



Translation of the original operating instructions

E-Check

Calibration leak for ELT3000 / ELT3000 PLUS

Catalog No.
600-105

From software version

--

lime10en1-08-(2401)



INFICON GmbH
Bonner Strasse 498
50968 Cologne, Germany

Table of contents

1 About this manual	4
1.1 Warnings	4
1.2 Target groups	4
2 Safety	5
2.1 Intended use	5
2.2 Duties of the user	6
2.3 Requirements for the user	6
3 Scope of delivery, transport, storage	7
4 Description	9
4.1 Function	12
4.2 Technical data	12
4.2.1 Mechanical data	12
4.2.2 Ambient conditions	12
5 Maintenance	13
6 Decommissioning	14
6.1 Send in calibration leak for filling or disposal	14
6.2 Declaration of Contamination	16

1 About this manual

This document applies to the calibration leak indicated on the title page.

Product names may occur in the document, which are added for identification purposes only and belong to the respective owner of the rights.

1.1 Warnings

 DANGER

Imminent hazard resulting in death or serious injuries

 WARNING

Hazardous situation resulting in potential death or serious injuries

 CAUTION

Hazardous situation resulting in minor injuries

NOTICE

Hazardous situation resulting in damage to property or the environment

1.2 Target groups

This instruction manual is intended for the user of the calibration leak, technically qualified personnel and instructed personnel.

2 Safety

2.1 Intended use

- Only use the calibration leak as intended, as described in the instruction manual, to avoid hazards due to misuse.

The calibration leak is used to calibrate the battery leak detector. This usually takes place once a day. Before first use, the calibration leak must be removed from the packaging and stored for 24 hours with the opening facing downwards.

The calibration leak, opening downwards, is placed in the test chamber of the battery leak detector and evacuated. The escaping solvent in gaseous form is detected. It can be used in roofed and closed rooms. 12 months after manufacture, the calibration leak must no longer be used. It must then be sent in for a refill see "Decommissioning [▶ 14]". Storage is in a well-ventilated place. A closed container is not suitable.

- Adhere to the restrictions of use, see "Technical data [▶ 12]".

Incorrect usage

Avoid the following unintended uses:

- Operation of the calibration leak by untrained personnel
- Use outside the technical specifications, see "Technical Specifications"
- Use of the calibration leak for detectable defects
- Operation at too high ambient temperature
- Using the device outside of the specific area
- Exceeding permissible ambient conditions for calibration leaks Exceeding permissible environmental conditions for the calibration leaks
- Storage in a poorly ventilated place or closed container
- Use or storage near sources of ignition or heat
- Use the calibration leak to calibrate other devices with an internal ignition source.
- Abuse for purposes of intoxication
- Open the calibration leak
- Refilling by the customer
- Use with chemicals/liquids other than DMC
- Rücksendung ohne geeignete Transportmittel/Verpackung/Warnaufkleber

2.2 Duties of the user

- Read, observe, and follow the information in this instruction manual and in the work instructions provided by the owner. This concerns in particular the safety and warning instructions.
- Always observe the complete operating instructions for all work.
- If you have any questions about operation or maintenance that are not answered in this manual, contact customer service.

2.3 Requirements for the user

The following notes are for companies or any person who is responsible for the safety and effective use of the calibration leak by the user, employees or third parties.

Safety-conscious operation

- Only operate the calibration leak if it is in a technically perfect condition and shows no signs of damage such as escaping solvents.
- Only operate the calibration leak as intended, in a safety and risk conscious manner, and in accordance with this instruction manual.
- Adhere to the following regulations and observe their compliance:
 - Intended use
 - General applicable safety and accident prevention regulations
 - International, national and local standards and guidelines
 - Additional device-related provisions and regulations
- Keep this instruction manual available on site.

Personnel qualifications

- Only allow instructed personnel to work with the calibration leak. The instructed personnel must have received training in handling the calibration leak.
- Make sure that authorized personnel have read and understood the instruction manual and all other applicable documents.

3 Scope of delivery, transport, storage

Scope of delivery

Item	Quantity
E-Check	1
Instruction manual	1
Calibrated Leak Certificate	1
Safety data sheet	1
Return material	1

Transport

WARNING

Risk of explosion due to leaked solvent

For transport, the calibration leak is wrapped in a fleece and sealed in foil packages. If liquid is visible inside the film packaging or the fleece is damp, there is a risk of fire or explosion in the vicinity of ignition sources due to the leaked solvent

- ▶ Remove the foil packaging of the calibration leak only if there is no liquid in the packaging or the fleece is damp.
- ▶ If liquid escapes from the calibration leak, do not unpack it, avoid any contact and dispose of it properly without delay.
- ▶ Ensure good ventilation

NOTICE

Damage due to improper packaging

Hazard to health and the environment

- ▶ Use the supplied packaging materials (2 x plastic bags and fleece) for returning and disposing of the calibration leak.
- ▶ Use a new carton for return and disposal.
- ▶ When returning and disposing of the product, observe the applicable dangerous goods regulations for road, air and sea transport, as well as the associated packaging regulations and labels!

