INFICON

Operating Manual

LDM150R

Refrigerant Monitor for hydrocarbon gases

English · Español · Deutsch · Français · Svenska · Italiano · 中文
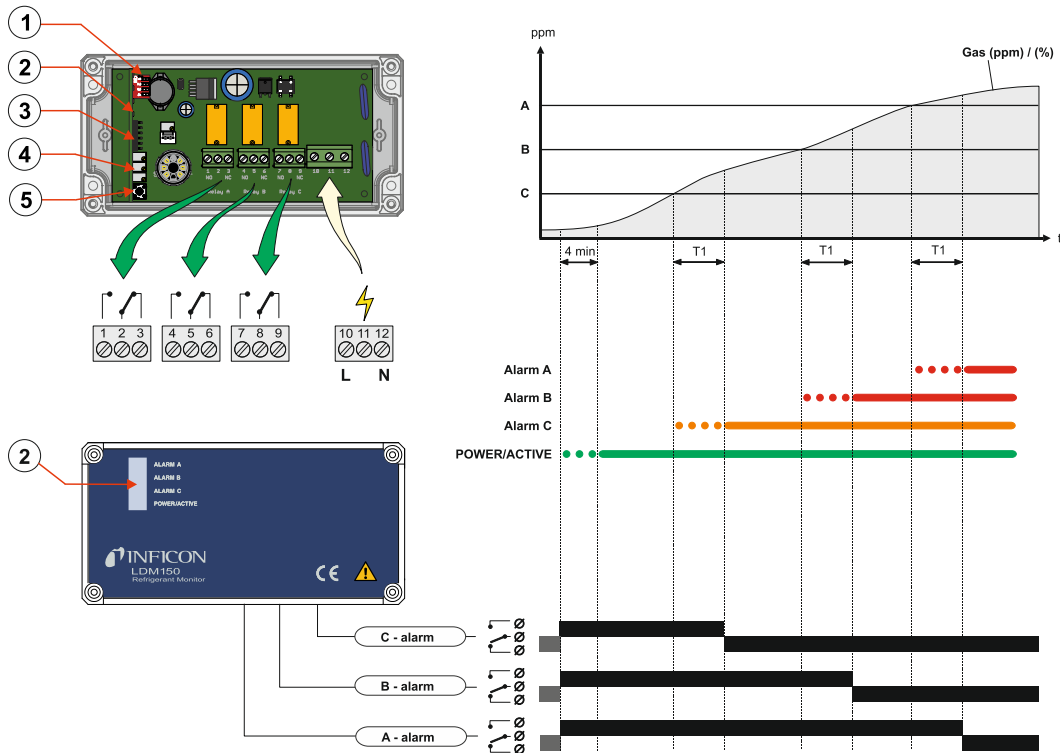
743-203-R290

LDM150R

LDM150R

LDM150R

Fig. 1
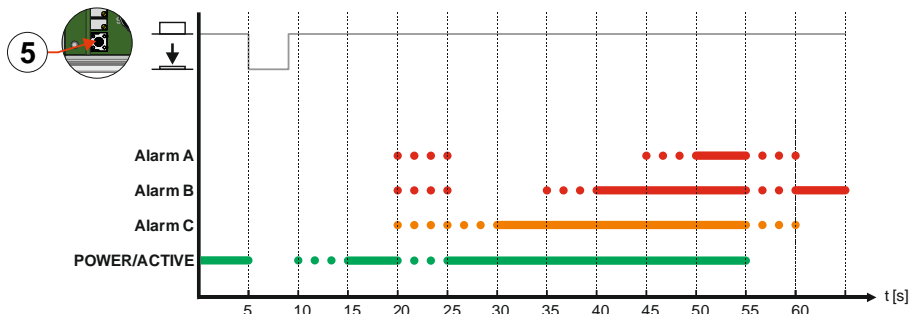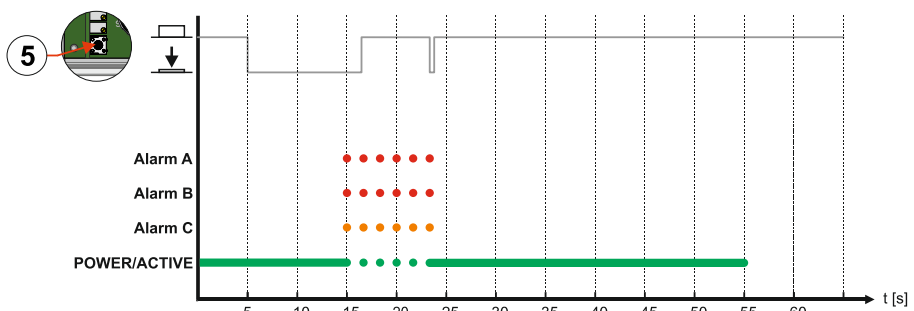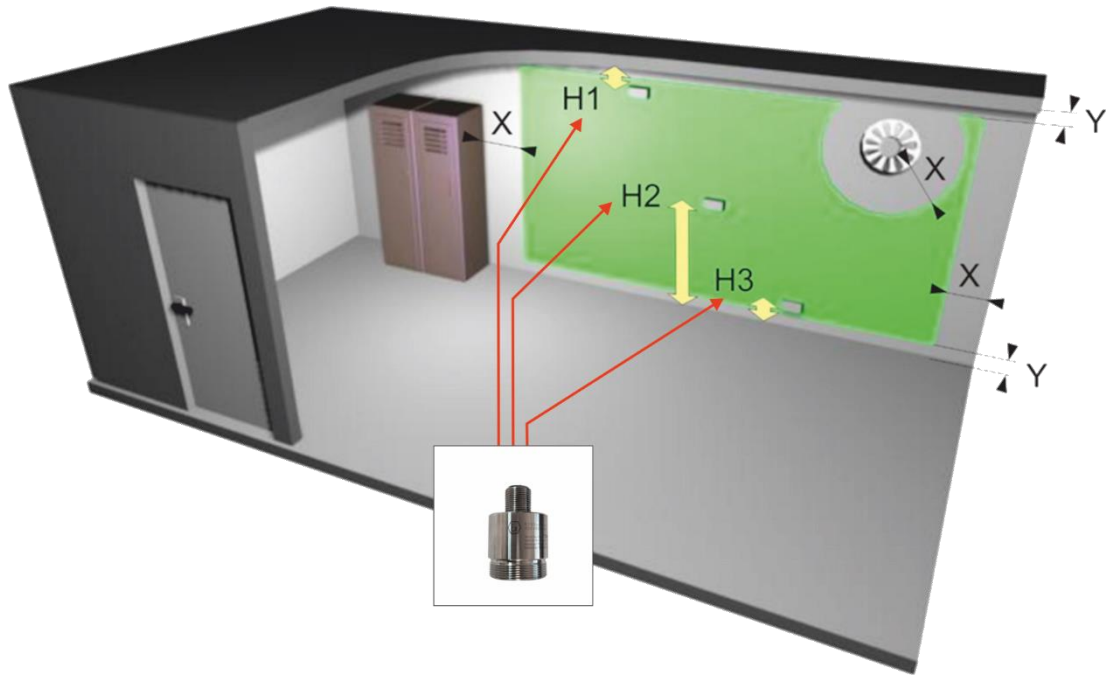

Fig. 2

Fig. 3

Fig. 4

Propane, R290 Propano, R290 Propan, R290 Propane, R290 Propan, R290 Propano, R290 丙烷，R290	H3 = 20 cm	X = 50 cm	Y = 20 cm

LDM150R

LDM150R
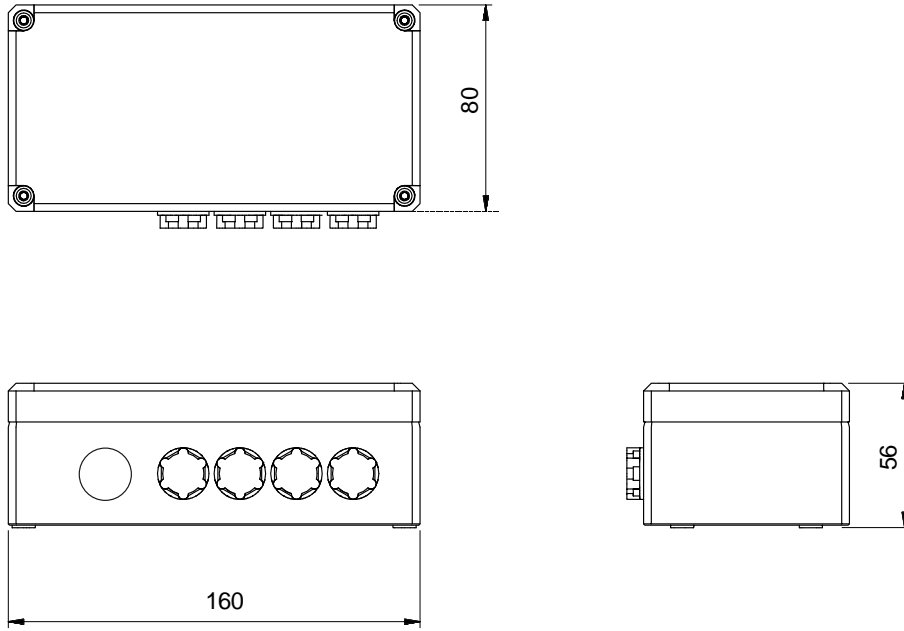
Fig. 5 [mm]

