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2 STANDARDS AND CERTIFICATION

The MD300 control panel for fire detection and fire warning in buildings is constructed in accordance with European standards EN54-2:1997/A1:2006 and EN54-4:1997/A1:2002/A2:2006.

3 DESCRIPTION OF THE MD300 CONTROL PANEL

The MD300 conventional fire detection control panel is a detection system with loop identification. The purpose of a fire detection and fire warning system is to provide early warning of the occurrence of a fire by means of automatic smoke and/or heat detectors and to warn the person responsible of a possible danger by means of manual call points.

The building is divided into different zones for the connection of the automatic fire detectors and the manual call points to the fire detection control panel.

In the event of a fire alarm or fault message, the name of the detector loop is displayed on the LCD with Touch screen. This loop name describes the part of the building where the automatic fire detectors or manual call points of the corresponding loop are installed. The loop names are programmed into the system at the customer's request during commissioning.

The MD300 conventional fire detection control panel is a compact detection system, built into a plastic housing with a transparent door. The housing contains the operator front, the power supply, the batteries and all electronics for reading detector loops and for controlling the outputs. The MD300 non-modular control panel is equipped with 16 detector loops as standard.

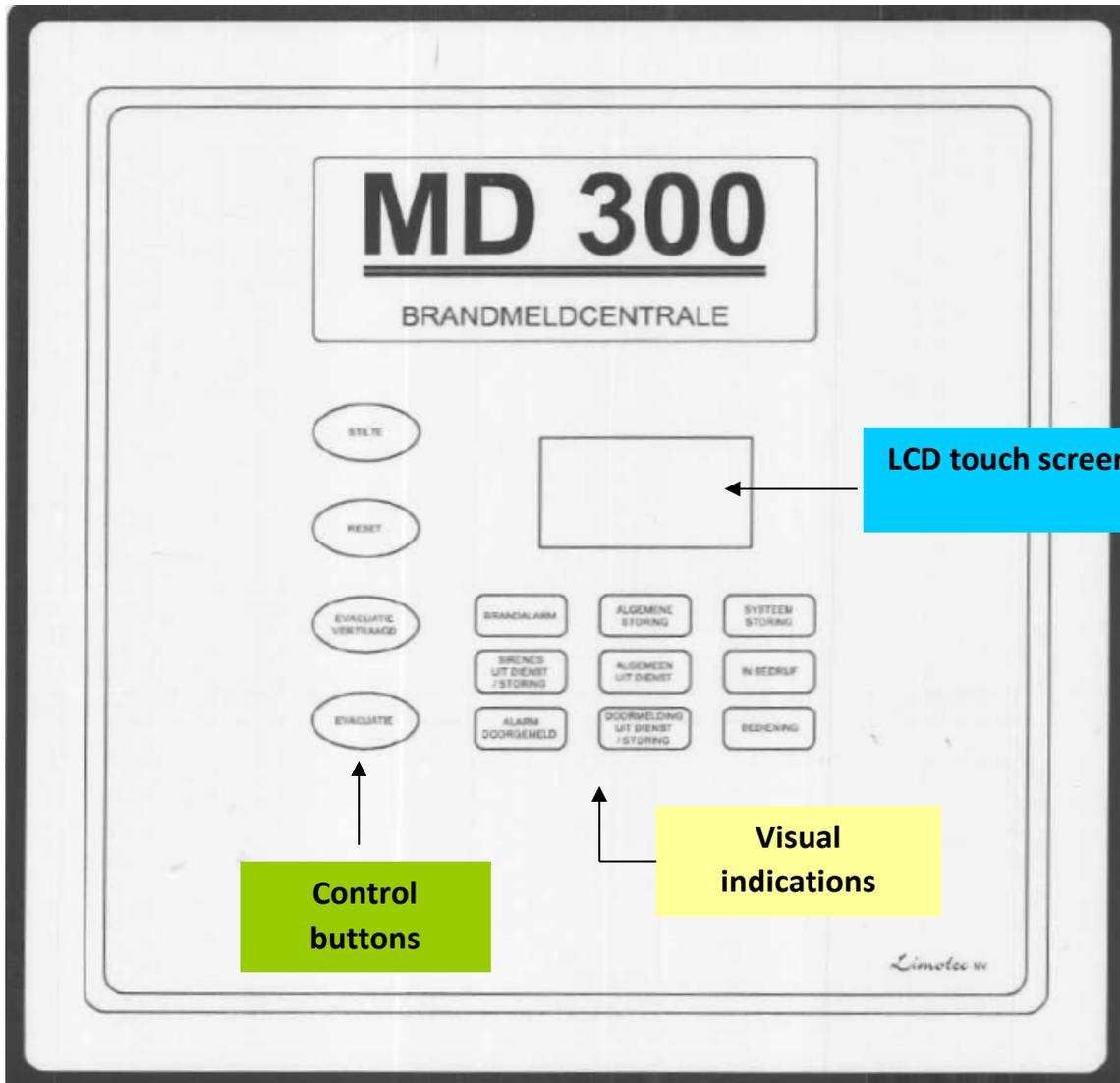
The MD300 control panel is equipped with a serial Input/output bus as standard, to which up to 8 repeater panels and 8 extension relay cards can be connected.

The operator console of the MD300 control panel contains all the visual indications and is equipped with four capacitive buttons for the functions "SILENCE", "RESET", "EVACUATION" and "EVACUATION DELAYED".

All other operations, such as querying the status of a detector loop and switching off loops, are carried out by means of the LCD with a touch screen and a clear menu structure.

4 THE OPERATOR CONSOLE OF MD300 CONTROL PANEL

4.1 AN OVERVIEW



4.2 DESCRIPTION

4.2.1 LCD WITH TOUCH SCREEN

The Liquid Crystal Display with Touch screen, in addition to the pilot screen and an informative line with the current status of the system, also visualizes the event screen with all the fire alarm and fault messages of the MD300 control panel and the various menu function screens for setting and analysing the various system parameters. Provided you touch the screen in a place without text and without a function key, you can switch between the pilot and event screens.

The LCD of the MD300 control panel is equipped with a background LED light, which lights up every time the screen is touched or a control button is pressed and every time there is a new fire alarm or fault message on the system.

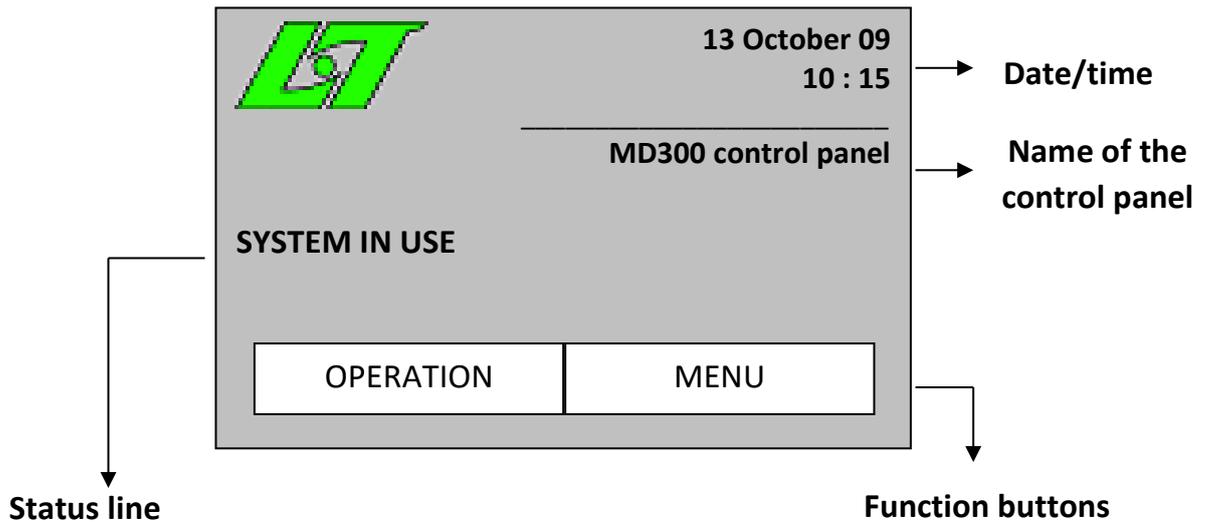
To reduce the power consumption of the control panel to a minimum, the background LED lighting is automatically switched off 3 minutes after the last operation or announcement.

In addition to the text information, the screen also contains a number of control buttons that can be activated by touching the screen, with a finger or with a control pin.

The operation of a button on the LCD will only be taken over by the system after ***slight pressure*** has been exerted.

Operating the LCD with touch screen with a sharp object can result in permanent damage to the display!

4.2.2 THE PILOT SCREEN



The pilot screen appears as soon as the control panel is at rest (there are no fire alarm or fault messages on the system).

The text “MD300 (control panel)” is the default control panel name. This name can be changed at the user’s request during system commissioning. All the other texts, on the other hand, cannot be adapted.