Storage



Damage caused by improper storage

- ▶ Remove the calibration leak from the packaging and store the calibration leak for at least 24 hours with the opening/flange facing downwards before use.
 - ▶ Store the calibrated leak in a well-ventilated place so that the print on the top is always legible.
-

4 Description



WARNING

Risk of explosion due to escaping solvent

If the calibration leak is used to calibrate equipment with internal ignition sources (e.g. valves, electric motors, Pirani vacuum gauges, etc.), an ignition source may cause an explosion.

Solvents can escape through a damaged membrane and lead to an explosive concentration in the air.

- ▶ No smoking.
- ▶ Ensure adequate ventilation.
- ▶ Keep ignition sources away from the calibrated leak.
- ▶ Properly dispose of the calibrated leak if liquid escapes.
- ▶ Avoid any contact with the solvent.
- ▶ Observe the manufacturer's safety data sheets and follow the applicable work instructions.
- ▶ Do not expose the calibration leak to temperatures higher than 40 °C.
- ▶ Operate the calibrated leak only in the INFICON battery leak detector ELT3000/ ELT3000 PLUS / ELT3000 PLUS.



WARNING

Danger due to electrical charge

Static charge can cause a sudden discharge, possibly with sparking, when handling the calibration leak.

- ▶ Wear ESD clothing and shoes

CAUTION

Risk of injury from falling

Risk of injury from falling

- ▶ Always place the calibration leak on a level surface and secure it against falling down.

**⚠ CAUTION****Risk of injury through inhalation of solvent vapors**

Inhalation of solvent vapors from the calibration leak may cause nausea and intoxication up to unconsciousness and respiratory arrest.

- ▶ Avoid inhalation of solvent vapors.
- ▶ Do not use the solvent to become intoxicated.
- ▶ Avoid any skin contact with the solvent.
- ▶ Ensure that there is sufficient ventilation.

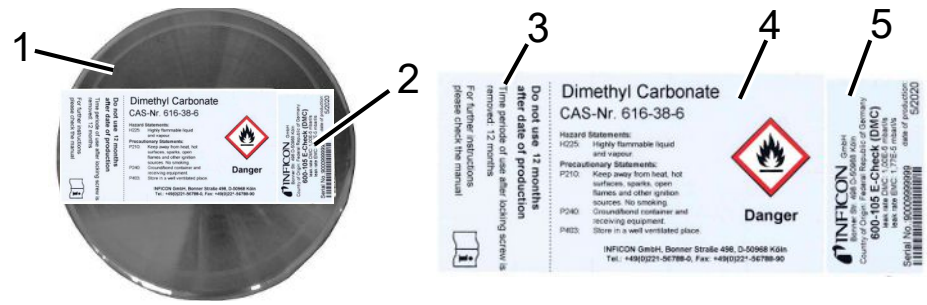


Fig. 1: View from above

Position	Name
1	E-Check (top view)
2	Sticker on the E-check
3	Shelf life notice
4	Danger notice
5	Nameplate

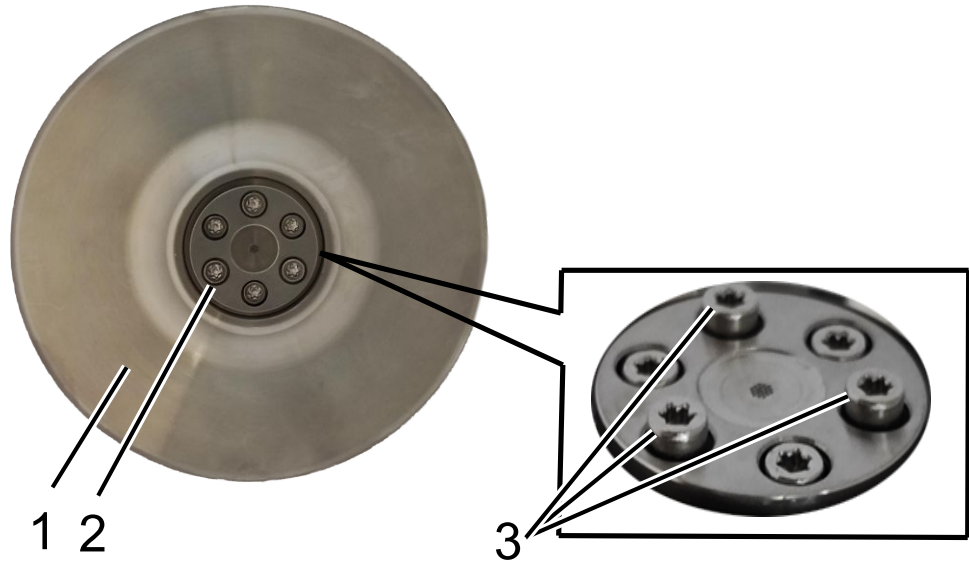


Fig. 2: View from below

Position	Name
1	E-check (view from the bottom)
2	Flange with leakage element
3	Support surface of the E-Check in the test chamber

The different screw height prevent the closing of the outlet opening.