5 x M16 x 1,5

Fig. 6 [mm]

743-203-xxx LDM150R for hydrocarbon gases Operating Manual 200305
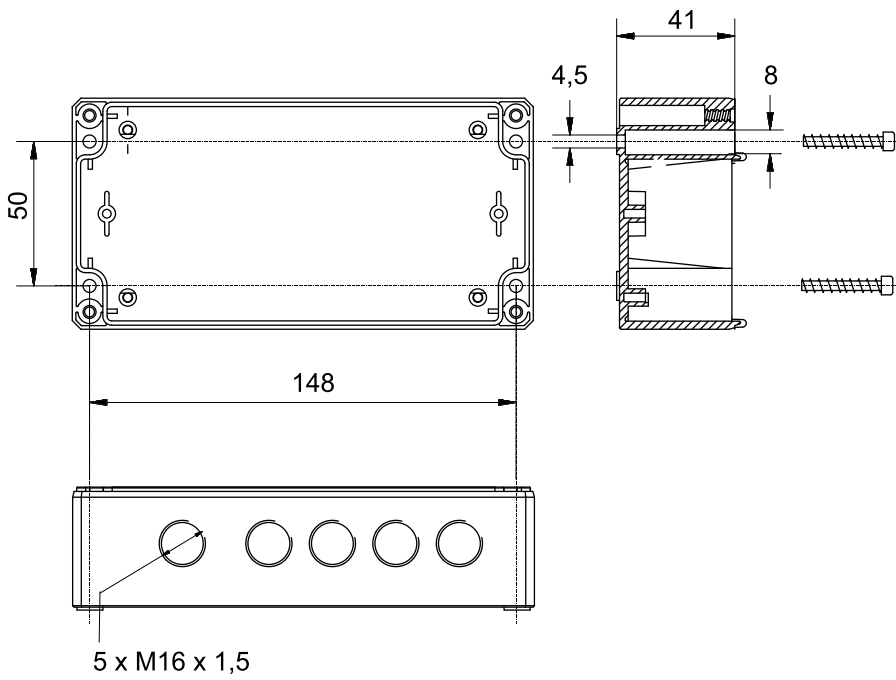
LDM150 Operating Manual

1. Table of Contents

English

English

2. Declaration Of Conformity

INFICON

CE

EU DECLARATION OF CONFORMITY

This declaration is issued under the sole responsibility of the manufacturer INFICON. The object of the declaration is to certify that this equipment, designed and manufactured by INFICON, is in conformity with the relevant Community harmonization legislation. It has been constructed in accordance with good engineering practice in safety matters in force in the Community and does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

Equipment Description: LDM150 and LDM150R

Model Number: 743-XXX-XXX   (Applicable to all Group numbers)

Applicable Directives: EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU

Applicable Standards:

EMC Directive 2014/30/EU:
Standards applied:
EN 61326-1:2012   (Use in the Industrial environments)

Low Voltage Directive 2014/35/EU:
Standards applied:
EN 61010-1:2010

Hazardous Substances Directive 2011/65/EU:
Standards applied:
EN 50581-2013

CE Implementation Date: 2020-01-15

Bnan W.M

_____
Manufacturer Representative
Brian King
General Manager - Service Tools
Two Technology Place
East Syracuse, NY USA 13057
INFICON

EU Authorized Representative
INFICON GmbH
Bonner Str. 498
50968 Cologne
Germany

ANY QUESTIONS RELATIVE TO THIS DECLARATION OR TO THE SAFETY OF INFICON'S PRODUCTS SHOULD BE DIRECTED, IN WRITING, TO THE AUTHORIZED REPRESENTATIVE AT THE ABOVE ADDRESS.

English

English

3. Cautions and Warnings

> ⚠ **WARNING**
>
> The unit must only be opened by authorized personnel!
> No matter if power supply is removed the unit can still have external high voltage over the volt free contacts.
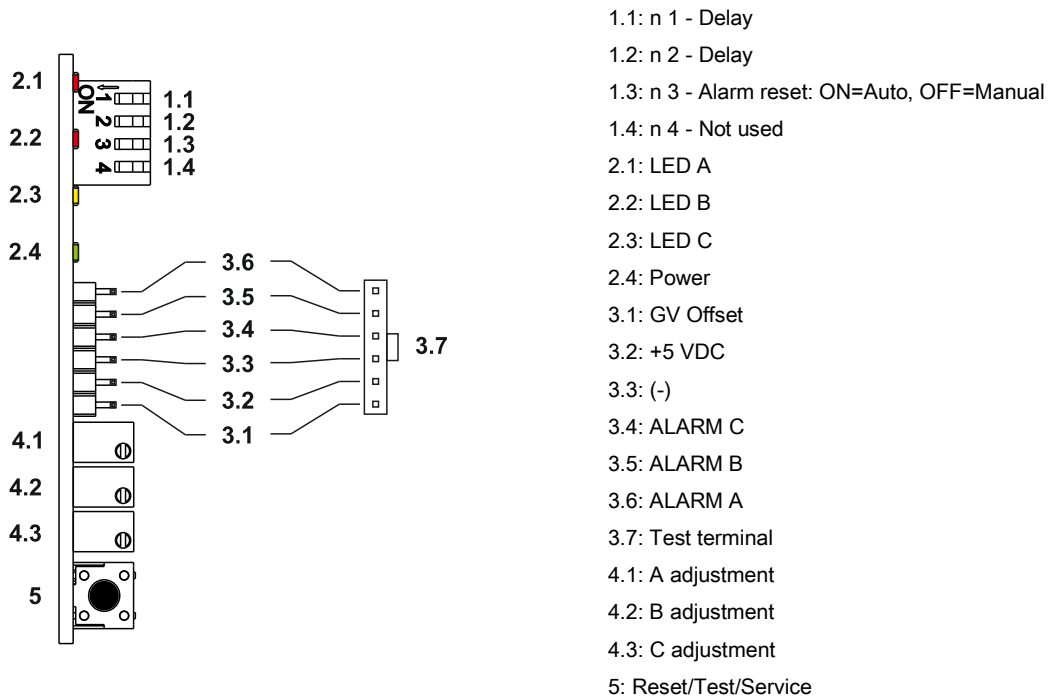
4. Alarm Levels, Factory Settings

Propane 0-50 %LEL	C=5 %LEL	B=10 %LEL	A=20 %LEL

5. Function

When power supply is switched on, a green LED will flash to indicate power "ON". This will also start the heating process of the sensor. After approximately 4 minutes the green LED will light and indicate "Sensor Active".

The detector has one yellow and two red LEDs. The yellow LED indicates low gas concentration (Alarm C) and the red LEDs indicate medium gas concentration (Alarm B) and high gas concentration (Alarm A).

When gas is detected the LEDs (2 - Fig. 1) will light and the relay corresponding to the alarm level will change state. If alarm delay is chosen (see below) the respective LED will flash, and it will light (and the relay will change state) when the chosen delay time is exceeded.

1.1: n 1 - Delay
1.2: n 2 - Delay
1.3: n 3 - Alarm reset: ON=Auto, OFF=Manual
1.4: n 4 - Not used
2.1: LED A
2.2: LED B
2.3: LED C
2.4: Power
3.1: GV Offset
3.2: +5 VDC
3.3: (-)
3.4: ALARM C
3.5: ALARM B
3.6: ALARM A
3.7: Test terminal
4.1: A adjustment
4.2: B adjustment
4.3: C adjustment
5: Reset/Test/Service

6.   Service Function

Pressing the "Reset/Test/Service" button (5 - Fig. 1) for 10 seconds will disengage all alarm functions for 60 minutes. During this period, it is always possible to start a new 60-minutes period by pressing the button for 10 seconds again. Return to active status happens automatically at the end of the 60-minutes period or may be done manually by a single press on the "Reset/Test/Service"-button. When the service function is activated all LEDs will flash and all relays will be in normal mode position. See Fig. 3

7.   Installation/Positioning

The general rule is that the detector should be placed as close to the potential leak as possible, and at the same time consider the gas density and any air movements in the room. The detector must also be positioned in such a way that it is easily accessible for service. See Fig. 4 for suggestions on suitable placement.

8.   Calibration, Alarm Setting

The detectors are delivered for a specific gas type and other calibrations are normally not necessary. The detector is named with the required gas type being detected. It is, however, very easy to change the thresholds by using a MCT150 Monitor Calibration Tool.
The MCT150 Monitor Calibration Tool is connected to the test terminal (3 - Fig. 1).

9.   Annual Function Control

Testing the system is recommended to be done at least once a year. A basic function test can be made using MCT150 Monitor Calibration Tool.

10. Automatic/Manual Alarm Reset

Is managed by DIP switch (1 - Fig. 1) n° 3 where "ON" means automatic reset and "OFF" means manual reset by pressing the "Reset/Test/Service" button (located under the cover).

11. Alarm Time Delay (T1)

Is managed by DIP-switches (1- Fig. 1) n°1 and n°2:

n° 1	n° 2	Alarm delay
ON	ON	No alarm delay
OFF	ON	(1) minutes alarm delay
ON	OFF	(10) minutes alarm delay
OFF	OFF	(30) minutes alarm delay

12. Self-Test Function

Press the "Reset/Test/Service" button (5 - Fig. 1) for 5 seconds and the test program will start and go through all LED functions and all relay functions in five seconds intervals. See Fig. 2.

