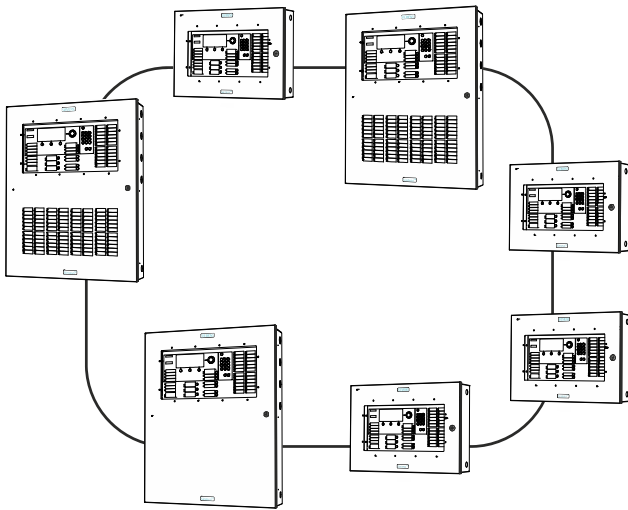


SIEMENS



FC92x / FT924

Fire control panel / Network terminal

Operation Manual

MP-UL 1.0

Legal notice

Technical specifications and availability subject to change without notice.

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1 About this document

Goal and purpose

This document describes the operation of fire control panels and network terminals in the fire detection system FS920. The reader shall understand the structure of a fire detection installation, the PMI setup and the functions in the overall system. This allows the reader to respond appropriately in the event of fire or trouble.

Scope

This document applies to the fire control panels and the network terminal of the type FC92x, market package MP-UL 1.0.

!	NOTICE
	<p>Fire detection system with Ethernet 'Panels' that does not comply with UL-864 No approval or system acceptance</p> <p>For non-UL compliant features and settings refer to the table in document A6V10356958, 'FC922/FC924/FT924 Fire Alarm Control Panel, Installation Instructions'.</p> <p>Ethernet 'Panels' are not permitted for the market package MP-UL 1.0. There are however references to Ethernet 'Panels' in Cerberus-Engineering-Tool FXS7212 and the set of help documents FXS7216.</p> <ul style="list-style-type: none"> Do not plan or configure any Ethernet 'Panels'.

Target groups

The information in this document is intended for the following target groups:

Target group	Activity	Recommended qualification
Operating personnel	<ul style="list-style-type: none"> Carries out procedures to correctly operate the product. 	<ul style="list-style-type: none"> No particular basic training is needed. Has been instructed by the commissioning personnel.
Commissioning personnel	<ul style="list-style-type: none"> Configures the product at the place of installation according to customer-specific requirements. Checks the product operability and releases the product for use by the operator. Searches for and corrects malfunctions. 	<ul style="list-style-type: none"> Has obtained suitable specialist training for the function and for the products. Has attended the training courses for commissioning personnel.
Maintenance personnel	<ul style="list-style-type: none"> Carries out all maintenance work. Checks that the products are in perfect working order. Searches for and corrects malfunctions. 	<ul style="list-style-type: none"> Has obtained suitable specialist training for the function and for the products.

Document identification

The document ID is structured as follows:

ID_ModificationIndex_Language_COUNTRY

Example: A6V10315023_a_en_US

Conventions for text marking

Markups

Special markups are shown in this document as follows:

▷	Requirement for a behavior instruction
⇒	Intermediate result of a behavior instruction
⇨	End result of a behavior instruction
[→ X]	Reference to a page number
'Text'	Quotation, reproduced identically
<Key>	Identification of keys

Supplementary information and tips



The 'i' symbol identifies supplementary information and tips for an easier way of working.

1.1 Applicable documents

Document ID	Title
A6V10333401	System description
A6V10333396	Planning
A6V10333423	Configuration
A6V10333434	Commissioning / Maintenance / Troubleshooting
A6V10333421	Inscription strips
A6V10356958	Fire Alarm Control Panel, Installation Instructions

1.2 Technical terms

See also

 Glossary [→ 125]

1.3 History of changes

The table below shows this document's history of changes:

Modification index	Edition date	Brief description
a	01.2012	First edition MP-UL 1.0

1.4 How displays are represented in the document

With very few exceptions, the fire control panels and network terminals are displayed in this document in tables.

