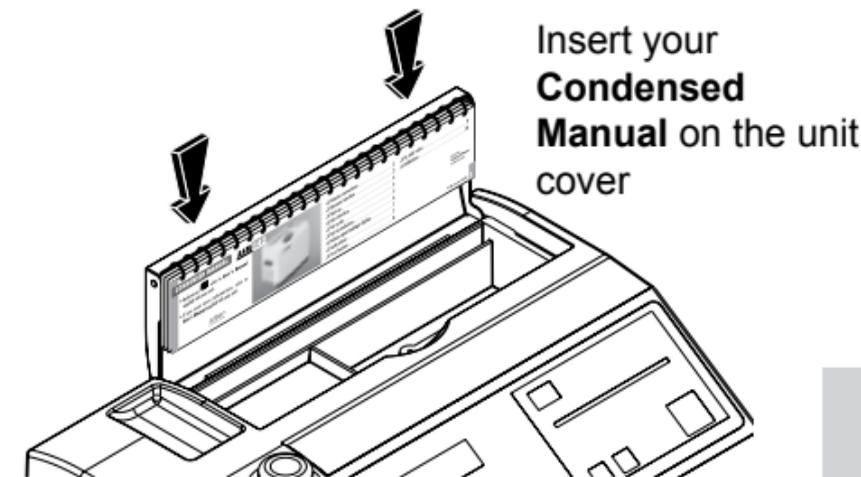


- References  refer to a specific chapter of the **Operating manual**.
- For further information, please refer to **Operating manual** supplied with your unit.



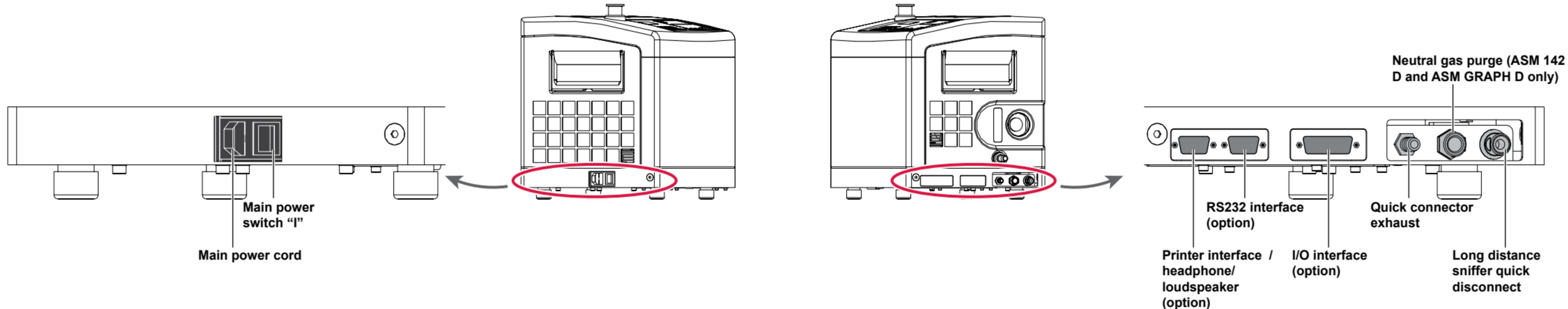
■ Detector connections .....	<b>2</b>	■ Air inlet vent .....	<b>9</b>
■ ASM 142/142 D Operator interface .....	<b>3</b>	■ Calibration .....	<b>10</b>
■ ASM GRAPH/GRAPH D Operator interface .....	<b>4</b>	■ Assistance to the test .....	<b>11</b>
■ Start-up .....	<b>5</b>		
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■ Test cycles .....	<b>6</b>		
■ Helium signal analog scale display .....	<b>7</b>		
■ Audio alarm .....	<b>7</b>		
■ Zero function .....	<b>8</b>		