NOTICE**Leaking solvent damages the calibration leak.**

- ▶ Do not loosen the screws on the flange.
- ▶ Do not remove the flange with leakage element.

4.1 Function

The DMC solvent in the calibration leak constantly escapes via a membrane, in very small quantities, in gaseous form.

To check the detection function, place the calibration leak in the measuring chamber with the outlet opening facing downwards.

The membrane is protected by a grid. The calibrated leak is used to calibrate the ELT3000 battery leak detector.

The central flange contains the diaphragm and is sealingly connected to the housing by means of a copper ring.



Note that several measuring cycles are necessary until the actual leakage rate can be determined.

Refilling and recertification is only possible through INFICON, see "Maintenance [▶ 13]".

4.2 Technical data

4.2.1 Mechanical data

Material	Stainless steel
Dimensions (Ø x H)	150 mm x 25 mm
Weight (filled)	< 1250 g

4.2.2 Ambient conditions

Temperature range (°C)	15 °C to 35 °C
Relative humidity (%)	80 % at 30 °C, linear decrease to 50 % at 40 °C
Height above sea level (m)	2000 m
Permissible storage temperature	0 °C to 40 °C

5 Maintenance



WARNING

Danger from improper filling.

- ▶ The calibration leak may only be refilled by INFICON customer service.

For refilling and recertification, contact INFICON customer service.

6 Decommissioning

The owner can dispose of the device or it can be sent to INFICON. The device consists of materials that can be recycled. This option should be exercised to prevent waste and also to protect the environment.

During disposal, observe the environmental and safety regulations of your country.



The E-Check leak must not be disposed of with household waste.

6.1 Send in calibration leak for filling or disposal



Injury and environmental damage from spilled DMC

Injury and environmental damage from spilled DMC

Residual amounts of DMC must remain in the calibration leak and must not be drained under any circumstances.



⚠ WARNING

Danger due to harmful substances

Contaminated devices could endanger health. The contamination declaration serves to protect all persons who come into contact with the device. Devices sent in without a return number and completed contamination declaration will be returned to the sender by the manufacturer.

► Complete the contamination declaration in full except for item 3.

- 1 When returning the calibration leak, observe the applicable dangerous goods regulations for road, air and sea transport.
- 2 Contact the manufacturer and send in a completed declaration of contamination before return shipment.
 - ⇒ You will then receive a return number and the shipping address.
- 3 Use suitable packaging for the return, see the following "Scope of delivery, transport, storage [▶ 7]".
- 4 Before shipping the instrument, attach a copy of the completed contamination declaration to the outside of the package.

For contamination declaration see below.

**Packing the calibration leak**

Avoidance of damage, bodily injury and environmental damage

- ▶ Wrap the calibration leak in the fleece, place the calibration leak with fleece in the first bag and seal it. Then place it in the second bag and seal this bag as well.
 - ▶ Pack the calibration leak in a suitable box, if possible as for the original packaging.
-

6.2 Declaration of Contamination

Declaration of Contamination

The service, repair, and/or disposal of vacuum equipment and components will only be carried out if a correctly completed declaration has been submitted. Non-completion will result in delay.

This declaration may only be completed (in block letters) and signed by authorized and qualified staff.

1 Description of product

Type _____

Article Number _____

Serial Number _____

2 Reason for return

3 Operating fluid(s) used (Must be drained before shipping)

4 Process related contamination of product:

toxic	no <input type="checkbox"/> 1)	yes <input type="checkbox"/>
caustic	no <input type="checkbox"/> 1)	yes <input type="checkbox"/>
biological hazard	no <input type="checkbox"/>	yes <input type="checkbox"/> 2)
explosive	no <input type="checkbox"/>	yes <input type="checkbox"/> 2)
radioactive	no <input type="checkbox"/>	yes <input type="checkbox"/> 2)
other harmful substances	no <input type="checkbox"/> 1)	yes <input type="checkbox"/>

2) Products thus contaminated will not be accepted without written evidence of decontamination!

The product is free of any substances which are damaging to health yes

1) or not containing any amount of hazardous residues that exceed the permissible exposure limits

5 Harmful substances, gases and/or by-products

Please list all substances, gases, and by-products which the product may have come into contact with:

Trade/product name	Chemical name (or symbol)	Precautions associated with substance	Action if human contact

6 Legally binding declaration:

I/we hereby declare that the information on this form is complete and accurate and that I/we will assume any further costs that may arise. The contaminated product will be dispatched in accordance with the applicable regulations.

Organization/company _____

Address _____ Post code, place _____

Phone _____ Fax _____

Email _____

Name _____

Date and legally binding signature _____ Company stamp _____

Copies:
Original for addressee - 1 copy for accompanying documents - 1 copy for file of sender



Due to our continuing program of product improvements, specifications are subject to change without notice.
The trademarks mentioned in this document are held by the companies that produce them.