Deviations between the original and the table are indicated by means of examples in the figures below:

Main menu		Access level 3	
Exit with <C>			
Message summary	(1)	Element search	(5)
Functions	(2)	Event memory	(6)
Favorites	(3)	Login/logout	(7)
Topology	(4)	Settings/administration	(8)

Message summary	Event memory	LED test
-----------------	--------------	----------

Display without window

Main menu		Access level 3	
Exit with <C>			
Message summary	(1)	Element search	(5)
Functions	(2)	Event memory	(6)
Favorites	(3)	Login/logout	(7)
Topology	(4)	Settings/administration	(8)

Message summary	Event memory	LED test
-----------------	--------------	----------

Table representation: Display without window

Select element category	
Zone	(1)
Section	(2)
Area	(3)
Audible	(4)
Physical channel	(5)

Table representation: 'Select element category' window without bar

The table representation has the following key deviations from the original:

- Font and representation, e.g. no inverted display
- Windows are indicated separately without display background
- No bars to indicate the position and list length
- No frame around selection

2 Safety

2.1 Safety instructions

The safety notices must be observed in order to protect people and property.

The safety notices in this document contain the following elements:

- Symbol for danger
- Signal word
- Nature and origin of the danger
- Consequences if the danger occurs
- Measures or prohibitions for danger avoidance

Symbol for danger



This is the symbol for danger. It warns of **risks of injury**.

Follow all measures identified by this symbol to avoid injury or death.

Additional danger symbols

These symbols indicate general dangers, the type of danger or possible consequences, measures and prohibitions, examples of which are shown in the following table:



General danger



Explosive atmosphere



Voltage/electric shock



Laser light



Battery



Heat


Signal word

The signal word classifies the danger as defined in the following table:

Signal word	Danger level
DANGER	DANGER identifies a dangerous situation, which will result directly in death or serious injury if you do not avoid this situation.
WARNING	WARNING identifies a dangerous situation, which may result in death or serious injury if you do not avoid this situation.
CAUTION	CAUTION identifies a dangerous situation, which could result in slight to moderately serious injury if you do not avoid this situation.
<i>NOTICE</i>	<i>NOTICE</i> identifies possible damage to property that may result from non-observance.


How risk of injury is presented

Information about the risk of injury is shown as follows:

	⚠ WARNING
	Nature and origin of the danger Consequences if the danger occurs <ul style="list-style-type: none"> • Measures / prohibitions for danger avoidance

How possible damage to property is presented

Information about possible damage to property is shown as follows:


	NOTICE
	Nature and origin of the danger Consequences if the danger occurs <ul style="list-style-type: none"> • Measures / prohibitions for danger avoidance

2.2 Safety regulations for the method of operation

National standards, regulations and legislation

Siemens products are developed and produced in compliance with the relevant European and international safety standards. Should additional national or local safety standards or legislation concerning the planning, assembly, installation, operation or disposal of the product apply at the place of operation, then these must also be taken into account together with the safety regulations in the product documentation.

Electrical installations

	⚠ WARNING
	Electrical voltage Electric shock <ul style="list-style-type: none"> • Work on electrical installations may only be carried out by certified electricians or by instructed persons working under the guidance and supervision of a certified electrician, in accordance with the electrotechnical regulations.

- Wherever possible disconnect products from the power supply when carrying out commissioning, maintenance or repair work on them.
- Lock volt-free areas to prevent them being switched back on again by mistake.
- Label the connection terminals with external voltage using a 'DANGER External voltage' sign.

- Route mains connections to products separately and fuse them with their own, clearly marked fuse.
- Fit an easily accessible disconnecting device in accordance with IEC 60950-1 outside the installation.
- Produce earthing as stated in local safety regulations.

