



Translation of the original operating instructions

# E-Check

## Calibration leak for ELT3000

Catalog No.  
600-105

From software version  
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lime10en1-05-(2007)



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# 1 General information

The E-Check (DMC), only described as a calibration leak below, may only be used in proper condition and in the condition described in the operating instructions and only by trained personnel.

- ▶ Observe local regulations for the use of the calibration leak.

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## 1.1 Warnings

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### **DANGER**

Imminent hazard resulting in death or serious injuries

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### **WARNING**

Hazardous situation resulting in potential death or serious injuries

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### **CAUTION**

Hazardous situation resulting in minor injuries

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### **NOTICE**

Hazardous situation resulting in damage to property or the environment

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## 2 Safety

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### DANGER

#### Risk of injury from explosion

- ▶ If liquids leak out, dispose of the calibration leak properly.
  - ▶ Do not smoke and stay away from ignition sources.
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### WARNING

#### Risk of injury from flammable solvents

The solvent in the calibration leak is highly flammable.

Overheating can damage the membrane, solvent can leak and ignite from an ignition source.

- ▶ Observe the manufacturer's safety data sheets and follow the applicable work instructions.
  - ▶ Avoid heating the calibration leak to high temperatures.
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## NOTICE

### Property damage from falling

Place the calibration leak safely on a flat surface and protect it from falling.

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- ▶ Remove the transport lock and store the calibration leak for at least 24 hours before use.
  - ▶ Store the calibration leak in a well-ventilated place so that the text on the top is always legible.
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## 2.1 Owner requirements

The following notes are for companies or any person who is responsible for the safety and effective use of the product 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 instructed personnel are to be permitted to work with the calibration leak on the battery leak detector. The instructed personnel must have received training on calibration leaks.
- Make sure that authorized personnel have read and understood the instruction manual and all other applicable documents.

## 2.2 Duties of the operator

- Read, observe, and follow the information in this 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.

## 2.3 Intended use

The calibration leak is used to calibrate the battery leak detector. This usually takes place once a day.

The transport lock (sight glass) is removed for initial useDescription [► 15]. After that, the functional duration is about 12 months.

The transport lock is no longer used afterwards. It prevents the leak rate from being significantly reduced until the first use.

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 may no longer be used and must be disposed of properly.

Refilling is not possible.

Storage is in a well-ventilated place. A closed container is not suitable.

### **Incorrect usage**

Avoid the following unintended uses:

- Use the calibration leak to calibrate other devices with an internal ignition source.
- Abuse for purposes of intoxication

## 3 Scope of delivery, transport, storage

### Scope of delivery

Item	Quantity
Calibration leak	1
Calibrated Leak Certificate	1
Safety data sheet	1

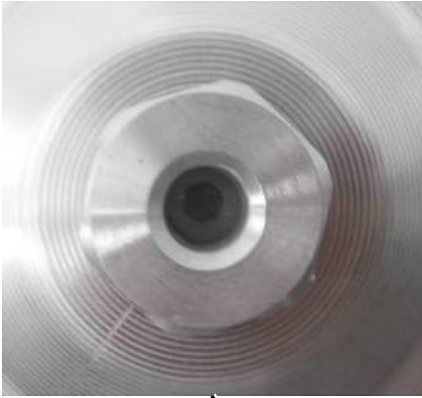
### Transport

#### **WARNING**

##### **Risk of explosion due to leaked solvent**

A sight glass was attached to the diaphragm opening for transport. If a liquid is visible in the sight glass, there is a danger of explosion due to escaping solvent.

- ▶ Only remove the sight glass for commissioning the calibrated leak if no liquid is visible in the sight glass.



1



2

1 There is no liquid in the sight glass

2 There is liquid in the sight glass



For transport the calibrated leak is in a foil package. This foil package contains a fleece which can absorb liquids in case of a leak.

## Storage

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### **WARNING**

#### **Danger when exceeding the expiration date**

The calibrated leak may become leaky at the end of its service life because the bonds are attacked by the solvent. Solvents may leak and there is a risk of fire and explosion.

- ▶ Only use the calibrated leak until the expiration date printed on it.
- 



- ▶ Remove the transport lock and store the calibrated leak for at least 24 hours before use.
  - ▶ Store the calibrated leak in a well-ventilated place so that the print on the top is always legible.
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## 4 Description

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### WARNING

#### **Explosion hazard due to misuse**

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

- ▶ Operate the calibrated leak only in the INFICON battery leak detector ELT3000.
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### WARNING

#### **Risk of explosion due to escaping solvent**

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

- ▶ No smoking.
  - ▶ Keep ignition sources away from the calibrated leak.
  - ▶ Properly dispose of the calibrated leak if liquid escapes.
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 **WARNING****Risk of injury from flammable solvents**

The solvent in the calibration leak is highly flammable.

Overheating can damage the membrane, solvent can leak and ignite from an ignition source.

- ▶ Observe the manufacturer's safety data sheets and follow the applicable work instructions.
- ▶ Avoid heating the calibration leak to high temperatures.

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

Inhalation of solvent vapors from the calibrated leak may cause nausea and intoxication.

- ▶ Avoid inhaling these solvent vapors.
-





Position	Name
1	Calibrated leak (top view)
2	Sticker at calibrated leak
3	Calibrated leak (bottom view)
4	Transport lock (sight glass), wrench size 18 mm
5	Filling port

*Table 1: Description of calibrated leak*

## 4.1 Markings on the calibrated leak



Item	Name
1	Shelf life notice
2	Danger notice
3	Nameplate

Table 2: Calibrated leak markings

## 4.2 Function

The solvent DMC in the calibrated leak constantly escapes in gaseous form via a membrane.

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

The outer opening is for filling by the manufacturer and is closed with a plug.

The inner opening contains a membrane; the opening is closed during transport with a transport lock, see Description [▶ 15].



Please note that it requires several measurement cycles when checking the instrument before the actual leak rate can be determined.

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Refilling is not possible.

## 4.3 Technical specifications

### 4.3.1 Mechanical data

Material	Aluminum
Dimensions (Ø x H)	150 mm x 25 mm
Weight (filled)	< 900 g

### 4.3.2 Ambient conditions

Temperature range (°C)	10 °C to 40 °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 30 °C

## 5 Disposal

The device can either be disposed of by the operator or be sent to the manufacturer. 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 calibrated leak must not be disposed of with household waste.

# 6 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"/>	

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

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

**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





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