The status line indicates the general state of the control panel and can contain the following messages:

- **« SYSTEM IN USE »**
The MD300 control panel is at rest. There is no alarm or fault message present on the system and all the detector loops are “in service” and “out of test”. The system is in the normal monitoring condition and will handle all fire alarms and technical failures according to standard operation.
- **« OUT OF SERVICE »**
<Loop number><Loop name>
All fire detectors connected to the respective detector loop are completely switched off and therefore cannot generate any messages. If several detector loops are “out of service” at the same time, the loop names are scrolled in a continuous cycle on the second text line of the status line. The remaining detector loops remain in normal operation.
- **« IN TEST »**
<Loop number><Loop name>
Fire alarm and fault messages from fire detectors connected to the respective detector loop are normally shown on the display. The built-in buzzer in the control panel and the output controls for warning and evacuation, on the other hand, are not activated. The built-in buzzer of any connected repeater panels is also not activated. If several detector loops are simultaneously in the mode “IN TEST”, the loop names are scrolled in a continuous cycle on the second text line of the status line. The remaining detector loops remain in normal operation.
- **« TECHNICIAN »**
<remaining time in minutes until automatic reset of technician mode>
When the system is being serviced or repaired, the service technician can put the MD300 control panel into the mode “TECHNICIAN”. In this mode of operation, the entire control panel

is "IN TEST". No message will activate either the built-in buzzer of the control panel and the repeater panels or the output controls. The control panel will automatically exit the "TECHNICIAN" mode after 2 hours. The time remaining for automatic switch-off in the "TECHNICIAN" mode, expressed in minutes, is displayed continuously on the second line of the status line.

- **« LOOP TEST »**

<Loop number><Loop name>

In order to test all connected fire detectors easily, the service technician can set individual loops in the mode "LOOP TEST" during system start-up or maintenance. The loop number and loop name of the detector loop in test are displayed on the second text line of the status line. The fire alarms of a loop placed "in test" are only indicated on the display of the MD300 control panel and do not activate the built-in buzzer of the control panel or the repeater panels. The output controls for warning and evacuation are placed completely "out of service". The control panel will automatically exit the "LOOP TEST" mode after 1 hour. The fault messages of a detector loop in the "LOOP TEST" mode are reported in the normal way.

- **« CLOSE JUMPER »**

<factory setting >

See installation guideline « Appendix D ».

- **« CLOSE JUMPER »**

<calibration>

See installation guideline « Appendix D ».

4.2.3 THE EVENT SCREEN

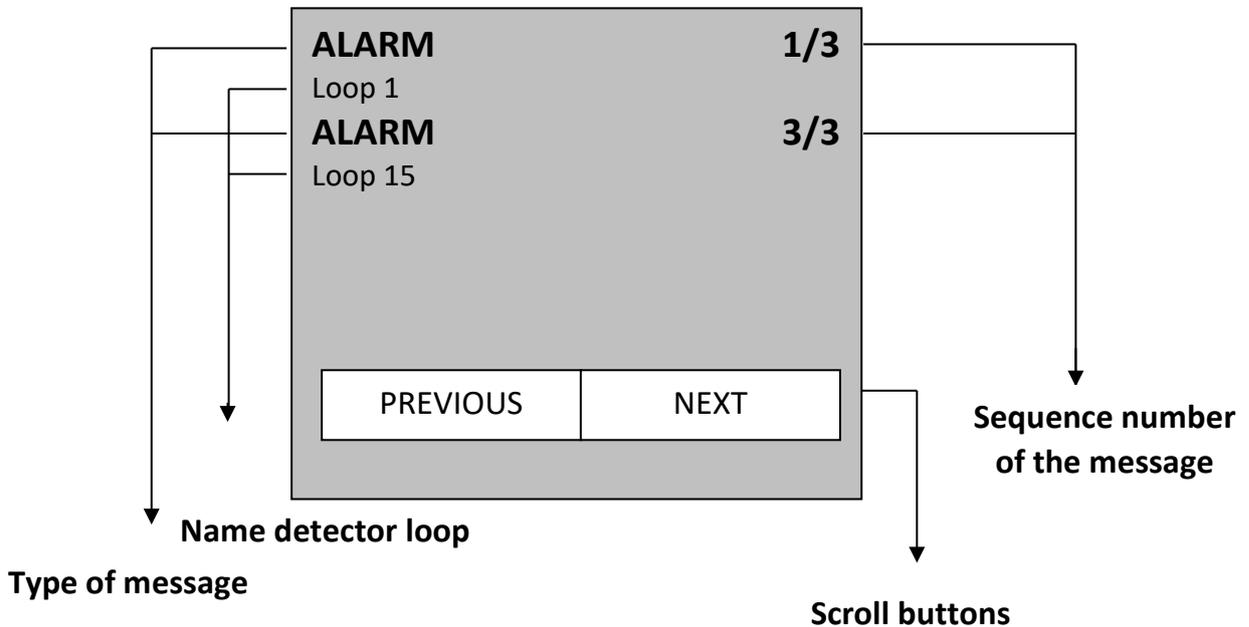
As soon as a fire alarm or a fault message is present on the system, the control panel leaves the pilot screen and the corresponding event is shown on the display. If you touch the screen in a location without any text or menu function button, you can return to the pilot screen again. Thirty seconds after the last operation, the event screen automatically reappears.

The event screen displays the information of up to 2 messages. Each message contains two lines of text. Fire alarm messages always have priority over fault messages.

The upper two lines of text contain the information relating to the first message. The bottom two lines of text show the information related to the last message. Using the menu buttons “PREVIOUS” and “NEXT”, the intermediate messages can be displayed on the upper two lines of text of the screen.

TYPES OF MESSAGES:

1. MESSAGES FROM A DETECTOR LOOP:



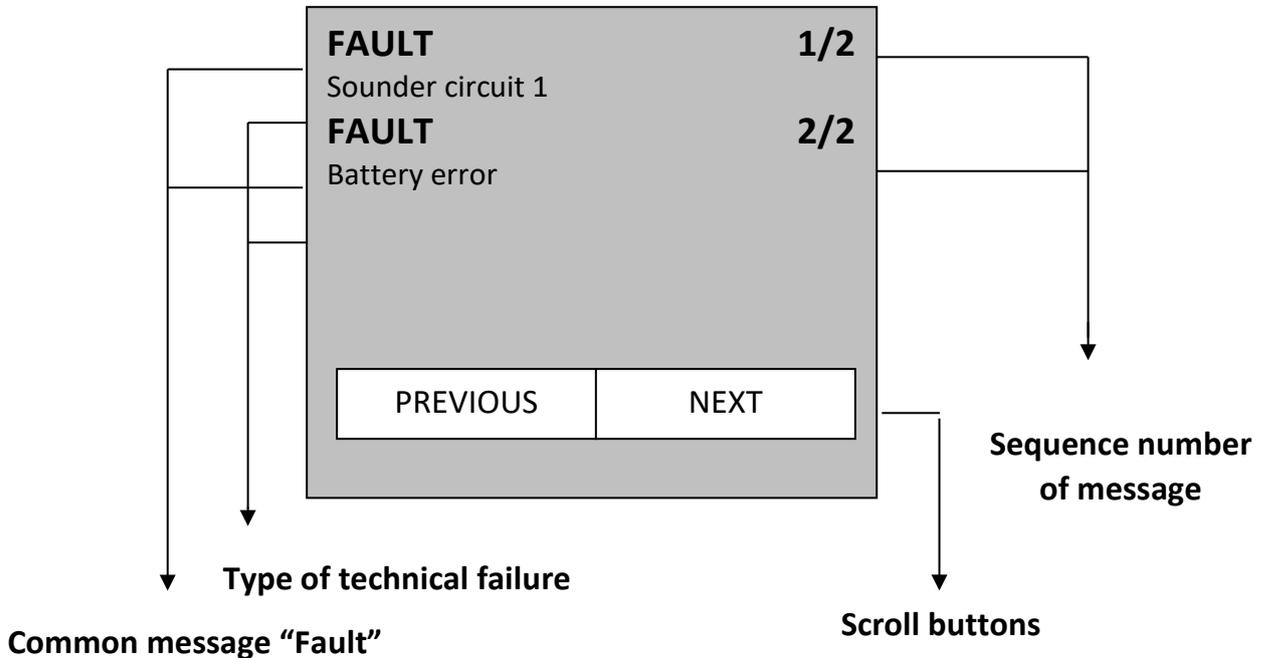
The first line of text states the type of message (e.g. ALARM) and the sequence number of the message (e.g. 1/3 is the first message out of a total of 3 messages). The second text line indicates the name of the detector loop that caused the message.

AN OVERVIEW OF THE TYPE OF MESSAGES:

- « **ALARM** »: fire alarm message from an automatic smoke or heat detector, a manual call point or an alarm contact from another detection system (e.g. a gas detection control panel).
- « **EVACUATION** »: alarm message from a detector loop equipped with evacuation call points or key switches. These detector loops have the same authority as the control button “EVACUATION” on the front of the MD300 control panel.
- « **OPEN** »: technical fault caused by an interruption in the wiring of the loop or by the removal of a fire detector from its base.
- « **SHORT** »: technical fault caused by a short circuit in the wiring of the loop.

- « **TECHNICAL FAILURE** »: indicates that a technical contact has been read. The message “TECHNICAL FAILURE” can be replaced by the text indicating the kind of failure (e.g. “VALVE CLOSED” during the monitoring of a sprinkler system).