Assembly, installation, commissioning and maintenance

- If you require tools such as a ladder, these must be safe and must be intended for the work in hand.
- When starting the fire control panel ensure that unstable conditions cannot arise.
- Ensure that all points listed in the 'Testing the product operability' section below are observed.
- You may only set controls to normal function when the product operability has been completely tested and the system has been handed over to the customer.

Testing the product operability

- Prevent the remote transmission from triggering erroneously.
- If testing building installations or activating devices from third-party companies, you must collaborate with the people appointed.
- The activation of fire control installations for test purposes must not cause injury to anyone or damage to the building installations. The following instructions must be observed:
 - Use the correct potential for activation; this is generally the potential of the building installation.
 - Only check controls up to the interface (relay with blocking option).
 - Make sure that only the controls to be tested are activated.
- Inform people before testing the alarm devices and allow for possible panic responses.
- Inform people about any noise or mist which may be produced.
- Before testing the remote transmission, inform the bodies which will receive the corresponding alarms.

Modifications to the system layout and products

Modifications to the system and to individual products may lead to troubles, malfunctioning and safety risks. Written confirmation must be obtained from Siemens and the corresponding safety bodies for modifications or additions.

Modules and spare parts

- Components and spare parts must comply with the technical specifications defined by Siemens. Only use products specified or recommended by Siemens.
- Only use fuses with the specified fuse characteristics.
- Wrong battery types and improper battery changing lead to a risk of explosion. Only use the same battery type or an equivalent battery type recommended by Siemens.
- Batteries must be disposed of in an environmentally friendly manner. Observe national guidelines and regulations.

Disregard of the safety regulations

Before they are delivered, Siemens products are tested to ensure they function correctly when used properly. Siemens disclaims all liability for damage or injuries caused by the incorrect application of the instructions or the disregard of danger warnings contained in the documentation. This applies in particular to the following damage:


- Personal injuries or damage to property caused by improper use and incorrect application.
- Personal injuries or damage to property caused by disregarding safety instructions in the documentation or on the product.
- Personal injury or damage to property caused by poor maintenance or lack of maintenance.


2.3 Standards and directives complied with

A list of the standards and directives complied with is available from your Siemens contact.

2.4 Release Notes

Limitations to the configuration or use of devices in a fire detection installation with a particular firmware version are possible.

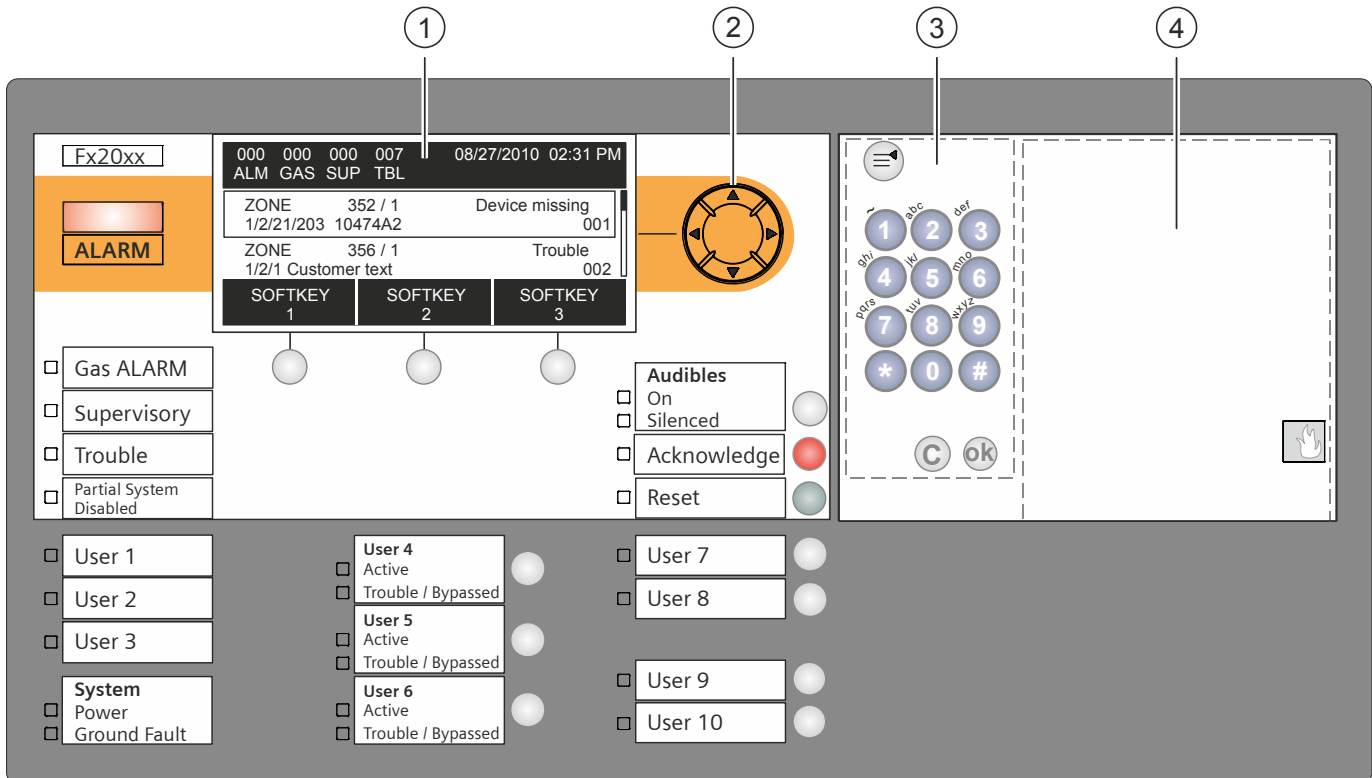
	⚠ WARNING
	<p>Limited or non-existent fire detection</p> <p>Personal injury and damage to property in the event of a fire.</p> <ul style="list-style-type: none"> • Read the 'Release Notes' before you plan and/or configure a fire detection installation. • Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.