13. Fault Function

If there is a voltage drop (GV-value below 0,1V) from the sensor there is a fault situation. During the first four hours the green LED will be deactivated, and the other LED's will flash. Alarm relay C will change state. After four hours the LED "Alarm B" will light (other LED's will be deactivated) and relay "Alarm B" will also change state.

14. Fail Safe

Relays are in normal mode energized and will change state if power failure or if a fault situation occurs.

15. Technical Data

Housing:	Polycarbonate, (PC) IP54
Power consumption:	Max 2W
Power supply:	LDM150R: 12-24V AC/DC
	LDM150R,High Voltage: 230V AC, 50/60 Hz
Indications:	Power/Active and alarm indication on three levels.
Outputs relay:	Potential free contacts (230V, max 5A).
Ambient temp:	-40 °C - + 50 °C (Automatic temperature compensation)
Humidity:	0-95% RH (non-condensing)
Glands:	4 of M16 membrane glands
Screw terminals:	< 1,5 mm^2, fuse < 10A

Please Note!

The semi conductive sensors used in the LDM150R range of products are not gas specific. Care should be taken when installing the equipment to minimize any cross contamination from other gases or vapors.

For further guidance on specific applications contact us.

This product is intended for use in the industrial area.

Specifications subject to change.

Español

LDM150 Manual de functionamento

1. Contenido

Español

Español

2. Declaración de conformidad

INFICON

CE

EU DECLARATION OF CONFORMITY

This declaration is issued under the sole responsibility of the manufacturer INFICON. The object of the declaration is to certify that this equipment, designed and manufactured by INFICON, is in conformity with the relevant Community harmonization legislation. It has been constructed in accordance with good engineering practice in safety matters in force in the Community and does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

Equipment Description: LDM150 and LDM150R

Model Number: 743-XXX-XXX   (Applicable to all Group numbers)

Applicable Directives: EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU

Applicable Standards:

EMC Directive 2014/30/EU:
Standards applied:
EN 61326-1:2012   (Use in the Industrial environments)

Low Voltage Directive 2014/35/EU:
Standards applied:
EN 61010-1:2010

Hazardous Substances Directive 2011/65/EU:
Standards applied:
EN 50581-2013

CE Implementation Date: 2020-01-15

(signature)

_____
Manufacturer Representative
Brian King
General Manager - Service Tools
Two Technology Place
East Syracuse, NY USA 13057
INFICON

EU Authorized Representative
INFICON GmbH
Bonner Str. 498
50968 Cologne
Germany

ANY QUESTIONS RELATIVE TO THIS DECLARATION OR TO THE SAFETY OF INFICON'S PRODUCTS SHOULD BE DIRECTED, IN WRITING, TO THE AUTHORIZED REPRESENTATIVE AT THE ABOVE ADDRESS.

Español

3. Precauciones y advertencies

<table>
<tr>
<td>⚠️</td>
<td>

ADVERTENCIA

¡La unidad solo debe abrirla personal autorizado!

No importa si se desconecta la fuente de alimentación, la unidad aún puede tener alto voltaje externo sobre los contactos libres de voltaje!

</td>
</tr>
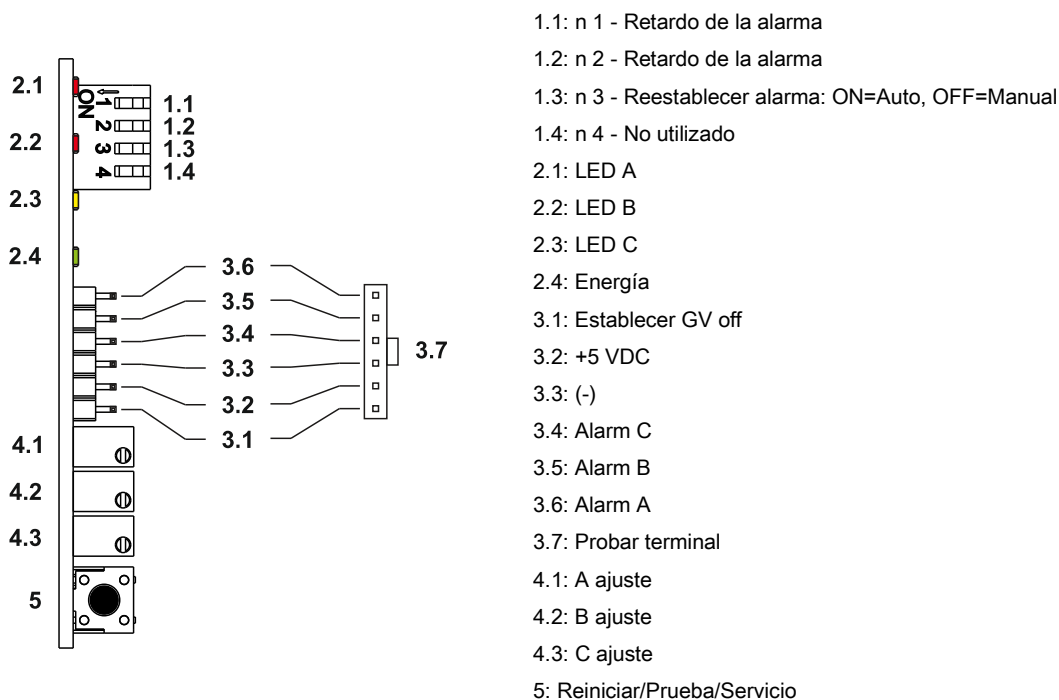</table>

4. Niveles de alarma, configuración de fábrica

Propano 0-50 %LEL	C=5 %LEL	B=10 %LEL	A=20 %LEL

5. Funcionamiento

Cuando se conecta la alimentación, parpadea un LED verde para indicar que está encendido "ON". Esto también iniciará el proceso de calentamiento del sensor. Después de aproximadamente 4 minutos el LED verde se encenderá para indicar "Sensor activo".

El detector cuenta con un LED amarillo y dos rojos. El LED amarillo indica baja concentración de gas (Alarma C) y los LED rojos indican concentración media de gas (Alarma B) y alta concentración de gas (Alarma A).

Cuando se detecta gas los LED (2 - Fig. 1) se encenderán y el relé corresponda al nivel alarma cambiará de estado. Si se opta por una alarma con retardo (ver a continuación) el LED correspondiente parpadeará y se encenderá (cambiando el retardo de estado) cuando se exceda el tiempo del retardo.

1.1: n 1 - Retardo de la alarma

1.2: n 2 - Retardo de la alarma

1.3: n 3 - Reestablecer alarma: ON=Auto, OFF=Manual

1.4: n 4 - No utilizado

2.1: LED A

2.2: LED B

2.3: LED C

2.4: Energía

3.1: Establecer GV off

3.2: +5 VDC

3.3: (-)

3.4: Alarm C

3.5: Alarm B

3.6: Alarm A

3.7: Probar terminal

4.1: A ajuste

4.2: B ajuste

4.3: C ajuste

5: Reiniciar/Prueba/Servicio

Español

6. Función de servicio

Al pulsar el botón "Reinicio/Prueba/Servicio" (5 - Fig. 1) durante 10 se bloquearán todas las funciones de alarma durante 60 minutos. Durante este periodo siempre será posible iniciar un nuevo periodo de 60 segundos pulsando de nuevo el botón durante 10 segundos. Al final del periodo de 60 minutos, se regresa al estado activo de forma automática o de forma manual pulsando el botón "Reinicio/Prueba/Servicio". Cuando la función de servicio se encuentra activada todos los LED parpadearán y los relés estarán en posición de modo normal. Ver Fig 3.

7. Instalación / Posicionamiento

La regla general es que el detector se debe colocar lo más cerca posible del potencial, y al mismo tiempo se debe considerar la densidad del gas y cualquier movimiento de aire en la habitación. Por lo tanto, el detector debe colocarse de tal manera que sea fácilmente accesible para el servicio. Consulte la página anterior para obtener sugerencias sobre la ubicación adecuada. Consulte la Fig. 4 para obtener sugerencias sobre la ubicación adecuada.

8. Calibración, Configuración de alarma

Los detectores se entregan para un tipo específico de gas y normalmente no son necesarios. El detector se nombra con el tipo de gas requerido que se detecta. Sin embargo, es muy fácil cambiar los umbrales utilizando un MCT150 Monitor Calibration Tool.
MCT150 Monitor Calibration Tool está conectado al terminal de prueba (3 - Fig. 1).

9. Control de funciones anuales

Se recomienda probar el sistema al menos una vez al año. Se puede realizar una prueba de función básica utilizando MCT150 Monitor Calibration Tool.

10. Reinicio automático/manual de la alarma

La controla el interruptor DIP (1- Fig. 1) nº 3 en el que "ON" (conectado) significa reinicio automático y "OFF" (desconectado) significa reinicio manual pulsando el botón de "Reinicio/Prueba/Servicio" (situado bajo la cubierta).

