EN

# V•Touch

TOUCHSCREEN DISPLAYS

FOR GAS DETECTION REMOTE MONITORING

# USER MANUAL




DALEMANS®

GAS DETECTION

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GAS DETECTION

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**DALEMANS sa/nv**

**Rue Jules Mélotte, 27A | B-4350 Remicourt (Belgium)**
**Tel. +32 19 33 99 43 | E-mail: sales@dalemans.com**

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# 1 INTRODUCTION

The V•Touch touchscreen improves the functionality and ease of use of our gas detection Control Units. It is available in 7" and 10" screen sizes. This manual explains how to use the V•Touch touchscreen correctly. Read and understand the entire manual before using the touchscreen.

For more information about the product, scan the following QR codes:

For assistance, contact your local distributor or a certified technician approved by DALEMANS sa/nv. If in doubt, contact the manufacturer:

**DALEMANS sa/nv**

**Rue Jules Mélotte, 27A • B-4350 Remicourt, Belgium**

**Tel. +32 19 33 99 43 • e-mail: sales@dalemans.com**

## 1.1 Revision Record

| Version | Description | Date | Author |
|---|---|---|---|
| **RevA** | First Release | 09/11/2026 | EKO, LSE, PWA, NBE |
| | | | |

## 1.2 Disclaimer

The installer is required to respect CE standards and installation instructions.

**Installation**, **maintenance** and **commissioning** should ONLY be carried out by qualified personnel approved by DALEMANS sa/nv.

This document must be read carefully by anyone who is or will be responsible for the installation, use and/or maintenance of this equipment. The warranty offered by DALEMANS sa/nv will be null and void if this equipment is not installed, used and maintained in compliance with these instructions, warnings and limitations of use.

By following these instructions, proper functioning of the equipment is guaranteed. Please contact DALEMANS sa/nv for any information about the use or maintenance of this product.

ONLY use original DALEMANS sa/nv parts when performing maintenance on the equipment, as described in this document. In the opposite case, the equipment's performance can seriously be altered.

Any repair or maintenance performed without respecting the procedures described in this document or without intervention from our after-sales service, may prevent the equipment from performing correctly and, as a result, prevent guaranteeing both the safety of the building's occupants and of installations.

This equipment must be installed in accordance with the instructions of this document. Please do not hesitate to contact DALEMANS sa/nv for any additional information regarding the use and/or the maintenance of this product.

DALEMANS sa/nv cannot be held responsible for any direct or indirect material/structural damage as well as any direct and indirect financial damages resulting from failure to comply with these guidelines.

DALEMANS sa/nv guarantees that this product is free from manufacturing defects and agrees, at its sole discretion, to repair or replace any component which is defective or likely to become so, in the context of normal use during the warranty period specified in the general terms of sale.

This warranty does not cover elements such as batteries, fuses or any other component provided by a third party.

Claims concerning the DALEMANS sa/nv product warranty must be made within the warranty period specified above and within 5 calendar days of the discovery of the problem. Please contact your DALEMANS sa/nv after-sales service to register your claim.

For any additional information, please refer to DALEMANS sa/nv general conditions available upon request.

## 1.3 Safety Markings

| Symbol | Description |
|---|---|
|  | Protective Earth terminal |
|  | Warning: risk of electric shock |
|  | Warning: refer to the instruction's manual |

During installation, please refer to applicable standards.

### 1.3.1 Safety Warnings

Modification, disassembling and total or partial destruction of this equipment may invalidate the essential safety requirements of the whole installation.

All our equipment is tested and inspected in our workshops prior to dispatch.

For commissioning, please contact **DALEMANS sa/nv** to arrange for an appointment.

- Risk of **electrical** shock for certain variants (Enclosed type):
  - Do not set up the equipment without disconnecting the mains power supply first.
  - The equipment contains live hazardous voltage that may be harmful if safety precautions are not strictly followed, in case of setting up the unit, connecting new cables, or performing maintenance or inspections.
  - Do not attempt to repair, disassemble, or modify the V•Touch series unit. Contact Dalemans sa/nv or an approved partner for repair.
- **Mechanical** hazard:

- The weight of the equipment is sufficient to cause harm if not properly handled during transport and installation (V•Touch 10", Enclosed type –see Table 6).
- Tighten the mounting screws on the fixtures of the V•Touch series uniformly to a **torque of 0.6 Nm**. Excessive tightening may cause deformation, breakage, or malfunction of the touchscreen, which may result in damage to the machine or an accident. Insufficient tightening may cause the unit to fall, short-circuit, or malfunction.

- Risk of **explosion** or **ignition**:
  - Never disassemble, recharge, deform by pressure, short-circuit, or reverse the polarity of the lithium battery, nor dispose of the lithium battery in fire.
  - Never use a lithium battery that is deformed, leaking, or shows any other signs of abnormality
- Risk of **accident** or **damage**:
  - The liquid crystal in the LCD panel is a hazardous substance. If the LCD panel is damaged, do not ingest the leaked liquid crystal. If leaked liquid crystal contacts skin or clothing, wash it immediately away with soap and water.
  - Never use the output signal of the V•Touch series for operations that may threaten human life or damage the system, such as signals used in case of emergency. Please design the system so that it can cope with a touchscreen malfunction.
  - Areas on the screen are operable even when the screen has become dark due to a faulty backlight or when the backlight has reached the end of its service life. If the screen is dark and hard to see, do not touch it, call Dalemans sa/nv or an approved partner for a repair appointment.

## 1.4 Environmental Awareness



The crossed-out wheeled bin symbol on this product indicates that the end user is responsible for complying with current regulations on the collection and recycling of waste electrical and electronic equipment.

These regulations aim to preserve the natural resources used to manufacture this product and prevent the release of substances potentially harmful to the environment and human health.

Once this product has reached the end of its useful life, it MUST be disposed of by handing it over to an approved collection centre for the recycling of electrical and electronic equipment.

For more information about collection and recycling centres in your area, please contact your local or regional authorities.

## 1.5 Marking Label

The marking label below is affixed to the upper-right corner of the casing and identifies the following:

- the device model (7" or 10")
- the device's serial number
- the year of manufacture
- the operating voltage range and frequency
- the maximum power consumption
- the CE marking
- the WEEE marking (crossed-out wheeled bin)
- the ingress protection rating (IP rating)

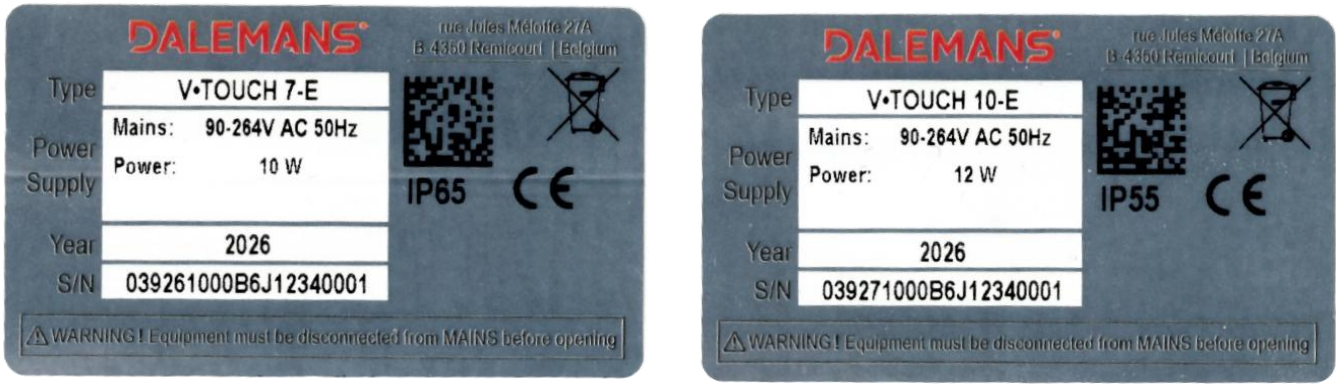



*Figure 1 - CE labels*

### 1.5.1 Devices Covered

This document has been written specifically for the version of the V•Touch Touchscreen Display described in the table below (see Table 1).

Table 1 – V•Touch's Identification & Characteristics

| Name | Device | Power | Ingress Protection | Min Control Unit firmware version |
|---|---|---|---|---|
| **V.TOUCH7-E** | V•Touch 7" (Enclosed) | 90 – 264 Vac | IP65 | v 1.0.2 |
| **V.TOUCH10-E** | V•Touch 10" (Enclosed) | 90 – 264 Vac | IP55 | v 1.0.2 |
| **V.TOUCH7-PM** | V•Touch 7" for Panel Mounting | 24 Vdc | Front IP65 / rear IP20 [1] | v 1.0.2 |
| **V.TOUCH10-PM** | V•Touch 10" for Panel Mounting | 24 Vdc | Front IP65 / rear IP20 [1] | v 1.0.2 |
| **V.TOUCH7-E-SW** | V•Touch 7" enclosed with integrated ethernet switch | 90 – 264 Vac | IP55 | v 1.0.2 |
| **V.TOUCH10-E-SW** | V•Touch 10" enclosed with integrated ethernet switch | 90 – 264 Vac | IP65 | v 1.0.2 |

### 1.5.2 Software Applicability

Table 2 – V•Touch's Software Applicability

| Application Software | Compatibility | | Max n° of CU | Software version | n° of Measurements | Layout Type |
|---|---|---|---|---|---|---|
| | Control Unit | Detector | | | | |
| **V•Touch Software – DAL 4x240** | S•Vx, S•Lx | D•CAN, 4-20mA | 4 | 8.34 | max 240 in total | List |
| **V•Touch Software – DAL 4x16** | U•V6, U•C2, S•Lx, S•Vx | 4-20 **ONLY** | 4 | 3.1.24 | max 16 per CU | Tiles |

[1] Can reach IP65 if sealed on the mounted surface

## 1.6 Document Scope

This manual is intended for **end users**. Electricians, technicians, site supervisors and other personnel responsible for installing and commissioning the system must refer to the relevant **Installation Manual**.

# 2 OVERVIEW

The V•Touch range of touchscreen displays provides intuitive, real-time visualisation of gas concentrations and alarm states, ensuring clear and immediate awareness of potential hazards.

Designed for commercial and industrial environments such as underground car parks, laboratories, technical rooms, and process areas, it features a robust interface, high-brightness display, and reliable operation in demanding conditions.

The V•Touch is compatible with Dalemans sa/nv Control Units and integrates with fixed gas detection systems to provide centralised monitoring and simplified user interaction.

The touchscreen receives measured values and status data from connected Control Units, processes the data and displays it graphically. Users can view gas concentration trends, access the alarm history and manage notifications directly from the interface.

Depending on the configuration, the V•Touch range supports various hardware and network architectures. It is available in 7-inch and 10.1-inch versions and can be mounted in an enclosure or a panel.

Software features include gas concentration display, colour-coded alarm and fault indication, trend viewing, data logging, remote access via FTP and remote display access via an integrated VNC server.

The V•Touch communicates over Ethernet through an RJ45 connection using the Modbus TCP protocol. It supports application software designed for compatible Control Units, including S•Vx, S•Lx, U•V6 and U•C2.

Versatile and scalable, the V•Touch is the ideal interface for improving readability, operation and monitoring of Dalemans gas detection systems.




Figure 2 – V•Touch touchscreen enclosures – 7” (on the left) and 10” (on the right)

All gas detection systems must be calibrated and serviced regularly in accordance with the manufacturer's instructions to guarantee performance and safety.

## 2.1 Operating Principle

The touchscreen receives measured values and status data from connected gas detection Control Units, processes the data and displays it graphically. Users can view gas concentration trends, access the alarm history and manage system notifications directly from the interface to monitor the environment efficiently.

The V•Touch range of touchscreen displays supports a variety of hardware and network configurations.

Always refer to a Dalemans sa/nv approved technician to properly dimension the installation to the application.

## 2.2 Limitations – Safety Precautions

The V•Touch touchscreen:

- must be connected to one or more Control Units to operate.
- is intended for indoor use in environments with pollution degree 2 and overvoltage category II.
- requires the power supply to be turned off when the touchscreen is set up, new cables are connected to it, or maintenance and/or inspections are performed. Otherwise, electrical shock or damage may occur.
- consists of an LCD panel containing liquid crystal which is a hazardous substance. In case the LCD panel is damaged and there is a fluid leak, avoid ingestion. If leaked liquid crystal contacts skin or clothing, immediately wash it away with soap and water, then seek medical advice.
- contains a lithium battery. Never disassemble, recharge, deform by pressure, short-circuit, or reverse the polarity of the lithium battery, nor dispose of the lithium battery in fire. Never use a lithium battery that is deformed, leaking, or shows any other signs of abnormality. Failure to follow these conditions will lead to explosion or ignition.
- is operable even when the screen has become dark due to a faulty backlight or when the backlight has reached the end of its service life. If the screen is dark and hard to see, do not touch the screen. Otherwise, unintended operations may occur resulting in machine accidents or damage.
- comprises mounting screws that need to be uniformly tightened to a torque of 0.6 Nm (5.3 lbf*in). Excessive tightening may cause deformation, breakage, or malfunction of the touch function, which may result in damage to the machine or an accident. Insufficient tightening may cause falling, short-circuit, or malfunction.
- has a glass screen. Do not drop the unit or subject it to physical shocks, as this may damage the screen.

- needs to correctly connect cables to the terminals, in accordance with the specified voltage and wattage. Overvoltage, overwattage, or incorrect cable connection could cause fire, malfunction, or damage to the unit.
- should always be grounded (Enclosed type – see § 1.5.1). The FG terminal must be used exclusively, with the level of grounding resistance less than 100 Ω. Otherwise, an electric shock may be sustained, a malfunction (or even a fire) as well as electromagnetic interferences may occur, and touch operations may not be recognised.

## 2.3 Environmental – Ambient Restrictions

- Avoid:
  - locations where water, corrosive gas, flammable gas, solvents, grinding fluids or cutting oil may come into contact with the screen.
    - high temperatures, high humidity, and outside weather conditions, such as wind, rain, or direct sunlight (not intended for outdoor use).
  - locations with excessive dust, salt or metallic particles.
  - locations where the screen may be subjected to vibration or physical shocks.
    - discharging static electricity on the mounting panel of the screen.
- Never bundle control cables or input/output cables with high-voltage and large-current carrying cables such as power supply ones. Keep control and input/output cables at least 200 mm away from high-voltage and large-current carrying cables. Otherwise, malfunction may occur due to noise.
- When using the screen in an environment where a source of high-frequency noise is present, it is recommended that the FG shielded cable (communication cable) be grounded at each end. However, when communication is unstable, select between grounding one or both ends, as permitted by the usage environment.
- Always insert V•Touch connectors into their sockets in the correct orientation. Incorrect insertion may cause damage or malfunction.
- Do not use thinners for cleaning because it may discolour the screen's surface. Use commercially available alcohol with the aid of a soft cloth to avoid scratching the surface.
- The screen is identified as a class-A product in industrial environments. In the case of use in a domestic environment, the unit is likely to cause electromagnetic interference. Preventive measures should therefore be taken appropriately.

## 2.4 LCD Characteristics/Behaviour

- Avoid displaying a fixed pattern for prolonged periods. An afterimage may appear due to the characteristics of liquid crystal displays. If prolonged display of a fixed pattern is expected, use the backlight auto OFF function.
- Ambient temperature may affect response time, brightness and colours.
- Tiny dark or luminous spots may appear on the display due to the characteristics of liquid crystal.
- Depending on the displayed pattern, uneven brightness and flickering may occur due to the characteristics of liquid crystal.

- There are small variations in brightness and colour between units.
- Display colours may vary depending on the viewing angle because a converging lens is used in the backlight unit.

## 2.5 Interface

Both models have the same interface components, but their positions differ because of the different screen sizes.

### 2.5.1 V•Touch 10" – Interface

The following figure (see Figure 3) shows the locations of the interface components on a 10-inch touchscreen. These components are described in Table 3.

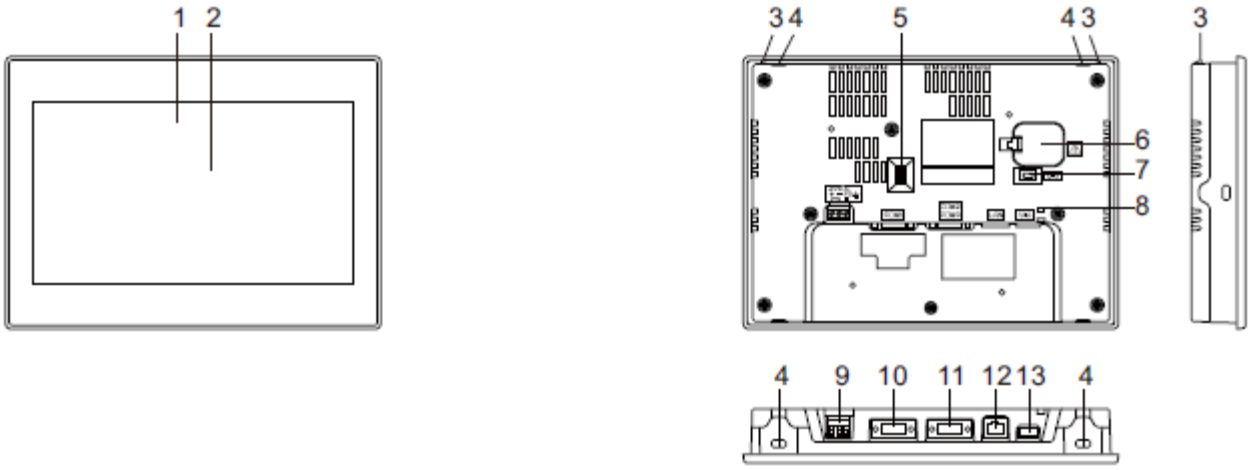



Figure 3 – Front, Rear, Side & Bottom view of the V•Touch 10" touchscreen, showing the location of the available interface connections

Table 3 – Interface components description & numbering

| n° | Name | Description |
|---|---|---|
| 1 | Display | Display area |

| | | |
|---|---|---|
| **2** | Touchscreen | Analog resistive film type touchscreen area |
| **3** | Fall prevention tab | Projections to prevent the unit from falling when installed on a mounting panel |
| **4** | Mounting hole | Holes for inserting mounting fixtures |
| **5** | DIP switch | Terminating resistance for serial communication, etc |
| **6** | Battery holder | For mounting a battery for SRAM/clock backup |
| **7** | U-B | USB version 2.0 mini-B port |
| **8** | USB cable clamp hole | Hole for attaching a cable tie for clamping a USB cable |
| **9** | Power supply terminal block | Terminal block for power supply to the V•Touch unit |
| **10** | COM1 | Serial communication port (RS-422/RS-485)<br>Connection with PLCs or other peripheral devices |
| **11** | COM2 / COM3 | Serial communication port (COM2: RS-232C, COM3: RS-485)<br>Connection with PLCs or other peripheral devices |
| **12** | LAN | Wired LAN port |
| **13** | U-A | USB version 2.0 Type-A port |

## 2.5.2 V•Touch 7" – Interface

The following figure (see Figure 4) shows the locations of the interface components on a 7-inch touchscreen. These components are described in Table 3.