2. COMMON FAULT MESSAGES



The first line of text states the text “FAULT” and the sequence number of the message (e.g. ½ is the first message out of a total of 2 messages). The second text line indicates the nature of the technical fault that caused the message

AN OVERVIEW OF THE TYPE OF MESSAGES:

- **POWER SUPPLY FAULTS:** the MD300 fire detection control panel is connected to the 230Vac mains voltage. In the event of a power failure, the built-in batteries automatically take over the operation of the control panel. Various checks and corresponding error messages are carried out:
 - « **MAINS VOLTAGE ERROR** »: this technical fault becomes active 30 minutes after a power failure. **Contact the technical service and, if necessary, your maintenance company to check the mains supply.**
 - « **BATTERY ERROR** »: the MD300 control panel monitors the presence of batteries every 10 minutes. In the absence of battery power, the system signals “BATTERY ERROR”. **Contact your service company to check the batteries.**
 - « **LOW BAT. TENSION** »: the batteries are capable of keeping the control panel in operation for a certain period of time after the mains voltage has been cut off. The autonomous operation of the control panel is determined by the capacity of the built-in batteries. The batteries are systematically discharged as soon as they take over the system’s power supply. At the end of autonomy, the batteries are approaching total discharge. This is characterized by a decrease of the battery voltage and is timely reported by the technical failure “LOW BAT. TENSION”. **If no action is taken, the system will automatically switch off shortly afterwards to prevent damage to the batteries.**

- « **BAT. ERROR INT. RESISTANCE** »: the batteries are checked every 3 hours for proper functioning. An ageing of the batteries can significantly reduce the autonomy of the control panel. A rejected battery is signalled by the technical fault “BAT. ERROR INT. RESISTANCE”. **Contact your service company for replacement of the batteries.**
 - « **FATAL BATTERY ERROR** »: this technical fault signals a defective battery. **Contact your service company for replacement of the batteries.**
- **SOUNDER CIRCUIT FAULTS**: the relay card, integrated in the fire detection control panel, is equipped with 3 relays with monitoring of the connected cables. An interruption or a short-circuit in the cabling is reported as a technical fault. Various checks and corresponding error messages are carried out:
- « **ALERT OUTPUT <relay number>** »: technical failure in the cabling of a siren circuit with warning sirens.
 - « **EVAC. OUTPUT <relay number>** »: technical failure in the cabling of a siren circuit with evacuation sirens.
 - « **TRANSMISSION <relay number>** »: technical failure in the cabling to the input of the telephone transmitter.
 - « **SOUNDER CIRCUIT <relay number>** »: technical failure in the cabling of a siren circuit that does not function as transmission or as warning/evacuation sirens.

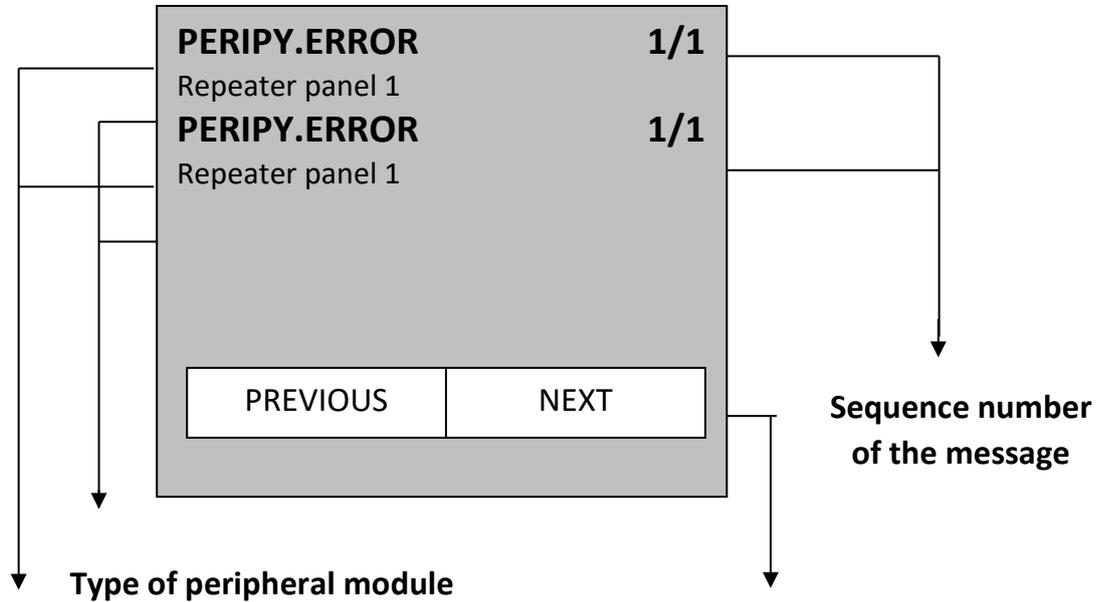
Contact your service/maintenance company in each of the above cases for a check on your fire detection system.

- **TECHNICAL FAULTS RELATING TO THE INTERNAL MONITORING OF THE MD300 CONTROL PANEL**:
- « **EXTERNAL CONTROLLER** »: the main processor of the MD300 control panel is monitored by an external processor. In case of failure of the main processor, the external processor will signal this with the LED “SYSTEM FAILURE”. The main processor also monitors the external processor. The failure of the external processor is signaled by the technical fault “EXTERNAL CONTROLLER”.
 - « **CAPACITIVE BUTTONS** »: the message that the function buttons « SILENCE », « RESET », « EVACUATION DELAYED » and « EVACUATION » are not working properly.
 - « **IC2 MEMORY TEST** »: the « Serial Flash » memory contains the parameters, the logbook and the current programming settings. The non-functioning of this “Serial Flash” memory is indicated by the technical fault “IC2 MEMORY TEST”.

Contact your service/maintenance company in each of the above cases for a check on your fire detection system.

3. SPECIFIC TECHNICAL ERRORS:

A. PERIPHERAL ERRORS:



Common message "PERIPY ERROR"

Scroll buttons

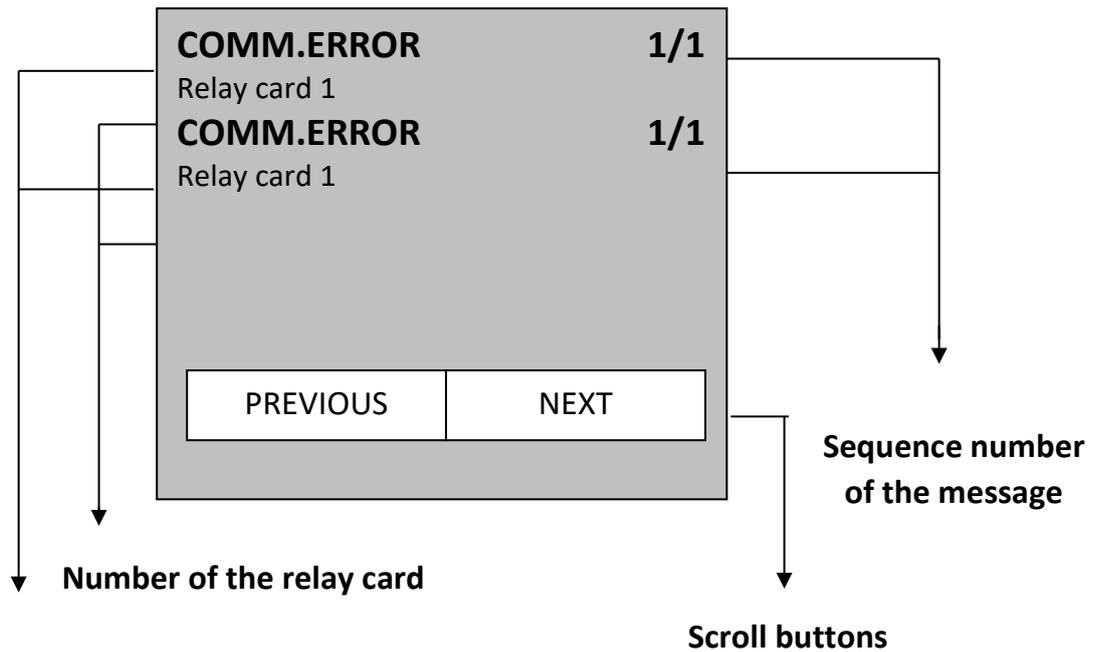
The first line of text shall include the text "PERIPY. ERROR" and the sequence number of the message. The second text line indicates the type and address of the peripheral module that caused the message. A peripheral module is an external module that is connected to the MD300 I/O bus.

There are 3 types of peripheral modules: repeater panels, extension relay cards and power supply monitors (internally installed in each control panel).

The proper functioning of the periphery is constantly monitored by the main processor. A failure of a peripheral module is signalled by the system as "PERIPY. ERROR".

Contact your service/maintenance company for a check of your fire detection system.

B. COMMUNICATION ERRORS:



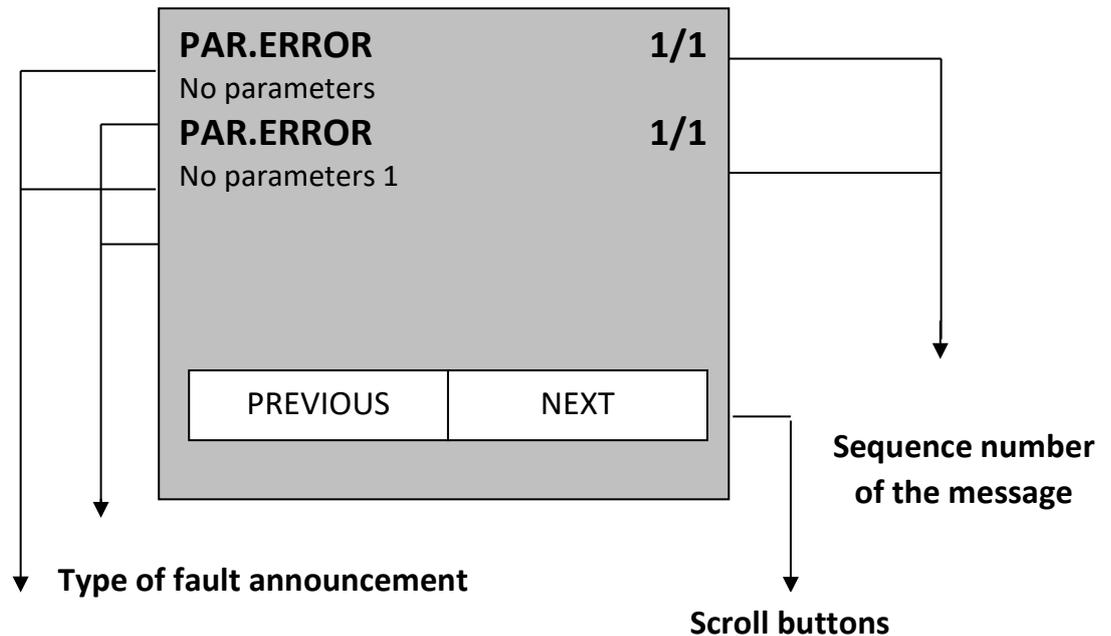
Common message "COMM.ERROR"

The first line of text shall include the test "COMM. ERROR" and the sequence number of the message. The second text line indicates the number of the relay card that caused the message.