11. Retardo de la alarma (T1)

Lo controlan los interruptores DIP (1- Fig. 1) nº1 y nº2:

nº 1	nº 2	Retraso de alarma
ON	ON	Sin retardo en la alarma
OFF	ON	(1) minuto de retardo en la alarma
ON	OFF	(10) minuto de retardo en la alarma
OFF	OFF	(30) minuto de retardo en la alarma

12. Función de autocomprobación

Pulse el botón "Reinicio/Prueba/Servicio" (5 - Fig. 1) durante 5 segundos y el programa de prueba se iniciará y revisará todas las funciones LED y funciones de relé en cinco intervalos. Ver Fig. 2.

13. Función de fallo

Si hubiera una caída de tensión (valor de GV inferior a 0,1V) en el sensor se produce una situación de fallo. Durante las cuatro primeras horas el LED verde se apagará y el resto de LED parpadearán. El relé de alarma C cambiará de estado.

Después de cuatro horas, el LED "Alarma B" se encenderá (el resto de LED se apagarán) y el relé "Alarma B" también cambiará de estado.

14. Seguro contra fallos

Los relés en modo normal tienen energía y cambiarán de estado en caso de fallo de alimentación o si sucede una situación de error.

15. Información técnica

Caja:	Policarbonato, (PC) IP54
Consumo de energía:	Máx 2W
Alimentación:	LDM150R: 12-24V CA/CC
	LDM150R,High Voltage: 230V CA, 50/60 Hz
Indicaciones:	Conexión/Activo y tres niveles de indicación de alarma.
Relés de salida:	Contactos sin potencial (230V, máx 5A) .
Temperatura ambiente:	-40 °C - + 50 °C (Compensación automática de temperatura)
Humedad:	0-95% Hr (sin condensación)
Juntas:	4 juntas de membrana M16
Terminales de tornillo:	< 1,5 mm^2, fusible < 10A

¡Por favor tenga en cuenta!

Los sensores semiconductores utilizados en la gama de productos LDM150R no son específicos de gas. Se debe tener cuidado al instalar el equipo para minimizar cualquier contaminación cruzada de otros gases o vapores.

Para obtener más orientación sobre aplicaciones específicas, contáctenos.

Este producto se ha diseñado para su uso en aplicaciones industriales.

Las especificaciones están sujetas a cambios. .

.

Español

Español

LDM150 Betriebshandbuch

1. Inhaltverzeichnis

Deutsch

Deutsch

2. Konformitätserklärung

INFICON

$C\epsilon$

EU DECLARATION OF CONFORMITY

This declaration is issued under the sole responsibility of the manufacturer INFICON. The object of the declaration is to certify that this equipment, designed and manufactured by INFICON, is in conformity with the relevant Community harmonization legislation. It has been constructed in accordance with good engineering practice in safety matters in force in the Community and does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

Equipment Description: LDM150 and LDM150R

Model Number: 743-XXX-XXX (Applicable to all Group numbers)

Applicable Directives: EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU

Applicable Standards:

EMC Directive 2014/30/EU:
Standards applied:
EN 61326-1:2012 (Use in the Industrial environments)

Low Voltage Directive 2014/35/EU:
Standards applied:
EN 61010-1:2010

Hazardous Substances Directive 2011/65/EU:
Standards applied:
EN 50581-2013

CE Implementation Date: 2020-01-15

Manufacturer Representative
Brian King
General Manager - Service Tools
Two Technology Place
East Syracuse, NY USA 13057
INFICON

EU Authorized Representative
INFICON GmbH
Bonner Str. 498
50968 Cologne
Germany

ANY QUESTIONS RELATIVE TO THIS DECLARATION OR TO THE SAFETY OF INFICON'S PRODUCTS SHOULD BE DIRECTED, IN WRITING, TO THE AUTHORIZED REPRESENTATIVE AT THE ABOVE ADDRESS.

Deutsch

Deutsch

3. Warnungen und Vorsichtshinweise

⚠️ **WARNUNG**

Das Gerät darf nur von autorisiertem Personal geöffnet werden!

Unabhängig davon, ob die Stromversorgung unterbrochen ist oder nicht, kann das Gerät über die potentialfreien Kontakte eine externe Hochspannung führen.

4. Alarmebenen, Werkseinstellungen

Propan 0-50 %UEG	C=5 %UEG	B=10 %UEG	A=20 %UEG

5. Funktion

Bei Einschalten der Stromversorgung blinkt eine grüne LED um Betriebsbereitschaft anzuzeigen. Gleichzeitig startet der Aufwärmprozess des Fühlers. Nach ungefähr vier Minuten leuchtet die grüne LED auf und zeigt „Fühler aktiv" an.

Der Sensor ist mit einem gelben und zwei roten LEDs verbunden. Die gelbe LED zeigt niedrige Gaskonzentration an (Alarm C), und die roten LEDs zeigen mittlere (Alarm B) bzw. hohe Gaskonzentration (Alarm A) an.

Bei Entdeckung von Gas leuchten die LEDs (2 - Fig. 1) auf und das der Alarmstufe entsprechende Relais ändert seinen Zustand. Ist eine Alarmverzögerung festgelegt (siehe unten), blinkt die entsprechende LED zuerst und geht nach Ablauf der gewählten Zeitverzögerung in dauerndes Leuchten über (und der Relaiszustand ändert sich).
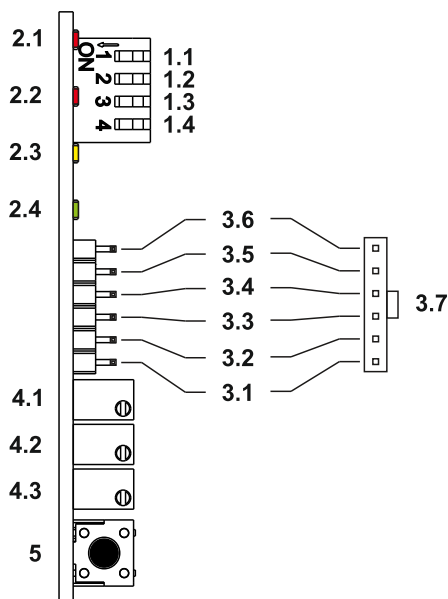
1.1: n 1 - Alarmzeitverzögerung

1.2: n 2 - Alarmzeitverzögerung

1.3: n 3 - Alarm Rücksetzen: ON=Auto, OFF=Manuell

1.4: n 4 - Keine Anw.

2.1: LED A

2.2: LED B

2.3: LED C

2.4: Strom

3.1: GV-Abweichung

3.2: +5 VDC

3.3: (-)

3.4: Alarm C

3.5: Alarm B

3.6: Alarm A

3.7: Testanschluss

4.1: A Einstellung

4.2: B Einstellung

4.3: C Einstellung

5: Rücksetzen/Test/Service

6. Servicefunktion

Ein 10 Sekunden langes Betätigen der „Rücksetzen/Test/Service"-Taste (5 - Fig. 1) sperrt alle Alarmfunktionen für 60 Minuten. Während dieser Periode ist es immer möglich, durch 10 Sekunden langes Betätigen der Taste eine neue 60-Minuten-Periode zu starten. Die Rückkehr in den aktiven Zustand erfolgt automatisch am ende der 60-Minuten-Periode oder lässt sich durch einmaliges Betätigen der „Rücksetzen/Test/Service"-Taste bewirken. Ist die Servicefunktion aktiviert, blinken alle LEDs und alle Relais sind in Normalfunktion-Position. Sehen Sie im Fig. 3

7. Installation, Lage

Die allgemeine Regel ist, dass der Melder so nahe wie möglich am potenziellen Leck platziert werden sollte und gleichzeitig die Gasdichte und etwaige Luftbewegungen im Raum berücksichtigt werden. Der Melder muss außerdem so positioniert sein, dass er für Wartungsarbeiten leicht zugänglich ist. Vorschläge zur geeigneten Platzierung sehen Sie im Fig. 4.

8. Kalibrierung, Alarmeinstellung

Die Detektoren werden für einen bestimmten Gastyp geliefert und andere Kalibrierungen sind normalerweise nicht erforderlich. Der Detektor wird mit dem gewünschten zu erfassenden Gastyp benannt. Es ist jedoch sehr einfach, die Schwellenwerte mit einem MCT150 Monitor Calibration Tool zu ändern.

MCT150 Monitor Calibration Tool ist an das Testterminal angeschlossen (3 - Fig. 1).

9. Jährliche Funktionskontrolle

Es wird empfohlen, das System mindestens einmal im Jahr zu testen. Mit dem MCT150 Monitor Calibration Tool kann eine Grundfunktionsprüfung durchgeführt werden.

10. Automatisches/Manuelles Alarmrücksetzen

Wird mit dem DIP-Schalter (1- Fig. 1) 3 eingestellt, wobei „ON" automatisches und „OFF" manuelles Rücksetzen durch Betätigung der „Rücksetzen/Test/Service"-Taste (unter der Abdeckung) bedeutet.

11. Alarmzeitverzögerung (T1)

Wird mit den DIP-Schaltern (1- Fig. 1) 1 und 2 eingestellt:

nº 1	nº 2	Alarmverzögerung
ON	ON	Keine Alarmverzögerung
OFF	ON	(1) Minute Alarmverzögerung
ON	OFF	(10) Minuten Alarmverzögerung
OFF	OFF	(30) Minuten Alarmverzögerung

12. Prüfprogramm

Die „Rücksetzen/Test/Service"-Taste (5 - Fig. 1) 5 Sekunden lang betätigen, wonach das Prüfprogramm startet und alle LED und Relaisfunktionen in Intervallen von 5 Sekunden durchgeht. Sehen Sie im Fig. 2.