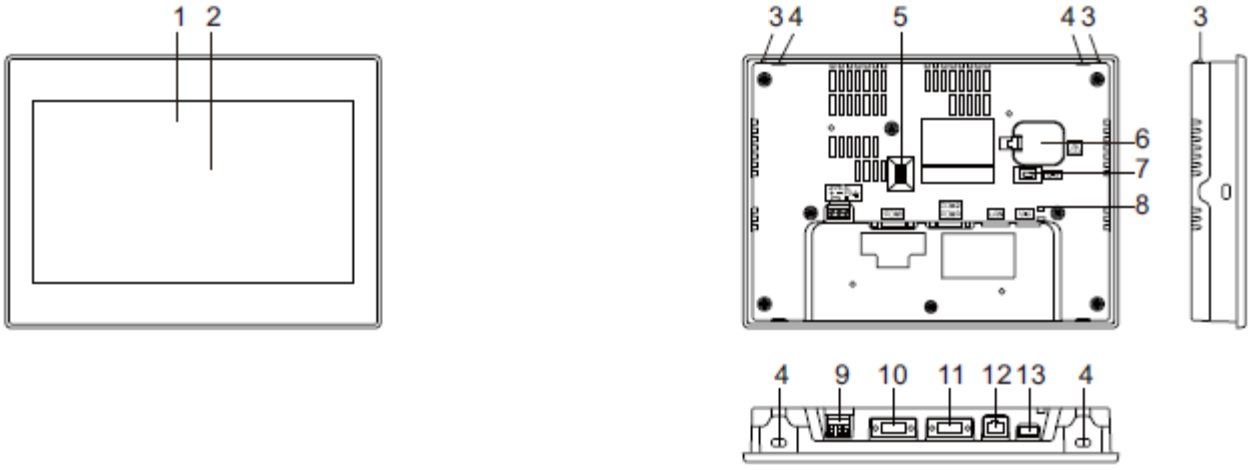



Figure 4 – Front, Rear, Side & Bottom view of the V•Touch 7" touchscreen, showing the location of the available interface connections

## 2.6 Connectivity

The V•Touch can be part of a remote HMI system. It communicates with controllers, gateways, servers, and other devices over an Ethernet Local Area Network (LAN). Proper network configuration is required to ensure reliable operation.

**IMPORTANT NOTE**:

Network infrastructure design, IP address management, routing, firewall configuration, cybersecurity policies, port forwarding and all other network-related matters remain the sole responsibility of the **local system integrator and/or the site's network administrator**.

Remote access requires a wired Ethernet connection and appropriate IT configuration.

The following figure shows the V•Touch system interfaces (see Figure 4). The V•Touch communicates with the Control Units over Ethernet and uses a USB stick connected to the USB-A port for data logging.

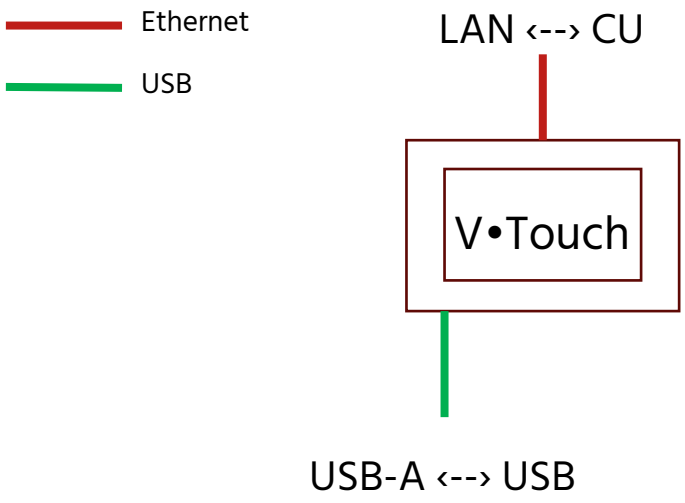



Figure 5 – V•Touch's system configurations

The following figures (see Figure 5 and Figure 6) show examples of V•Touch connections.

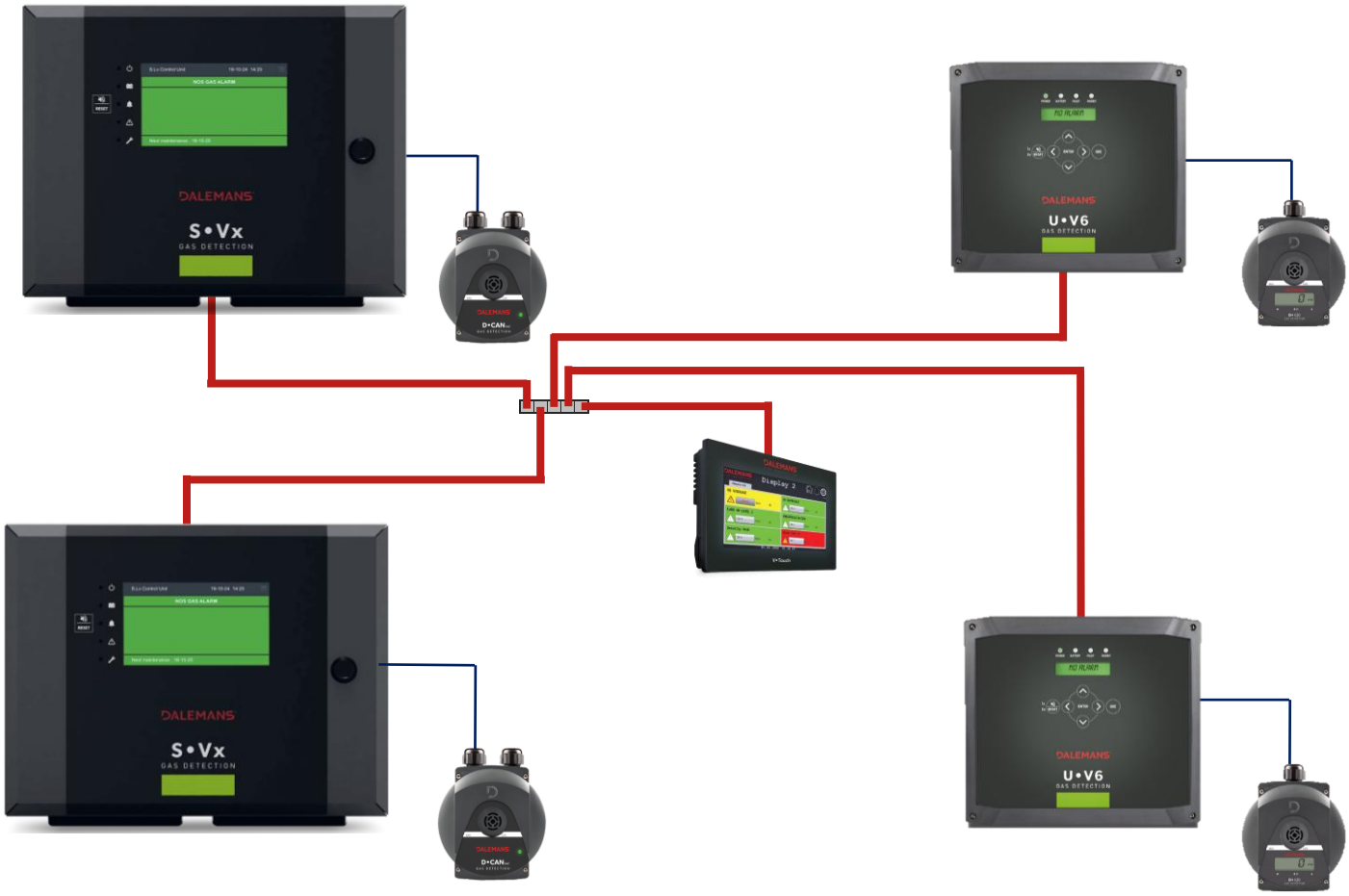



Figure 6 – Example of a V•Touch connected (via a switch) to 4 Control Units (SW variants come with an integrated switch – see § 1.5.1)

In Figure 6 **Error! Reference source not found.**, V•Touch can be connected to up to 4 Control Units. These can be identical, or a mixture as shown in the image. Note that the detectors shown are not the same, the S•Line range Control Units (S•Vx & S•Lx) can be connected to both CAN Bus and 4..20mA – the U•Line Control Units (U•V6, U•C2) can only accommodate 4..20mA detectors (for more information please refer to the corresponding Instruction Manuals).

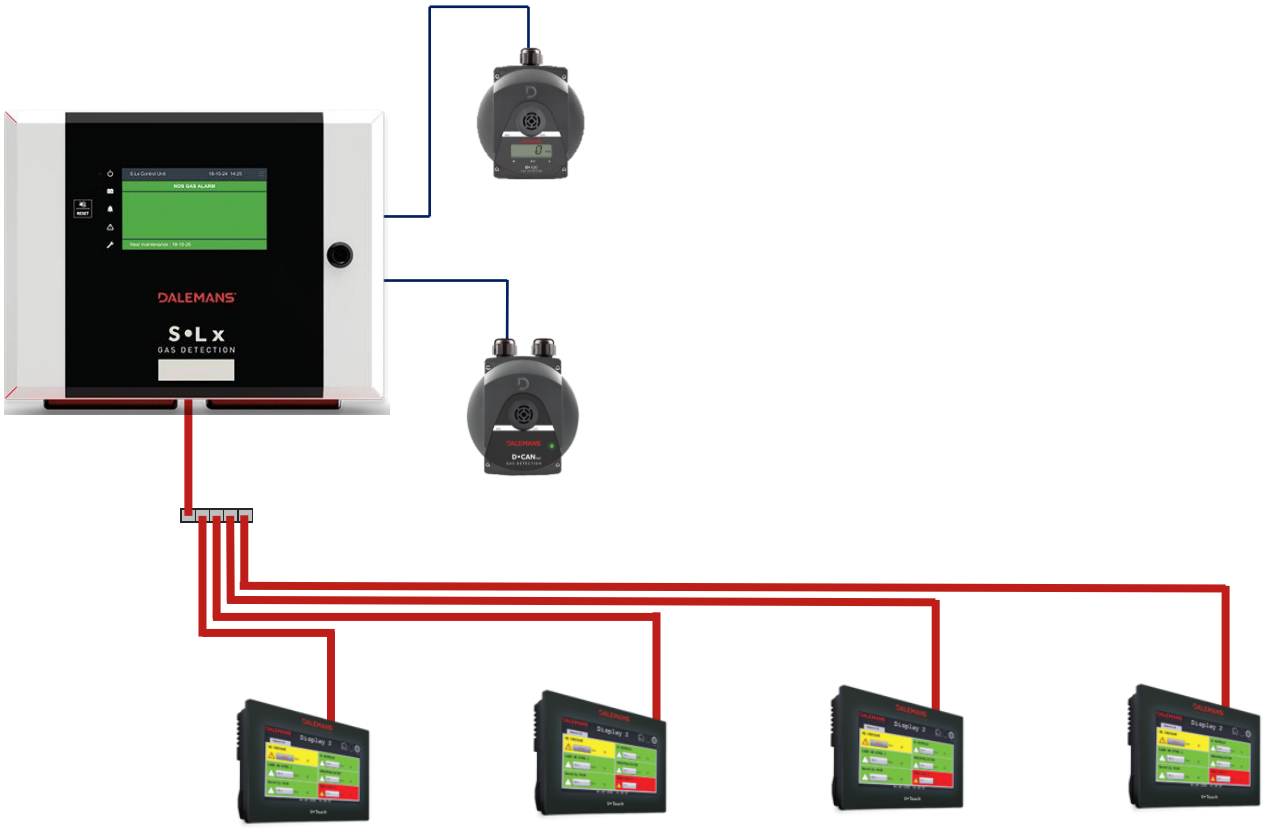
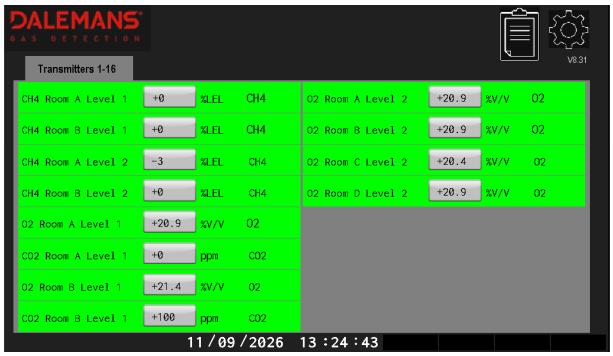



Figure 7 – Another example of a V•Touch installation: 4 touchscreens connected (via a switch) to a Control Unit with different detector types (CAN Bus and 4..20mA)

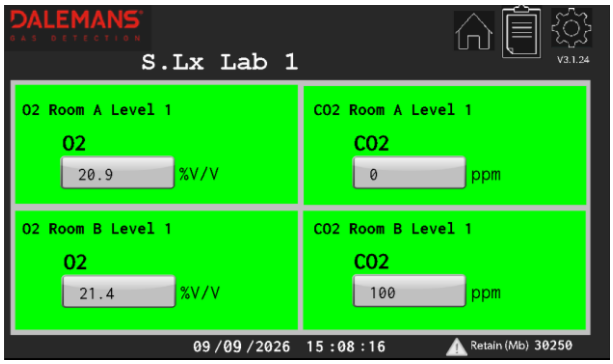
In Figure 7**Error! Reference source not found.**, 4 touchscreens are connected via an ethernet switch to the same Control Unit, which contains CAN Bus (up to 240 detectors/control unit) **and** 4..20mA detectors (up to 16 detectors/control unit).

# 3 SOFTWARE & USER INTERFACE

Depending on the Control Unit and the detectors used , V•Touch can be programmed with 2 variants of software, DAL 4x240 and DAL 4x16 (see Table 2 – § 1.5.2 Software Applicability). The difference is that S•Line Control Units can connect to both CAN bus **and** 4..20mA detectors, while U•Line Control Units can **only** be connected to 4..20mA ones.




**DAL 4x240 variant**




**DAL 4x16 variant**

The V•Touch displays come with embedded software from its manufacturer. A description of the main parameters will be provided below – however, only the most important features for **correct parametrisation from the end user** will be presented. The remaining features are outside the scope of this manual since they are of interest to IT professionals and IT site administrators. Detailed information regarding Configuration can be found on V•Touch's **Installation Manual**.

With the aid of dedicated software, gas concentrations can be visualised, as well as concentration trends. In addition, alarms and fault statuses are presented in a clear colour-coded way. There is also Data Logging with local filesystem, and remote access through FTP protocol.

**IMPORTANT NOTE**:

The equipment must be ordered with one of the application software referenced

The V•Touch can connect to up to 4 Control Units simultaneously.

Each Control Unit has the following default IP address:

- This is a default, general, private IP address. Private IP addresses are reserved for use within local networks and cannot be directly accessed from the internet, meaning it is only accessible within the local network. This provides an extra layer of security.
- This IP address should be configured, so as the V•Touch and the Control Unit can communicate.

# 3.1 DAL 4x240 Software

## 3.1.1 Home Screen

The home screen displays gas concentrations, units of measurement and target gases, together with a customised name for each detector (typically its location). From the home screen, you can access the system log, general settings, and date and time settings.

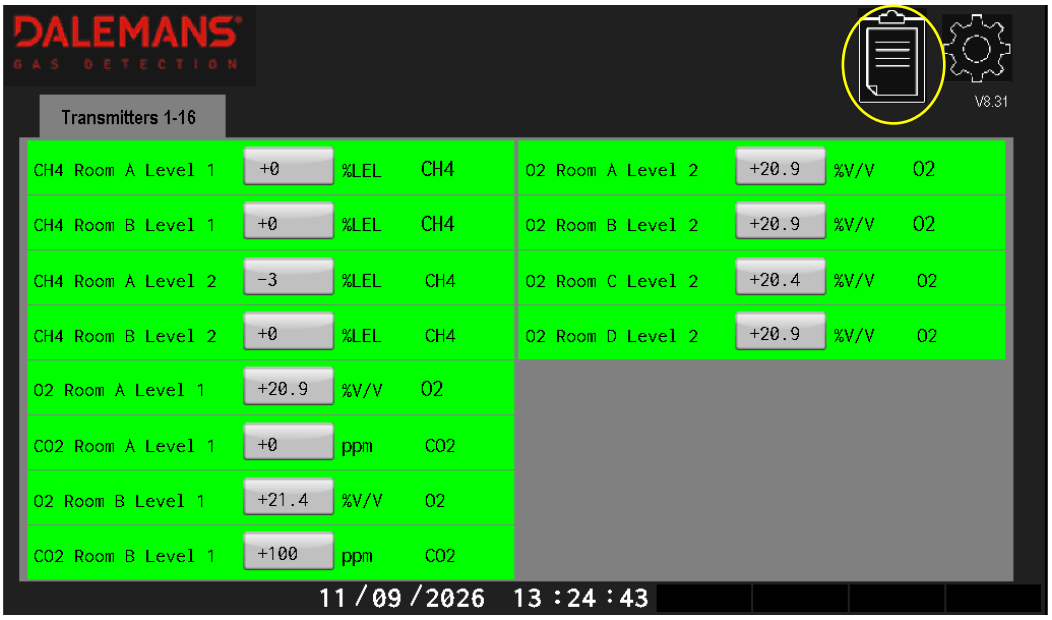



Figure 8 – Transmitters Screen

## 3.1.2 Detector's Detailed View – Normal State

Tap a detector to view its event graph (see Figure 9).




Figure 9 – Detector in Normal State – scrolling to time (region) of interest

1. The ribbon always shows the detector's current situation, regardless of the cursor position on the graph. Its green colour indicates that no gas alarm is currently present. It also shows the Channel number (12 in this case), the detector name ($O_2$ Room D Level 2), its current measured value (20.9), the unit of measurement (%V/V) and the target gas ($O_2$).
2. On the right, the gas concentration (22.7) and the date and time of the selected event are shown.
3. Below this information, the column shows the detector's state. In this example, the detector is Operational and the adjacent indicator is green. No faults or alarms are present; all other LEDs are grey.
4. The cursor marks a region of interest (ROI) on the gas concentration graph. Tap either arrow at the bottom (no. 5) to display the graph.
5. These buttons display and move the cursor across the graph. The two outer buttons move between pages, while the two inner buttons position the cursor at a region of interest.
6. Time at the right edge of the graph
7. Control Unit name
8. Arrow to exit and return to the previous screen
9. Time at the left edge of the graph

### 3.1.3 Detector's Detailed View – Fault State

A detector in a fault state cannot guarantee safety. It appears in yellow in the detector list, and an ERROR message replaces the measured value (see Figure 10).

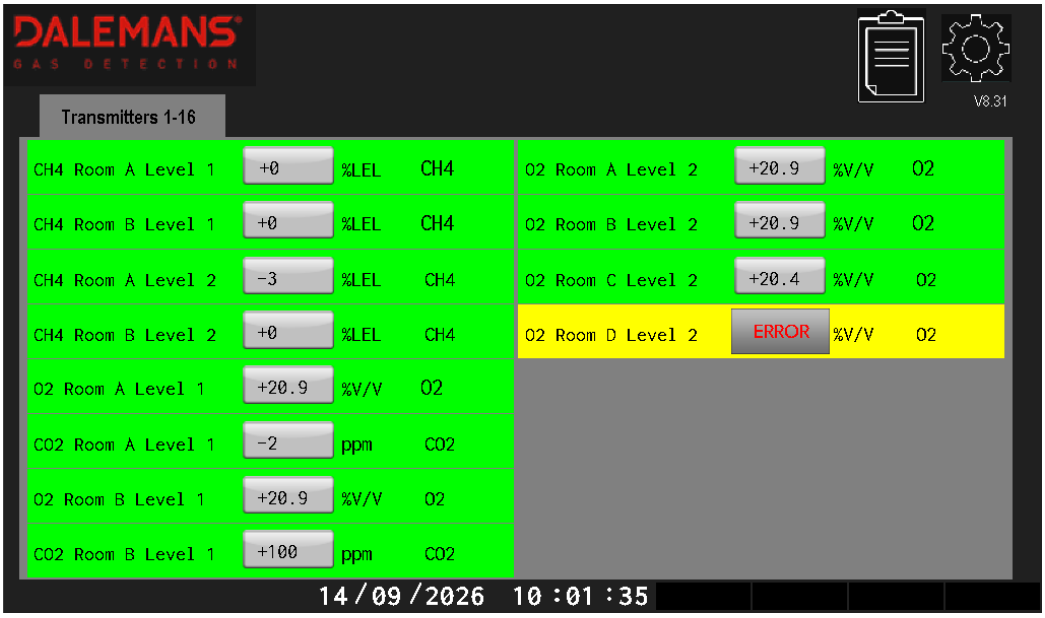



Figure 10 – Detector in Fault State

Tap the detector in a fault state to open the fault state screen (see Figure 11).