A communication error signals a problem in controlling an output relay on an extension relay card.

Contact your service/maintenance company for a check of your fire detection system.

C. PARAMETER ERRORS:



Common message “PAR.ERROR”

The first line of text shall include the test “PAR. ERROR” and the sequence number of the message. The second text line indicates the nature of the parameter error that caused the message.

A parameter error signals a problem in setting the parameters of the MD300 fire detection control panel.

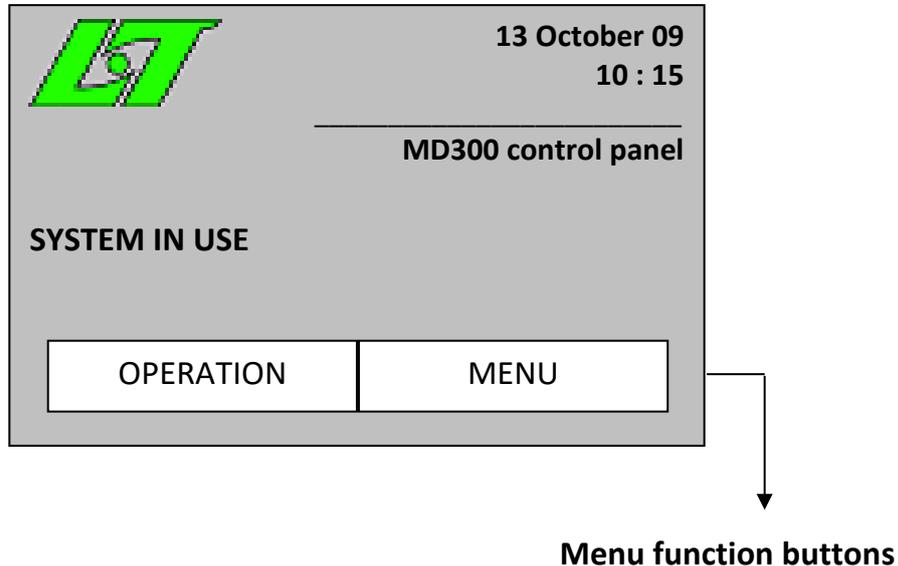
AN OVERVIEW OF THE POSSIBLE MESSAGES:

- « NO PARAMETERS »
- « IC2 – REFERENCE »
- « IC2 – CONTROL PANEL »
- « IC2 – LOOP »
- « IC2 – OUTPUT »
- « ABSENT – CONTROL PANEL »
- « ABSENT – LOOP »
- « ABSENT – OUTPUT »
- « CSUM – CONTROL PANEL »
- « CSUM – LOOP »
- « CSUM – OUTPUT »

Your system is no longer 100% operational! Contact your service/maintenance company in each of the above cases for a check on your fire detection system.

4.2.4 THE MENU SCREEN

In addition to the basic functions buttons « SILENCE », « RESET », « EVACUATION DELAYED » and « EVACUATION », the MD300 control panel can also be operated via a menu structure.



The MD300 control panel is equipped with 2 operating levels. Basic functions buttons and menu function buttons are linked to both levels:

- Operating level 1:

Only the basic function button “SILENCE” is available in level 1.

The following menu functions are available by means of the function button “MENU” on the pilot screen:

- « TEST LED »
- « LOGBOOK »
- « LANGUAGE »
- « INFO »

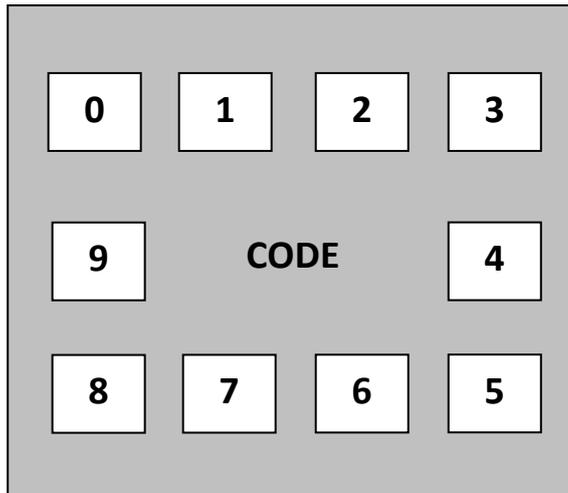
- Operating level 2:

Operating level 2 is only available after entering an access code. By pressing the function button “OPERATION”, the screen for entering the access code is displayed.

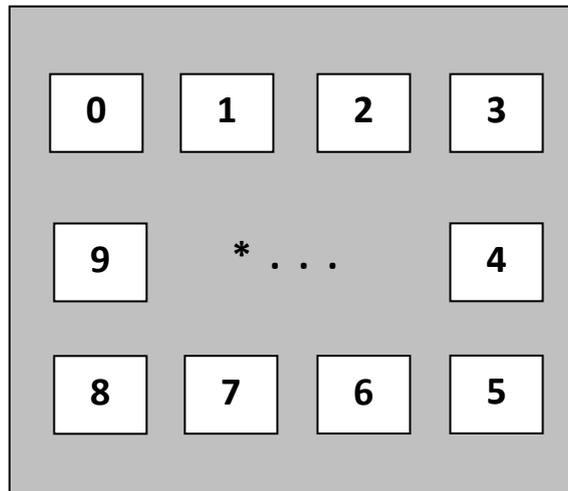
The access code is a combination of 4 digits and can be adjusted if required.

The factory code at the time of delivery is: **1 2 3 4**.

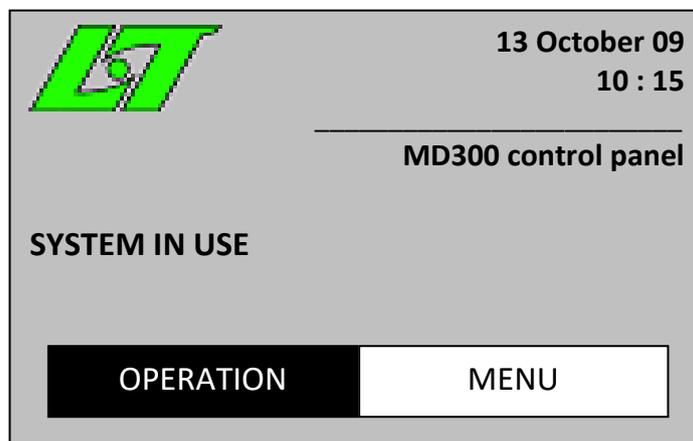
The screen for entering the access code:



It is possible to return to the pilot screen without entering an access code by pressing the text "CODE". After entering the first digit, the text "CODE" is replaced by the following:



Entering a digit of the access code is suggested by "*". If an incorrect code is entered, the system returns to the pilot screen. When entering a correct code, the system also returns to the pilot screen, but the function button "OPERATION" is colored black. The MD300 control panel is now in operating level 2.



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All basic function buttons of the MD300 control panel are now available. The buttons “RESET” and “EVACUATION” are indicated by a white background LED lighting.

The following menu functions can be performed using the function button “MENU” on the pilot screen:

- « SWITCH ON/OFF »
 - IN/OUT OF SERVICE
 - IN/OUT OF TEST LOOP
- « SETTING »
 - SYSTEM TIME
 - DIRECT EVACUATION
 - ACCESS CODE
- « ADVANCED »

Operation level 3 is reserved for qualified installers.

Pressing the black colored “OPERATION” button on the LCD will return you to operation level 1.

The MD300 fire detection control panel automatically returns to operation level 1 10 minutes after setting operation level 2.

4.3 THE BASIC FUNCTION BUTTONS

All basic function buttons of the MD300 control panel are equipped with a background LED lighting.

The function buttons “SILENCE” and “DELAYED EVACUATION” are equipped with a yellow background LED lighting.

The “RESET” and “EVACUATION” function buttons are equipped with a white background LED lighting.

The active position of these function buttons is indicated by the lighting up of the corresponding LED.

4.3.1 FUNCTION BUTTON “SILENCE”

By pressing the “SILENCE” button, the performer of this operation accepts the reported event on the MD300 control panel.

From now on, this person will be responsible for following up and dealing with this message.