13. Fehlfunktion

Entsteht ein Spannungsabfall vom Fühler (GV-Wert unter 0,1 V) besteht eine Fehlersituation.

Während der ersten vier Stunden erlischt die grüne LED und die anderen LEDs blinken. Alarmrelais C ändert seinen Zustand.

Nach vier Stunden leuchtet die LED „Alarm B" auf (andere LEDs erlischen) und Relaiszustand von „Alarm B" ändert sich ebenfalls.

14. Eigensicher

In Normalfunktion sind die Relais geschlossen und ändern ihren Zustand bei Stromausfall oder Fehlereintritt.

15. Technische Daten

Gehäuse:	Polycarbonat, (PC) IP54
Leistungsaufnahme:	Max. 2 W
Stromversorgung:	LDM150R: 12-24V AC/DC
	LDM150R,High Voltage: 230V AC, 50/60 Hz
Anzeigen:	Betriebs-/Aktiv- und Alarmanzeigen in drei Stufen.
Ausgangsrelais:	Potentialfreie Kontakte (230 V, max. 5 A).
Umgebungstemperatur:	-40 °C bis +50 °C (automatischer Temperaturkompensation)
Luftfeuchtigkeit:	0 bis 95 % rel. LF (nicht-kondensierend)
Buchsen:	4 x M16-Membranbuchsen
Schraubklemmen:	< 1,5 mm², Sicherung < 10 A

Bitte beachten!

Die in der LDM150R-Produktreihe verwendeten Halbleitersensoren sind nicht gasspezifisch. Bei der Installation des Geräts ist darauf zu achten, dass keine Kreuzkontamination durch andere Gase oder Dämpfe auftritt.

Für weitere Informationen zu bestimmten Anwendungen kontaktieren Sie uns.

Dieses Produkt ist für den industriellen Einsatz bestimmt.

Änderungen bei technischen Spezifikationen vorbehalten.

Français

LDM150 Manuel d'utilisation

1. Table des matières

Français

Français

2. Déclaration de conformité

EU DECLARATION OF CONFORMITY

This declaration is issued under the sole responsibility of the manufacturer INFICON. The object of the declaration is to certify that this equipment, designed and manufactured by INFICON, is in conformity with the relevant Community harmonization legislation. It has been constructed in accordance with good engineering practice in safety matters in force in the Community and does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

Equipment Description: LDM150 and LDM150R

Model Number: 743-XXX-XXX   (Applicable to all Group numbers)

Applicable Directives: EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU

Applicable Standards:

EMC Directive 2014/30/EU:
Standards applied:
EN 61326-1:2012   (Use in the Industrial environments)

Low Voltage Directive 2014/35/EU:
Standards applied:
EN 61010-1:2010

Hazardous Substances Directive 2011/65/EU:
Standards applied:
EN 50581-2013

CE Implementation Date: 2020-01-15

_____
Manufacturer Representative
Brian King
General Manager - Service Tools
Two Technology Place
East Syracuse, NY USA 13057
INFICON

EU Authorized Representative
INFICON GmbH
Bonner Str. 498
50968 Cologne
Germany

ANY QUESTIONS RELATIVE TO THIS DECLARATION OR TO THE SAFETY OF INFICON'S PRODUCTS SHOULD BE DIRECTED, IN WRITING, TO THE AUTHORIZED REPRESENTATIVE AT THE ABOVE ADDRESS.

3. Mises en garde et avertissements

⚠ **AVERTISSEMENT**

L'unité ne peut être ouverte que par du personnel autorisé !

Peu importe si l'alimentation est coupée, l'unité peut toujours avoir une haute

tension externe sur les contacts libres de potentiel.

---

4. Niveaux d'alarme, réglages d'usine

| Propane 0-50 %LEL	C=5 %LEL	B=10 %LEL	A=20 %LEL

5. Fonctionnement

Lorsque l'alimentation électrique est enclenchée, un voyant DEL vert clignote pour indiquer que le détecteur est sous tension (”ON”). De plus, le processus de chauffe de la sonde est enclenché. Après environ 4 minutes, le voyant DEL vert est allumé et indique ” Sonde active ”.

Le détecteur comporte un voyant DEL jaune et deux voyants DEL rouges. Le voyant DEL jaune indique une faible concentration de gaz (alarme C). Les voyants DEL rouges indiquent une concentration de gaz moyenne (alarme B) et une concentration de gaz élevée (alarme A).

Lorsque du gaz est détecté, les voyants DEL (2 - Fig. 1) s'allument et le relais correspondant au niveau de l'alarme change d'état. En cas de sélection d'une temporisation d'alarme (voir ci-dessous), le voyant DEL correspondant clignote. Il reste allumé en permanence (et le relais change d'état) lorsque la durée de temporisation sélectionnée est dépassée.

1.1: n 1 - Temporisation des alarmes

1.2: n 2 - Temporisation des alarmes

1.3: n 3 - Réinitialisation de l'alarme : ON=Auto, OFF=Manuel

1.4: n 4 - Non utilisé

2.1: DEL A

2.2: DEL B

2.3: DEL C

2.4: Alimentation

3.1: GV Décalage

3.2: +5 V c.c

3.3: (-)

3.4: Alarme C

3.5: Alarme B

3.6: Alarme A

3.7: Borne d'essai

4.1: Réglage A

4.2: Réglage B

4.3: Réglage C

5: Réinitialiser/Tester/Service
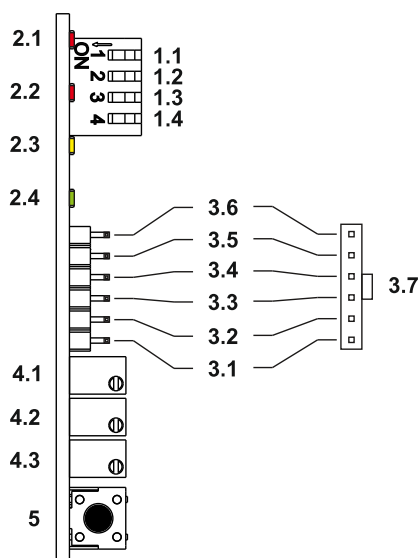
6. Fonction dépannage/entretien

Appuyer sur le bouton "Réinitialiser/Tester/Service" (5 - Fig. 1) pendant 10 secondes pour verrouiller toutes les fonctions d'alarme pendant 60 minutes. Durant cette période, il est toujours possible de lancer une nouvelle période de 60 minutes en appuyant une nouvelle fois sur le bouton pendant 10 secondes.. Le retour à l'état actif se fait automatiquement à l'issue des 60 minutes ou peut être opéré manuellement en appuyant une seule fois sur le bouton "Réinitialiser/Tester/Service". Lorsque la fonction de dépannage/entretien est activée, tous les voyants DEL clignotent et tous les relais sont en position de marche normale. Voir la Fig 3.

7. Installation / Positionnement

La règle générale est que le détecteur doit être placé aussi près que possible du potentiel tout en tenant compte de la densité du gaz et de tout mouvement de l'air dans la pièce. Le détecteur doit donc être placé de manière à être facilement accessible pour le service. Voir la Fig. 4 pour des suggestions sur le placement approprié.

8. Calibrage, réglage de l'alarme

Les détecteurs sont livrés pour un type de gaz spécifique et d'autres étalonnages ne sont normalement pas nécessaires. Le détecteur est nommé avec le type de gaz requis détecté. Il est cependant très facile de modifier les seuils en utilisant un MCT150 Monitor Calibration Tool. MCT150 Monitor Calibration Tool est connecté au terminal de test (3 - Fig. 1).

9. Contrôle annuel de fonction

Il est recommandé de tester le système au moins une fois par an. Un test de fonctionnement de base peut être effectué à l'aide de MCT150 Monitor Calibration Tool.

10. Réinitialisation automatique/manuelle des alarmes

Contrôlée par le commutateur DIP (1- Fig. 1) n° 3 ; "ON" indique la réinitialisation automatique et "OFF" la réinitialisation manuelle (en appuyant sur le bouton "Réinitialiser/Tester/Service", situé sous le couvercle).

11. Temporisation des alarmes (T1)

Contrôlée par les commutateurs DIP (1- Fig. 1) n° 1 et n° 2 :

n° 1	n° 2	Délai d'alarme
ON	ON	Aucune temporisation d'alarme
OFF	ON	Temporisation de (1) minute
ON	OFF	Temporisation de (10) minutes
OFF	OFF	Temporisation de (30) minutes

12. Fonction d'auto-vérification

Appuyer sur le bouton "Réinitialiser/Tester/Service" (5 - Fig. 1) pendant 5 secondes et le programme d'essai s'enclenche et contrôle toutes les fonctions DEL et toutes les fonctions de relais par intervalles de cinq secondes. Voir la Fig. 2.

13. Défaillance

Par "défaillance", il est entendu les cas où l'alimentation électrique de la sonde chute (valeur GV inférieure à 0,1 V). Pendant les quatre premières heures, le voyant DEL vert est éteint et les autres voyants DEL clignotent. Le relais d'alarme C change d'état.

Après quatre heures, le voyant DEL "Alarme B" s'allume (les autres voyants DEL s'éteignent) et le relais "Alarme B" change d'état.

