

Family Datasheet

ECO 420-02 / ECO 420-20

Compact CO₂ monitor

- modern and functional housing
- Wide measuring range: up to 19999 ppm / 2% CO₂ (variant -20)
- Rechargeable via micro USB socket
- 24 hours battery life
- Backlight
- First alarm level by pressing the "5 minutes silent" button for ventilation process
- Ideal for air quality and air hygiene monitoring
- Hold-function to freeze measured values
- Min/Max-function for minimum and maximum recorded measured values
- with metal belt clip and lanyard
- with calibration connection
- Made in Germany



DESCRIPTION

Compact CO₂ monitor with alarm for many applications in air quality monitoring, green houses, energy management and for research and education.

The CO₂ is measured with a high-class non-dispersive infrared (NDIR) sensor via opening at instruments head.

Simultaneous display of time weighted average exposure over 8 hours (TWA) or 15 minutes (STEL).

CO₂ – Dangerous at concentration > 3%

The ECO420 is an ideal measuring warning instrument for moderate but non-dangerous levels – it is no replacement for personal safety equipment to be used in areas with potentially dangerous atmosphere.

ATTENTION:

Never enter potentially dangerous areas where CO₂ may exceed 3% or 30000 ppm CO₂ without additional personal safety equipment!



ECO 420 front

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Display

Thanks to the backlight, the three-line LCD display offers ergonomic wide-angle visibility - by day and by night.

The HOLD function enables the display values to be frozen.

Power supply

2 powerful AA NiMH rechargeable batteries, the energy-saving design and the configurable automatic switch-off function ensure long operation.

Configurable LCD backlight for further energy-saving options.

TECHNICAL DATA

Measurement specifications

	ECO 420-02	ECO 420-20
Measuring range	0..2000 ppm precision (maximum up to 10000 ppm /1,000%)	0..19999 ppm; 0.000..2.000 % (expanded to 3.200 %)
Accuracy (nominal temperature)	± 70 ppm CO ₂ $\pm 3\%$ of reading)	
Measuring cycle	2 seconds	
Pressure dependence	+ 1.6 % of value per kPa from normal pressure	
Sensor life	> 15 years	

General specifications

Display	3-line with battery status indicator, Backlight, protected by shatterproof screen, overhead display at the push of a button
Power supply	2 x AA-rechargeable NiMH batteries (scope of delivery)
Power consumption	~ 50 mA
Battery life	time > 24 hours for NiMH batteries (without backlight)
Automatic Power-Off	Yes, configurable by the user
Operating conditions	0 to 50 °C; 0 to 85 % r.h. (non-condensing)
Storage temperature	-20 to 70 °C (without batteries)
Protection class	IP30
Dimensions	108 x 54 x 28 mm
Weight	approx 160 g
Housing	break-proof ABS, polyester (front panel), Metal clip and carrying strap

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Scope of delivery

- Hand-held measuring device with permanently installed sensor (see order codes)
- 2x AA NiMH rechargeable batteries
- Manual

ORDERING CODES

ECO420		
Compact CO ₂ monitor with integrates sensor and alarm (earlier G 1910)		
1	Measuring range	
	-02	0..2000 (max. 10000) ppm CO ₂ / 0,000..0,200 (max 1,000) % CO ₂
	-20	0..19999 ppm CO ₂ / 0,000..2,000 % CO ₂
2	Version	
	-	Device with metal clip and lanyard
	-AQ	Device with metal clip, setting: warning 1000 ppm/alarm 2000 ppm, continuous operation

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Standard-Articles

ECO420-02	Compact CO ₂ monitor with alarm Measuring range: 0 ... 2000 (max 10000) ppm CO ₂ / 0.000 ... 0.200 (max 1,000) % CO ₂ Scope of delivery: Device incl. sensor, manual, rechargeable batteries, USB charging-cable (without mains adapter)	Art.no. 486768
ECO420-20	Compact CO ₂ monitor with alarm Measuring range: 0 ... 19999 ppm CO ₂ / 0.000 ... 2.000 % CO ₂ Scope of delivery: Device incl. sensor, manual, rechargeable batteries, USB charging-cable (without mains adapter)	Art.no. 486769
ECO420-20-AQ	Compact CO ₂ monitor with alarm Measuring range: 0 ... 19999 ppm CO ₂ / 0.000 ... 2.000 % CO ₂ Scope of delivery: Device incl. sensor, manual, rechargeable batteries, USB charging-cable (without mains adapter)	Art.no. 487102

Accessories

Spare parts:

AAA-AKKU-2	2 spare batteries, rechargeable NiMH AA	Art.no. 601121
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Additional accessories:

GZ-20	Gas connection: Quick-connect adapter 6 mm, spare closing screw, gas bezel	
		Art.no. 479767

GZ-19	Calibration set: Valve for 12 l gas cylinder, quick-connect adapter 6 mm, closing screw, gas-bezel	
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Art.no. 476699

GZ-18	Gas cylinder with 12 l test gas: 5000 ppm CO ₂	Art.no. 476698
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G1000-BASE	G 1000 combined table base / wall suspension	Art.no. 481885
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GKK1000	Carrying case	Art.no. 611603
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For further articles, please visit the Senseca website.