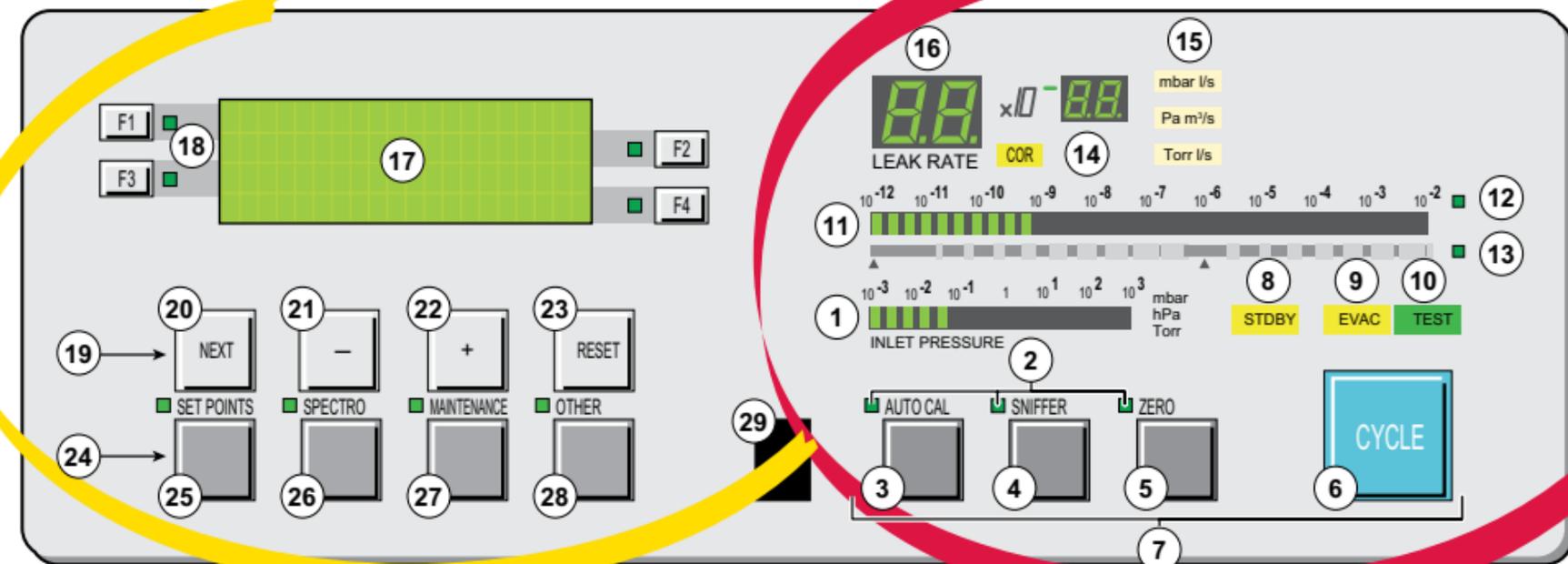
# Detector connections

Left side

Right side



# Operator interface ASM 142/142 D

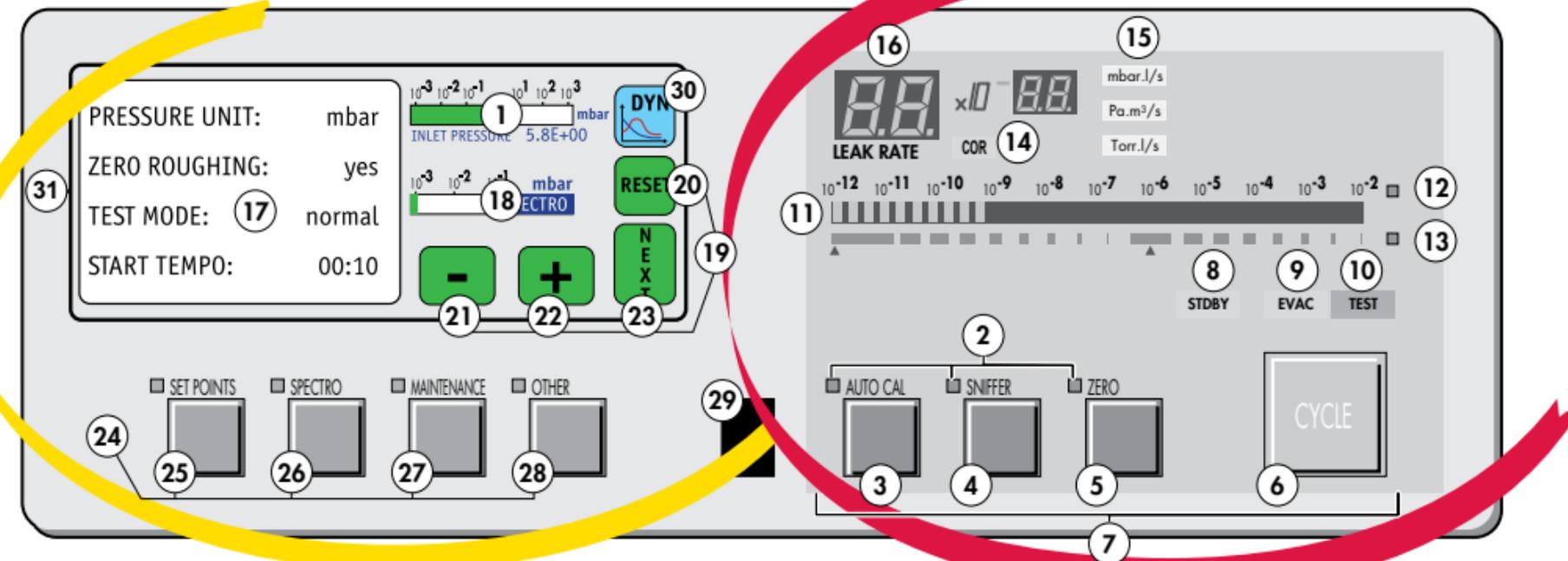


Setting and maintenance part

Operation part

- 1 Inlet port pressure analog display
- 2 Control and menu selection indicators (ON when activated)
- 3 Auto-calibration START/ABORT control key
- 4 Sniffing mode ON/OFF control key
- 5 Auto-zero ON/OFF control key
- 6 Cycle START/STOP control key
- 7 Control keys (4 keys)
- 8 Standby ON/OFF indicator
- 9 Evacuation ON/OFF indicator
- 10 Test ON/OFF indicator
- 11 Helium signal analogic display
- 12 Helium signal analogic scale ON/OFF indicator
- 13 Helium signal Zero scale ON/OFF indicator
- 14 Correction factor COR indicator (applied to digital display)
- 15 Units ON/OFF indicator
- 16 Helium signal digital display
- 17 Alphanumeric display (4 lines x 20 characters)
- 18 Parameter function keys (1 key per display line)
- 19 Modification access keys (4 keys)
- 20 NEXT : next display/parameter circular function
- 21/22 Plus or minus value adjustment, parameter selection, audio volume adjustment keys
- 23 RESET of previously displayed values (cancels temporary inputs)
- 24 Menu selection access key (4 keys)
- 25 SET POINT menu selection key
- 26 SPECTRO calibration and analyzer cell configuration menu selection key
- 27 MAINTENANCE menu selection key
- 28 OTHER menus selection key (test mode selection, inlet VENT selection, date/time)