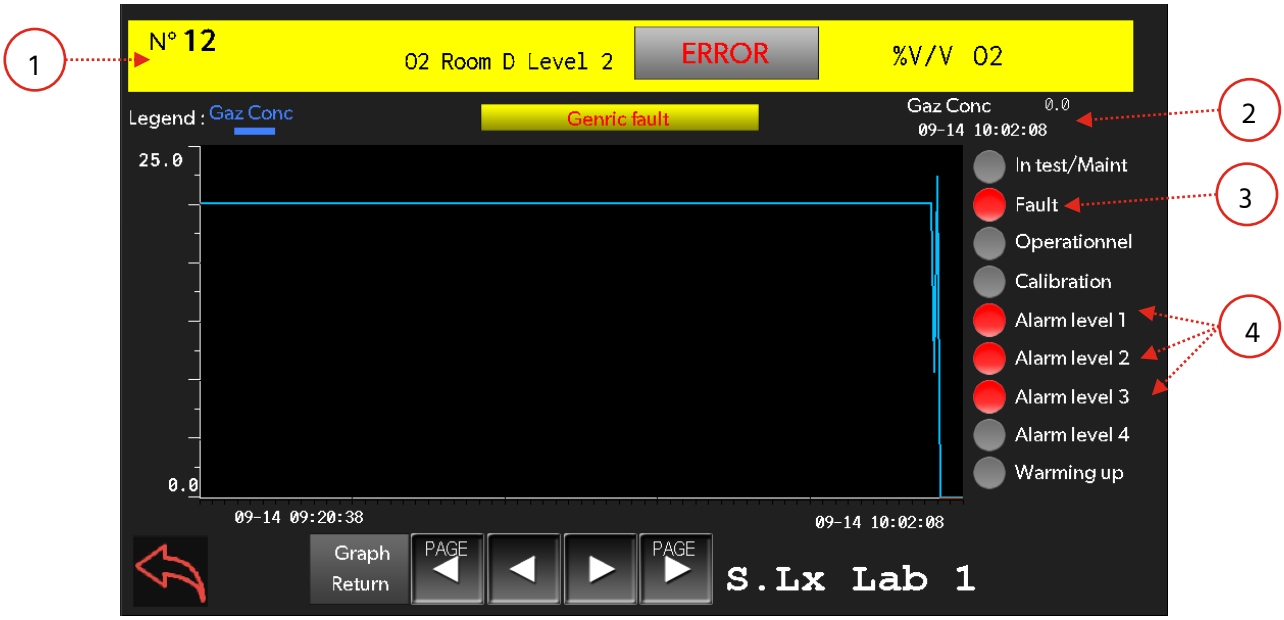



Figure 11 - Fault State Screen

1. The ribbon always shows the detector's current situation, regardless of the cursor position on the graph. Its yellow colour indicates that the detector is currently in a fault state. The ribbon shows the Channel number (12 in this case), the detector name ($O_2$ Room D Level 2), the unit of measurement (%V/V) and the target gas ($O_2$). Please note the **absence of measured value**.
2. The date and time for the selected point on the graph are shown on the right.
3. The detector is in the Fault state, and the LED turns red.

The remaining buttons have the same functions as described in § 3.1.2).

### 3.1.4 Detector's Detailed View – Alarm State

This state indicates that the detector has detected an alarm condition.

The detector appears in red in the transmitter list, together with the measured value at the time of viewing (see Figure 12).

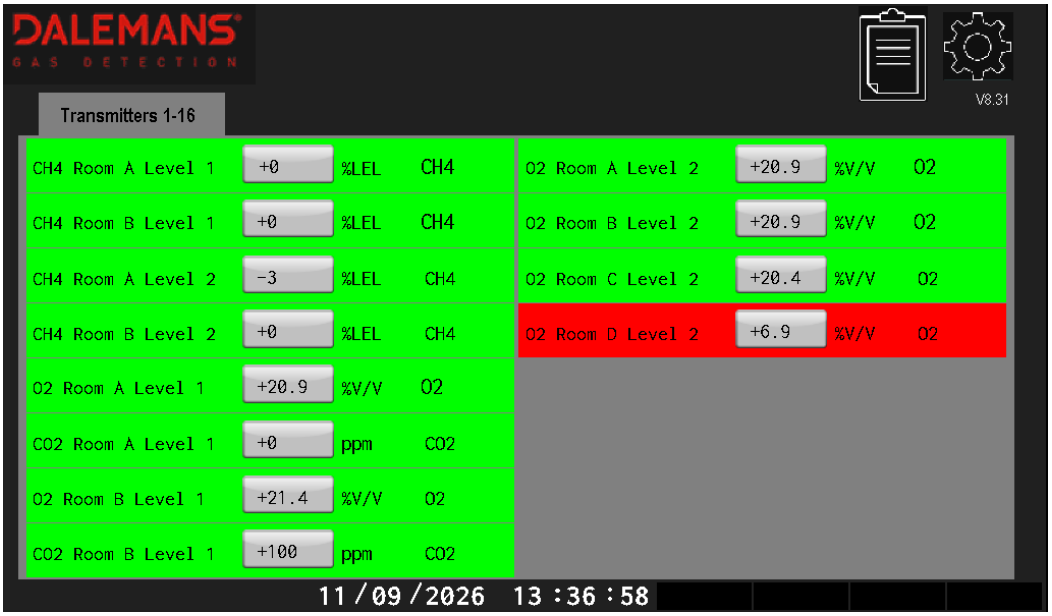



Figure 12 – Detector in Alarm State

Tap the detector in an alarm state to open its alarm screen (see Figure 13).

1. The ribbon always shows the detector's current situation, regardless of the cursor position on the graph. Its red colour indicates that a gas alarm is currently present. It also shows the Channel number (12 in this case), the detector name ($O_2$ Room D Level 2), its current measured value (20.9), the unit of measurement (%V/V) and the target gas ($O_2$).
2. On the right, the gas concentration (22.7) and the date and time of the selected event are shown.

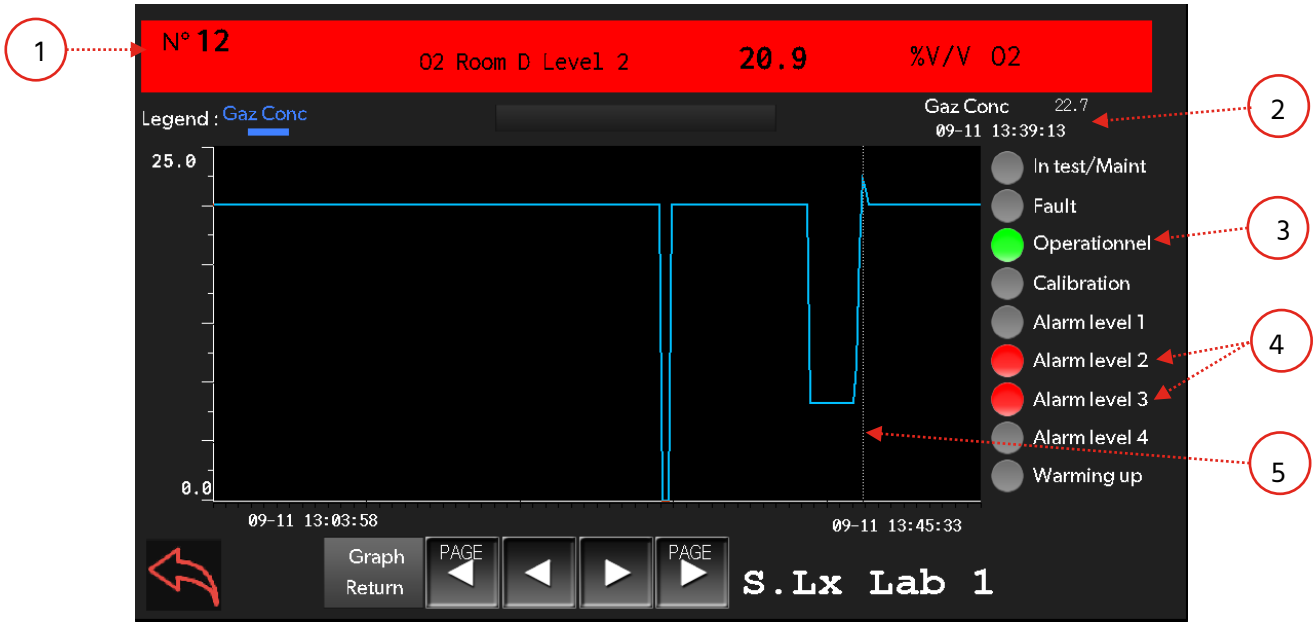



Figure 13 – Alarm State Screen

3. The detector is Operational and the colour beside this state is green.
4. The alarms present (Alarm level 2, 3)
5. The cursor marks a region of interest (ROI) on the gas concentration graph. Tap either arrow at the bottom to display the graph.

The remaining buttons have the same functions as described in § 3.1.2).

## 3.2 DAL 4x16 Software

The DAL 4x16 software enables the V•Touch to display measured values and log events from DALEMANS sa/nv Control Units connected exclusively to 4–20 mA analogue detectors.

- Case presented:
  - 2 Labs (1, 2), 4 rooms (A, B, C, D), 2 Levels (1, 2)
  - 2 S•Lx Control Units (1 in each level), 8 4..20mA analogue detectors in total, 6 detecting $O_2$, 2 detecting $CO_2$ concentrations.

### 3.2.1 Home Screen

Once the V•Touch is correctly configured and connected to the system, the DAL 4x16 software home screen appears (see Figure 14).

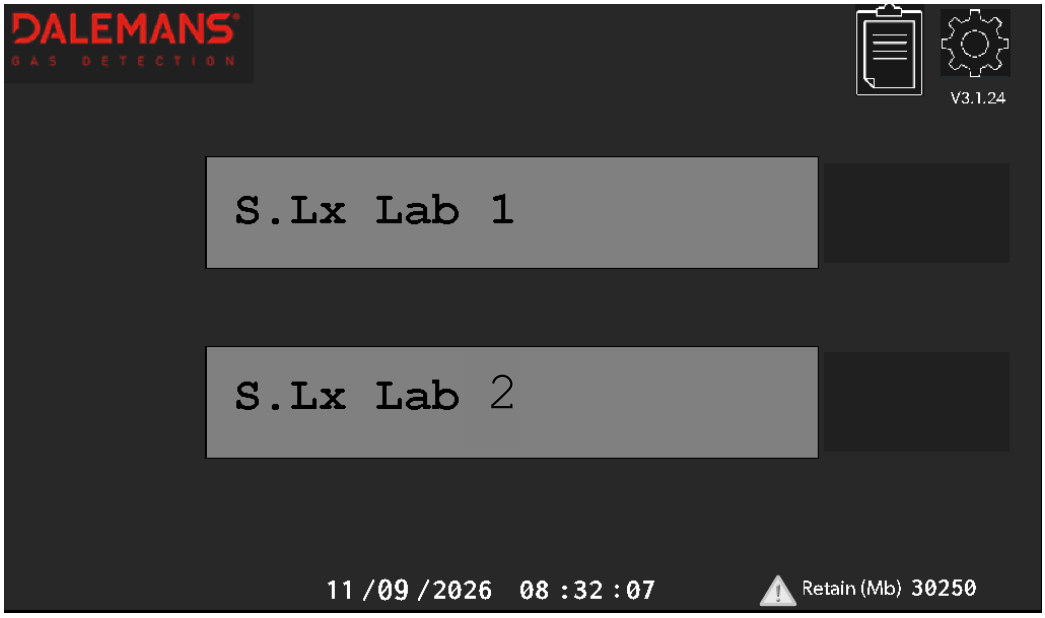



Figure 14 – DAL 4x16 Software Home screen

As noted earlier, assigning a clear, distinct name to each Control Unit makes it easier to identify.

### 3.2.2 Control Unit Customisation

You can customise the channels displayed on the V.Touch. To begin, tap the gear icon in the top-right corner of the screen shown in Figure 14.

The login screen appears. Enter your password (see Figure 15).




Figure 15 – Login screen

- For User password, please contact Dalemans sa/nv.

- Both **User ID** and **Password** are **case sensitive**

A gear icon now appears beside each Control Unit name (see Figure 16), indicating that the Control Units can be customised.




Figure 16 – Control Unit Customisation

Tap the main gear button at the bottom right of Figure 16 (circled in red) to open the Control Units Settings screen (see Figure 17).

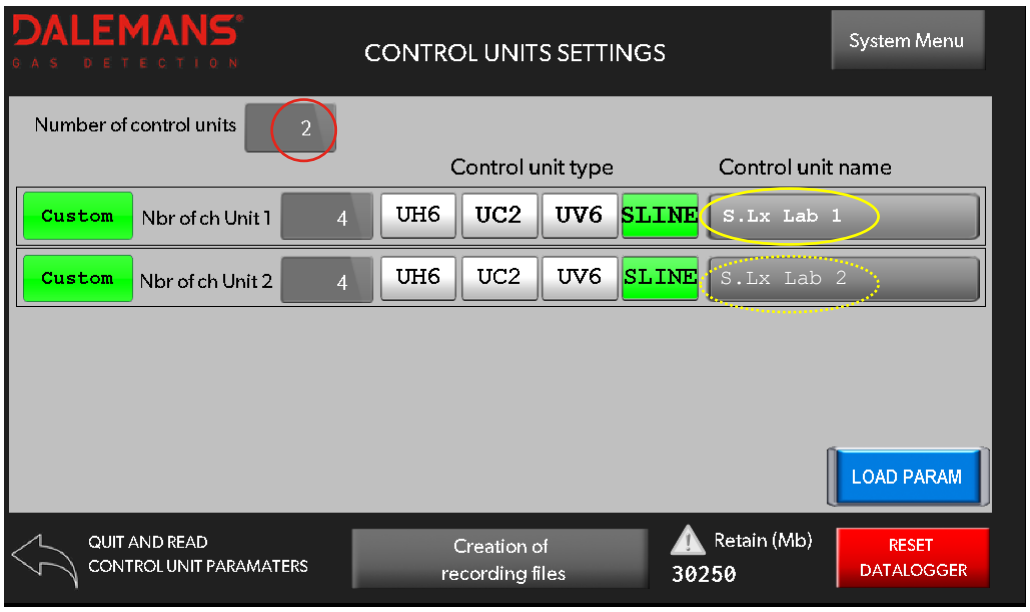



Figure 17 – Control Units Settings screen

This screen displays both automatically retrieved data and user-editable settings. The Control Unit number and name are provided automatically. The Control Unit type is retrieved automatically for S•Line units and entered manually for U•Line units.

When you select customisation, the box turns green, allowing you to assign detectors to channels.

For **any modification to take effect**, the LOAD PARAM button needs to be clicked – if not, the system will **ignore** the changes and will continue using its previous configuration

The system configuration is visualised by clicking at the Control Unit name (see Figure 17 above – Control Unit n° 1 encircled in yellow solid line, Control Unit n° 2 encircled in yellow dotted line). In our example Control Unit n° 1 has 4 detectors attached (all 4 of them in Level 1 – see Figure 18), while Control Unit n° 2 has 4 detectors attached (all 4 of them in Level 2 – see Figure 19)

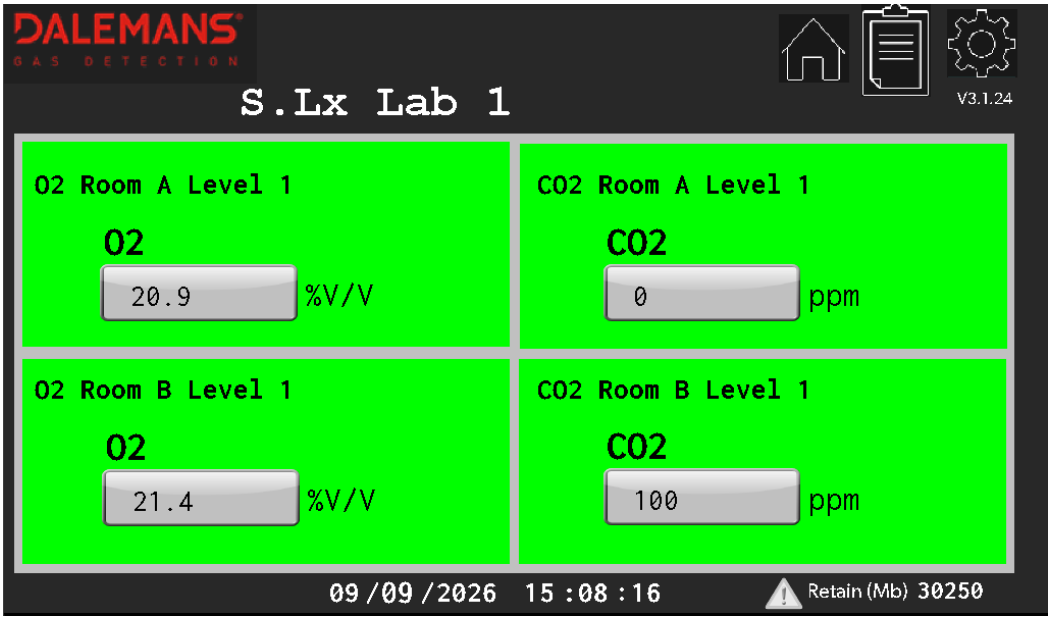



Figure 18 - Control Unit n° 1 with 4 detectors in Level 1

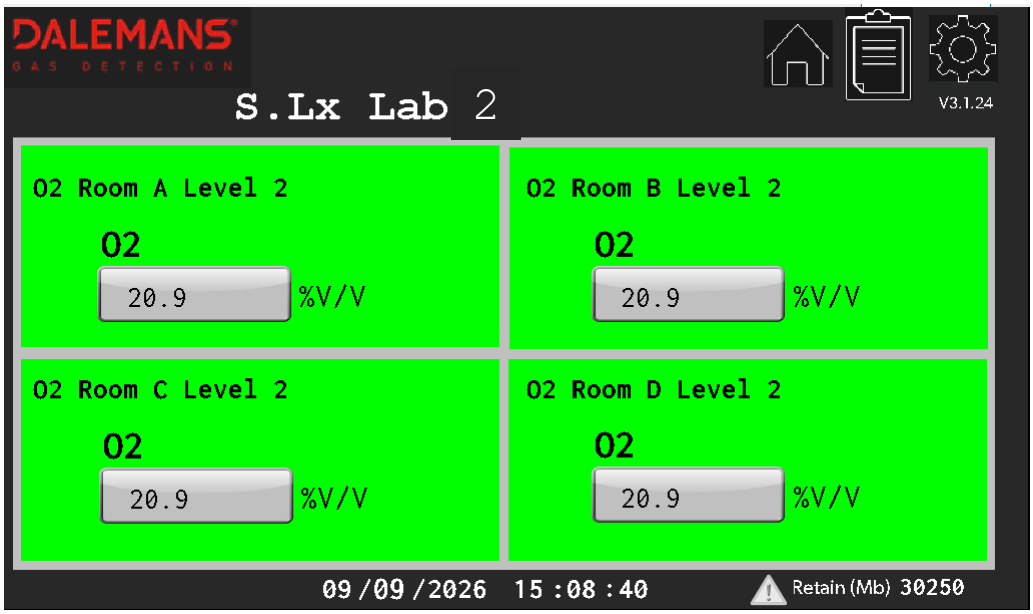



Figure 19 – Control Unit n° 2 with 4 detectors in Level 2

In case the user needs to visualise one Control Unit, this can also be done by clicking to Number of Control Units (see Figure 17 – red circle).

The numerical keyboard appears (see Figure 20) and the user can type "1". The Control Units Settings screen has now only Control Unit n° 1, while Control Unit n° 2 is "hidden" from view (see Figure 21).

