KIMO INSTRUMENTS

User manual

Pressure / Temperature / Humidity / Air velocity / Airflow / Sound level

DF 110

Detector of refrigerant gases and hydrogen (H_2)

DESCRIPTION OF THE DEVICE



PERFORM A MEASUREMENT

➢ Turn on the detector pressing the **"On/Off"** key.
When it turns on, the **pre-heating phase** of the sensor begins. This phase lasts **60 seconds**. During this phase, all the visualisation leds of thresholds light one after the other. A few second before the end of the pre-heating phase, all the leds blinks at the same time.
➢ Before using the device, make sure with the tester that the device works correctly (see next page).
➢ Place the probe as close as possible to the site of the suspected leak.
➢ Slowly move the probe (approximately 2 cm/second) in the direction to the possible source of the leak.
It is important to move the probe past the leak and to go back toward it. The device responds to changes in gas concentration in the air. Moving the probe allows to the device to respond properly to these changes.
➢ **If gas is detected, the frequency of the beep repetition will increase as the detected gas concentration increases and the leds of graphic visualisation lights from the left (low gas concentration) to the right (high gas concentration).**

Manual and automatic autozero functioning
The detector performs an automatic autozero every 2 s to set its minimum threshold of detection. This autozero allows to guarantee an optimum gas detection whatever the conditions of use (contaminated environment, temperature variations,...). In case of detection, according to the amplitude of gas measurement, the automatic autozero will deactivate to guarantee a better location of the leak. It will automatically reactivate after a return to normal conditions.
In case of high gas concentration with a wide contaminated area, the automatic autozero can be not enough to detect precisely the location of the leak, there will be a measurement saturation. In this case, it is possible to perform a manual autozero into the contaminated area to reset the detection and to get back to a progressive sensitivity when getting close to the leak source.
To perform a manual autozero, please see next page.

Setting of the sensitivity
If the gas concentration is high, press **"Sens"** key to set the sensitivity and like this to get a better identification of the leak source. Please see next page for the details about the three different sensitivities.

ADJUST THE DEVICE

Adjust the sensitivity

➢ Press the **"Sensitivity/Autozero"** key to adjust the sensitivity of the device.

Mode	Indicative measuring range (g/an)	Visual alarm
Low sensitivity ("B" on the device)	From 0 to 300 g/an	All the leds (8) for 300 g/an
Normal sensitivity ("Norm" on the device)	From 0 to 30 g/an	All the leds (8) for 30 g/an
High sensitivity ("H" on the device)	From 0 to 3 g/an	All the leds (8) for 3 g/an

Activate/deactivate the audible signal

By default, when starting the device, the audible signal is always active.

The device is turned on.

➢ Press  key to activate the audible signal.

➢ Press this same key to deactivate it.

Perform an autozero

The device is turned on.

➢ Press at least 3 s the 

key to perform an autozero.

*The **"Autozero"** led turn on.*

PERFORM A TEST

The DF110 is supplied with a tester which allows to make sure that the detector works correctly.
To test:

➢ Remove the tester cap by pulling on it.

➢ Turn on the detector and wait the end of the pre-heating phase (60 seconds).

➢ Put the detection probe a few centimetres above the tester. The beep frequency increases and the leds of graphic visualisation must react and lights from the left to the right. This indicates that the sensor and the electronic of the detector work correctly.



After each test, remember to put the protective cap back on the tester.
Replace the tester when its green colour is no longer visible.

CHANGE THE FILTER

➢ Unscrew the probe tip.

➢ Remove the filter located inside.

➢ Put a new filter.

➢ Screw the tip on the probe.

CHANGE THE BATTERIES

➢ Remove the front part at the back of the device.

➢ Change the old batteries by AAA LR03 1.5V batteries.

➢ Replace the front part.

Once returned to KIMO, required waste collection will be assured in the respect of the environment in accordance to 2002/96/CE guidelines relating to WEEE

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