- The function button “SILENCE” is always available.
- This button stops the built-in warning buzzer in the control panel. The yellow background LED lighting “SILENCE” lights up as soon as this button is pressed and turns off after a new message on the system or after a reset of the control panel.
- If, after an alarm has been triggered (the “WARNING” phase), the function button “SILENCE” is operated with the MD300 control panel in operating level 2, the warning sirens are stopped.
- If, after an evacuation signal (the “EVACUATION” phase), the function button “SILENCE” is operated with the MD300 control panel in operation level 2, the evacuation sirens are stopped (this is only valid if switching off the evacuation relay is permitted in the programming of the control panel– consult your installer for this).
- Several output relays can also be linked to the “SILENCE” function (consult your installer for this)

4.3.2 FUNCTION BUTTON “RESET”

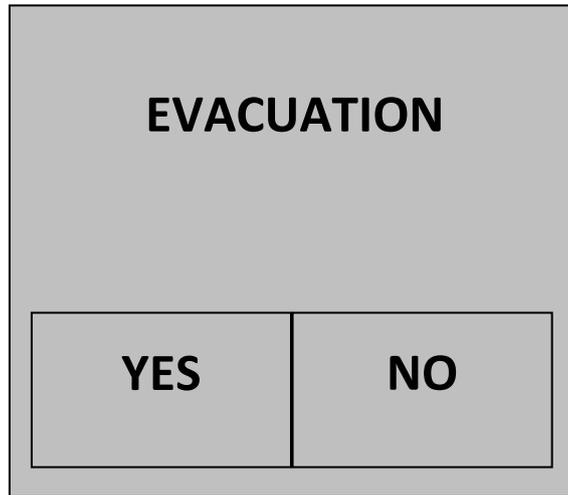
- The function button “RESET” is only available in operating level 2.
- The availability of this button is indicated by a white background LED lighting.
- After pressing the “RESET” button, all messages and controls on the MD300 control panel are deleted. The control panel returns to the quiescent position.

4.3.3 FUNCTION BUTTON “EVACUATION DELAYED”

- The function button “EVACUATION DELAYED” is only available in operating level 2.
- Button for switching between the direct mode of operation and the delayed mode of operation of the MD300 fire detection control panel.
- A control panel in direct mode of operation activates the evacuation sirens immediately after each alarm message (“night mode” of the control panel – yellow background LED lighting is turned off).
- A control panel in the delayed mode of operation activates the evacuation sirens after a programmed time delay (“day mode” of the control panel – yellow background LED lighting lights up – see point 5. Signalling “Warning – Evacuation”).

4.3.4 FUNCTION BUTTON “EVACUATION”

- The function button “EVACUATION” is only available in operating level 2.
- The availability of this button is indicated by a white background LED lighting.
- After pressing the button “EVACUATION”, a confirmation will be requested on the LCD.



- After confirmation, the evacuation sirens are activated manually.

If the function button “EVACUATION” is operated with the control panel in operating level 1, the screen for entering the access code for operating level 2 is displayed.

Only after entering a valid code and confirming the evacuation, the evacuation sirens are activated..

4.4 THE VISUAL INDICATIONS

- **Red LED « FIRE ALARM »**: lights up in case of an alarm message on one or more detector loops.
- **Yellow LED « COMMON FAULT »**: lights up in the event of a technical failure (fault in the detector loop, fault in a siren circuit or power supply failure).
- **Yellow LED « SYSTEM FAILURE »**: illuminates in case of an internal technical failure (parameter fault, communication fault, external processor fault, etc.).
- **Yellow LED « SIRENS OFF SERVICE/FAULT »**: flashes as soon as an interruption or short circuit in the cabling of the warning and/or evacuation sirens is detected and illuminates continuously when the warning and evacuation sirens are out of service. In case of an error in the cabling of the warning and/or evacuation sirens, this LED lights up together with the yellow LED “COMMON FAULT”.
- **Yellow LED « COMMON OFF SERVICE »**: lights up continuously when one or more detector loops are out of service or when the warning and evacuation sirens are out of service.
- **Green LED « IN USE »**: lights up as soon as the control panel is switched on.
- **Red LED « ALARM TRANSMITTED »**: lights up as soon as the set time delay for the transmission (evacuation) has elapsed.
- **Yellow LED « TRANSMISSION OFF SERVICE/FAULT »**: flashes as soon as an interruption or short circuit in the cabling to the telephone transmitter is detected and illuminates continuously when the output to the telephone transmitter is out of service. In case of an error in the cabling to the telephone transmitter, this LED lights up together with the yellow LED “COMMON FAULT”.
- **White LED « OPERATION »**: lights up when the control panel is placed in operating level 2 (the function button “OPERATION” on the LCD Touch screen is colored black).

5 SIGNALLING WARNING – EVACUATION

WARNING

Warning means “the information given to certain persons of the beginning of a fire or a danger”.

EVACUATION

Evacuation is understood to mean “the notification to all persons staying in a certain place to evacuate this place”.

The switchover from warning to evacuation on the MD300 control panel is made:

- Either after the set evacuation-reaction time has elapsed (see below) if the alarm message on the MD300 control panel has not been accepted (accept = operate the “SILENCE” button).
- Either after the set evacuation-intervention time has elapsed (see below) if the alarm message has not yet been reset on the MD300 control panel. The alarm message is reset as follows:
 - Eliminate the cause of the alarm message and reset the MD300 control panel by pressing the “RESET” button with the system in operating level 2.
 - Switch off the detector loop that signals the fire alarm (see below) and reset the control panel by pressing the “RESET” button with the system in operating level 2.
- Either after pressing the “EVACUATION” button on the MD300 control panel and/or after operating any evacuation call point installed in the building.

If required, the evacuation can be activated immediately after the alarm message has been triggered. In this case, there is no warning phase and the evacuation actions are carried out immediately.

6 FUNCTIONING IN THE EVENT OF AN ALARM MESSAGE WITH THE CONTROL PANEL IN DELAYED MODE OF OPERATION

THE YELLOW LED “EVACUATION DELAYED” IS ILLUMINATED !

A fire alarm message is triggered in the following cases:

- An optical, a multi sensor or a linear detector detects smoke
- A rate of rise detector detects an abnormal temperature rise
- A heat detector detects an excess of the maximum temperature
- The flexi element of a manual call point is activated
- The alarm contact of a technical supervision unit is switched

A fire alarm message is indicated by the following visual and acoustical signals:

- The red LED “FIRE ALARM” lights up
- The name of the detector loop appears on the LCD Touch screen
- The built-in buzzer (continuous tone) is activated
- The optional warning sounders are activated
- The set evacuation-reaction time starts (default delay: 2 minutes – delay to be set via the PC configuration software)
- The alarm-direct controls are carried out
- The alarm-delayed controls are only carried out after the time delay has elapsed.

If, after verification, no fire can be detected, the alarm message may have 2 possible causes:

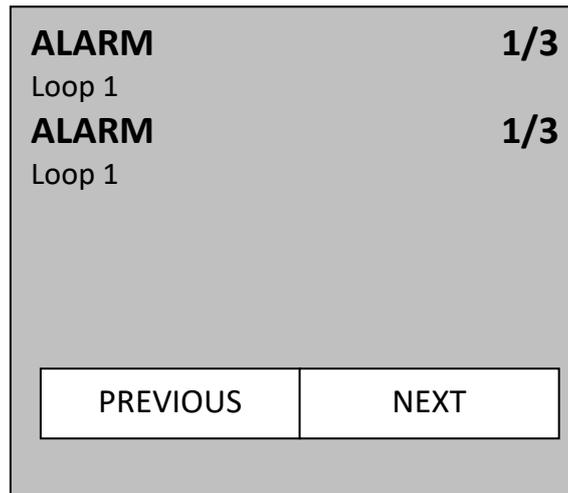
- The fire detector reacts to a temporary cause (a few examples):
 - There is an abnormal amount of dust present
 - There is a high concentration of volatile products (e.g. paint)
 - There is an abnormally high humidity (> 90%)
 - Smoke is caused by work (e.g. welding)
 - The ambient temperature is higher than 50°C
 - Influence of sunlight
 - The detector is located near a heat source (e.g. stove or oven)
 - The detector is surrounded by water vapor
- The fire detector is faulty (internal technical fault or due to water damage)

Operation of the control panel in the event of a fire alarm message:

FIRE ALARM



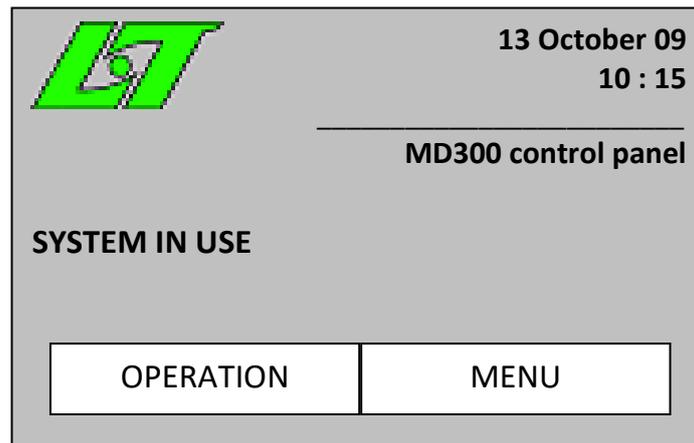
The name of the detector loop that reports an alarm message appears on the LCD



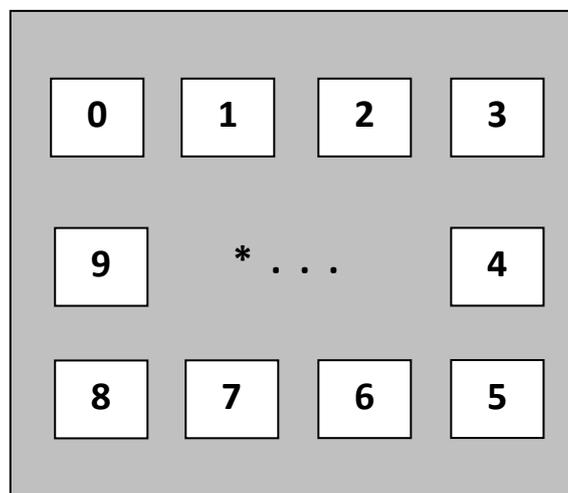
Press the function button "SILENCE" to turn off the built-in buzzer



The optional warning sirens can be stopped as follows:
Press a text area (grey area on the event screen) on the LCD to select the pilot screen



Use the function button "OPERATION" to select the screen for entering the access code



- Enter the access code (factory access code = '1' '2' '3' '4').