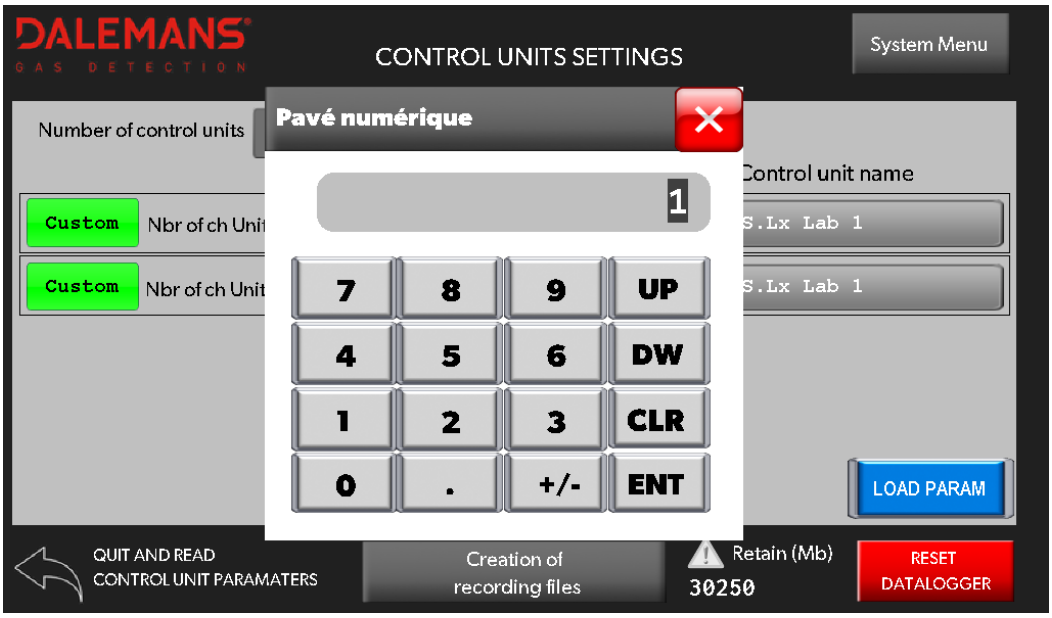



Figure 20 – Numerical keyboard for modification of Control Unit number

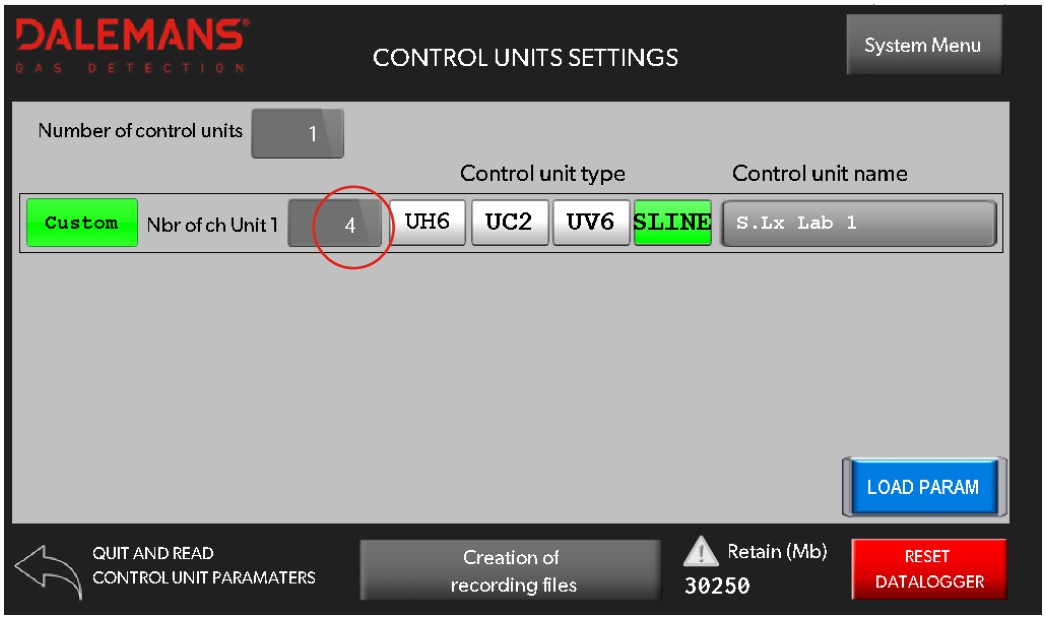



Figure 21 - Control Unit n° 1 shown (Control Unit n° 2 "hidden" from view)

In Figure 21, we can see that Control Unit n° 1 is connected to 4 detectors (red circle); this value can be modified by clicking on the box and the Custom Mode keyboard appears (see Figure 22).

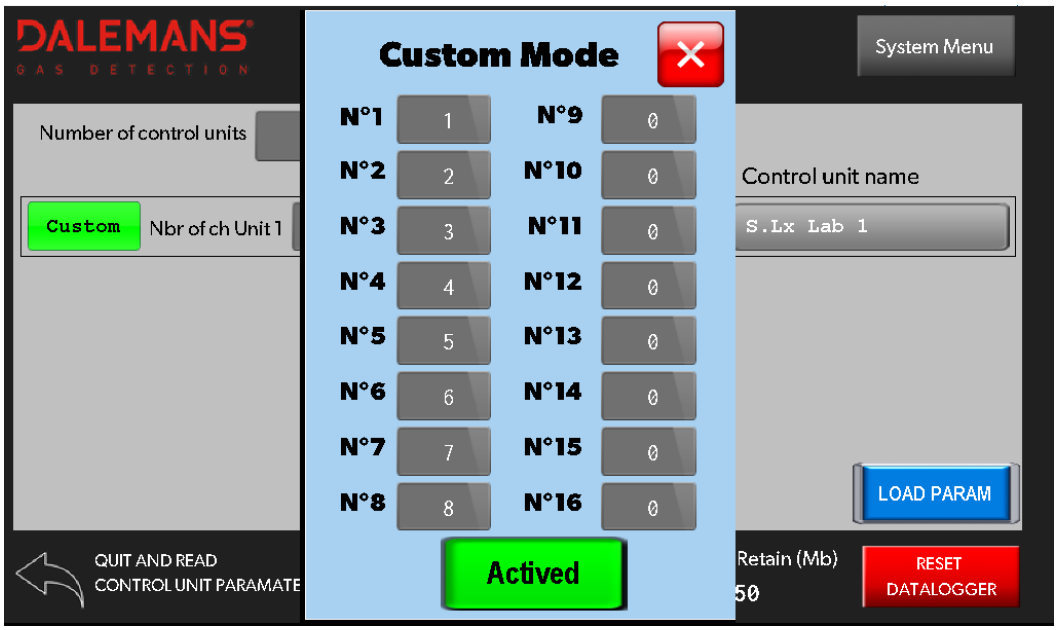



Figure 22 - Custom Mode keyboard for detector assignation

Tap the arrow in the bottom-left corner to return to the Customisation Screen. Tap it again to return to the home screen.

## 3.2.3 Detector's Detailed View – Normal State

On the Control Units Settings screen, tap a Control Unit to view its connected detectors.

In this example, no alarms are present, so all detectors appear in green. Tap a detector to view its detailed gas concentration trends.

Here, we can observe (see Figure 23):

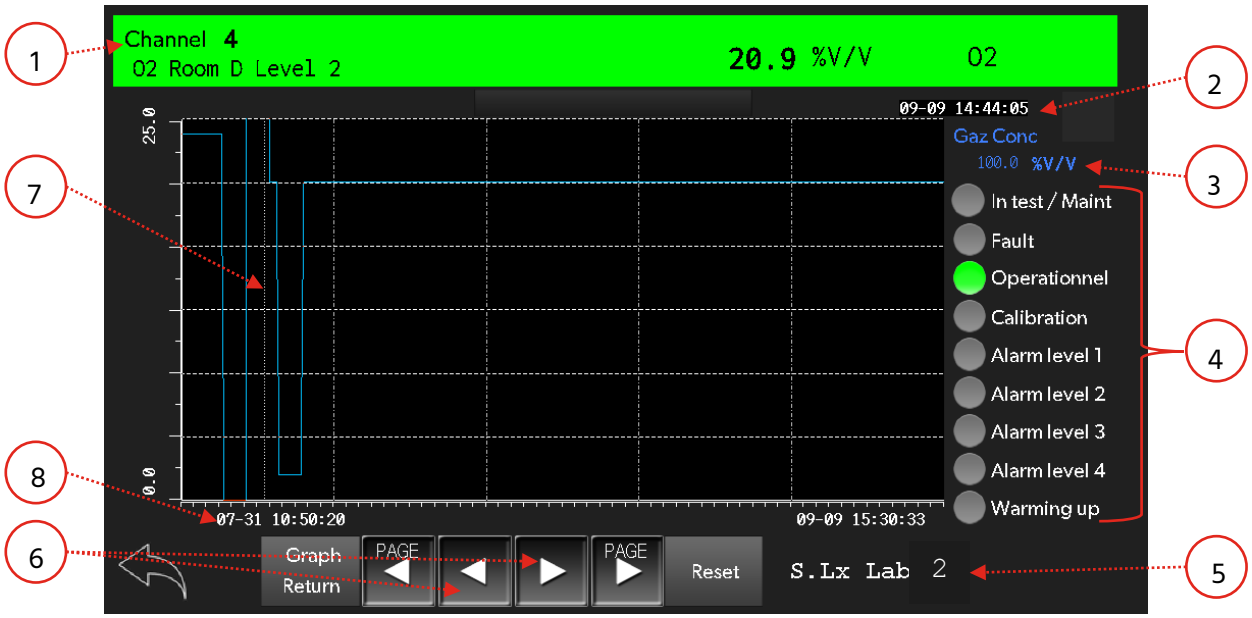



Figure 23 – Normal State Screen

1. The ribbon always shows the detector's current situation, regardless of the cursor position on the graph. Its green colour indicates that no gas alarm is currently present. From left to right, it shows:
    a. The channel number (n° 4)
    b. the preset target gas, detector name and current measured value ($O_2$, Room D Level 2, 20.9)
    c. the units of measurement (%V/V)
    d. the target gas ($O_2$)
2. The system date and time
3. The gas concentration at the selected time
4. The detector's state (Operational, shown in green, in this example). All buttons in this column relate to the detector's status.
5. The Control Unit's name (Example: "S.Lx Lab 2")
6. Buttons for selecting a region of interest (ROI) on the graph
7. Movable cursor for selecting a region of interest
8. Date and time at the left edge of the displayed graph

The "Graph Return" button returns the graph to the current system date and time. The arrow in the bottom-left corner returns to the previous screen.

## 3.2.4 Detector's Detailed View – Alarm State

When the system is in Alarm State, the affected Control Units are shown in red (see Figure 24).

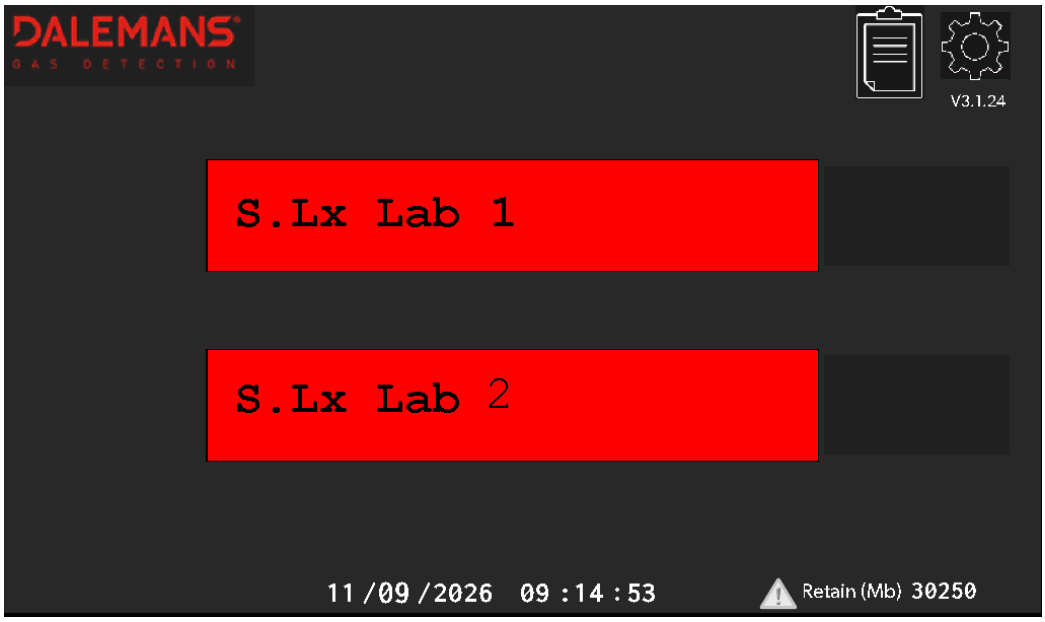



Figure 24 – Home screen in Alarm State

This means that at least one of the detectors attached is in Alarm State. When clicking at each Control Unit (in our example in Control Unit n° 1), we can see the detector affected (see Figure 25).

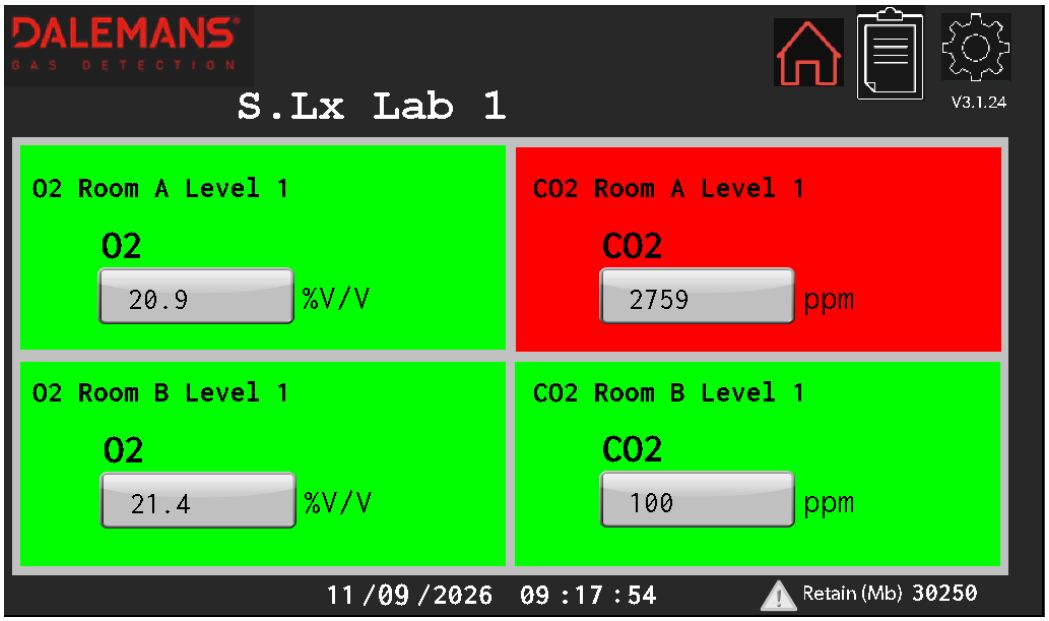



Figure 25 – $CO_2$ Detector Room A Level 1 of Control Unit n° 1 in Alarm State

The Home button in the top-right corner flashes red to indicate that another Control Unit is also in an alarm state.

The detector's box is red and the measured value of the target gas is seen. By clicking on the box, a graphic visualisation of the Alarm State is shown (see Figure 26**Error! Reference source not found.**)

The screen shows the following:

1. The ribbon always shows the detector's current situation, regardless of the cursor position on the graph. Its red colour indicates that an alarm is currently present. It shows:

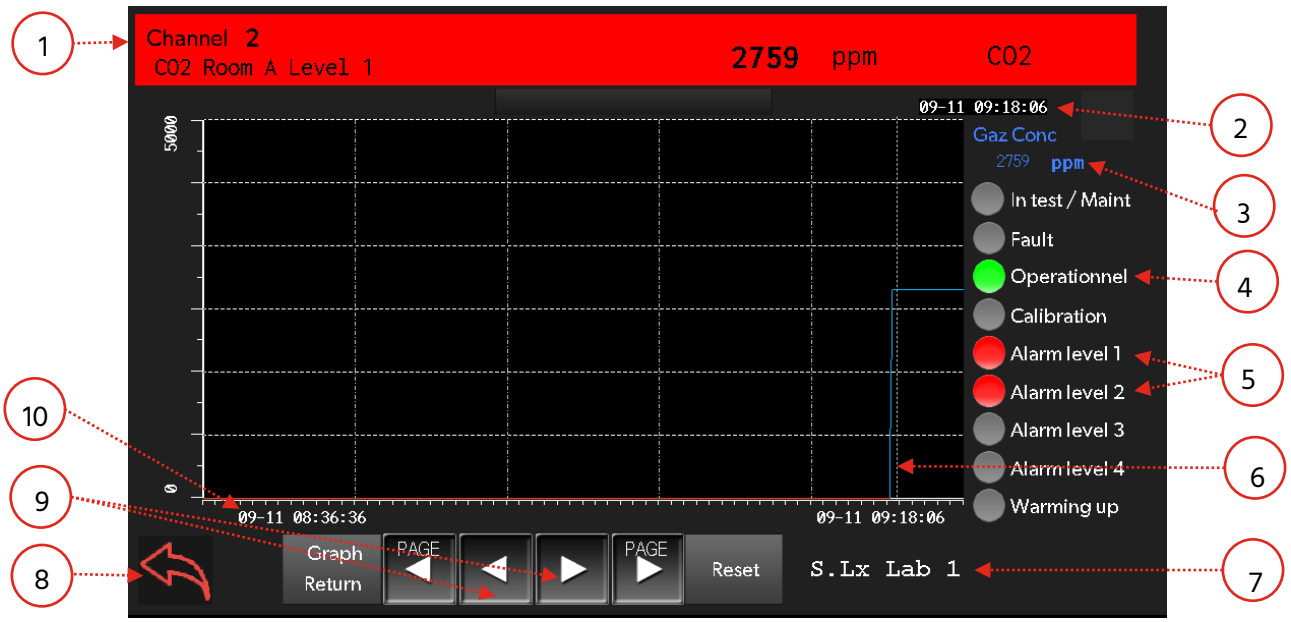



Figure 26 – Alarm State Screen

   a. The channel number (n° 2)
   b. The detector name ($CO_2$ Room A Level 1)
   c. the measured value of the target gas (2759)
   d. the units of measurement (ppm)
   e. The target gas ($CO_2$)
2. The system date and time
3. The gas concentration and unit of measurement for the selected point on the graph, not necessarily the value that triggered the alarm
4. The detector's Operational state, shown in green, indicates that the detector is functioning properly.
5. The red state of the Alarms present (level 1 & 2)
6. Movable line to focus on a ROI
7. The Control Unit's name
8. The flashing red arrow in the bottom-left corner (circled in grey) indicates that **alarms are also present in Control Units** other than the one currently displayed.
9. Buttons for moving the cursor (no. 6) across the graph to a region of interest
10. The date and time at the left edge of the displayed graph

### 3.2.5 Detector's Detailed View – Fault State

When a detector is in Fault State, the colour on the Home Screen of the Control Unit concerned becomes yellow. By clicking on it, the same graph appears as described in §3.1.3 Detector's Detailed View – Fault State. The same explanations apply.

## 3.3 Alarms & Events Journal

The Alarms & Events Journal is divided into two categories:

1. Detectors Events
2. Control Unit Events

A dedicated icon opens the Alarms & Events Journal. The screen layout depends on the software variant, as explained below.

### 3.3.1 DAL 4x240 Software

#### 3.3.1.1 Detectors' Alarms & Events

To view detector alarms and events, tap the journal icon at the top right of the Transmitters Screen (circled in yellow in Figure 27 below).