14. Sécurité intégrée

En mode de marche normal, les relais sont sous tension et change d'état en cas de panne de courant ou défaillance.

15. Spécifications techniques

Boîtie:	Polycarbonate, (PC) IP54
Consommation électrique:	Max. 2 W
Alimentation électrique:	LDM150R: 12-24V c.a./c.c.
	LDM150R,High Voltage: 230V c.a., 50/60 Hz
Indications:	Indication de mise sous tension/actif et d'alarme sur trois niveaux.
Relais de sortie:	Interrupteurs neutres (230 V, max. 5 A)
Temp. ambiante:	-40 ° C - + 50 ° C (compensation de température automatique)
Humidité:	0-95 % HR (sans condensation)
Presse-étoupes:	4 presse-étoupes à membrane M16
Bornes à vis:	< 1,5 mm², fusible < 10 A

Remarque !

Les capteurs semi-conducteurs utilisés dans la gamme de produits LDM150R ne sont pas spécifiques au gaz. Lors de l'installation de l'équipement, il convient de veiller à minimiser toute contamination croisée par d'autres gaz ou vapeurs.

Pour plus de conseils sur des applications spécifiques, contactez-nous.

Ce produit est destiné à une utilisation dans le domaine industriel.

Sous réserve de modifications.

Français

Svenska

LDM150 Bruksanvisning

1. Innehållsförteckning

Svenska

Svenska

2. Försäkran om överensstämmelse

INFICON

CE

EU DECLARATION OF CONFORMITY

This declaration is issued under the sole responsibility of the manufacturer INFICON. The object of the declaration is to certify that this equipment, designed and manufactured by INFICON, is in conformity with the relevant Community harmonization legislation. It has been constructed in accordance with good engineering practice in safety matters in force in the Community and does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

Equipment Description:	LDM150 and LDM150R
Model Number:	743-XXX-XXX (Applicable to all Group numbers)
Applicable Directives:	EMC Directive 2014/30/EU Low Voltage Directive 2014/35/EU RoHS Directive 2011/65/EU

Applicable Standards:

EMC Directive 2014/30/EU:
        Standards applied:
                EN 61326-1:2012   (Use in the Industrial environments)

Low Voltage Directive 2014/35/EU:
        Standards applied:
                EN 61010-1:2010

Hazardous Substances Directive 2011/65/EU:
        Standards applied:
                EN 50581-2013

CE Implementation Date: 2020-01-15

Manufacturer Representative
Brian King
General Manager - Service Tools
Two Technology Place
East Syracuse, NY USA 13057
INFICON

EU Authorized Representative
INFICON GmbH
Bonner Str. 498
50968 Cologne
Germany

ANY QUESTIONS RELATIVE TO THIS DECLARATION OR TO THE SAFETY OF INFICON'S PRODUCTS SHOULD BE DIRECTED, IN WRITING, TO THE AUTHORIZED REPRESENTATIVE AT THE ABOVE ADDRESS.

Svenska

3. Försiktighets- och varningsanvisningar

VARNING

Apparaten får endast öppnas av behörig personal!

Oavsett om strömförsörjningen tas bort kan enheten fortfarande ha extern spänning över de spänningsfria reläerna.
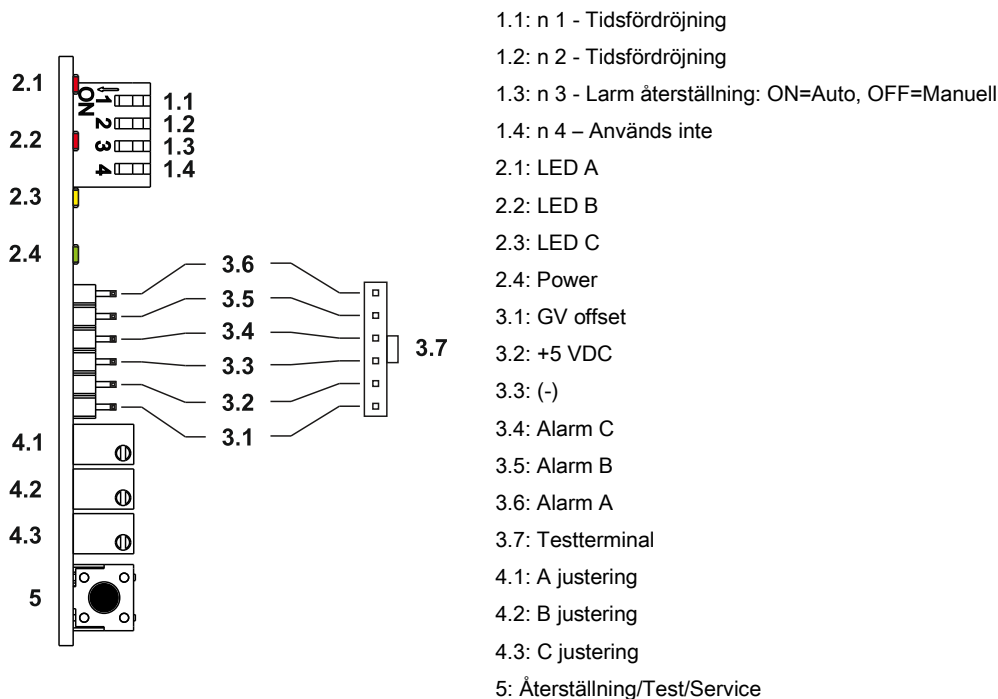
4. Fabriksinställda larmnivåer

Propan 0-50 %LEL	C=5 %LEL	B=10 %LEL	A=20 %LEL

5. Funktion

Vid uppstart blinkar en grön lysdiod som anger "Spänning till". Efter ca 4 minuter tänds den gröna lysdioden med fast sken vilket indikerar att sensorn är i drift "AKTIV".

Detektorn har även en gul och två röda lysdioder som indikerar låg gaspåverkan (Larm C), medel gaspåverkan (Larm B) och hög gaspåverkan (Larm A).

Vid gaspåverkan tänds respektive lysdiod (2 - Fig. 1) och motsvarande reläkontakt växlar. Om larmfördröjning valts (enligt nedan) blinkar respektive lysdiod under den valda fördröjningstiden, efter tidsfördröjning övergår lysdioden till fast sken och reläkontakten växlar.

1.1: n 1 - Tidsfördröjning

1.2: n 2 - Tidsfördröjning

1.3: n 3 - Larm återställning: ON=Auto, OFF=Manuell

1.4: n 4 – Används inte

2.1: LED A

2.2: LED B

2.3: LED C

2.4: Power

3.1: GV offset

3.2: +5 VDC

3.3: (-)

3.4: Alarm C

3.5: Alarm B

3.6: Alarm A

3.7: Testterminal

4.1: A justering

4.2: B justering

4.3: C justering

5: Återställning/Test/Service

Svenska

6. Servicefunktion

Genom ett tio sekunders långt tryck på "Återställning/Test/Service"-knappen (5 - Fig. 1) blockeras alla larmfunktioner under 60 minuter. När som helst kan en ny 60-minuts period startas genom ett nytt tio sekunders tryck på knappen. Återgång sker automatiskt då tiden är ute alternativt manuellt genom ett kort tryck på knappen. När servicefunktionen är aktiverad blinkar samtliga lysdioder och samtliga reläer är i normalläge. Se Fig. 3.

7. Installation, placering

Generell regel är att detektorn ska placeras så nära det potentiella läckaget som möjligt och samtidigt beakta gasens densitet och eventuella luftrörelser i rummet. Detektorn måste också vara placerad på ett sådant sätt att den är lätt åtkomlig för service. Se Fig. 4 om förslag på lämplig placering.

8. Kalibrering, larminställning

Detektorn är fabrikskalibrerad vid leverans. Larmnivåerna kan dock enkelt ändras med hjälp av MCT150 Monitor Calibration Tool. MCT150 Monitor Calibration Tool ansluts på testuttaget (3 - Fig. 1).Kontakta oss för mer information.

9. Årlig funktionskontroll

Detektorn bör kontrolleras minst en gång per år.

Ett enkelt funktionsprov kan utföras med hjälp av MCT150 Monitor Calibration Tool.

10. Automatisk / manuell larmåterställning

Styrs med DIP-switch (1- Fig. 1) no 3 där "ON" anger automatisk larmåtergång och "OFF" manuell larmåtergång via tryck på "Återställning/Test/Service"-knappen (knappen åtkomlig under locket) .

11. Tidsfördröjning av larm (T1)

Styrs av DIP-switch (1- Fig. 1) no 1 och no 2 enligt följande:

no 1	no 2	Tidsfördröjning
ON	ON	Ingen fördröjning
OFF	ON	1 minuts fördröjning
ON	OFF	10 minuters fördröjning
OFF	OFF	30 minuters fördröjning

12. Testprogram

Genom ett fem sekunder långt tryck på "Återställning/Test/Service"-knappen (5 - Fig. 1) startar testprogrammet och går igenom samtliga lysdiods- och reläfunktioner i fem-sekunders intervaller. Se Fig. 2.

Svenska

13. Felfunktion

Om signalen från sensorn (GV-värdet) sjunker under 0,1V utgår fellarm vilket indikeras, under de första fyra timmarna, med att lysdioden för "Aktiv" slocknar och samtliga larmdioder blinkar. Relät för Larm C växlar. Efter fyra timmar tänds lysdioden för larm B med fast sken (övriga är släckta) och även relä för larm B växlar.