- **The correct entry of the access code is confirmed by:**
 - The white LED "OPERATION"
 - The white LED "RESET"
 - The white LED "EVACUATION DELAYED"
 - The function button "OPERATION" on the LCD Touch screen is coloured black
- **Press the "SILENCE" button**



- **The alarm message is accepted during the evacuation-reaction time by pressing the function button "SILENCE":**
 - The built-in buzzer in the control panel stops
 - The evacuation-reaction time stops
 - The evacuation-intervention time starts

Read the information about the location of the alarm message on the LCD of the control panel and GO ON TO THE SPOT IMMEDIATELY.
- **The alarm message is NOT accepted during the evacuation-reaction time:**
 - The transmission and the evacuation sirens are activated automatically after the time delay has elapsed
 - The red LED "ALARM TRANSMITTED" lights up
 - Depending on the programming (*) the evacuation sirens can be stopped by:
 - Either pressing the "SILENCE" button
 - Either pressing the "RESET" button with the control panel in level 2
 - Or operating the function button "START SIREN" on the LCD with the control panel in the menu of operating level 2.
- **Read the information about the location of the alarm message on the LCD of the control panel and GO ON TO THE SPOT IMMEDIATELY**



FIRE ?



YES: EXECUTE THE EVACUATION PLAN!



**Start the evacuation sirens by pressing the function button "EVACUATION"
(if necessary, place the MD300 control panel in operating level 2)**

Press "YES" on the LCD to activate the evacuation sirens



NO: CONTINUE



If NO fire or problem occurs and it is not possible to solve the problem before the remaining evacuation-intervention time has elapsed:

By pressing the function button "SILENCE" the evacuation-intervention time is restarted. You will again have the full time delay (*). This operation can be repeated at any time in order to avoid the switchover from the system to evacuation.



Place the corresponding detector loop "OFF SERVICE"

CAUTION: the disabling of a detector loop may only be carried out by a qualified person !



RESET THE MD300 CONTROL PANEL (control panel in operating level 2)

- Press a text area (grey area on the event screen) on the LCD to select the pilot screen
- Use the function button "OPERATION" to select the screen for entering the access code
- Enter the access code (factory access code = '1' '2' '3' '4').
- The correct entry of the access code is confirmed by:
 - The white LED "OPERATION"
 - The white LED "RESET"
 - The white LED "EVACUATION DELAYED"
 - The function button "OPERATION" on the LCD Touch screen is coloured black
- Press the "SILENCE" button



Remove the cause of the alarm message or inform the service company in the event of a technical failure



Put the respective detector loop back into service



END

(*) consult your installer regarding the set access code, the programmed time delays and the procedure for interrupting the evacuation sirens.

7 FUNCTIONING IN THE EVENT OF AN ALARM MESSAGE WITH THE CONTROL PANEL IN DIRECT MODE OF OPERATION

THE YELLOW LED “EVACUATION DELAYED” IS NOT ILLUMINATED !

A fire alarm message is triggered in the following cases:

- An optical, a multi sensor or a linear detector detects smoke
- A rate of rise detector detects an abnormal temperature rise
- A heat detector detects an excess of the maximum temperature
- The flexi element of a manual call point is activated
- The alarm contact of a technical supervision unit is switched

A fire alarm message is indicated by the following visual and acoustical signals:

- The red LED “FIRE ALARM” and the red LED “ALARM TRANSMITTED” light up
- The name of the detector loop appears on the LCD Touch screen
- The built-in buzzer (continuous tone) is activated
- The evacuation sirens are activated
- All alarm controls (the alarm-direct and the alarm-delayed outputs) are carried out

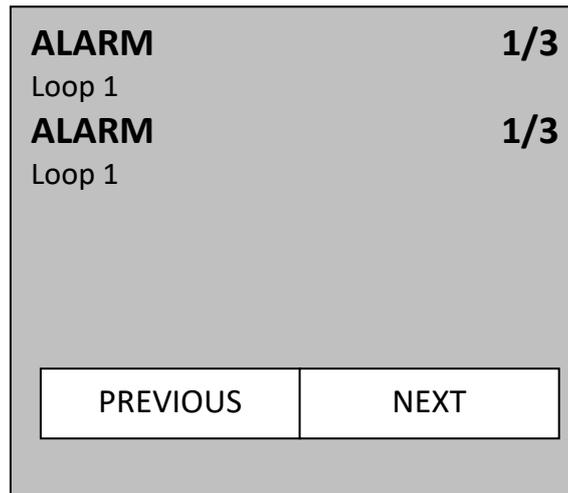
If, after verification, no fire can be detected, the alarm message may have 2 possible causes:

- The fire detector reacts to a temporary cause (a few examples):
 - There is an abnormal amount of dust present
 - There is a high concentration of volatile products (e.g. paint)
 - There is an abnormally high humidity (> 90%)
 - Smoke is caused by work (e.g. welding)
 - The ambient temperature is higher than 50°C
 - Influence of sunlight
 - The detector is located near a heat source (e.g. stove or oven)
 - The detector is surrounded by water vapor
- The fire detector is faulty (internal technical fault or due to water damage)

Operation of the control panel in the event of a fire alarm message:



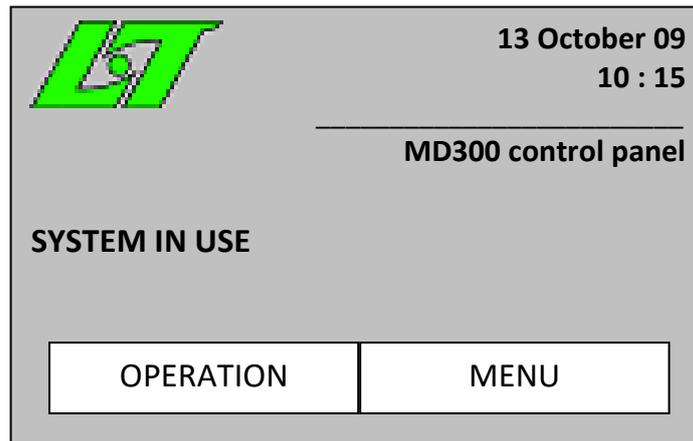
The name of the detector loop that reports an alarm message appears on the LCD



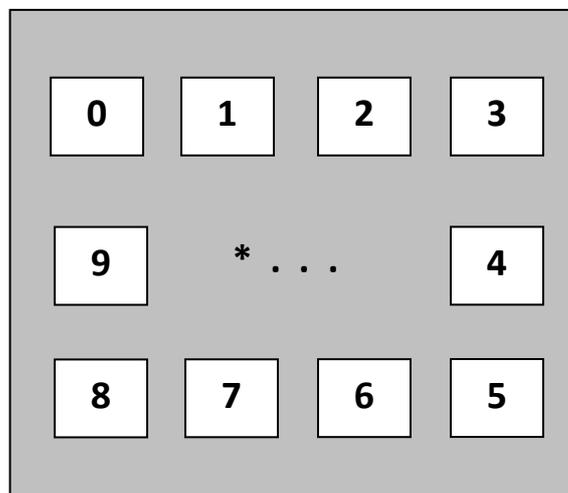
Press the function button "SILENCE" to turn off the built-in buzzer.



The evacuation sirens can be stopped as follows:
Press a text area (grey area on the event screen) on the LCD to select the pilot screen



Use the function button "OPERATION" to select the screen for entering the access code



- Enter the access code (factory access code = '1' '2' '3' '4').

- **The correct entry of the access code is confirmed by:**
 - The white LED "OPERATION"
 - The white LED "RESET"
 - The white LED "EVACUATION DELAYED"
 - The function button "OPERATION" on the LCD Touch screen is coloured black
- **Press the "SILENCE" button**



**Read the information regarding the location of the alarm message on the LCD
and go on to the spot!**



FIRE?



YES: EXECUTE THE EVACUATION PLAN!