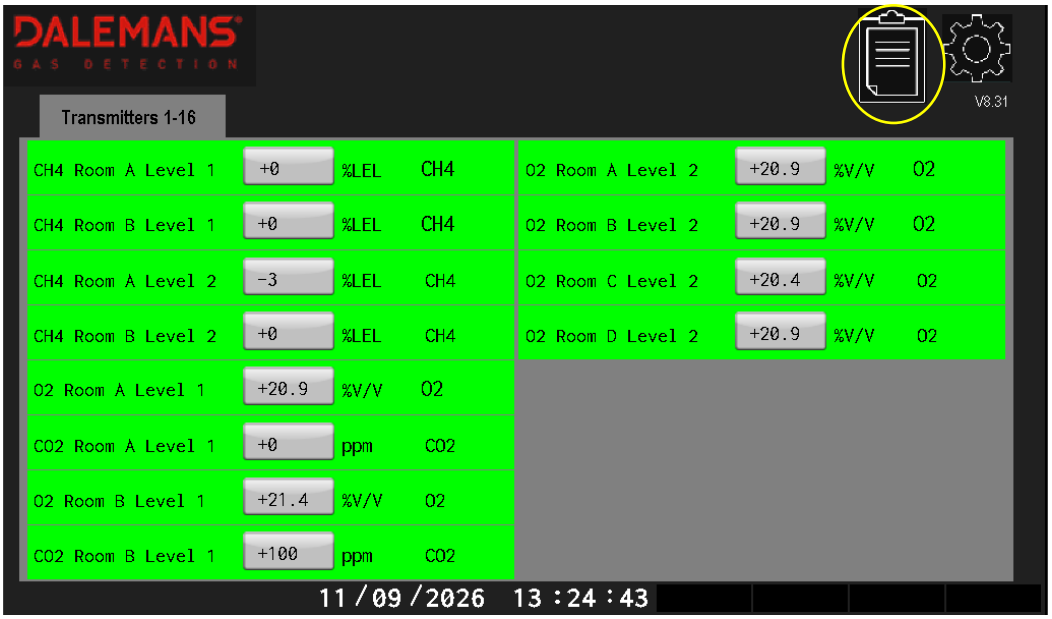



Figure 27 – Detector's Alarms & Events button (yellow circle)

Detector alarms and events appear in a list (see Figure 28). Use the buttons on the right to scroll through the list.

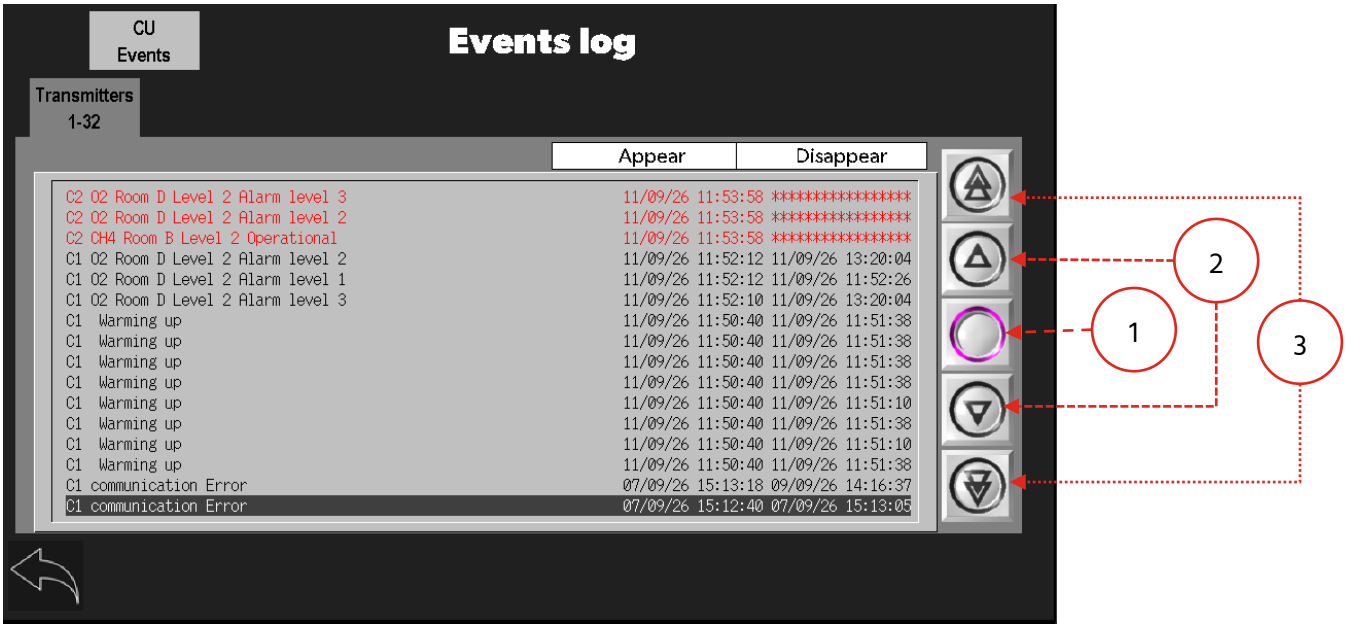



Figure 28 – Detectors Event Log (DAL 4x240 Software)

1. The central "**O**" button returns to the first event row. It flashes purple when the first page is not displayed.
2. The single-arrow buttons scroll up or down one row at a time.
3. The double-arrow buttons scroll quickly up or down through the list.

On the left (1st row):

- The name of the Control Unit (C2 in our example), followed by
- The detector name (O2 Room D Level 2), followed by
- The detector's state (Alarm level 3)

On the right:

- The "Appear" and "Disappear" columns show the event's start and end dates and times, respectively.

- If an error is being continued at the time of investigation, its line is shown in red, and the "Disappear" column is filled with asterisks (see 1st line of Figure 28)

### 3.3.1.2 Control Units' Events

To view the list of Control Unit events, tap the "CU Events" icon at the top left (see Figure 29).

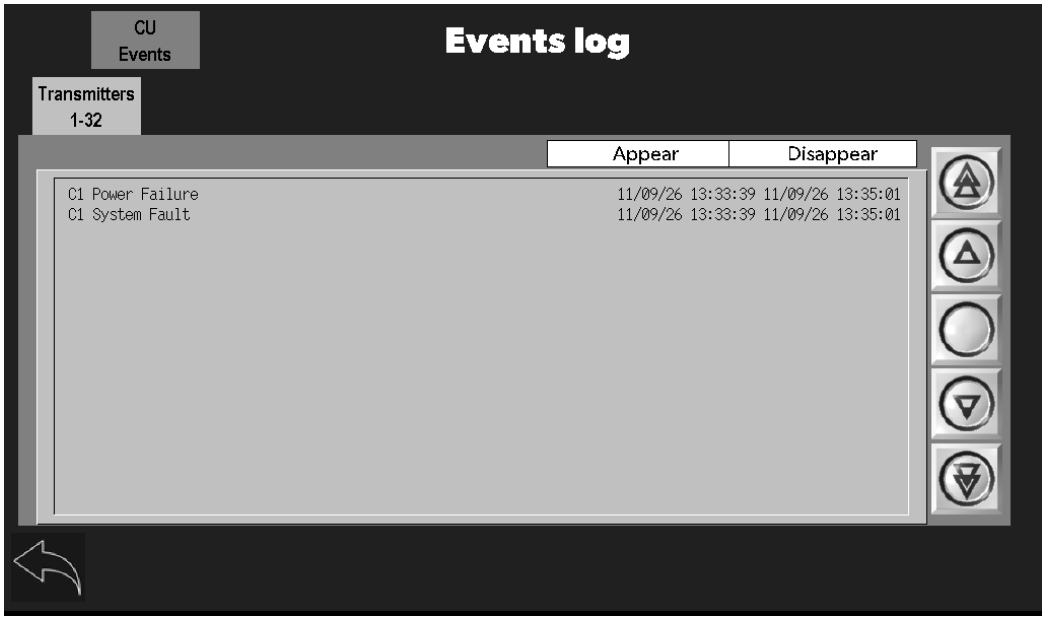



Figure 29 – Control Units' Event Log

On the left:

- The Control Unit is shown, followed by a short event description (Power Failure, System Fault).

On the right:

- The "Appear" and "Disappear" columns show the event's start and end dates and times, respectively.

The same principle described earlier**Error! Reference source not found.** is in application: the buttons on the right can fast forward, forward or return to the 1st line of the screen (see § 3.3.1– Figure 28)

- If an error is being continued at the time of investigation, its line will be shown in red, and the "Disappear" column will be filled with asterisks (same principle as the 1st line of Figure 28**Error! Reference source not found.**)

## 3.3.2 DAL 4x16 Software

### 3.3.2.1 Detectors' Alarms & Events

You can access the event log using the Journal icon in **two ways**:

- either from the detector screen (see Figure 30**Error! Reference source not found.** n° 1)

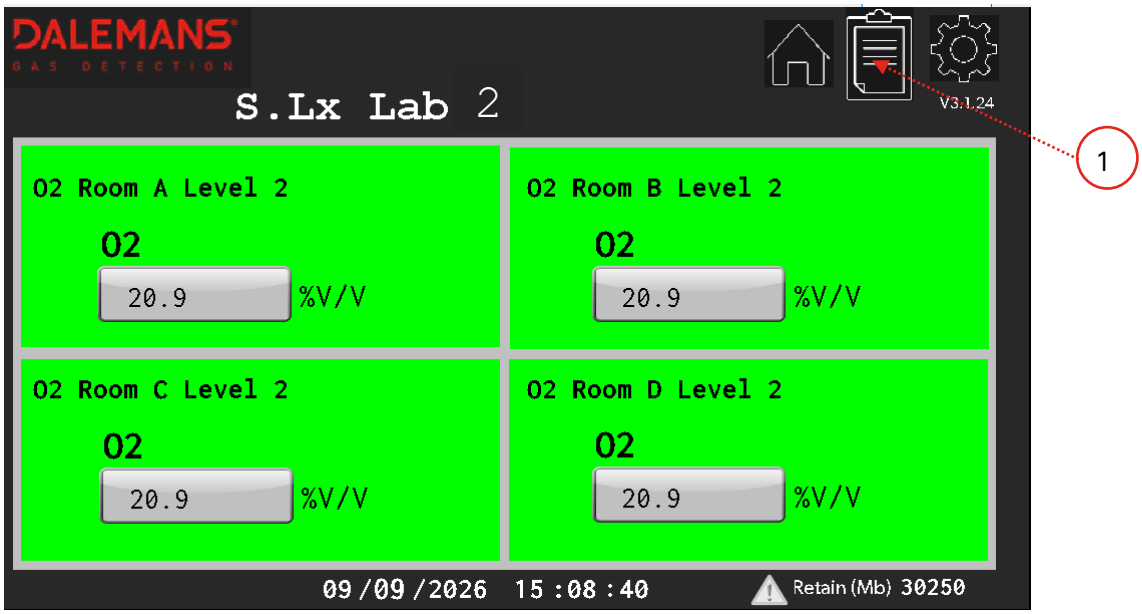



Figure 30 – Journal icon in Detector's screen (DAL 4x16 Software)

- or from the home screen (see Figure 31**Error! Reference source not found.**, encircled in red).

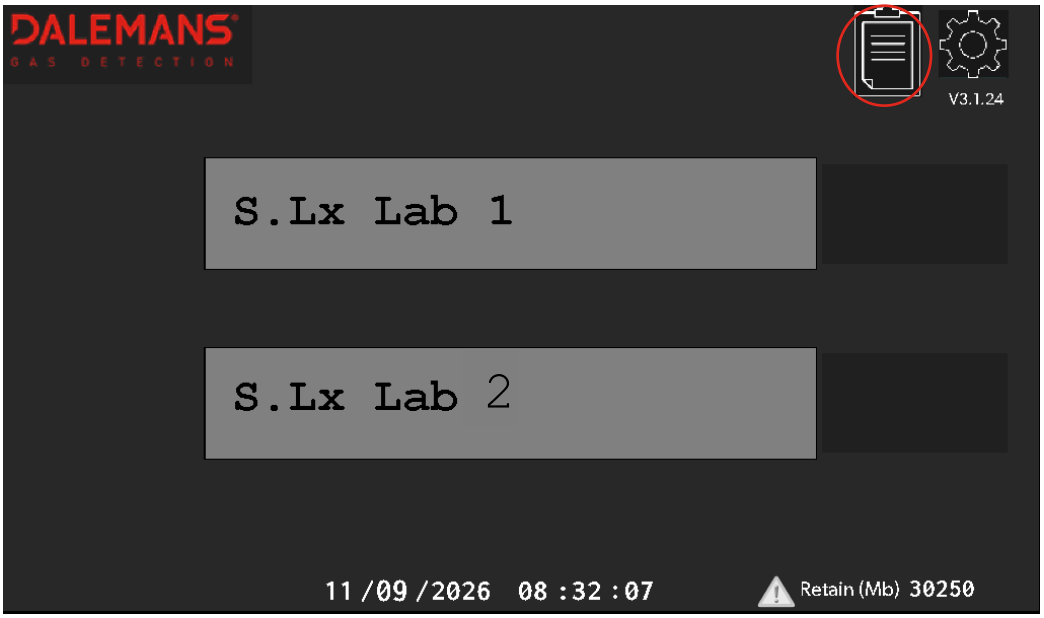



Figure 31 – Journal icon in Home Screen (DAL 4x16 Software)

Alarms and faults are grouped by Control Unit. Each Control Unit has a separate tab listing events for its connected detectors. Events are displayed in columns (see Figure 32). Use the buttons on the right to navigate the list.

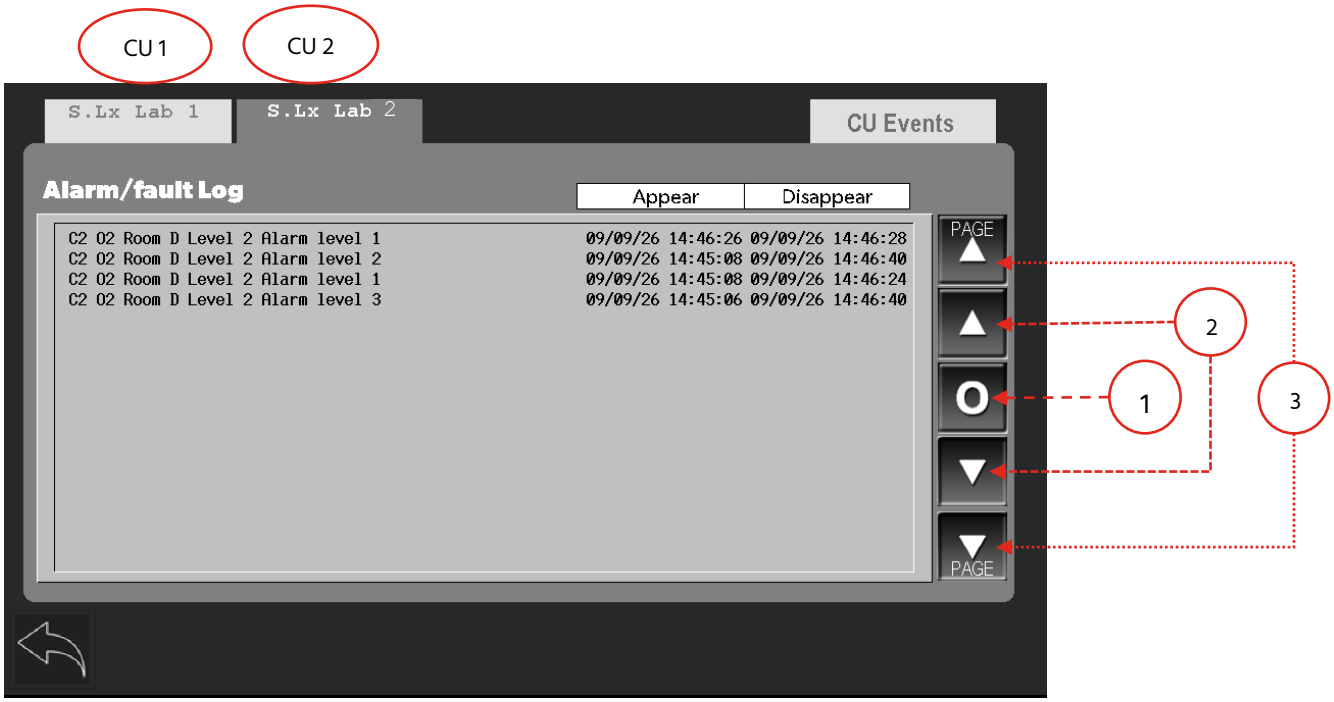



Figure 32 – Detector's Journal list

The buttons on the right have the same functions as explained before (see § 3.3.1 – Figure 28).

The information is arranged in two groups of columns:

- On the left (under Alarm/fault Log):
  - The Control Unit name (C2 on top row), followed by the detector ($O_2$ Room D Level 2) and the Alarm (Alarm level 1).
- On the right (under Appear – Disappear):
  - The date and time that the event started (Appear), followed by the date and time that the event ended (Disappear)

If an alarm is ongoing, its row in the log appears in red and the "Disappear" column contains asterisks (see Figure 33).

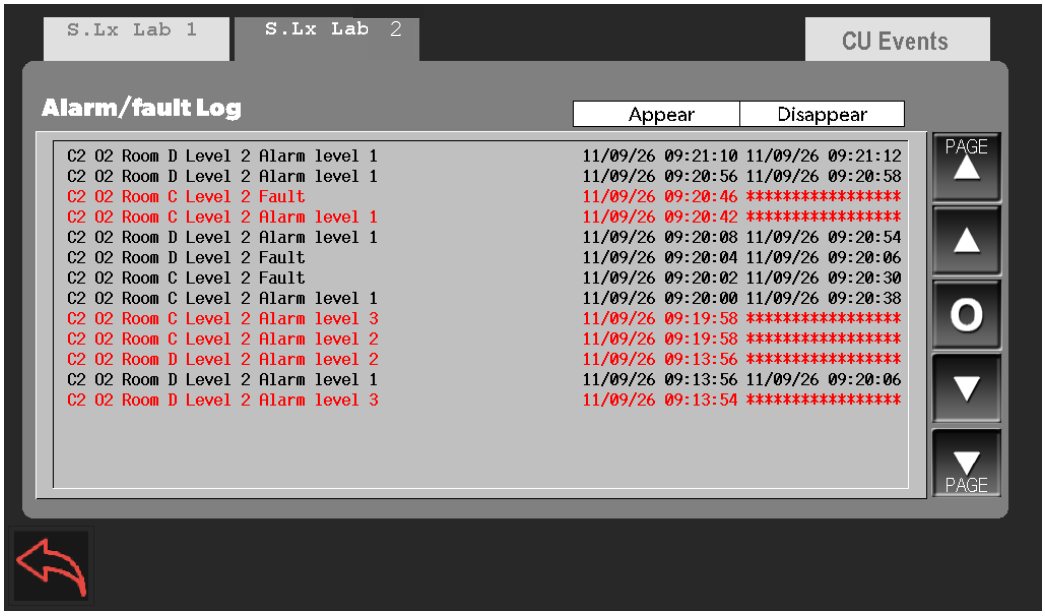



Figure 33 – Detector in Alarm state (on-going)

### 3.3.2.2 Control Units' Events

To view logged Control Unit events, open the last tab of the Journal, "CU Events" (see Figure 34).

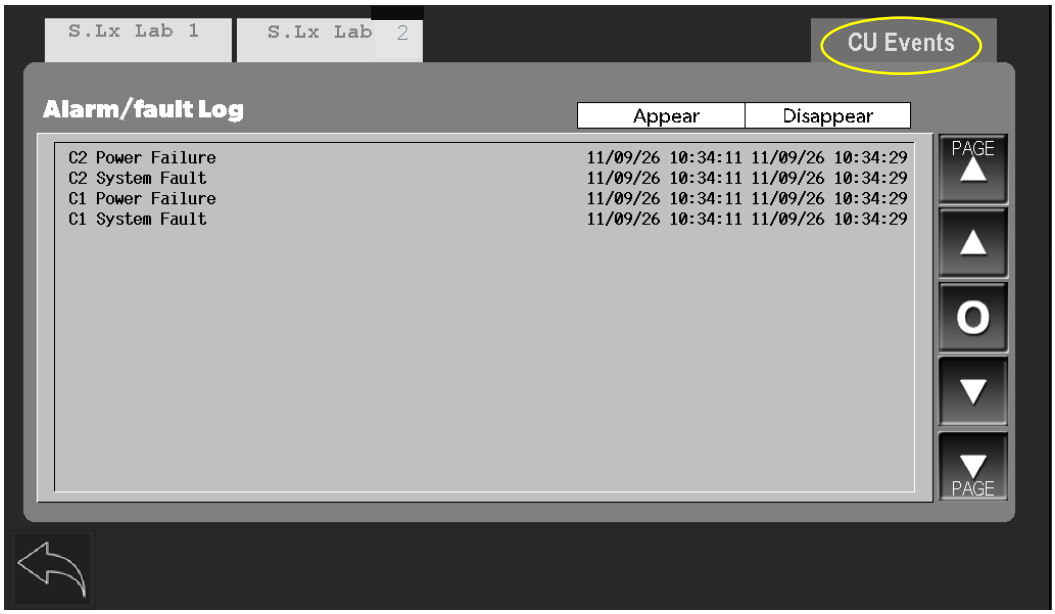



Figure 34 – Control Unit's Logged events

The left column (Alarm/fault Log) shows the Control Unit number (C2 in the top row of Figure 34), followed by the event type (Power failure).

