality and saves energy costs of ventilation system and/or air conditioning (heating/cooling).

Adequate ventilation reduces temporary sickness, downtime and loss of productivity.

FEATURES

AirTECH eko consists of two units: CO₂ Sensor (to be mounted in the monitored room) and steering/supplying Module.

CO₂ SENSOR:

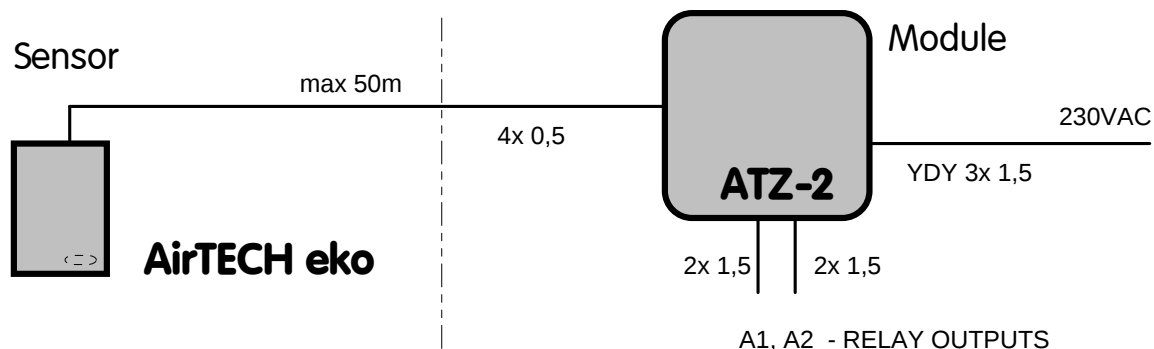
- state-of-the-art non-dispersive infrared (NDIR) technology to measure carbon dioxide gas concentration
- two alarm levels set at factory
- internal automatic self diagnostic and calibration
- long sensor operating lifetime (> 10 years)
- wall-mounted housing
- optionally: LCD display

STEERING/SUPPLYING MODULE:

- IP44 housing
- connection to Sensor by either four wiring phone cable or UTP cable (max 50 m)
- two relay outputs (max 250 VAC)
- low power supply (230 VAC, no power-ON switch)



CONNECTION DIAGRAM



SELECTING TABLE	FUNCTION					
	Alarm levels A1/A2 [ppm] / Outputs	Sensor relay output	Sensor LCD display	Sensor internal siren	Supply module type	Module relay output
AirTECH eko (standard)	800/1400	-	no	-	ATZ-2	A1, A2
AirTECH eko - s	800/1400	-	no	+	ATZ-2	A1, A2
AirTECH eko /24	800/1400, 0-4V, 1-5V	A1 or A2	no	-	no	no
AirTECH eko - D	800/1400	no	0-3000ppm	-	ATZ-2/24	A1, A2
AirTECH eko - Ds	800/1400	no	0-3000ppm	+	ATZ-2/24	A1, A2

TECHNICAL SPECIFICATION

DETECTOR	AirTECH eko
Detecting gas	carbon dioxide (CO ₂)
Operation principle	non-dispersive infrared (NDIR)
Measurement range / accuracy	standard: 0÷2000ppm / ± 5% of reading or > ± 50ppm; option AirTECH eko -D(s) : 0÷3000ppm/ ± 3% of reading or >± 30ppm
Cross sensitivity	no
Gas sampling mode	diffusion (response time T ₉₀ = ~10 s);
Maintenance interval	3 years (with auto-calibration mode switched ON) sensor life expectancy: > 10 years
Operating temperature range	sensor: 0°C ÷ +45°C; module: -10°C ÷ +45°C
Operating humidity range	5 ÷ 95 % (non condensing)
Alarm outputs	alarm outputs set at factory: A1 = 800 ppm (high indoor air quality), A2 = 1400 ppm (maximum acceptable indoor air quality), Hysteresis: 100 ppm
Alarm set accuracy	± 10 % of set value or ± 50 ppm, whichever is greater
Optional display	AirTECH eko -D(s) : 4 digit LCD display in sensor only, current CO ₂ values
Sensor signalization	optical: power supply on - green LED, A1/A2 on – red LED audible: AirTECH eko -(D)s only – at A2 - siren in Sensor (70dB/30 cm)
Sensor outputs	A1/A2 outputs to be connected to module option AirTECH eko/24 : 1 relay (NO), max 2A @ 24V=
Module outputs	2 relay NO type outputs, max. 2A (AC motors) or 0,6A (fluorescent lamps), max 250 VAC or 30 VDC), option AirTECH eko /24 only: analog outputs, 0-4V and 2-5 V in 0 ÷ 2000 ppm range
Power supply	230VAC, 50Hz (max 3W)
Housing / weight	sensor: 106 x 67 x 26 mm, ABS, IP30 / 0,1kg; module: 94 x 94 x 56 mm, ABS, IP 44 / 0,25kg
Warranty	12 months Standard Gazex Guarantee (SGG); Possibility to extend to 36 months – after product registration procedure (see RGG3Y rules)

1000 ppm = 0,1% v/v , 10 000 ppm = 1% v/v

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