**Restart the evacuation sirens by pressing the function button "EVACUATION"
(if necessary, place the MD300 control panel in operating level 2)**

Press "YES" on the LCD to activate the evacuation sirens



NO



Place the corresponding detector loop "OFF SERVICE"

**CAUTION: the disabling of a detector loop may only
be carried out by a qualified person !**



RESET THE MD300 CONTROL PANEL (control panel in operating level 2)



**Remove the cause of the alarm message or
inform the service company in the event of a technical failure**



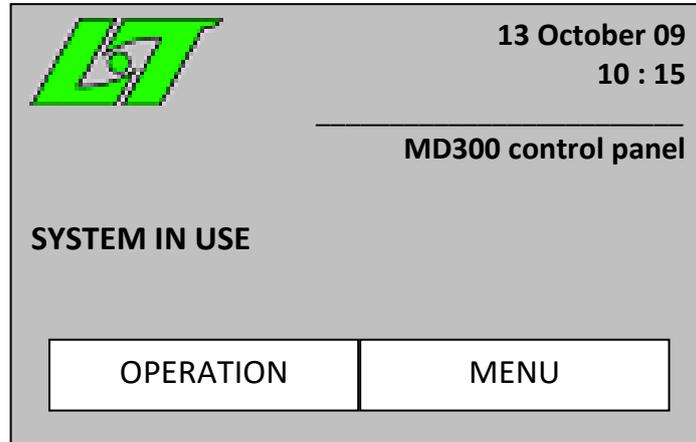
Put the respective detector loop back into service



END

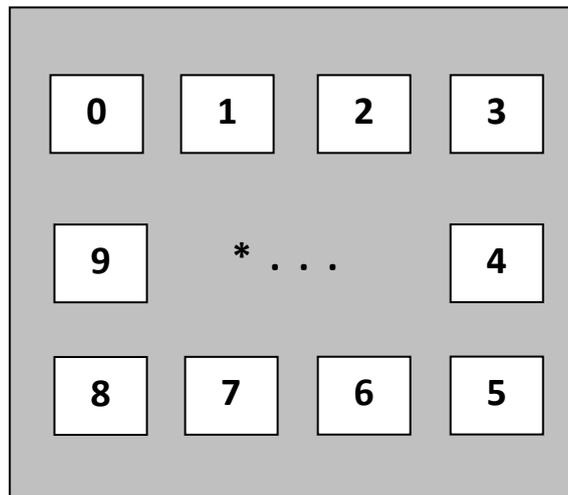
8 EVACUATION OF THE BUILDING

Press the LCD until the pilot screen is displayed



Press the function button "EVACUATION"

Use the function key "OPERATION" to select the screen for entering the access code if operating level 2 is not yet active and enter the access code (factory access code = '1' '2' '3' '4')



Press "YES" on the LCD to activate the evacuation sirens

The red background LED of the "EVACUATION" function button lights up
The red LED "FIRE ALARM" and "ALARM TRANSMITTED" light up
EXECUTE THE EVACUATION PLAN !

9 FUNCTIONING IN CASE OF A FAULT MESSAGE

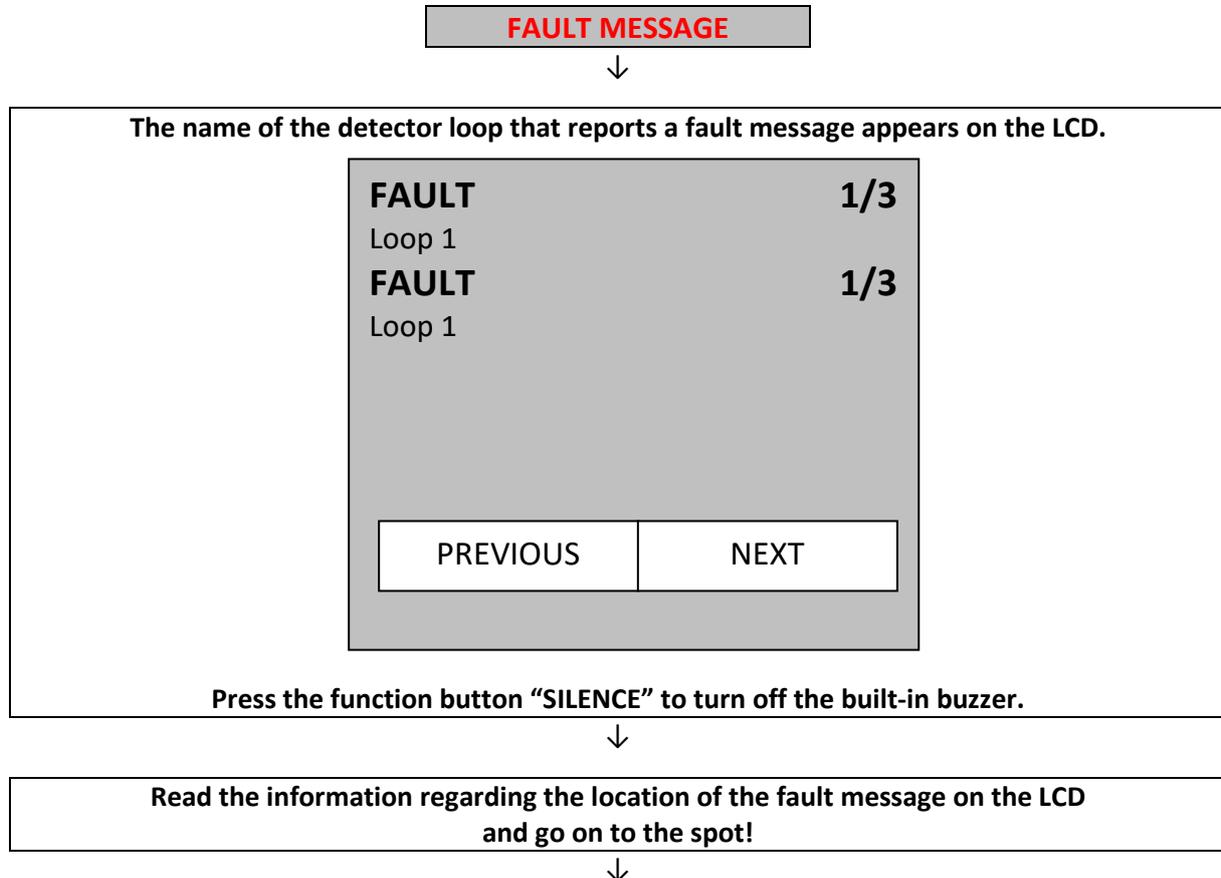
A fault message occurs in the following cases:

- The cabling of the detector loop is either interrupted (bad contact) or short-circuited.
- A fire detector was removed.
- The cabling of the siren circuit is interrupted or short-circuited.
- The primary (mains) or secondary (batteries) power supply is no longer present.
- The MD300 control panel reports an internal fault.

A fault message is indicated by the following visual and acoustic signals:

- The yellow LED "COMMON FAULT" lights up.
- The name of the detector loop appears on the LCD.
- The built-in buzzer (pulsed tone) is activated.
- The standard Fail-safe fault relay switches to the inactive mode.
- The yellow LED "SIRENS OFF SERVICE/FAULT" lights up in case of an error in the cabling of the warning and/or evacuation sirens.
- The yellow LED "TRANSMISSION OFF SERVICE/FAULT" lights up in case of an error in the cabling to the telephone transmitter.
- The yellow LED "SYSTEM FAILURE" lights up in case of an internal fault in the MD300 control panel.

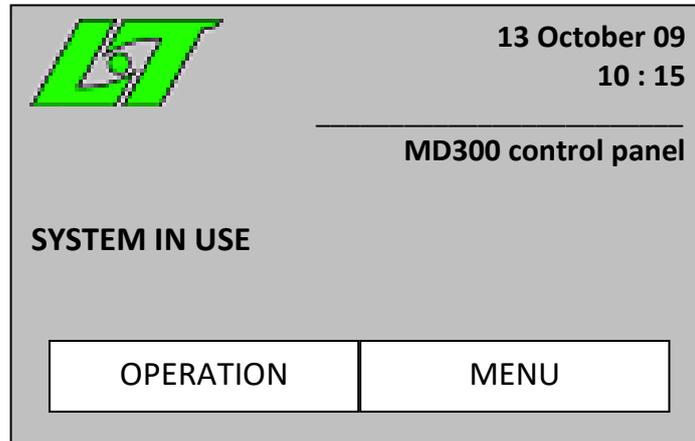
Operation of the control panel in the event of a fault message:



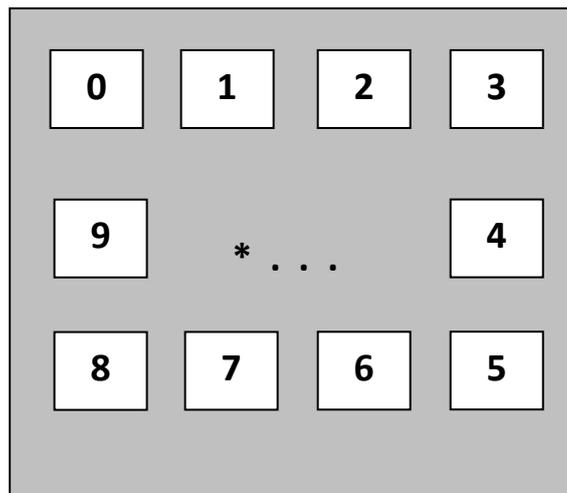
Place the corresponding detector loop "OFF SERVICE"
CAUTION: the disabling of a detector loop may only
be carried out by a qualified person !



RESET THE MD300 CONTROL PANEL (control panel in operating level 2):
Press a text area (grey area on the event screen) on the LCD to select the pilot screen.



Use the function button "OPERATION" to select the screen for entering the access code



Enter the access code (factory access code = '1' '2' '3' '4')
Reset the MD300 control panel by pressing the "RESET" button



Remove the cause of the fault message or
inform the service company in the event of a technical failure



Put the respective detector loop back into service



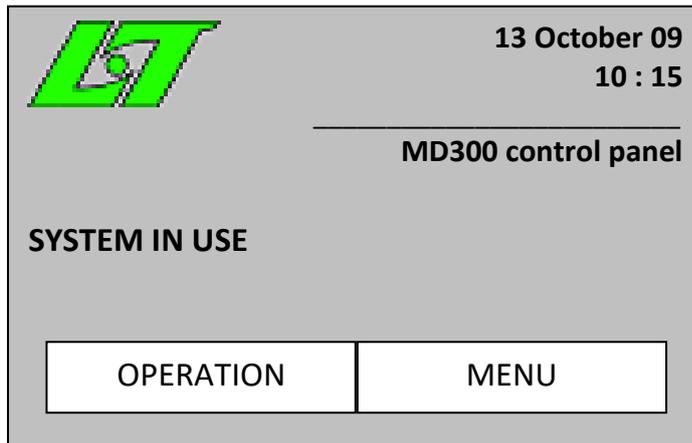
END

10 OPERATING THE MD300 CONTROL PANEL

Depending on the active operating level (level 1 or level 2) and by means of the function button “MENU”, an operating menu can be displayed on the pilot screen.

