

INTELLIGENT MESSEN!
MEASURE WITH INTELLIGENCE!

ecom[®]

English



OPERATION MANUAL

ecom[®] LSG

Intended Use

The ecom-LSG is developed for the detection of leaks in gas installations. The unit shows existing gas concentration on the display and warns by means of an optical and acoustic signal. The sensitivity of the sensor can be adjusted so that even small leaks can be detected. The sensor head is connected to a movable flexible tube, so that even parts of the installation which are difficult to access can be reached.

Scope of Delivery

- ecom-LSG
- 2x 1.5 V AAA Batteries

General safety instructions



WARNING

Hazard of Injury

Improper work on gas pipes can result in injuries.

Work on gas pipes may only be carried out by qualified personnel.

When working on gas pipes, observe the applicable safety regulations.



CAUTION

Damage to the Sensor

Vibrations can damage the sensor head.

Avoid shocks to the sensor head.



CAUTION

Damage to the Sensor

Substances such as silicones, halogenated hydrocarbons, lead tetraethyl, sulphur compounds and organic phosphorus compounds lead to partially irreversible sensitivity losses.

Avoid contact with such substances.

NOTICE

Do not switch on ecom-LSG in air containing gas, as this will lead to inaccurate measured values!

Device Description



1	Flexible Tube	3	Display	5	On/Off
2	Sensor Head	4	HOLD Key	6	LED

Initiation

1. Switch on the device.


NOTICE

Hold the On/Off key down until you hear a signal.

2. Wait for the heating-up phase.
3. 3-fold beeps indicate operational readiness.
4. Display shows the gas concentration as a bar chart.

NOTICE

1 Bar = no concentration
14 Bars = max. concentration



Leak detection



CAUTION

Damage to the Sensor

Substances such as silicones, halogenated hydrocarbons, lead tetraethyl, sulphur compounds and organic phosphorus compounds lead to partially irreversible sensitivity losses.

Avoid contact with such substances.

1. Slowly move the sensor head past the gas installation to be tested.
2. As soon as the ecom-LSG approaches a leak, the measured value display reacts.

NOTICE

If the first switching threshold is exceeded, the red LED flashes and an acoustic signal sounds. With increasing concentration, the LED flashes at shorter intervals and the signal tone becomes more intense.

3. The highest gas concentration registered so far is represented by a grey bar.

Zero Point

Deviations of the bargraph display from zero can be set to zero by pressing the HOLD key. The change of the zero point is indicated by flashing of the first bar. If the HOLD key is held down for more than 2 seconds, the original zero point is reset.

Switch-off

- Press and hold the ON/OFF key until no more bars are visible on the display.

Settings

Sensitivity

1. With the machine switched on, press the On/Off key.
2. Press the HOLD key.
 - Small bars = low sensitivity
 - Middle bars = medium sensitivity
 - Large bars = high sensitivity

Battery Capacity/Setting Menu

1. With the machine switched on, press the On/Off key twice.
2. Battery capacity is displayed.

NOTICE

If 4 bars are shown on the display, the battery capacity is sufficient for about 1 hour.

3. Use the HOLD key to make the following settings:
 - Without lighting/without acoustic signal
 - With lighting/without acoustic signal
 - Without lighting/with acoustic signal
 - With lighting/with acoustic signal
4. Press the ON/OFF key to save the selected setting and exit the menu.

Power Supply

The two 1.5 V AAA batteries must be replaced when a grey battery symbol appears in the top left-hand corner of the display. The remaining capacity is 1 hour. If the voltage drops further, the battery symbol turns black and the unit switches off automatically.

Battery Change

1. Open the battery compartment on the back.
2. Remove old batteries.
3. Insert new batteries.
4. Close the battery compartment.

Functional Check



1. Open the test medium bottle.
2. Hold the sensor head over the opened test agent bottle.

NOTICE

The bar indicator should show a clear reaction, otherwise the sensor is defective and must be replaced.

Changing the Sensor

NOTICE

Switch off the device before replacing the sensor!

1. Screw on the sensor head.
2. Pull off sensor element.
3. Install new sensor element.
4. Screw on the sensor head.



Technical Data

Technical Data	
Anzeigebereich	Bis 0,5 % Methan
Ansprechzeit	< 2 s
Anzeige	Balkendiagramm, Display ca. 20 mm x 7 mm
Aufwärmzeit	ca. 180 s
Autom. Abschaltung	Nach 30 min.
Betriebstemperatur	-5 °C – 40 °C
Lagertemperatur	-25 °C – 40 °C
Umgebungsfeuchte	20 % – 80 % rF

NOTICE

Subject to technical changes! (Status 01.2023)

FAQ

<p>Bar 14 (calibration incorrect)</p>  <p>The diagram shows a rectangular box representing a bar chart. On the left side, there is a small black dot representing a low value. On the right side, there is a vertical black bar representing a high value. The two values are significantly different, indicating a large range.</p>	<ul style="list-style-type: none">• A gas concentration was present during zero calibration.• Too little difference between zero and 1000ppm calibration• Sensor defective
<p>Bar 11 (sensor head)</p>  <p>The diagram shows a rectangular box representing a bar chart. On the left side, there is a small black dot representing a low value. On the right side, there is a vertical black bar representing a high value. The two values are significantly different, indicating a large range.</p>	<ul style="list-style-type: none">• No sensor head available• Sensor heating element defective

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.

NOTICE

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

Consumables/Spare Parts

NOTICE

You can find consumables or spare parts in our webshop at www.shop.ecom.de.

EG-Konformitätserklärung | EC Declaration of Conformity

Hiermit erklärt der Hersteller
The manufacturer

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



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

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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ecom GmbH

Am Großen Teich 2
D-58640 Iserlohn

Info@ecom.de

www.ecom.de

Phone: +49 2371 945-5

Fax: +49 2371 40305

UK importer:

DRM Technic Ltd.

15C Raleigh Hall Industrial Estate,
GB-Stafford, Staffordshire, ST21 6JL

sales@drmtechnic.com

www.drmtechnic.com

Phone: +44 (0) 1782 638 491