	NOTICE
	<p>Incorrect planning and/or configuration</p> <p>Important standards and specifications are not satisfied. Fire detection installation is not accepted for commissioning. Additional expense resulting from necessary new planning and/or configuration.</p> <ul style="list-style-type: none"> • Read the 'Release Notes' before you plan and/or configure a fire detection installation. • Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.

3 PMI

3.1 Person Machine Interface without releasing

The figure below shows the Person Machine Interface of the 'Panel' (fire control panel or network terminal).



Person Machine Interface of a panel without releasing

- 1 Display
- 2 Navigation buttons
- 3 Keypad with Menu key, ok key and Cancel key
- 4 Area for fitting options
- = Button
- = LED

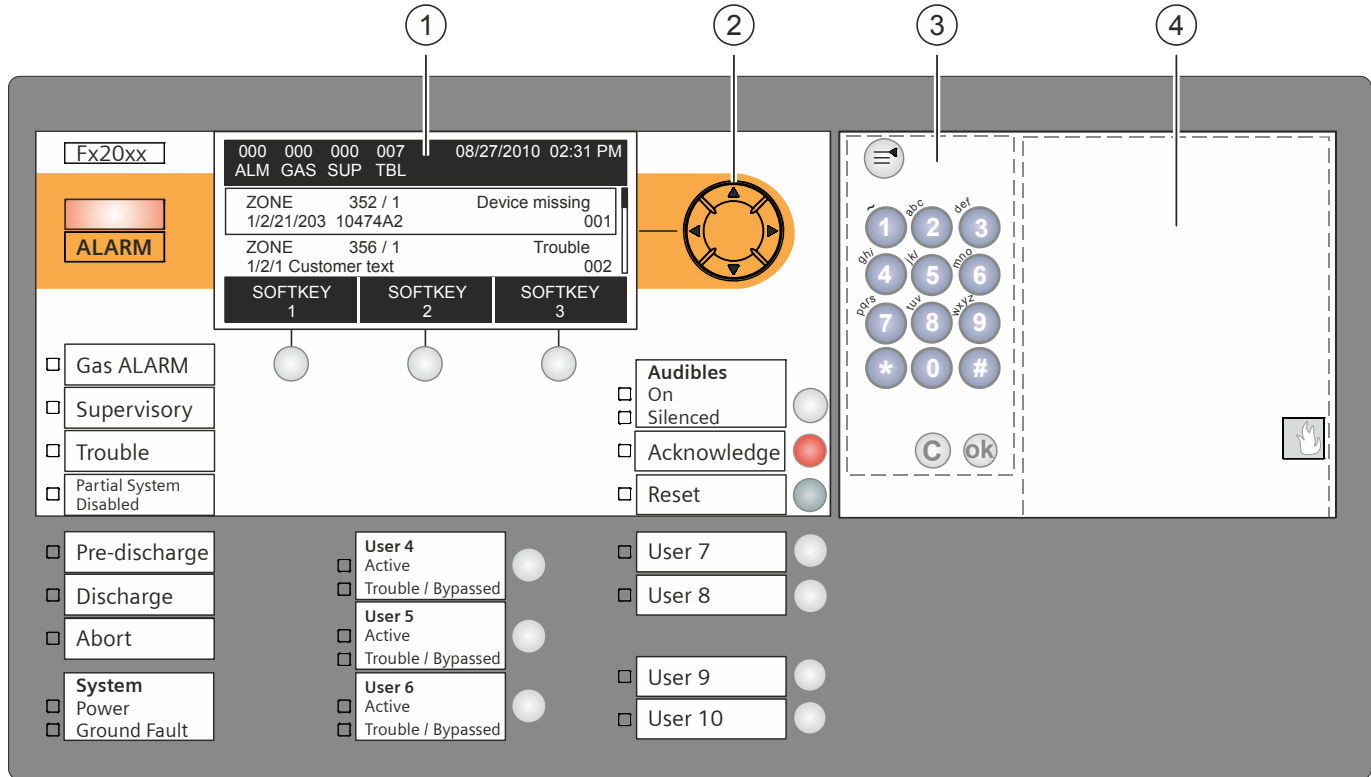
Inscription	LED color	LED status 'System normal' / activated
ALARM (LED field above designation)	Red	Off / Unacknowledged: Flashes Acknowledged: Steady on
Gas ALARM	Red	Off / Unacknowledged: Flashes Acknowledged: Steady on
Supervisory	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Trouble	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Partial System Disabled	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
User 1...User 10	x	Configurable
System		
Power	Green	Steady on / On battery: Flashes
Ground Fault	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Audibles		
ON	yellow	Off / Steady on
Silenced	yellow	Off / Steady on
Acknowledge	yellow	Off / Unacknowledged: Flashes rapidly
Reset	yellow	Off / Unacknowledged: Flashes rapidly



You can use inscription strips to inscribe the PMI. You will find a template in document A6V10333421. See chapter 'Applicable documents [→ 8]'.