14. Failsafe

Reläer är i normal drift dragna vilket innebär att vid fel eller vid spänningsbortfall så växlar samtliga reläer och indikerar larm.

15. Specifikationer

Kapsling:	Polykarbonat (PC) IP54
Strömförbrukning:	Max 2W
Strömförsörjning:	LDM150R: 12-24V AC/DC
	LDM150R,High Voltage: 230V AC, 50/60 Hz
Lysdioder (LED):	Power/Aktiv samt indikering på tre nivåer.
Utgångar:	3 stycken potentialfria kontakter (230V, max 5A)
Omgivn.temperatur:	-40 °C till +50 °C (Automatisk temperaturkompensering)
Luftfuktighet:	0-95% RH (ej kondenserande)
Kabelgenomföring:	Fyra stycken membrantätningar M16
Skruvplintar:	<1,5 mm², avsäkras < 10A

OBSERVERA

ⓘ Halvledar-baserade sensorerna som används i LDM150R produktsortimentet är inte gasspecifika. Var noga med att installera utrustningen för att minimera korskontaminering från andra gaser eller ångor.

För ytterligare vägledning om specifika applikationer, kontakta oss.

Den här produkten är avsedd att användas inom industrin.

Med reservation för tekniska ändringar.

Italiano

Manuale operativo per LDM150

1. Indice

Italiano

Italiano

2. Dichiarazione di conformità

INFICON

CE

EU DECLARATION OF CONFORMITY

This declaration is issued under the sole responsibility of the manufacturer INFICON. The object of the declaration is to certify that this equipment, designed and manufactured by INFICON, is in conformity with the relevant Community harmonization legislation. It has been constructed in accordance with good engineering practice in safety matters in force in the Community and does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

Equipment Description: LDM150 and LDM150R

Model Number: 743-XXX-XXX   (Applicable to all Group numbers)

Applicable Directives: EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU

Applicable Standards:

EMC Directive 2014/30/EU:
        Standards applied:
                EN 61326-1:2012   (Use in the Industrial environments)

Low Voltage Directive 2014/35/EU:
        Standards applied:
                EN 61010-1:2010

Hazardous Substances Directive 2011/65/EU:
        Standards applied:
                EN 50581-2013

CE Implementation Date: 2020-01-15

Manufacturer Representative
Brian King
General Manager - Service Tools
Two Technology Place
East Syracuse, NY USA 13057
INFICON

EU Authorized Representative
INFICON GmbH
Bonner Str. 498
50968 Cologne
Germany

ANY QUESTIONS RELATIVE TO THIS DECLARATION OR TO THE SAFETY OF INFICON'S PRODUCTS SHOULD BE DIRECTED, IN WRITING, TO THE AUTHORIZED REPRESENTATIVE AT THE ABOVE ADDRESS.

Italiano

Italiano

3. Avvertenze e precauzioni

⚠️ **AVVERTIMENTO**

L'unità deve essere aperta esclusivamente da personale autorizzato!

Non importa se l'alimentazione viene interrotta, può sempre essere presente un'alta tensione esterna sui contatti liberi da tensione dell'unità.

4. Livelli di allarme, impostazioni di fabbrica

Propano 0-50 %LEL	C=5 %LEL	B=10 %LEL	A=20 %LEL

5. Funzionamento

Quando l'alimentazione è inserita, un LED verde lampeggia a indicare che l'alimentazione è "ON". Verrà anche avviato il processo di riscaldamento del sensore. Dopo circa 4 minuti il LED verde si illumina in modalità fissa per indicare "Sensore attivo".

Il rilevatore dispone di un LED giallo e due LED rossi. Il LED giallo indica una bassa concentrazione di gas (Alarm C) e i LED rossi indicano una concentrazione di gas media (Alarm B) e alta (Alarm A). Quando viene rilevato del gas, i LED (2 - Fig. 1) si illuminano e il relè corrispondente al livello di allarme cambierà stato. Se viene scelto il ritardo dell'allarme (vedere più avanti), il LED corrispondente lampeggerà e si illuminerà in modalità fissa (e il relè cambierà stato) quando viene superato il tempo di ritardo selezionato.
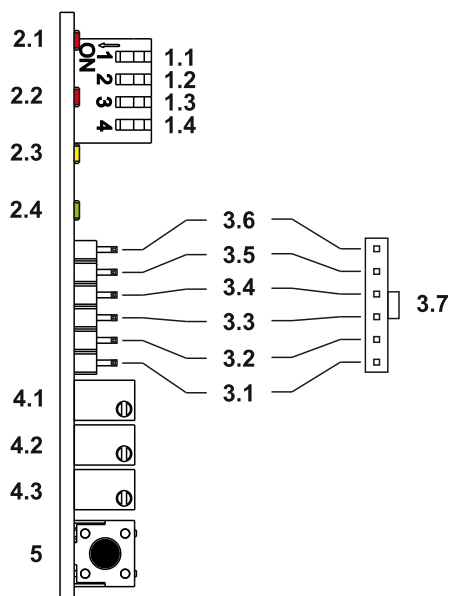
1.1: n 1 - Ritardo
1.2: n 2 - Ritardo
1.3: n 3 - Ripristino allarme: ON=Automatico, OFF=Manuale
1.4: n 4 - Non usato
2.1: LED A
2.2: LED B
2.3: LED C
2.4: Alimentazione
3.1: Offset GV
3.2: +5 VDC
3.3: (-)
3.4: ALARM C
3.5: ALARM B
3.6: ALARM A
3.7: Terminale di prova
4.1: Regolazione A
4.2: Regolazione B
4.3: Regolazione C
5: Ripristino/Prova/Assistenza

6. Funzione Assistenza

La pressione del tasto "Ripristino/Prova/Assistenza" (5 - Fig. 1) per 10 secondi disinserisce tutte le funzioni di allarme per 60 minuti. Durante questo periodo è sempre possibile avviare un nuovo periodo di 60 minuti premendo nuovamente il tasto per 10 secondi. Il ritorno allo stato attivo avviene automaticamente al termine del periodo di 60 minuti oppure può essere determinato manualmente premendo una volta il tasto "Ripristino/Prova/Assistenza". Quando la funzione di assistenza è attivata, tutti i LED lampeggiano e tutti i relè sono in posizione di modalità normale.
Vedere la Fig. 3.

7. Installazione/Posizionamento

La regola generale prevede di posizionare il rilevatore più vicino possibile alla potenziale fuga e contemporaneamente considerare la densità del gas ed eventuali movimenti dell'aria nella stanza. Quindi il rilevatore deve essere posizionato in modo che sia facilmente accessibile per l'assistenza. Vedere la Fig. 4 per suggerimenti sulla posizione più idonea.

8. Calibrazione, impostazione dell'allarme

I rilevatori vengono forniti per un tipo di gas specifico e normalmente non sono necessarie altre calibrazioni. Il rilevatore viene regolato per il tipo di gas per cui viene richiesto il rilevamento. Tuttavia è molto facile cambiare le soglie usando uno Strumento di calibrazione monitor MCT150.
Lo strumento di calibrazione monitor MCT150 viene collegato al terminale di prova (3 - Fig. 1).

9. Controllo annuale del funzionamento

Si consiglia di eseguire una verifica del sistema almeno una volta all'anno. Una prova del funzionamento di base può essere eseguita usando lo Strumento di calibrazione monitor MCT150.

10. Ripristino automatico/manuale dell'allarme

Viene gestito dal commutatore DIP switch (1 - Fig. 1) nº 3, dove "ON" indica un ripristino automatico e "OFF" un ripristino manuale, premendo il tasto "Ripristino/Prova/Assistenza" (ubicato sotto la copertura).

11. Ritardo del tempo di allarme (T1)

Viene gestito dai commutatori DIP switch (1 - Fig. 1) nº 1 e nº 2:

nº 1	nº 2	Ritardo dell'allarme
ON	ON	Nessun ritardo dell'allarme
OFF	ON	(1) minuto di ritardo dell'allarme
ON	OFF	(10) minuti di ritardo dell'allarme
OFF	OFF	(30) minuti di ritardo dell'allarme

12. Funzione di auto-test

Premere il tasto "Ripristino/Prova/Assistenza" (5 - Fig. 1) per 5 secondi per avviare il programma di prova e attivare ciclicamente il funzionamento di tutti i LED e di tutti i relè a intervalli di cinque secondi. Vedere la Fig. 2.

13. Funzione di guasto

Se si verifica un calo di tensione (valore GV al di sotto di 0,1 V), il sensore segnala una situazione di guasto. Durante le prime quatto ore il LED verde sarà disattivato e gli altri LED lampeggeranno. Il relè di allarme C cambierà stato. Dopo quattro ore il LED "Alarm B" si illuminerà in modalità fissa (gli altri LED saranno disattivati) e anche il relè "Alarm B" cambierà stato.

14. Fail safe

In modalità normale i relè sono alimentati e cambieranno stato se si verifica un'interruzione dell'alimentazione o un guasto.