- 29 Remote control connection

# Operator interface ASM GRAPH/GRAPH D



Setting and maintenance part

Operation part

- 1 Inlet port pressure analog display
- 2 Control and menu selection indicators (ON when activated)
- 3 Auto-calibration START/ABORT control key
- 4 Sniffing mode ON/OFF control key
- 5 Auto-zero ON/OFF control key
- 6 Cycle START/STOP control key
- 7 Control keys (4 keys)
- 8 Standby ON/OFF indicator
- 9 Evacuation ON/OFF indicator
- 10 Test ON/OFF indicator
- 11 Helium signal analogic display
- 12 Helium signal analogic scale ON/OFF indicator
- 13 Helium signal Zero scale ON/OFF indicator
- 14 Correction factor COR indicator (applied to digital display)
- 15 Units of measurement selection
- 16 Helium signal digital display
- 17 Menu display (4 lines)
- 18 Spectro pressure analog display
- 19 Modification access keys (4 keys)
- 20 RESET: next display/parameter circular function
- 21/22 Plus or minus value adjustment, parameter selection, audio volume adjustment keys
- 23 NEXT of previously displayed values (cancels temporary inputs)
- 24 Menu selection access key (4 keys)
- 25 SET POINT menu selection key
- 26 SPECTRO calibration and analyzer cell configuration menu selection key
- 27 MAINTENANCE menu selection key
- 28 OTHER menus selection key (test mode selection, inlet VENT selection, date/time)
- 29 Remote control connection: **connect if before switching on the detector**
- 30 Graphic interface selection key
- 31 Color touch screen