On the right, the "Appear" and "Disappear" columns show the event's start and end dates and times, respectively.

The buttons on the right follow the same functions as explained before (see § 3.3.1 – Figure 28).

## 3.4 Summertime/Wintertime Setting (Option)

The V•Touch can switch automatically between summer time and winter time when this function is enabled ("DST Activation" box ticked).

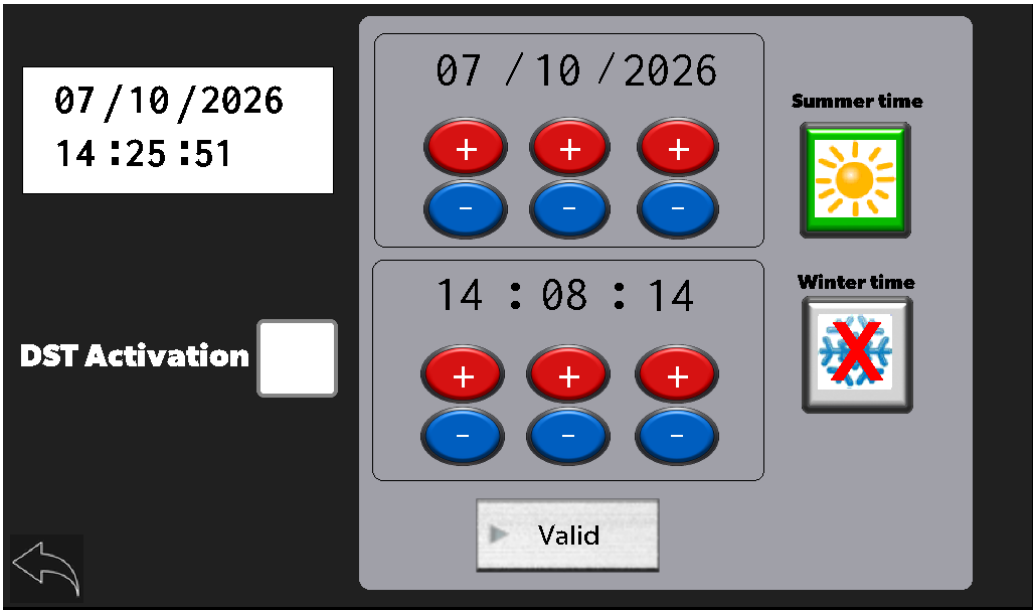



Figure 35 – Summertime / Wintertime setting

To enable automatic switching between summer time and winter time, select the DST Activation box (see Figure 35). Otherwise, adjust the system time manually.

**IMPORTANT NOTE:**

Dalemans control units do **not** support this feature. Therefore, **carefully consider the implications before activating this option**, as it may lead to misinterpretation of logged data.

To open the DST Activation screen, press and hold the date and time on the Transmitters Screen for more than 2 seconds (see Figure 36, dotted red circle).

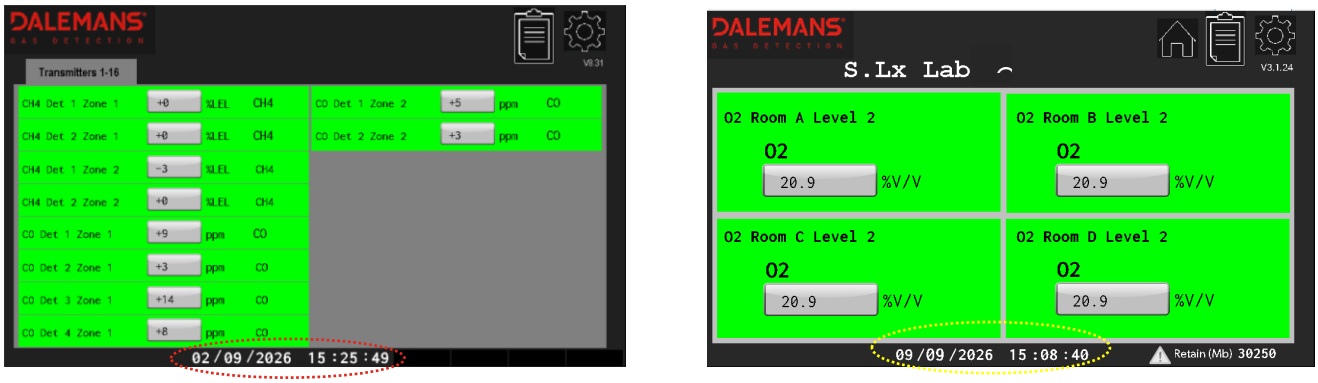



Figure 36 – Summertime/Wintertime activation

# 4 DATA LOGGING & RETRIEVAL

A USB flash drive connected to the unit is used for operations such as transferring the screen program and saving log data. **Data is saved automatically** to the flash drive.

Data is written to the USB flash drive **at midnight every day**. Correct date and time settings are essential.

## 4.1 USB Characteristics

| Capacity | File System |
|---|---|
| **2TB Max** | FAT, FAT32, exFAT [2] |

## 4.2 USB Flash Drive Guidelines

- USB flash drives that have a security function cannot be used.
- Before removing a USB flash drive, first press and hold "Creation of recording files" for 2 seconds to save the latest logged data.
- **Do not turn off power to the unit** when the USB flash drive is being accessed.
- Back up the USB flash drive regularly.
- If a disk error occurs and data read/write operation is disabled, execute ScanDisk on Windows and try to restore the disk. If the disk cannot be restored, format the storage device. Note that formatting will completely erase all stored data. (For information on executing ScanDisk on Windows, refer to the relevant Windows manual.)
- USB flash drives have a limited number of write cycles. For this reason, logged data is written to the USB flash drive once a day, at midnight.

[2] When a file is saved, the created date and time (new creation only) and the updated date and time of the file are set to Coordinated Universal Time (UTC+0:00). Therefore, the created and updated dates and times of the file on your PC are checked, the date and time discrepancy occurs depending on the time zone of your PC.

However, this does not affect the time stamp added to the filename in some functions or the time data output in the file.

## 4.3 Data Retrieval

A ".csv" file is created automatically at midnight every day. The collected data can be retrieved in two ways:

1. Via an FTP connection to retrieve the corresponding ".csv" log file.
2. By physically removing the USB flash drive from the back of the V•Touch, then locating and analysing the ".csv" file.

### 4.3.1 Data Retrieval Procedure Preparation

Before retrieving the latest data, press and hold the "Creation of recording files" button **for 2 seconds**, as explained below. This forces the latest logged data to be saved to files on the USB flash drive.

Without this step, the files contain logged data only up to the previous midnight, and the most recent data will be missing from the USB flash drive when it is removed.

**This step applies to both FTP transfer and USB access.**

#### 4.3.1.1 Data Retrieval – DAL 4x240 Software

This saves the latest logged data to files on the USB flash drive. Creating the files alone does not prepare the drive for removal.

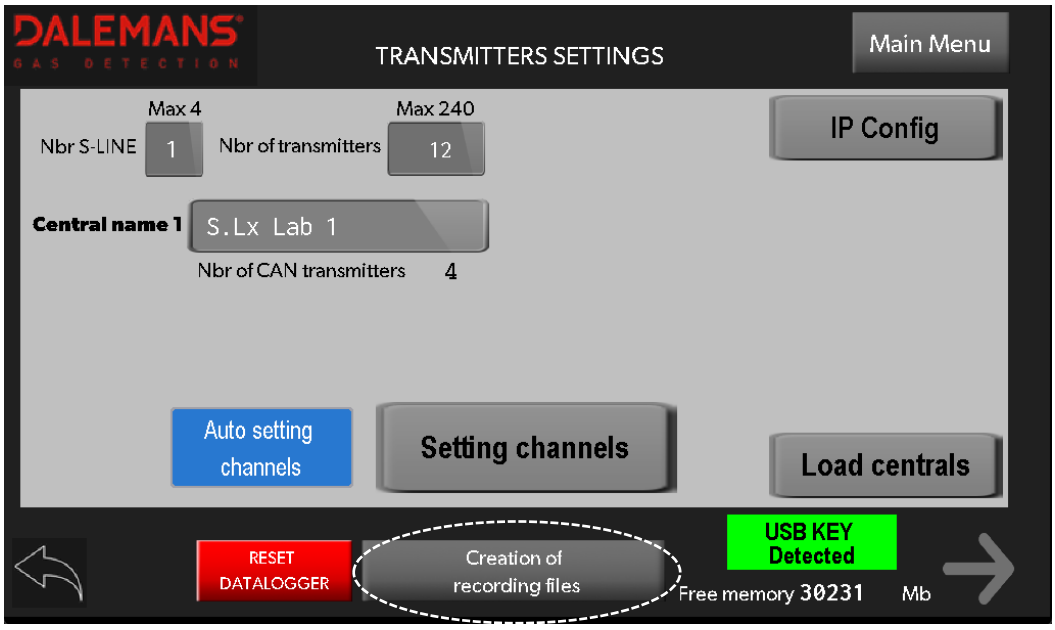



Figure 37 – Creation of recording files icon for data retrieval

#### 4.3.1.2 Data Retrieval – DAL 4x16 Software

This saves the latest logged data to files on the USB flash drive. Then use "Storage Removal" before physically removing the drive. Creating the files alone does not prepare the drive for removal.

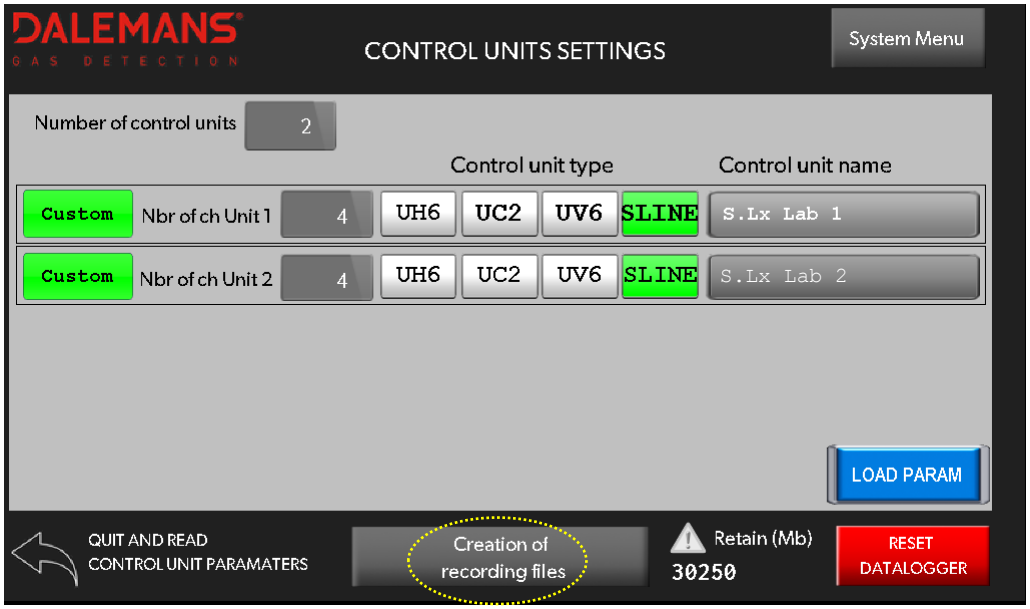



Figure 38 – Creation of recording files button for USB removal

## 4.3.2 Data Retrieval via FTP

FTP (**F**ile **T**ransfer **P**rotocol) transfers files between computers over a TCP/IP network. It uses a client-server model with separate control and data connections.

- The control connection, typically established on port 21, is used for authentication, command execution, and directory navigation.
- The data connection, usually established on port 20 or dynamically negotiated, is responsible for the actual file transfer.

FTP is known for its simplicity and efficiency, making it a popular choice for large or repeated file transfers.

FTP applications include FileZilla, WinSCP, Core FTP, Classic FTP and CrossFTP. Their interfaces follow a similar principle: access the storage location, find the CSV file and transfer it to a folder on your PC, where you can open it (see Figure 39).

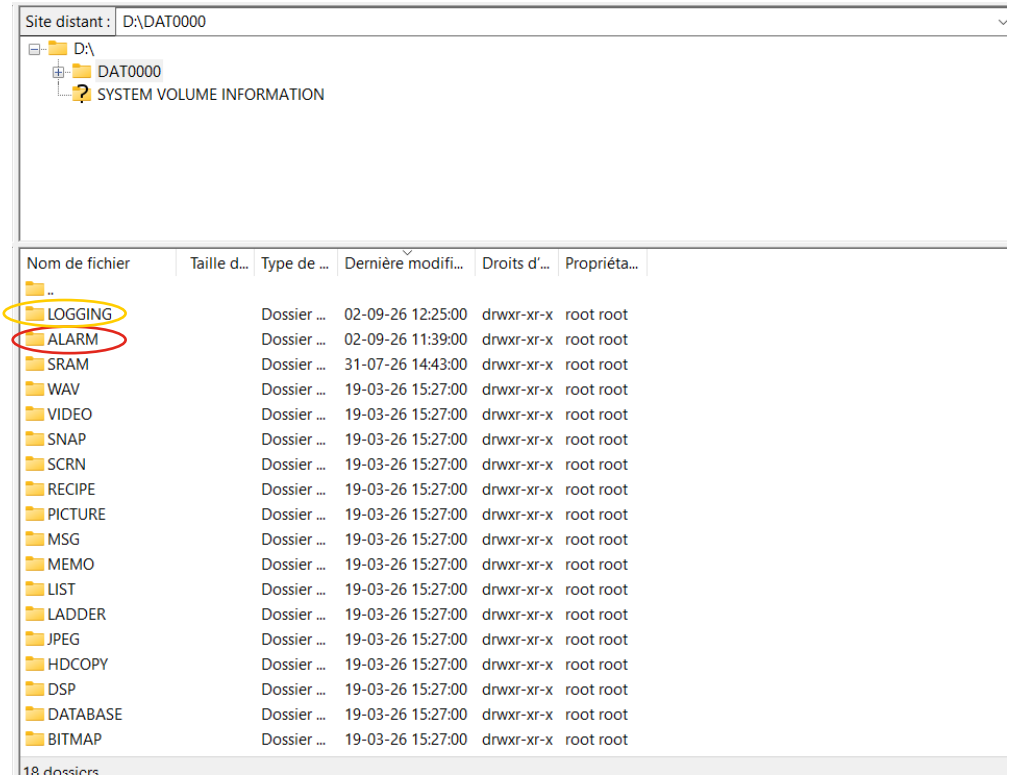



Figure 39 – FTP connection showing the location of logged folders: Alarms (encircled in red), Logging (encircled in yellow)

**IMPORTANT NOTE**:

FTP Connection & Set-up is the **responsibility of the end user**

CSV files can be viewed and edited using a suitable application:

- Text Editors: Notepad or Notepad++. However, for large files, more capable editors are recommended.
- Spreadsheet Programs: Microsoft Excel, Google Sheets, and FreeOffice Calc can open CSV files and display the data in a tabular format, making it easier to read and manipulate.

## 4.3.3 Data Retrieval via USB – V•Touch10-E

**Procedure:**

Before starting this procedure, press and hold "Creation of recording files" for 2 seconds to save the latest logged data, then use "Storage Removal". Both commands are required before removing the USB flash drive to prevent any data loss.

1. Open the enclosure's door using the dedicated door key
2. Locate the USB key at the back of the touchscreen (see Figure 40**Error! Reference source not found.**)
3. Remove it and connect it to a pc
4. Find the CSV file and view/edit it using an appropriate application

5. Re-attach the USB key to the back of the touchscreen
6. Lock the door with the dedicated door key

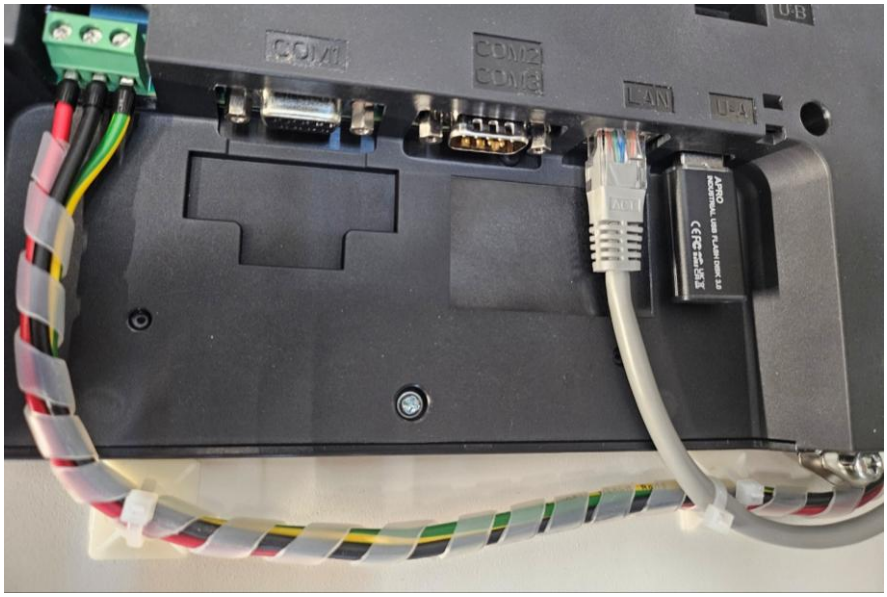



Figure 40 – USB stick attached to the V•Touch touchscreen (USB on the right)

## 4.3.4 Data Retrieval via USB – V•Touch7-E

**Procedure:**

Before starting this procedure, press and hold "Creation of recording files" for 2 seconds to save the latest logged data, then use "Storage Removal". Both commands are required before removing the USB flash drive to prevent any data loss.

1. Open the enclosure's cover by unscrewing the 4 corner screws (see Figure 41)




Figure 41 –V•Touch 7" touchscreen mounted in its enclosure

2. Locate the USB key at the back of the touchscreen (see Figure 42)
3. Remove it and connect it to a pc
4. Find the CSV file and view/edit it using an appropriate application
5. Re-attach the USB key to the back of the touchscreen
6. Attach the cover by putting back the 4 corner screws

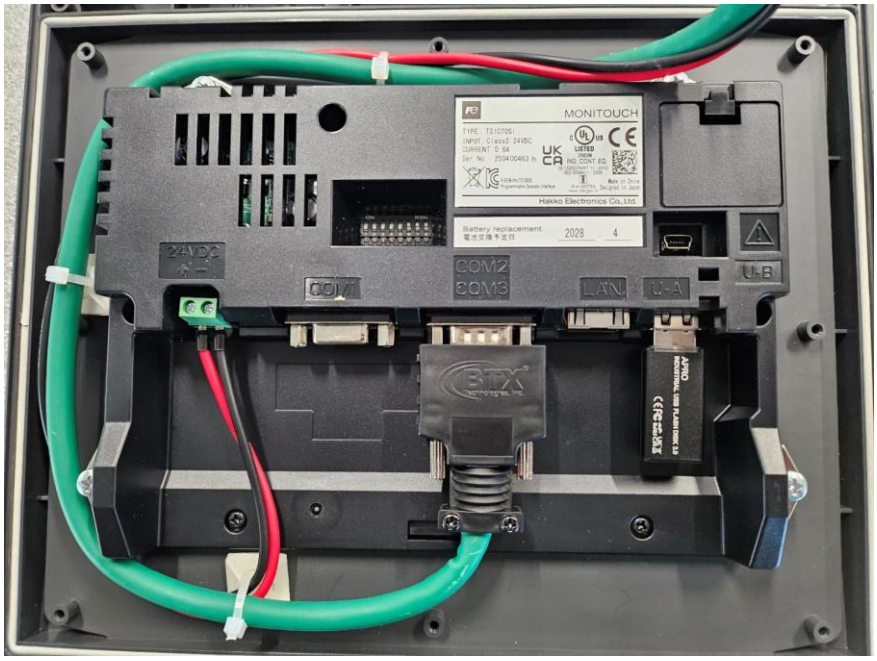



Figure 42 – USB stick attached to the V•Touch touchscreen (USB on the right)

## 4.3.5 Data Retrieval via USB – V•Touch10-PM & V•Touch7-PM

For both panel-mounted versions, access to the USB flash drive depends on the panel configuration.