15. Dati tecnici

Alloggiamento:	Policarbonato, (PC) IP54
Potenza assorbita:	Max 2 W
Alimentazione:	LDM150R: 12-24V CA/CC
	LDM150R,High Voltage: 230V CA, 50/60 Hz
Indicazioni:	Indicazione Power/Active (alimentazione/sensore attivo) e indicazione di allarme a tre livelli.
Relè di uscita:	Contatti liberi da potenziale (230 V, max 5 A).
Temperatura ambiente:	-40°C - + 50°C (compensazione automatica della temperatura)
Umidità:	0-95% di umidità relativa (senza condensa)
Pressacavi:	4 pressacavi a membrana M16
Morsetti a vite:	< 1,5 mm^2, fusibile < 10 A

Nota bene!

I sensori semi-conduttivi usati nella linea di prodotti LDM150R non sono specifici per il gas. È necessario usare cautela quando si installa l'apparecchiatura, per ridurre al minimo eventuali contaminazioni incrociate con altri gas o vapori.

Per ulteriori informazioni sulle specifiche applicazioni, si invita a contattarci.

Questo prodotto è destinato all'uso nell'area industriale.

Specifiche soggette a modifica.

LDM150操作手册

1. 目录

中文

中文

2. 符合性声明

INFICON

CE

EU DECLARATION OF CONFORMITY

This declaration is issued under the sole responsibility of the manufacturer INFICON. The object of the declaration is to certify that this equipment, designed and manufactured by INFICON, is in conformity with the relevant Community harmonization legislation. It has been constructed in accordance with good engineering practice in safety matters in force in the Community and does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

Equipment Description: LDM150 and LDM150R

Model Number: 743-XXX-XXX   (Applicable to all Group numbers)

Applicable Directives: EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU

Applicable Standards:

EMC Directive 2014/30/EU:
Standards applied:
EN 61326-1:2012   (Use in the Industrial environments)

Low Voltage Directive 2014/35/EU:
Standards applied:
EN 61010-1:2010

Hazardous Substances Directive 2011/65/EU:
Standards applied:
EN 50581-2013

CE Implementation Date: 2020-01-15

_____
Manufacturer Representative
Brian King
General Manager - Service Tools
Two Technology Place
East Syracuse, NY USA 13057
INFICON

EU Authorized Representative
INFICON GmbH
Bonner Str. 498
50968 Cologne
Germany

ANY QUESTIONS RELATIVE TO THIS DECLARATION OR TO THE SAFETY OF INFICON'S PRODUCTS SHOULD BE DIRECTED, IN WRITING, TO THE AUTHORIZED REPRESENTATIVE AT THE ABOVE ADDRESS.

中文

3. 注意和警告

⚠️ **警告**

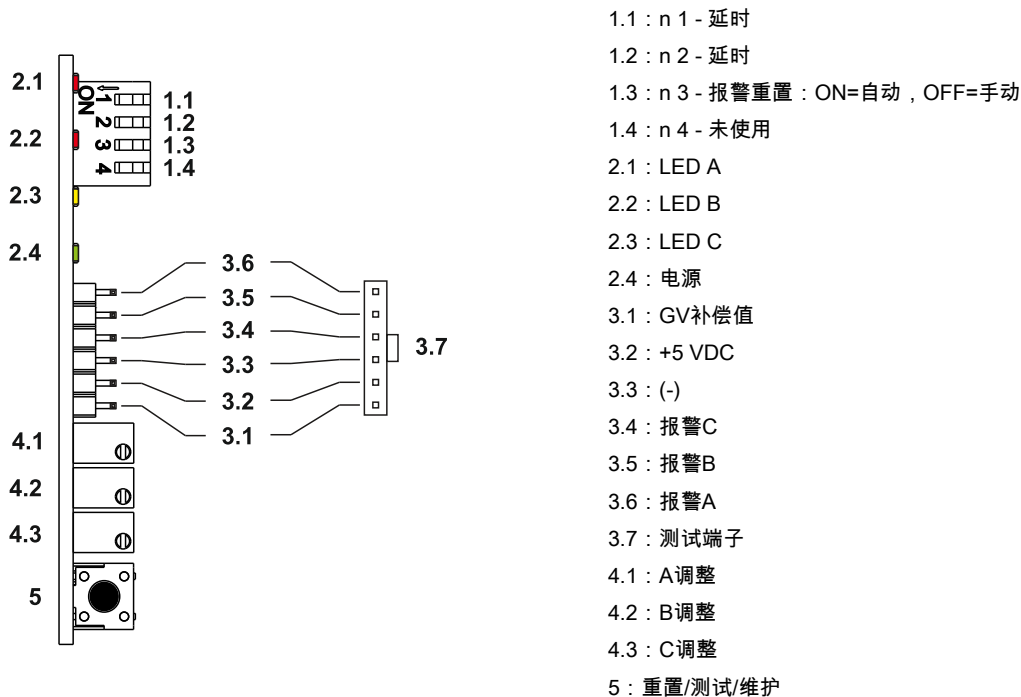本装置只能由经过授权的人员打开！

无论外部电源是否切断，该装置的无压触点上会有高压。

4. 报警级别，出厂设置

丙烷0-50 %LEL	C=5 %LEL	B=10 %LEL	A=20 %LEL

5. 功能

当电源接通时，一个绿色LED灯会闪烁，表示电源"ON"。传感器预热程序同时启动。约4分钟后，绿色LED灯常亮，并指示"传感器激活"。

本检测器有一个黄色LED灯和两个红色LED灯。黄色LED灯指示低气体浓度(报警C)，红色LED灯指示中气体浓度(报警B)和高气体浓度(报警A)。

当检测到气体时，LED灯 (2 - Fig. 1)将亮起，与报警级别相对应的继电器将改变状态。如果选择了报警延时(参见下文)，相应的LED灯将闪烁，当超过选择的延时时间时，该LED灯将亮起(继电器状态将改变)。

1.1：n 1 - 延时
1.2：n 2 - 延时
1.3：n 3 - 报警重置：ON=自动，OFF=手动
1.4：n 4 - 未使用
2.1：LED A
2.2：LED B
2.3：LED C
2.4：电源
3.1：GV补偿值
3.2：+5 VDC
3.3：(-)
3.4：报警C
3.5：报警B
3.6：报警A
3.7：测试端子
4.1：A调整
4.2：B调整
4.3：C调整
5：重置/测试/维护

6. 维护功能

按下"重置/测试/维护"按钮 (5 - 图 1 Fig. 1) 10秒，这将解除所有报警功能60分钟。在此期间，随时可以再次按下按钮10秒来开始一个新的60分钟周期。在60分钟结束时自动返回激活状态，也可以单击"重置/测试/维护"按钮进行手动恢复。当激活维护功能时，所有LED将闪烁，所有继电器将位于正常模式位置。

参见图 3 Fig. 3

7. 安装/定位

一般原则是，检测器应尽可能靠近潜在泄漏点放置，同时应考虑室内气体密度和任何空气流动。检测器的位置还必须便于维护操作。参见图 4Fig. 4查看合适位置建议。

8. 校准、报警设置

检测器针对特定气体类型交付，通常不必进行其他校准。检测器根据需要检测的气体类型命名。但可以通过MCT150监测器校准工具方便地改变阈值。

MCT150监测器校准工具连接到测试端子 (3 - 图 1Fig. 1)。

9. 年度功能测试

建议每年至少对本系统进行一次测试。可使用MCT150监测器校准工具进行基本功能测试。

10. 自动/手动报警重置

通过DIP开关 (1 - 图 1Fig. 1) nº 3进行管理，其中"ON"表示自动重置，"OFF"表示手动重置，按下"重置/测试/维护"按钮(位于盖板下方)即可。

11. 报警延时(T1)

通过DIP开关 (1- 图 1Fig. 1) nº1和nº2进行管理：

nº 1	nº 2	报警延时
ON	ON	无报警延时
OFF	ON	(1)分钟报警延时
ON	OFF	(10)分钟报警延时
OFF	OFF	(30)分钟报警延时

12. 自检功能

常按"重置/测试/维护"按钮 (5 - 图 1Fig. 1) 5秒，测试程序将启动，在5秒钟内对所有LED功能和所有继电器功能进行测试。参见图 2 Fig. 2。

13. 故障功能

如果传感器出现电压下降(GV值低于0.1V)，则为故障状态。在最初4小时内，绿色LED灯将无效，其他LED灯将闪烁。报警继电器C将改变状态。4小时后，"报警B"LED灯将亮起(其他LED灯将无效)，"报警B"继电器也将改变状态。

14. 故障安全

如果电源出现故障或发生故障状况，各处于通电正常模式的继电器将改变状态。

15. 技术参数

壳体：	聚碳酸酯，(PC) IP54
耗电量：	最大2W
电源：	LDM150R: 12-24V AC/DC LDM150R,High Voltage: 230V AC, 50/60 Hz
指示：	电源/激活和报警指示分三个级别。
输出继电器：	无源触点(230V，最大5A)。
环境温度：	-40 °C - + 50 °C (自动温度补偿)
湿度：	0-95% RH (无冷凝)
气封：	4个M16膜片气封
螺丝接线端：	< 1.5 mm^2，保险丝 < 10A

请注意！

LDM150R系列产品中使用的半导体传感器不是特定气体专用传感器。安装设备时应小心，尽量减少来自其他气体或蒸汽的交叉污染。

如需了解针对特定应用的进一步指导，请与我们联系。

本产品适用于工业领域。

技术规范有可能更改。

中文

INFICON Laboratory Accurate. Toolbox Tough.®