## CAUTION

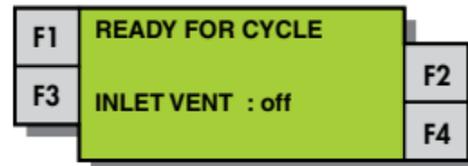
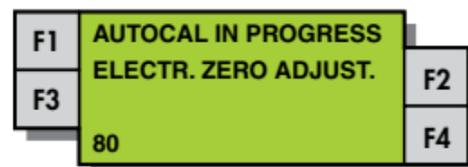
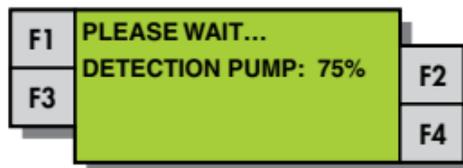
### ASM 142/GRAPH

After unpacking the unit, please fill up the roughing pump with oil, as indicated in the Operating manual.



E 750

- 1 Connect the main cable from the detector to the proper power outlet.
- 2 Depress the main switch to position "I". On the control panel, the indicator lights flash.
- 3 The following screens are shown on the LCD.
- 4 When the detection pump reaches its nominal speed, the unit autocalibrates itself.
- 5 When calibration is completed, the unit is ready to start a cycle.



The detector offers 4 user interface levels for this section to accommodate any application requirements.

	Setting and maintenance part	User part
LEVEL ①	This level has very limited information on the alphanumeric display (LCD). This level is generally selected for production types of applications.	No access to control keys (Cycle key included).
LEVEL ②	This level allows the operator to visualize some parameters without the possibility of making any changes. Same as Level ①, this level is usually selected for production types of applications.	Access to all the control keys.
LEVEL ③	Same as level ② but with possibility to set some parameters. This level is generally selected for maintenance applications.	
LEVEL ④	This level allows access to all the parameters and is generally used for settings all the parameters. Note: When switching from level ④ to any other level, the switch can be performed without using the password. This level is generally selected for R&D applications.	

To know your user interface level and to change it C 120

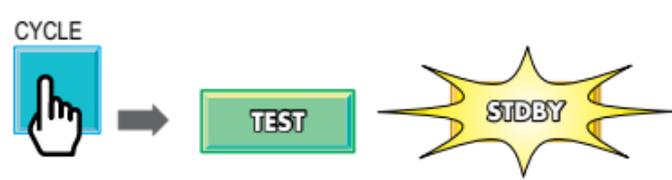
## ■ HARD VACUUM TEST MODE

Leak detector in stand-by mode; connect the part or assembly to be tested to the detector.

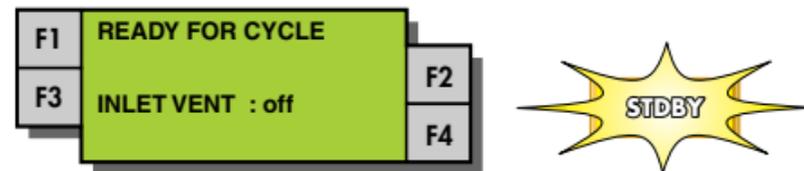
Starting a cycle



Ending a cycle



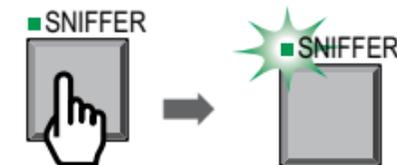
(1) As soon as the inlet pressure reaches 10 mbar (7.5 torr), the unit goes in gross leak test mode, or when the pressure has reached  $5 \cdot 10^{-1}$  mbar (0.37 torr), the unit goes in fine leak test mode.



## ■ SNIFFING TEST MODE

Leak detector in stand-by mode; connect the long distance sniffer probe to the quick connector.