3.2 Person Machine Interface with releasing

The figure below shows the Person Machine Interface of the 'Panel' (fire control panel or network terminal).



Person Machine Interface of a panel with releasing

- 1 Display
 - 2 Navigation buttons
 - 3 Keypad with Menu key, ok key and Cancel key
 - 4 Area for fitting options
- = Button
 = LED

Inscription	LED color	LED status System normal / activated
ALARM (LED field above designation)	Red	Off / Unacknowledged: Flashes Acknowledged: Steady on
Gas ALARM	Red	Off / Unacknowledged: Flashes Acknowledged: Steady on

Inscription	LED color	LED status System normal / activated
Supervisory	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Trouble	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Partial System Disabled	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Pre-discharge	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Discharge	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
Abort	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
System		
Power	Green	Steady on / On battery: Flashes
Ground Fault	Yellow	Off / Unacknowledged: Flashes Acknowledged: Steady on
User 4...User 10	x	Configurable
Audibles		
ON	yellow	Off / Steady on
Silenced	yellow	Off / Steady on
Acknowledge	yellow	Off / Unacknowledged: Flashes rapidly
Reset	yellow	Off / Unacknowledged: Flashes rapidly



You can use inscription strips to inscribe the PMI. You will find a template in document A6V10333421. See chapter 'Applicable documents [→ 8]'.

3.3 Display

The display of the panel has two displaying variants:

- Display without window
- Display with window for following representations
 - Lists
 - Input fields
 - Command responses

3.3.1 Normal view

The display of a 'Panel' in 'Standard view' has three areas.