Before removing the USB flash drive, press and hold "Creation of recording files" for 2 seconds to save the latest logged data, then use "Storage Removal". Both commands are required to prevent any data loss.

Steps 2-5 are applicable from the previous sections (see § 4.3.3 and § 4.3.4), however the initial and the final steps depend on local arrangements – unimpeded access to the back of the touchscreen is essential for the safe removal of the USB drive.

- The **end user is purely responsible** for this action to take effect and Dalemans sa/nv cannot be held responsible for any data loss stemming from lack of access to the back of the touchscreen.

## 4.3.6 Data Retrieval from a CSV File

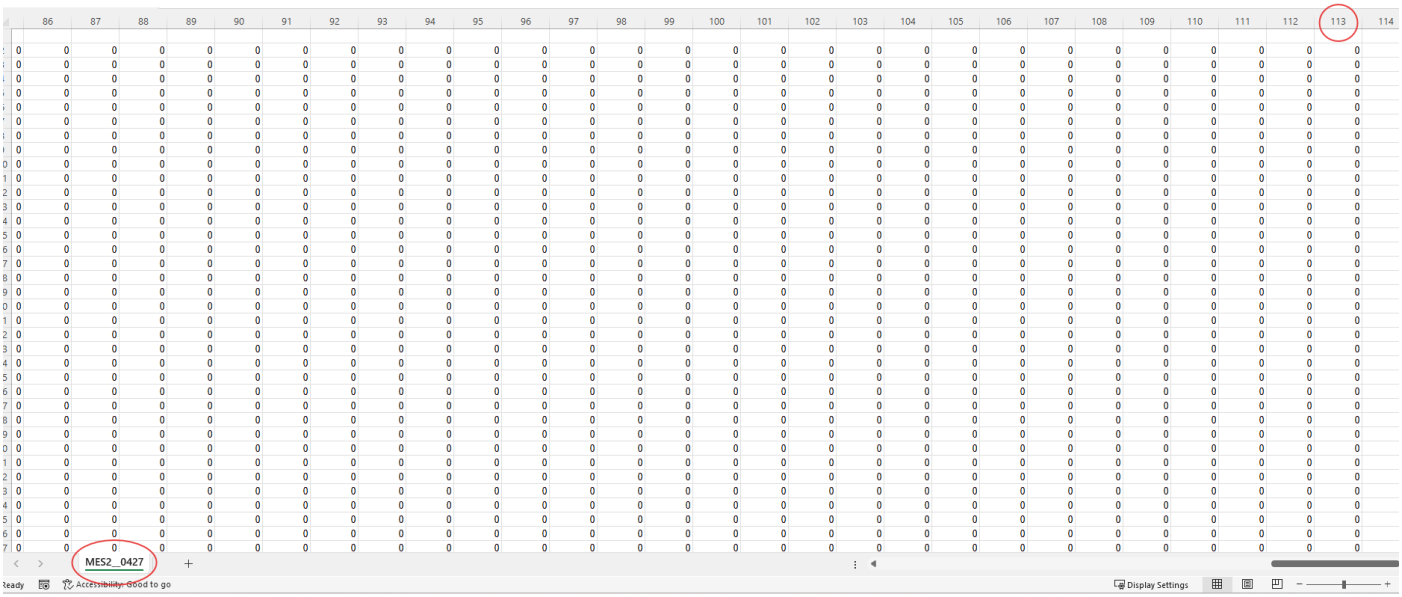
A CSV (**C**omma **S**eparated **V**alues) file is a plain-text file that stores tabular data. Each line represents a row, with values separated by commas.

A CSV file typically contains a header row followed by data rows. You can view the data in a spreadsheet application such as Excel.

### 4.3.6.1 CSV File – Measurements

For an S•Line Control Unit connected to 240 CAN bus detectors, each CSV row contains measurements for up to 128 detectors (see Figure 43). A second file contains measurements for the remaining 112 detectors (see Figure 44).

Figure 43 – 128 detectors for one line (column 1 shows the date and time, that is why there are 129 columns appearing)



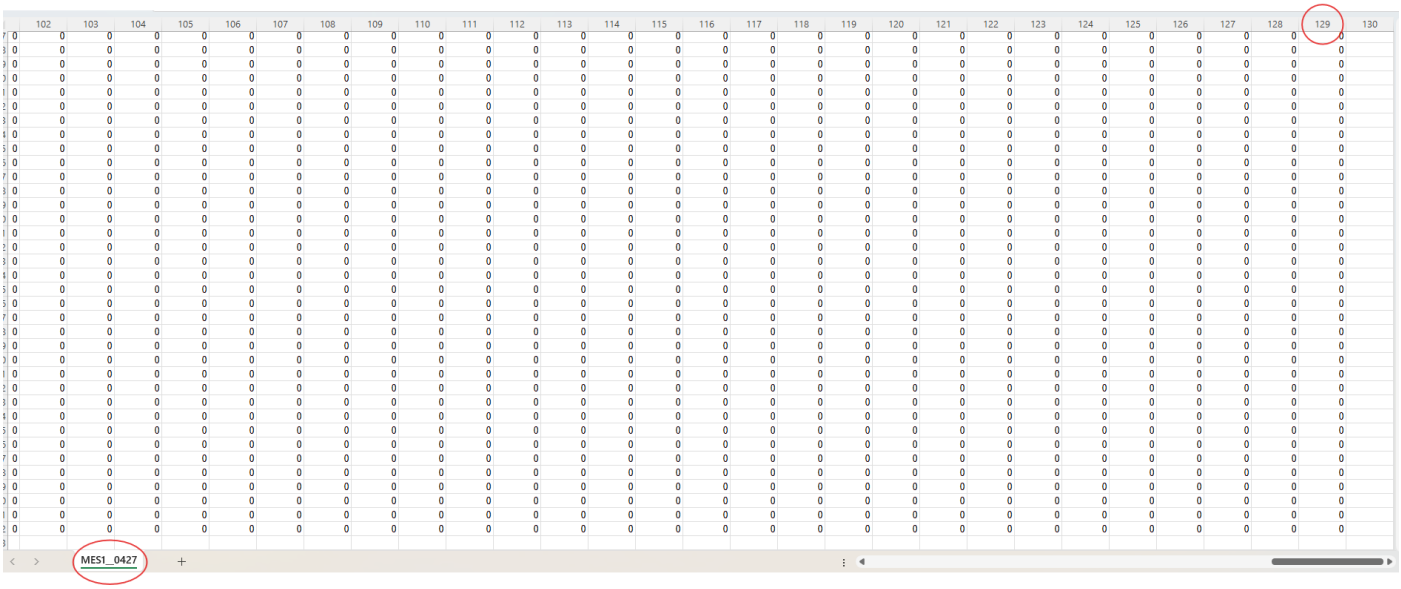




Figure 44 – 112 detectors on the 2nd line on MES2 file (column 1 shows the date and time, that is why there are 113 columns appearing)

Column 1 shows the date and time of each measurement. Measurements are logged every 5 minutes, with the final measurement at midnight (see Figure 45 and Figure 46).

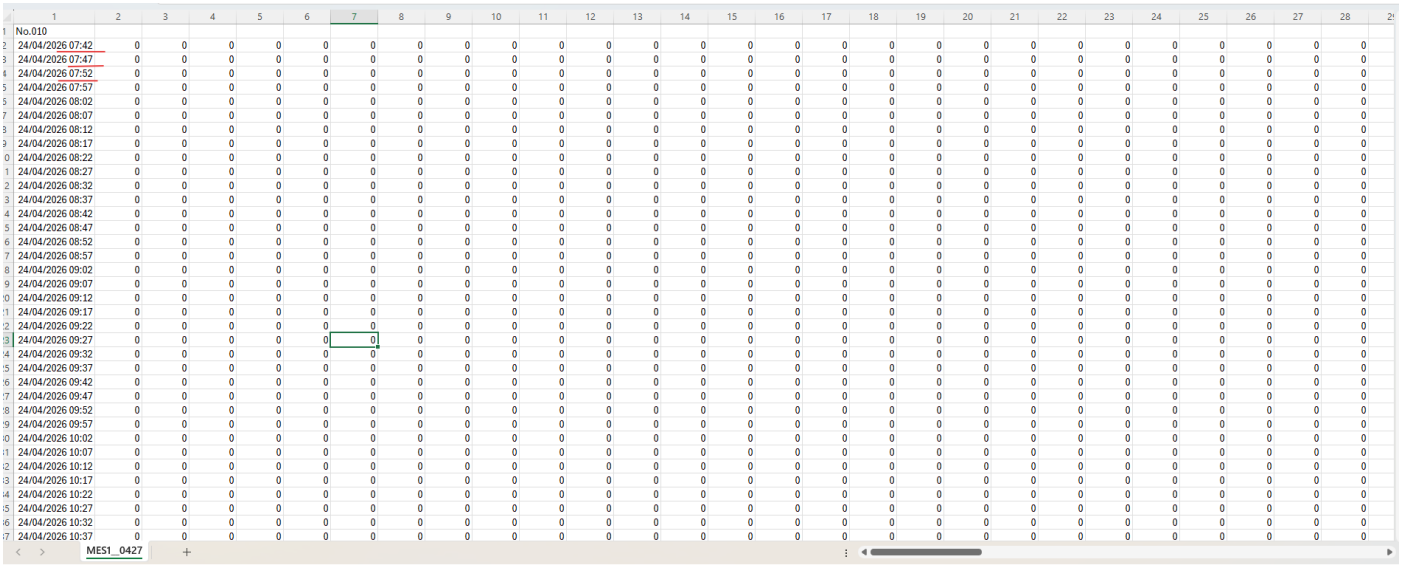



Figure 45 – CSV Measurements file (logged data every 5 minutes)

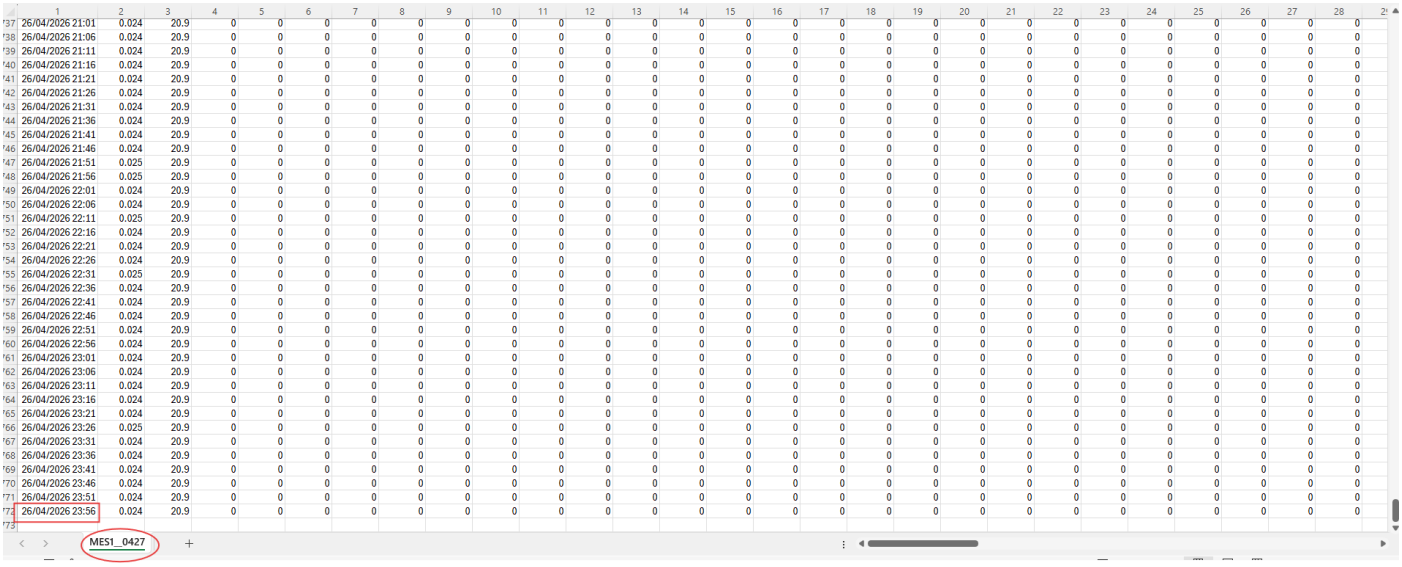


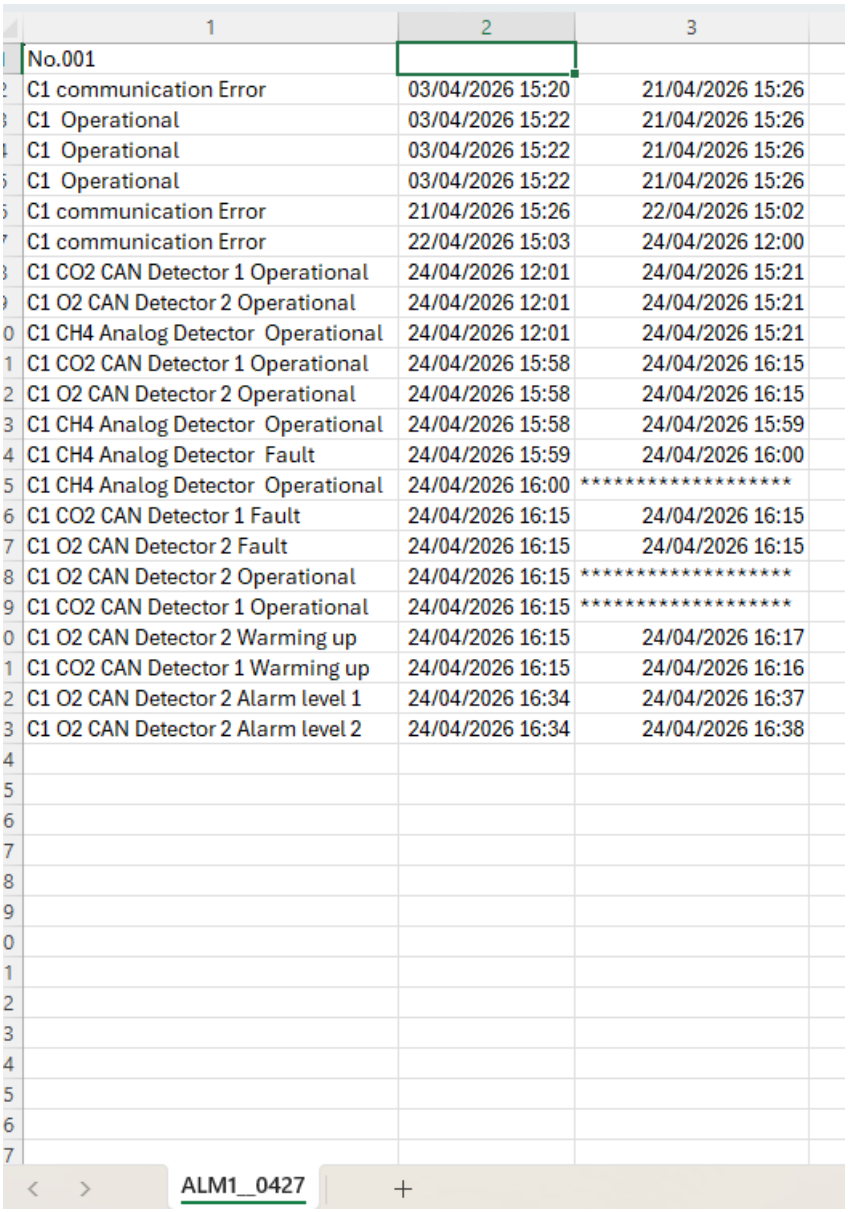

Figure 46 – Last measurement at midnight for MES1 (Measurement 1)

## 4.3.6.2 CSV File – Alarms

As mentioned earlier (see §4.3.2), the logged data for the alarms is stored in the Alarms folder (see Figure 39). On the CSV file, there are 3 columns (see Figure 47):

- The 1st column gives the Control Unit name (C1 in our example), and a description of the alarm
- The 2nd column presents the date and time of the start of the alarm
- The 3rd column gives the date and time of the end of the alarm

Asterisks indicate that the event was still ongoing when the data was retrieved, so no end date or time could be recorded.



| | 1 | 2 | 3 |
|---|---|---|---|
| 1 | No.001 | | |
| 2 | C1 communication Error | 03/04/2026 15:20 | 21/04/2026 15:26 |
| 3 | C1 Operational | 03/04/2026 15:22 | 21/04/2026 15:26 |
| 4 | C1 Operational | 03/04/2026 15:22 | 21/04/2026 15:26 |
| 5 | C1 Operational | 03/04/2026 15:22 | 21/04/2026 15:26 |
| 6 | C1 communication Error | 21/04/2026 15:26 | 22/04/2026 15:02 |
| 7 | C1 communication Error | 22/04/2026 15:03 | 24/04/2026 12:00 |
| 8 | C1 CO2 CAN Detector 1 Operational | 24/04/2026 12:01 | 24/04/2026 15:21 |
| 9 | C1 O2 CAN Detector 2 Operational | 24/04/2026 12:01 | 24/04/2026 15:21 |
| 10 | C1 CH4 Analog Detector Operational | 24/04/2026 12:01 | 24/04/2026 15:21 |
| 11 | C1 CO2 CAN Detector 1 Operational | 24/04/2026 15:58 | 24/04/2026 16:15 |
| 12 | C1 O2 CAN Detector 2 Operational | 24/04/2026 15:58 | 24/04/2026 16:15 |
| 13 | C1 CH4 Analog Detector Operational | 24/04/2026 15:58 | 24/04/2026 15:59 |
| 14 | C1 CH4 Analog Detector Fault | 24/04/2026 15:59 | 24/04/2026 16:00 |
| 15 | C1 CH4 Analog Detector Operational | 24/04/2026 16:00 | ********** |
| 16 | C1 CO2 CAN Detector 1 Fault | 24/04/2026 16:15 | 24/04/2026 16:15 |
| 17 | C1 O2 CAN Detector 2 Fault | 24/04/2026 16:15 | 24/04/2026 16:15 |
| 18 | C1 O2 CAN Detector 2 Operational | 24/04/2026 16:15 | ********** |
| 19 | C1 CO2 CAN Detector 1 Operational | 24/04/2026 16:15 | ********** |
| 20 | C1 O2 CAN Detector 2 Warming up | 24/04/2026 16:15 | 24/04/2026 16:17 |
| 21 | C1 CO2 CAN Detector 1 Warming up | 24/04/2026 16:15 | 24/04/2026 16:16 |
| 22 | C1 O2 CAN Detector 2 Alarm level 1 | 24/04/2026 16:34 | 24/04/2026 16:37 |
| 23 | C1 O2 CAN Detector 2 Alarm level 2 | 24/04/2026 16:34 | 24/04/2026 16:38 |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |
| 37 | | | |

ALM1_0427

Figure 47 – Alarms CSV file

# 5 REMOTE ACCESS

VNC (**V**irtual **N**etwork **C**omputing) is a graphical desktop-sharing system that enables remote control of another computer. It transmits user input and screen updates over a network.

There are numerous free VNC applications (AnyDesk, TigerVNC, RealVNC, JollysFastVNC, UltraVNC, etc…) for the user to download and use.

Dalemans sa/nv has used UltraVNC Viewer internally. The following instructions describe the main steps for establishing remote access. Other applications use similar connection principles, although their interfaces may differ. Ensure that you have the correct IP address of the V•Touch to which you want to connect. When you launch the software, the welcome screen appears (see Figure 48).