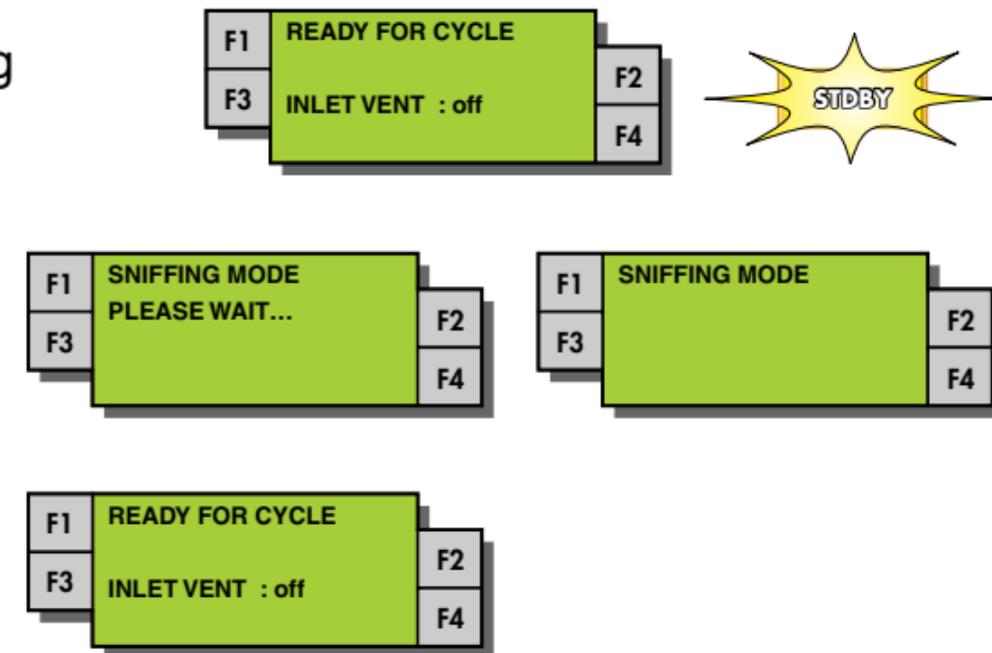
Starting Sniffing test mode



Ending Sniffing test mode



Selecting a test mode C 210

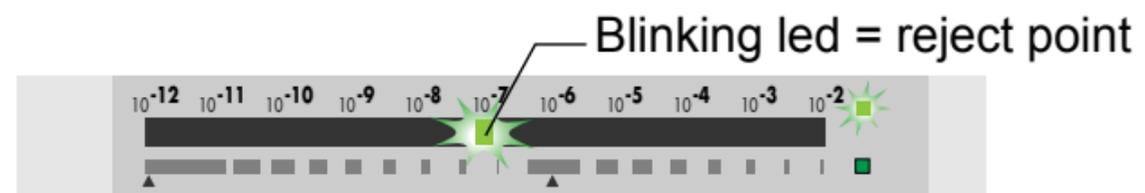


## He signal analog scale display

- How to read the He signal analog scale?
  - reject point is visualized by a blinking led.
  - if the leak value exceeds the reject point, the leds will be turned red (the blinking led will turn orange).
  - if the leak value remains under the reject point, the leds will remain green.

Leak detector in hard vacuum or sniffing test mode and zero function not activated.

Example : Reject point =  $1 \cdot 10^{-7}$  mbar l/s



## Audio alarm

- The audio alarm offers 2 modes of operation. They are both linked to the zero function.
  - zero function not activated: the audio alarm starts when the He signal exceeds a fixed set point: this set point is programmable.
  - zero function activated: the audio alarm is modulated with respect to the position of the helium background.

To active/deactive audio alarm  **C 520**

# Zero function

- **Purpose:** the zero function offers the operator the possibility to detect small leaks that are smaller than the helium background.
  - **Activation of zero function:** connect the part or installation to be tested.

 → on the digital display, the detector He background displays.

 → the digital display becomes 0.0E-00. On and after this time, it will display only Helium variation.

Operator could find an example in the Operating manual  **C 540**

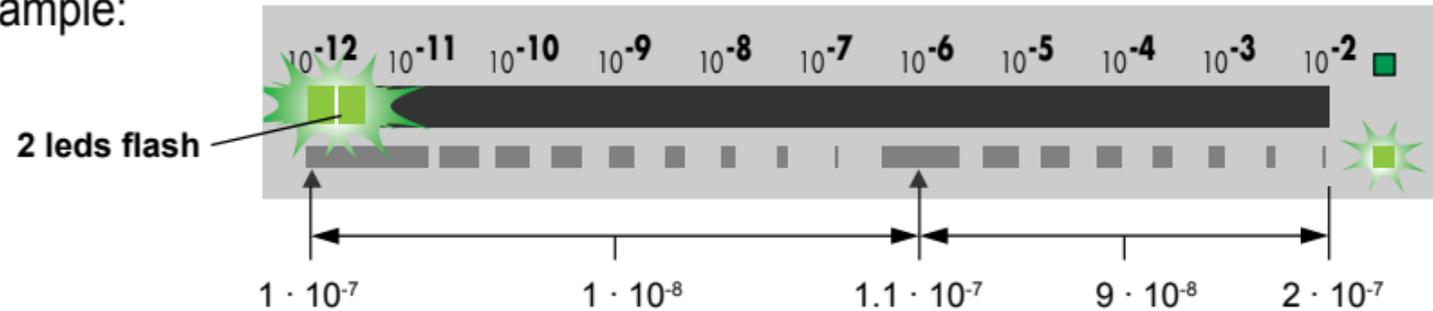
## ■ Deactivation of zero function:

 → The digital display shows the standard He signal.  
Use Helium signal analog scale.

## ■ Analog display:

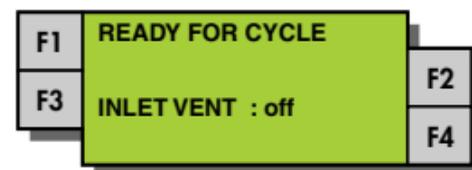
- When zero function is activated, use the Helium signal zero scale.
- The He signal zero scale displays 2 leds signal centered around the zero value.

Example:



# Air inlet vent

- **Purpose:** the air inlet valve vents the inlet of the detector back to atmosphere at the end of the test.
  - The indicator “inlet valve = off” indicates that the venting valve is not activated (= closed) at the end of cycle.



- The setting by default is «off» (= valve closed).

## Opening / closing air inlet valve

(user level ② , ③ or ④ )

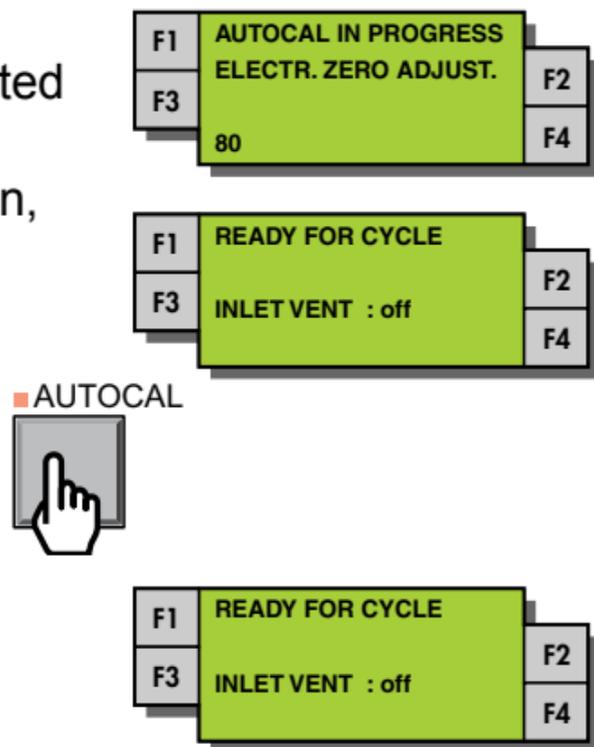


To open/close air inlet valve with user level ①  C 500

- **Internal:** The internal autocalibration is automatically activated during the start-up process. It doesn't require any operator action. Thanks to the initial autocalibration, the leak detector can be immediately operational.

Internal autocalibration on request: it can be started by the operator whenever needed (the unit has to be off-cycle).

The result of the autocalibration process is displayed.



- **External:** The external autocalibration allows direct readout in cases of operation with an auxiliary pumping system.

To perform an external calibration  **C 303**

## Assistance to the test

The leak detector offers to the user 4 interesting functions in order to improve test.

- **MEMO FUNCTION** Memorization of the latest He signal measured after depressing the CYCLE key at the end of the cycle.
- **CYCLE END** Automatic control of the roughing and measure timers.
- **BARGRAPH ZOOM ON THE REJECT POINT** Display a greater resolution of the He signal around the reject point.
- **HELIUM POLLUTION PREVENTION** Device that prevents the unit from getting polluted with Helium.

- **Memo function** To active/deactive this function and adjust display time of the leak value  **C 550**
- **Cycle end** To active/deactive this function and adjust roughing and measure times  **C 530**
- **Bargraph zoom on the reject point** To active/deactive this function  **C 510**
- **Helium pollution prevention** To active/deactive this function  **C 560**