INTELLIGENT MESSEN!
MEASURE WITH INTELLIGENCE!

English

OPERATION MANUAL

ecom® LSG-CO

Version
ecom-LSG-CO

Status January 2023

Intended Use

The gas detector ecom-LSG-CO is designed to detect gas leaks at engines and their exhaust system. The instrument displays existing carbon monoxide concentrations and warns, if an alarm threshold of 1600 ppm CO is exceeded, by an acoustic signal. The sensor head is connected to a flexible gooseneck so that even the most difficult parts of the system can be achieved.

Scope of Delivery

- ecom-LSG-CO
- 2x 1,5 V AA Batteries

General safety instructions

WARNING

Hazard of Injury

Improper work on incinerators can cause injuries.
Work on incinerators may only be done by qualified specialists.

WARNING

Risk of poisoning

High CO concentrations can be life-threatening. The ecom-LSG-CO is not suitable as personal protective equipment.

CAUTION

Beschädigung der Sensoren

Lösungshaltige Substanzen schädigen den CO-Sensoren. Kontakt mit lösungshaltigen Substanzen vermeiden.

NOTE

Do not switch on the ecom-LSG-CO in gas-laden air, as this will lead to incorrect measurement results!

Device Description

1	Flexible Tube	4	ON/OFF	7	Headphone Connection
2	Display	5	LED Warning LIght	8	Senso Head
3	HOLD Key	6	Contact Pins	9	Headphone (Option)

Initiation

Turn the ecom-LSG-CO in CO free air on by pressing the button <I/O>. The display shows the version number and the sensor is set to 0.

Leak Detection

NOTE

The sensor reacts cross-sensitive to hydrogen (100 ppm H2 appears as 40 ppm CO)!

Move the sensor head slowly along the components to be tested. As soon as the instrument approaches a leak, the measured value display reacts with increasing values (when CO is in the flue gas). By pressing the <HOLD> key, the highest measured value since switching on the instrument is displayed (value flashes - back to the actual measured value by pressing <HOLD> key again).

If a concentration of 1600 ppm CO is exceeded, the instrument warns with the LED warning light and an audible signal (can be disabled). Optionally, if required (strong ambient noise) a headphones (in ear) is connectable to the ecom-LSG-CO (headphone jack). Please use only the headphones supplied by ecom.

⚠ CAUTION

Damage to the device

Never connect other components than the ecom headphones - the device can be damaged!

Adjustments

If the <ON/OFF> key is pressed when the instrument is in use, the lighting can be switched on and off with the <HOLD> key (LI 0 = off / LI I = on).
After the <ON/OFF> key is pressed again the acoustic signal can be switched on and off with the <HOLD> key (SO 0 = off / SO I = on).
After adjustment switch back to the measurement with <ON/OFF> key.

Reset Zero Point

Set the zero point only in clean air again! For this purpose, the <HOLD> key must be pressed until the measured value is 0.

Switch-off

Keep the <ON/OFF> key pressed until the value in display is gone.

Power Supply

The ecom-LSG-CO is delivered with two batteries 1,5 V AAA (Micro). Alternatively the battery type 1,2 V AAA NiMh (Nickel-Metall-Hydride) can be used.
Low batteries are indicated by „bAtt“ in the display (capacity for approx. 1 h). If the voltage drops further, "bAtt" appears more than once in the display and the ecom-LSG-CO switches off automatically.

NOTE
Remove batteries if not in use!

Change Batteries

Open the battery compartment located on the back of the instrument and exchange the batteries (respect polarity / do not short-circuit).

FAQ

The following error messages may occur:

Error	Meaning	Action
E1	Electronic failure	Check by ecom service needed
E2	Electronic failure	Check by ecom service needed
E3	Electronic failure	Check by ecom service needed
E4	Electronic failure	Check by ecom service needed
E5	Zero error	Switch on instrument again in fresh air No success: Check by ecom service needed

Technical Data

Technical Data	
Power supply	2 x Batteries Typ AAA; 1,5 V 2 x Batteries Typ AAA; 1,2 V
Indication range	0 – 2000 ppm CO
Storage temperature	-25 °C - +40 °C
Operation temperature	-5 °C - +40 °C
Operation moisture	20 % - 80 % rF
Dimensions Housing Flexible tube	 155 mm x 35 mm x 22 mm 355 mm long
Weight	200 g

NOTE
Subject to technical changes! (Status 01.2023)

Maintenance

To ensure the accuracy of your measuring device, we recommend an annual inspection by an authorised ecom partner. In case of heavy use, shorter inspection intervals should be chosen – please contact your ecom partner.

Disposal

- Dispose of used batteries at the designated collection points.
- Dispose of packaging material in an environmentally friendly manner.
- Old devices must be disposed of in an environmentally friendly manner by an authorised centre.

NOTE

On request we take back old appliances and dispose of them in an environmentally friendly way.

EG-Konformitätserklärung | EC Declaration of Conformity

Hiermit erklärt der Hersteller
The manufacturer

ecom GmbH
Am Großen Teich 2
D-58640 Iserlohn, Germany

CE

in alleiniger Verantwortung für die Ausstellung dieser Erklärung, dass die nachfolgend aufgeführten Produkte:
hereby declares under its sole responsibility, that the products

Lecksuche / leak detection

Type: ecom-LSG

allen einschlägigen Bestimmungen der folgenden EU-Richtlinien entsprechen:
comply with the following European Directives:

2014/30/EU	**EMV-Richtlinie / *EMC Directive***
2011/65/EU	**RoHS**

Folgende Normen wurden angewendet:
The following standard/s were used:

EN 61000-6-2:2005/AC:2005	EMV – Störfestigkeit für Industriebereiche *EMC – Immunity for industrial environments*
EN 61000-6-3:2007/A1:2011	EMV – Störaussendung für Wohnbereich, Geschäfts- und Gewerbebereiche sowie Kleinbetriebe *EMC - Emission standard for residential, commercial and lightindustrial environments*
EN IEC 63000:2018	Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*

Iserlohn, 25.07.2022

Matthias Platte (Geschäftsführer / *Managing Director*)

Declaration of Conformity

The manufacturer

ecom GmbH
Am Großen Teich 2
D-58640 Iserlohn, Germany

hereby declares under its sole responsibility, that the products

Leak detection

Type: ecom-LSG

are in conformity with the relevant statutory requirements of the following enactments:

Electromagnetic Compatibility Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (RoHS)

The following designated standards were used:

EN 61000-6-2:2005/AC:2005	EMC – Immunity for industrial environments
EN 61000-6-3:2007/A1:2011	EMC - Emission standard for residential, commercial and light industrial environments
EN IEC 63000:2018	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Iserlohn, 12.10.2022

Matthias Platte (Geschäftsführer / *Managing Director*)

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