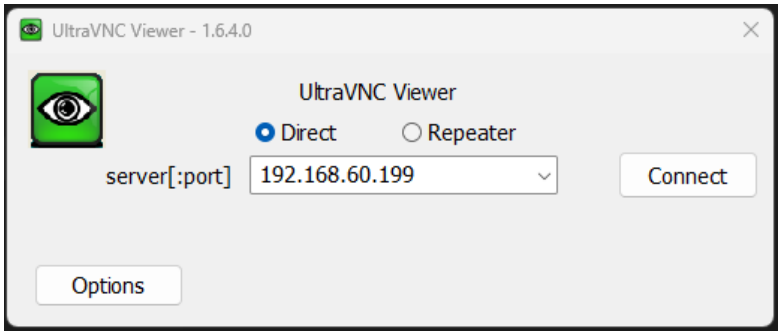



Figure 48 – UltraVCN Viewer welcome screen

## 5.1 Connection Instructions – DAL 4x240 Software

1. Run the software from your pc. Make sure that the correct IP is shown on the "Server[:port] box (or type the correct IP of the V•Touch – in our example 192.168.60.199), then click **Connect** → two pop-ups appear (see Figure 49)

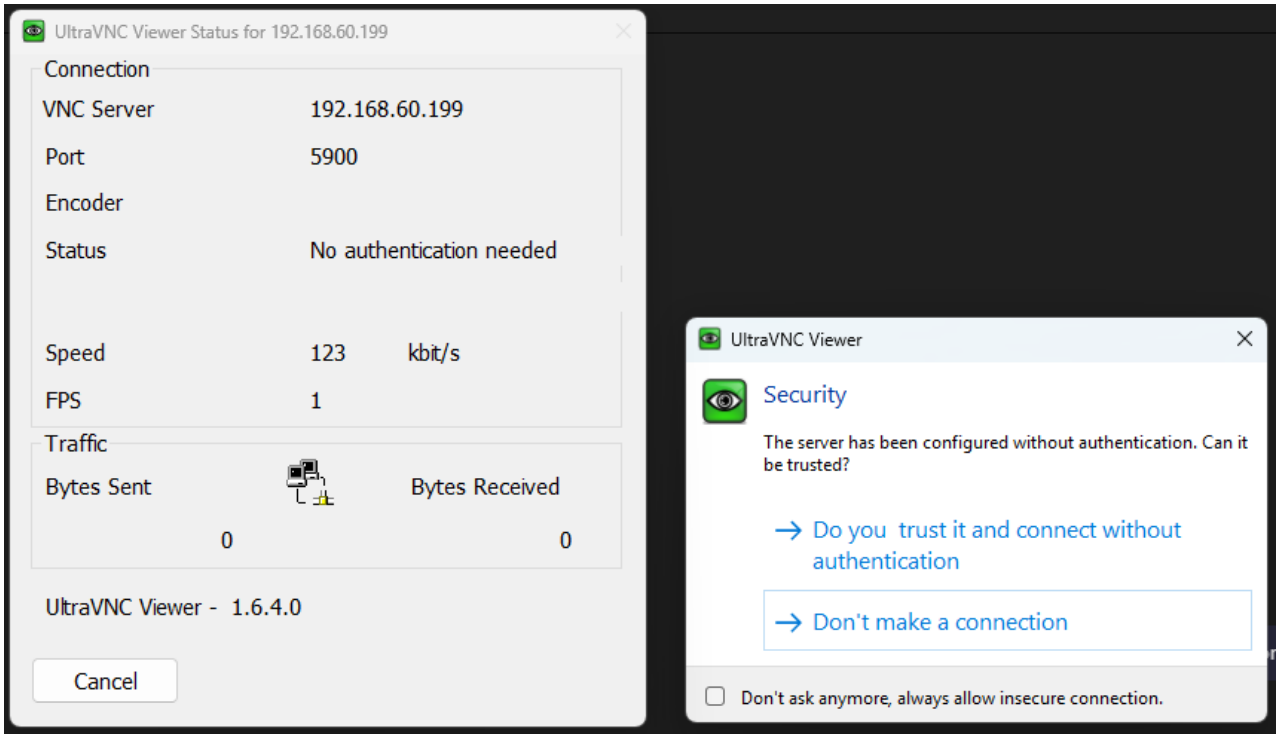



Figure 49 – UltraVCN Viewer connection screen

2. Click on the small pop-up (the one on the right), on "Do you trust it and connect…." → Another pop-up appears, the **User Authentication** screen (see Figure 50).

- For User password, please contact Dalemans sa/nv.
- Both **username** and **password** are **case sensitive**

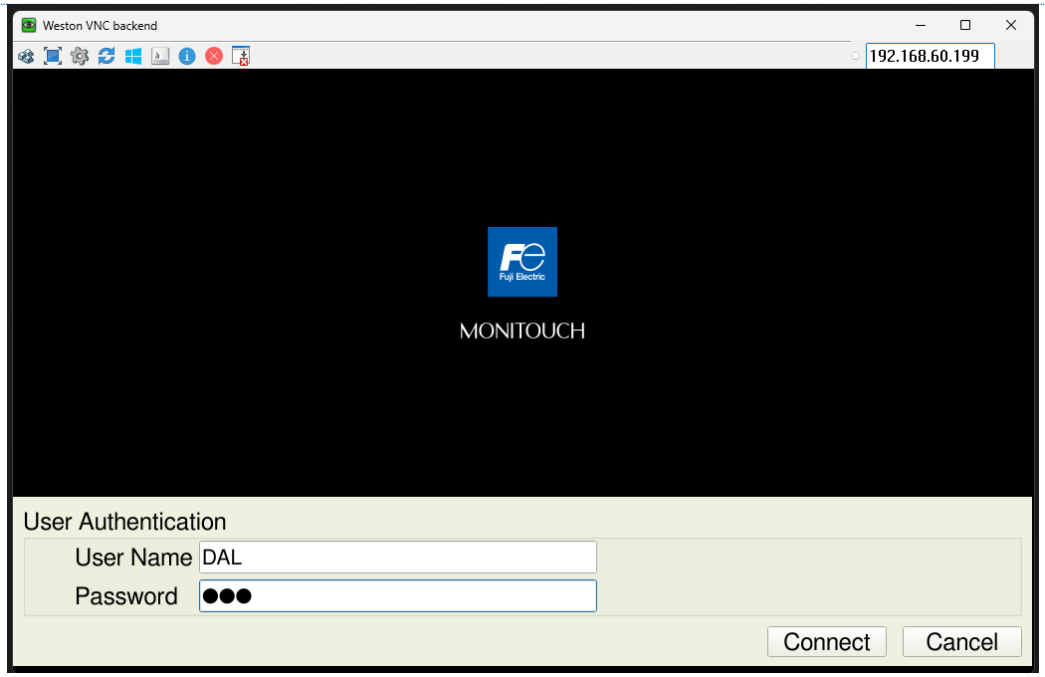



Figure 50 – User Authentication screen

3. → If the connection is successful, the System Information screen appears (see Figure 51 – this is the monitor manufacturer's software).

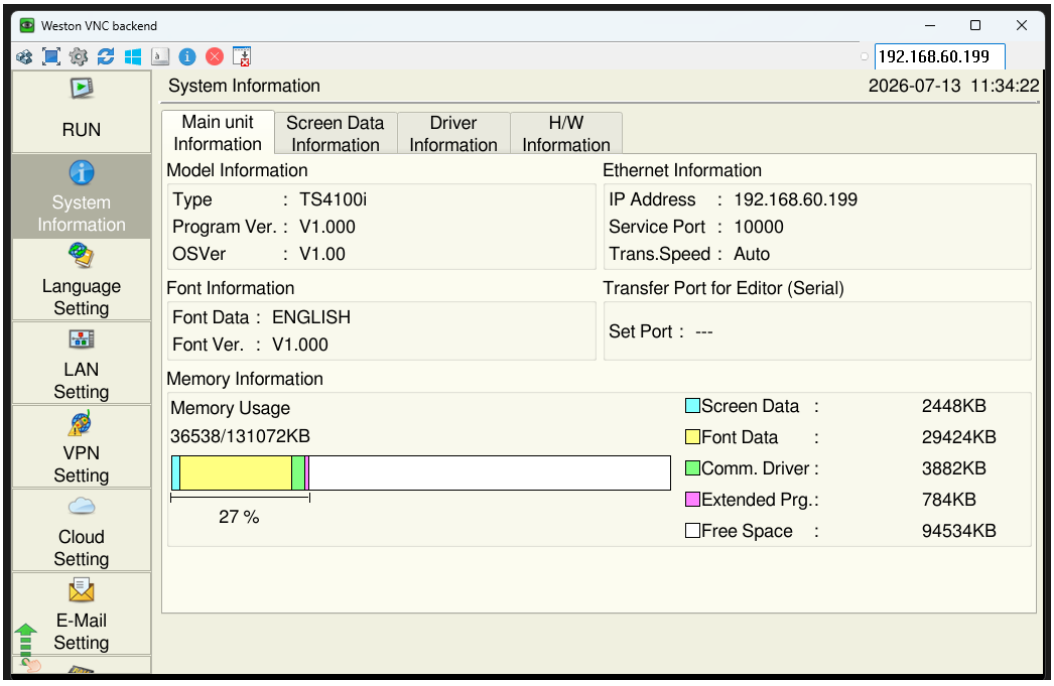



Figure 51 – UltraVCN Viewer System Information screen

4. To open the welcome screen, click RUN in the top-left corner of the screen.
5. The Transmitters Settings Screen appears (see Figure 52)

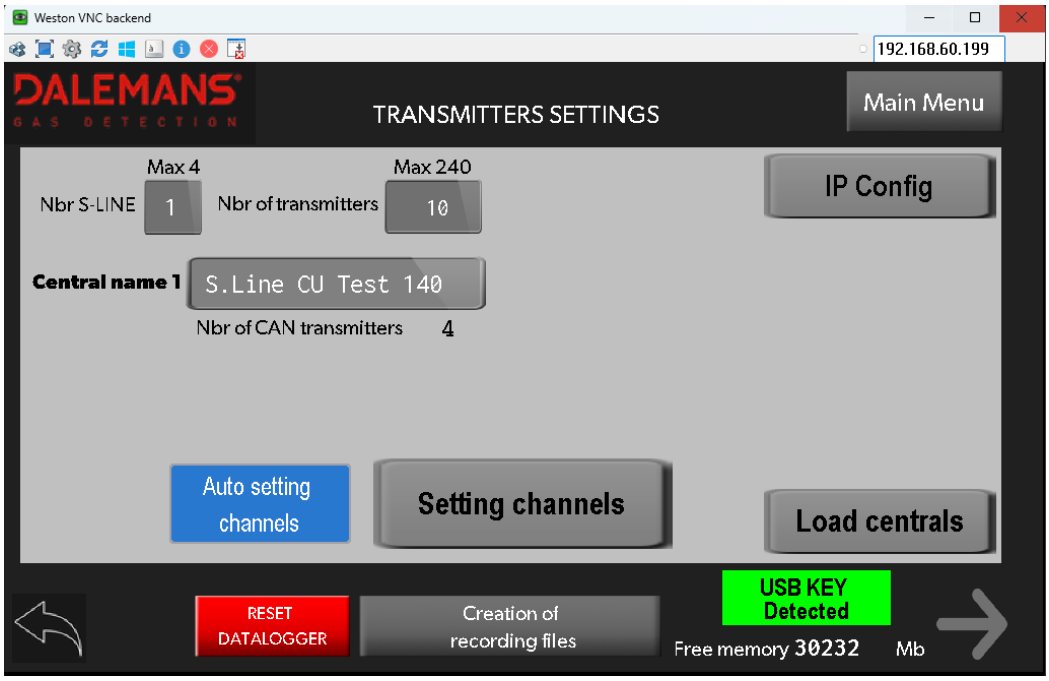



Figure 52 – Welcome Screen after connection with UltraVNC Viewer

6. Proceed as normal (see § 3.1 DAL 4x240 Software) to visualise all parameters needed.

The remaining steps are the same as described in § 3.1 DAL 4x240 Software.

## 5.2 Connection Instructions – DAL 4x16 Software

Follow the connection and authentication instructions for the DAL 4x240 software(see § 5.1). With DAL 4x16, the home screen appears directly at startup, without passing through the display manufacturer's system screen or pressing RUN (see Figure 53).

Proceed as normal (see § 3.2 DAL 4x16 Software) to visualise all parameters needed.

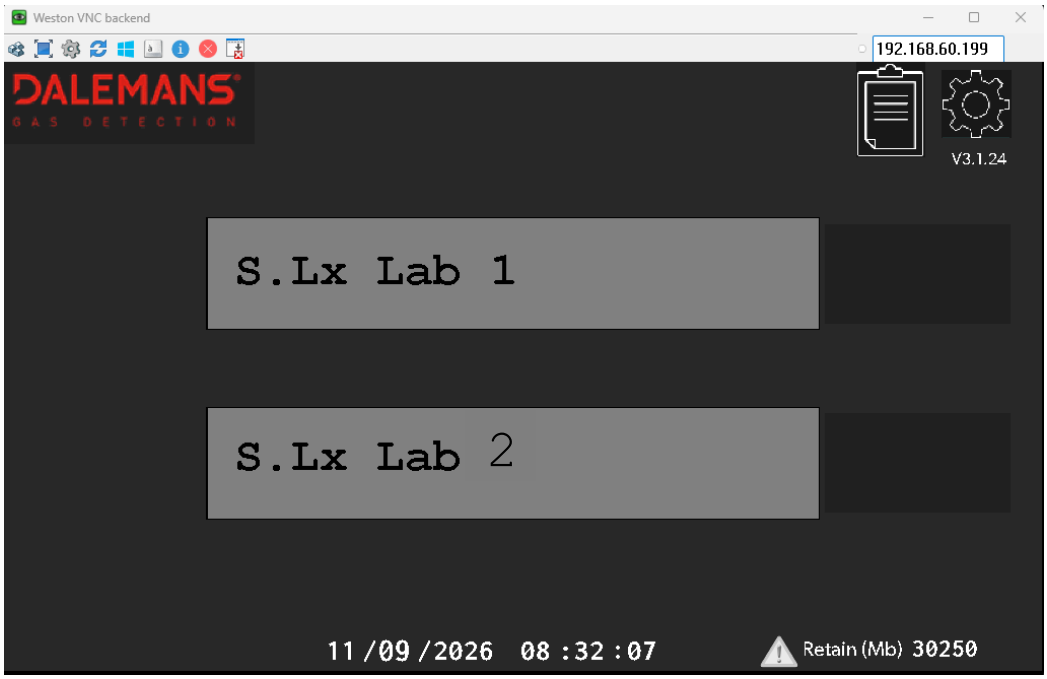



Figure 53 – Welcome Screen after connection with UltraVNC Viewer

The remaining steps are the same as described in § 3.2 DAL 4x16 Software.

# 6 SPARE PARTS & ACCESSORIES

## 6.1 Spare Parts

Table 4 – Spare Parts list with their corresponding reference numbers

| Part name | Part Description | Reference n° |
|---|---|---|
| **Power Supply** | 24V/1A DIN Rail | 00155 |
| **Fuse & Fuse holder** | Fuse 10A 250V 20mm SLOW | 01704 |
| **RTC Coin** | CR2032 Battery | 00932 |
| **Waterproof gasket 7"** | V•Touch 7" Sealing Gasket | 04019 |
| **Waterproof gasket 10"** | V•Touch 10" Sealing Gasket | 04020 |
| **Cable Entry Kit (10" Enclosure)** | Blanking Plugs Kit | 03910 |
| **Cable Entry Replacement Kit** | Cable entry block - Left | 03718 |
| **Cable Entry Replacement Kit** | Cable entry block - Right | 03719 |
| **Door Key (for V•Touch 10-E)** | Enclosure's key | 03796 |

## 6.2 Accessories

Table 5 – List of Accessories with their corresponding reference numbers

| Part Name | Part Description | Reference n° |
|---|---|---|
| **Ethernet Switch** | Switch Ethernet 5-PORTS RJ45 | 03552 |
| **Mounting Kit (for V•Touch 7-E)** | Mounting bracket kit | 01040 |
| **Mounting Kit (for V•Touch 7-E)** | DIN Rail Mounting Kit | 01041 |

# 7 SPECIFICATIONS

Table 6 – V•Touch's Characteristics

| Characteristic | V•TOUCH7-E | V•TOUCH7-PM | V•TOUCH10-E | V•TOUCH7-PM |
|---|---|---|---|---|
| **Housing Material** | ABS-PC UL 94 V-0 | Plastic | Powder coated steel | Plastic |
| **Dimensions (HxWxD)** | 265x230x125 mm | 198..8x141.8x38 mm | 265x230x125 mm | 266..8x206.8x38 mm |
| **Panel Cutout** | N/A | 189x134 (+0.5/-0) mm | N/A | 257x199 (+0.5/-0) mm |
| **Weight** | 1.6 kg | 0.6 kg | 8 kg | 1.1 kg |
| **Screen Type** | WVGA 800x480 dots Resistive touchscreen | | SWVGA 1024x600 dots Resistive touchscreen | |
| **Screen Size** | 7" Widescreen | | 10.1" Widescreen | |
| **Software Features** | Gas Concentration Visualisations | | | |
| | Clear color-coded alarm and fault statuses | | | |
| | Concentration trends visualisation | | | |
| | Datalogging with local filesystem, remote access through FTP protocol | | | |
| | Display remote access – Integrated VNC server | | | |
| **Network Interface** | LAN: Ethernet RJ45 with MODBUS TCP protocol | | | |
| | COM1: RS-422/RS-485 (D-Sub 9pin female) | | | |
| | COM2 – COM3: RS-232C/RS-485 (D-Sub 9pin male) | | | |
| **USB Ports** | USB-A x1, USB-mini-B x1 (Ver. 2.0) | | | |
| **Operating Voltage** | 90-264 V AC ~ 50Hz | 22-26 V DC | 90-264 V AC ~ 50Hz | 22-26 V DC |
| **Power Consumption** | 8W | | 10W | |
| **Operating Temperature** | 0 °C to +50 °C | | | |
| **Humidity & Altitude** | Up to 85% RH (non-condensing) - Max 2000m - Not to be exposed to corrosive gas or conductive dust | | | |
| **Wiring** | Ethernet S/FTP Ø0.25mm$^2$ (Network) Min Ø0.5mm$^2$ (Power) | | | |
| **Cable Entries** | 11 x M20 + 8 x M16 | N/A | 5x Ø3.2-6.3mm<br>16x Ø4-7.5mm<br>5x Ø5.5-10.5mm<br>12x Ø8-12.5mm | N/A |
| **Housing Ingress Protection** | IP65 | Front case: IP65<br>Rear case: IP20 | IP55 | Front case: IP65<br>Rear case: IP20 |
| **Certifications** | Electromagnetic compatibility (EMC) - EN 61000-6-2, 6-4 | | | |
| | Electrical Safety (LVD) - UL 61010-1 / UL 61010-2-201 | | | |
| | CE / UKCA / BIS / KC / UL / cUL | | | |

# A. CONTINUOUS IMPROVEMENT (KAIZEN)

Dalemans sa/nv is dedicated to having a continuous effort in improving the quality and usefulness of its publications. To do this efficiently, we need your feedback.

Please do not hesitate to inform us on the completeness, accuracy, organisation, useability and readability of this manual. Your feedback can be sent to sales@dalemans.com, listing the page and paragraph of any errors or misinterpretations you may find.

We also welcome your suggestions for any possible improvements we can apply to the next revision of this manual.

Thank you in advance for your cooperation!

DALEMANS GAS DETECTION

EN

# V•Touch

TOUCHSCREEN DISPLAYS

FOR GAS DETECTION REMOTE MONITORING

# USER MANUAL

DALEMANS®

GAS DETECTION

rue Jules Mélotte 27A | B-4350 Remicourt (Belgium)

Tel: +32 19 33 99 43 | e-mail: sales@dalemans.com

**www.dalemans.com**