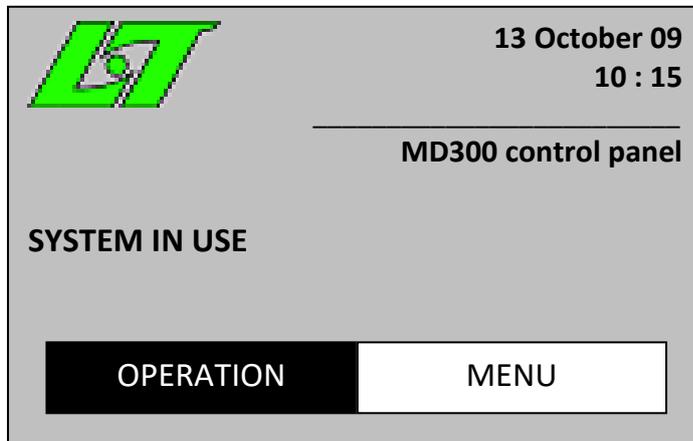
10.1 OPERATING LEVEL 1

Operating level 1 = the function button “OPERATION” is not colored:



10.2 OPERATING LEVEL 2

Operating level 2 = the function button “OPERATION” is colored black:



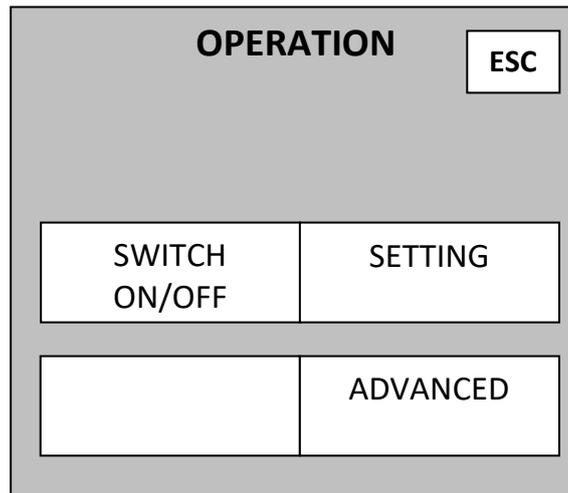
The procedure for setting the operating level 2 is described in paragraph “4.2.4. The menu screen”.

11 TO SWITCH ON/OFF A DETECTION LOOP

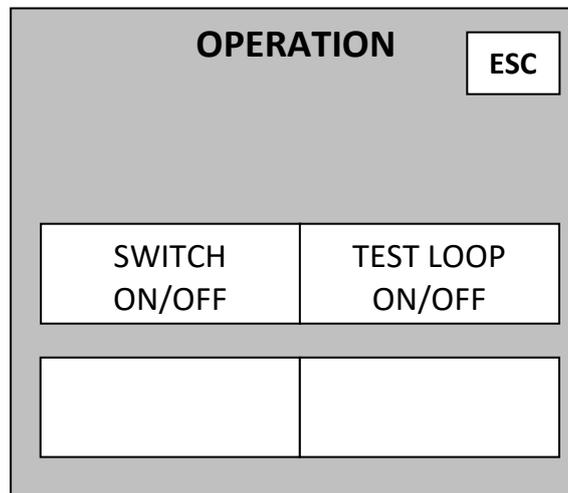
The switched off detector loop is completely deactivated.

All connected fire detectors are completely isolated and can therefore not cause any messages. The loops that are not switched off remain in normal operation.

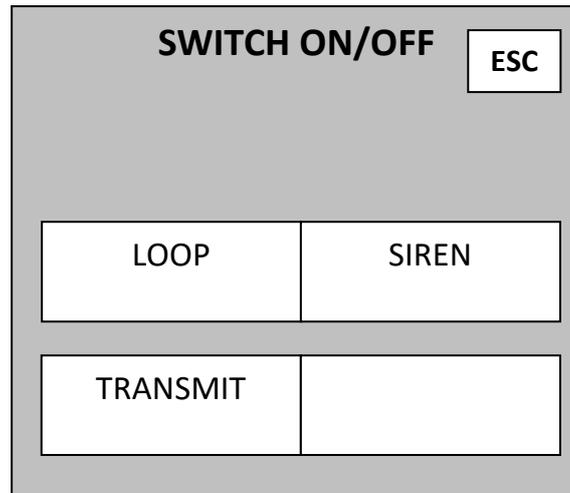
1. Place the MD300 control panel in operating level 2 and use the function button "MENU" to select the main menu of level 2.



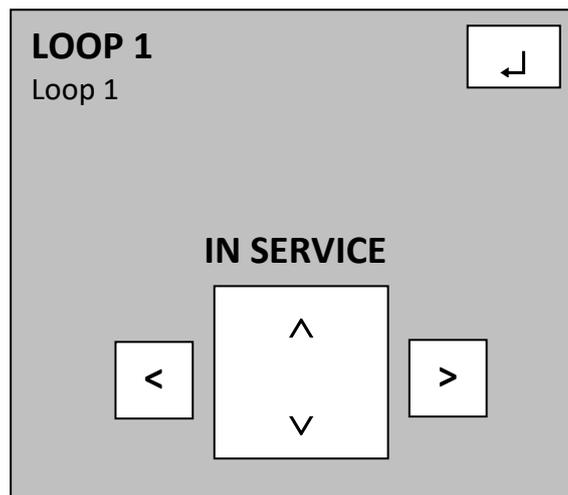
2. Use the function button "SWITCH ON/OFF" to select the submenu for switching on/off a detector loop, the warning and evacuation sounders or the output to the telephone transmitter and for putting a detector in/out of test.



3. Use the function button "SWITCH ON/OFF" to select the submenu for switching on/off a detector loop, the warning and evacuation sounders or the output to the telephone transmitter.



4. Use the function button "LOOP" to select the submenu for switching on/off a detector loop.



5. Select the desired detector loop with the selection buttons "<" and ">". The name of the selected detector loop is displayed in the upper left corner of the screen. Underneath is the text "LOOP" followed by the number of the selected detector loop. The text "ABSENT" indicates that the selected loop is not in use. Put the selected loop in or out of test using the selection buttons "^" and "v".



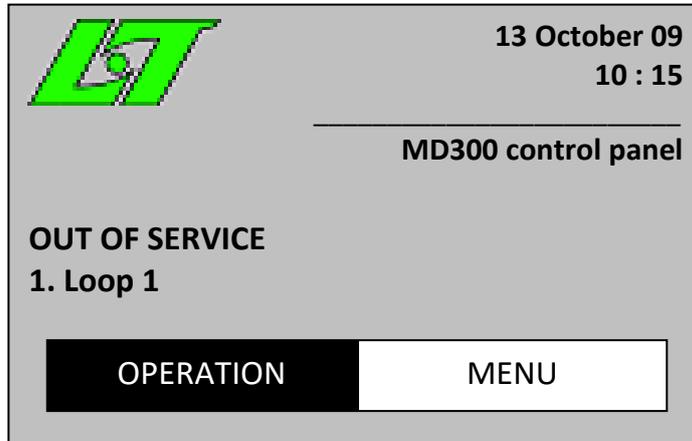
6. Confirm the in/out of service position with the function button "↵" on the display. Exit this submenu and select another submenu or return to the screen using the function button "ESC".



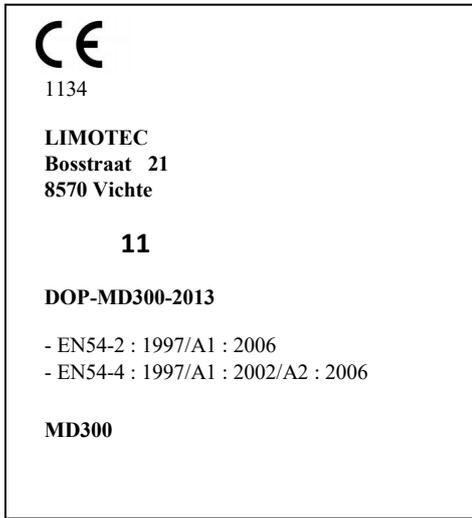
7. The yellow LED "COMMON OFF SERVICE" illuminates.



8. The pilot screen displays the detector loop that has been switched off. If several detector loops are out of service, they are placed on the screen in a scroll cycle of 5 seconds.



12 CE MARKING



MD300: Conventional 16-loop fire detection control panel.

Designed for use in fire alarm installations in and around buildings.

Essential characteristics	Achievements
General requirements	Successful
General requirements for the indication	Successful
Quiescent condition	Successful
Fire alarm condition	Successful
Fault condition	Successful
Out of service condition	Successful
In test condition	NA
Design requirements	Successful
Marking	Successful
General requirements for the power supply	Successful
Power supply functions	Successful
Materials, design and manufacture of the power supply	Successful
Power supply documentation	Successful
Power supply marking	Successful
Power supply testing	Successful
Test of the resistance to 'cold' temperature operational	Successful
Test of the resistance to 'humid heat' temperatures operational	Successful
Test of the resistance to 'Humid heat endurance'	Successful
Impact resistance test	Successful
Resistance test operational vibrations	Successful
Resistance test for endurance vibrations	Successful
Test of resistance to electrical and electromagnetic interference	Successful