

GENERAL SPECIFICATION

The microprocessor-controlled **CARBON MONOXIDE ALARM**



version DK2U3a

PURPOSE

The DDCO-N microprocessor-controlled detector of carbon monoxide is used for continuous monitoring of CO levels in air at home or in a flat. The monitoring is performed in premises where the gas is likely to occur, through periodic measurements of levels of carbon monoxide in the surrounding air. At the moment when the strictly determined CO level and the time of CO presence is exceeded, visual and acoustic alarms of the detector are engaged and its control outputs are activated (options).



USE

- Boiler rooms with furnaces fuelled by Closed domestic garages solid or liquid fuels
- Rooms with wood fireplaces
- Rooms where transportable LPG heaters are used
- Permanently manned premises adjacent to boiler rooms
- Gas-fuelled boiler rooms or kitchens

FEATURES

- Selective measurement of carbon monoxide concentration even at extremely low levels
- Built-in microprocessor controlling all functions of the detector = reliability, work stability and temperature compensation circuit
- Gas detector + power supply + siren + control unit all in one case
- Alarm thresholds according to EN 50291 or tailored to customer's requirements
- Fully automatic device, no regulation or servicing elements
- CO Sensor fault indication
- 9VDC output to control external siren (DK-S3) or lamp (DK-L1)
- 12V DC power supply available (... A model)

TECHNICAL SPECIFICATION

Model	DDCO-N
Supply voltage	230VAC (-14%, +10%), 50Hz,
Supply vollage	version DDCO-NA: 12VDC (10.5 - 16V)
Power consumption	max 3W
Operating temperature	0°C +40°C recommended
	-15°C +50°C allowable periodically (<1h/24h)
Operating humidity	30% 90%RH
Gas sensor	Semiconductor type, SnO2 based, carbon filter
Detected gases	Carbon monoxide [CO], range: 25 - 1000 ppm
Interfering gases	H2, alcohols (high concentrations), O2 deficiency (<19% vol.)
Measuring method	diffusion, periodically – every 10s,
	microprocessor-controlled
Alarm settings	>50 ppm within >60min, <90min (calibration point)
	>100ppm within >10min, <40min
	>300ppm within <3 min
	according to EN 50291
Accuracy of set	± 20% at 20(-2/+5)°C, 65(±10)%RH, 1013(±30)hPa,
ALARM level	>72h continues supply
Thermal stability	-20%, +10% at 0°C 40°C
Alarm indicators	intermittent blinks (0.5 Hz) of red LED +
	intermittently sounds (85dB/1m)
Sensor FAULT:	green LED off, intermittently blinks of yellow LED +
	sound every 10 sec.
Outputs for ALARM	9VDC (lo< 0,1A) (options); for additional siren or lamp
	NO/NC relay (< 2A, 230VAC, resistive load) (optionP)
	optocoupler (< 20mA, <24VDC) (option T)
Dimensions	85 x 140 x 55 mm, W x H x D
Housing, weight	ABS, IP42; approx.0,4kg

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ELEMENTS OF DDCO-N...



HAZARDS

CARBON MONOXIDE (CO) is a gas easily absorbed by human body. Through the lungs it reaches the blood vessels, where it binds permanently to hemoglobin. High levels of CO in inhaled air as well as prolonged inhalation result of insufficient supply of oxygen to the brain and to the rest of the body and can lead to loss of consciousness or prompt death!

CARBON MONOXIDE is a colorless and odorless gas undetectable by human senses. Slightly lighter than air, susceptible to convection movements and easily mixing with air, it is EXTREMELY HAZARDOUS to human HEALTH AND LIFE.

Concentration CO in air	Inhalation time and toxic symptoms developed
0.02 %	Slight headache within 2 - 3 hours
0.04 %	Frontal headache within 1 - 2 hours, becoming widespread in 2.5 - 3.5 h
0.08 %	Dizziness, nausea and convulsions within 45 min, Insensible within 2 h
0.16 %	Headache, dizziness and nausea within 20 minutes, DEATH in 2 hours
0.32 %	Headache, dizziness and nausea within 5 - 10 minutes, DEATH in 30 minutes
0.64 %	Headache, dizziness within 1 - 2 minutes, DEATH in 10-15 minutes
1.28 %	DEATH in 1-3 minutes

TOXIC Symptoms developed by Stationary person exposed to Carbon Monox



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