

OPERATING MANUAL

lina86e1-b (1206)

Catalog No.

140 23

140 30

Test leak TL7

for integration into leak detectors

UL1000/UL5000/Modul1000



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INFICON-Service

If an appliance is returned to INFICON, indicate whether the appliance is free of substances damaging to health or whether it is contaminated. If it is contaminated also indicate the nature of hazard.

For this please use the form provided in the Annex. INFICON must return any appliance without a declaration of contamination to the sender's address.

General Note

The right of alterations in the design and the technical data is reserved. The illustrations are not binding.

1 **Description**

1.1 **General**

These Operating Instructions contain important information on how to mount the TL 7.

Notice Indicates special technical requirements that the user must comply with.

The references to diagrams, e.g. (1/3), consist of the Fig. No. and the Item No. in that order.

Unpack the TL 7 immediately after delivery, even if it is to be put into operation at a later date.

Notice The shipping container and packaging materials must be kept in the event of complaints about damage.

Check the TL 7 for completeness (see Section 1.4) and carefully examine it visually. If any damage is discovered, report it immediately to the forwarding agent and insurer. If the damaged part has to be replaced, please get in touch with the orders department.

1.2 *Technical Data*

Nominal calibration range	10-7 mbar-l-s-1
Tolerance of nominal calibration range	± 15%
Temperature coefficient	< 0,5 % / °C
Leak type	capillary
Calibrated for	helium
Filling	helium
Filling pressure	2.9 bar (Catalog No. 14030) 8 bar (Catalog No. 14023)
Connecting	Special adapter for mounting a valve block

1.3 *Purpose*

The Calibrated Leak TL 7 with the helium reservoir is used for alignment of the helium mass spectrometer in the Helium-Leak-Detector as well as for calibrating the leak rate indication.

It is equipped with a solenoid valve which is actuated via the control electronics of the Leak-Detector.

The TL7 is mounted in the leak detector of either a UL1000, UL5000 or Modul1000.

1.4 **Standard Specification**

The standard specification of the TL 7 comprises in addition:
O-ring 12 x 1.5,
Two cross head screws M 3 x 25,
Sticker stating the leak rate.

2 **Assembly**

2.1 **Tools required**

Crosshead screwdriver, size 1
Hex. socket screw key, size 2.5

2.2 **Un-/Installing the TL 7**

See documentation of the leak detector.
Open the device.
Remove the TL7 at the valve block by loosening two M 3 screws (hex. socket screw key 2.5). Remove the electrical connector.

When installing the TL7: Place the enclosed O-ring (12 x 1.5) into the groove and then insert the enclosed cheese head screws (3 x 25) into the hole on the side at the aluminium block of the calibrated leak.

Notice Make sure that the O-ring and the sealing surfaces are clean.

3 Leaktightness Test

Start the helium leak detector and spray a little helium through the intake opening of the TMP fan into the Leak-Detector.

Notice In the range of 10^{-9} mbar·l·s⁻¹ no indication must appear.

4 Entering the value of the calibrated leak

To enter the value of the calibrated leak please refer to the appropriate Technical Handbook, Section „The menu function (Overview)“ or the „Description of the individual menu functions“ under menu item „Cal leak 0.0E-07“.

5 *Factory Inspection*

Calibrated leaks are not subject to wear and the helium loss of the calibrated leak TL 7, being less than 2 % per year, is negligible. Nevertheless, the leak rate may change over years due to external influences. A factory inspection is, therefore, advisable once a year.

A test certificate, if required for the helium calibrated leak, can be obtained from our Cologne Works. In that case, the calibrated leak should be forwarded to us and will be returned inspected and recertified with the test certificate against charge.

The helium flow rate stated on the main label is the actual leak rate of the calibrated leak.



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