Display in normal view

Position	Designation	Function
1	Header	<ul style="list-style-type: none"> ● Status indication and system time ● Information and titles for the working area ● Instructions for the operator ● Information for the operator
2	Working area	<ul style="list-style-type: none"> ● Indication of lists ● Selection of list items ● Indication of windows
3	Softkey bar	<ul style="list-style-type: none"> ● Indication of the three functions that can be directly executed with the softkey buttons

Identification of messages



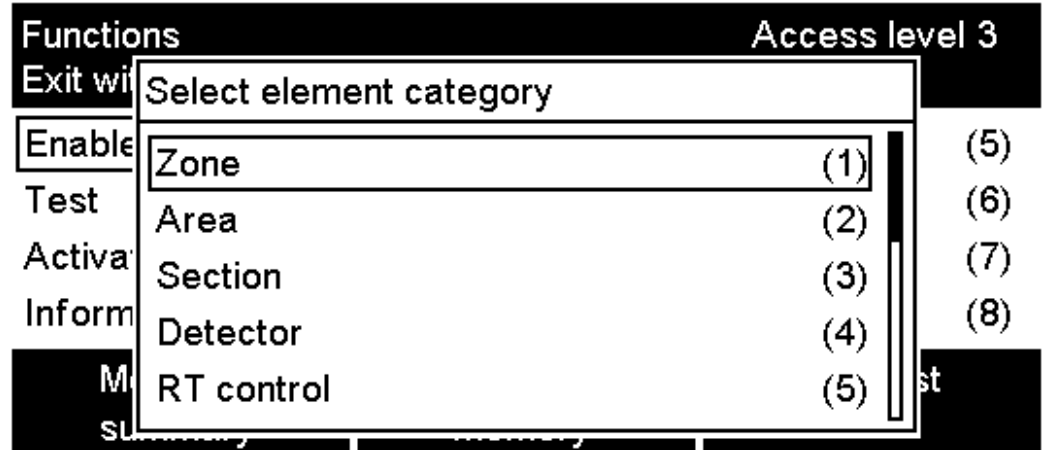
Events occurring in the fire detection installation are indicated on the display. A special identification informs on the status of an event.

Details on the identification can be found in chapter Status identification of event messages.

3.3.2 Display with window and list

The display with window and list is for the selection of a list item, which corresponds to a submenu.

the figure below shows the display with an exemplary list:

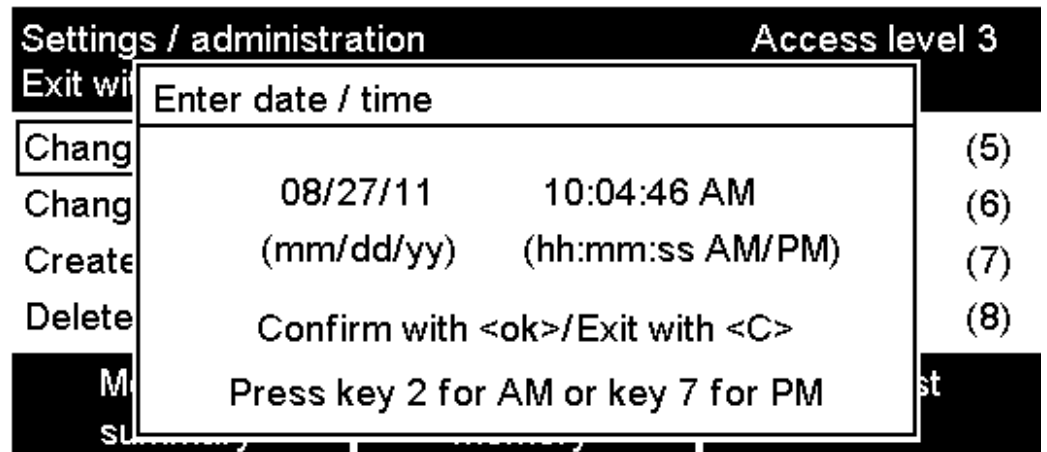


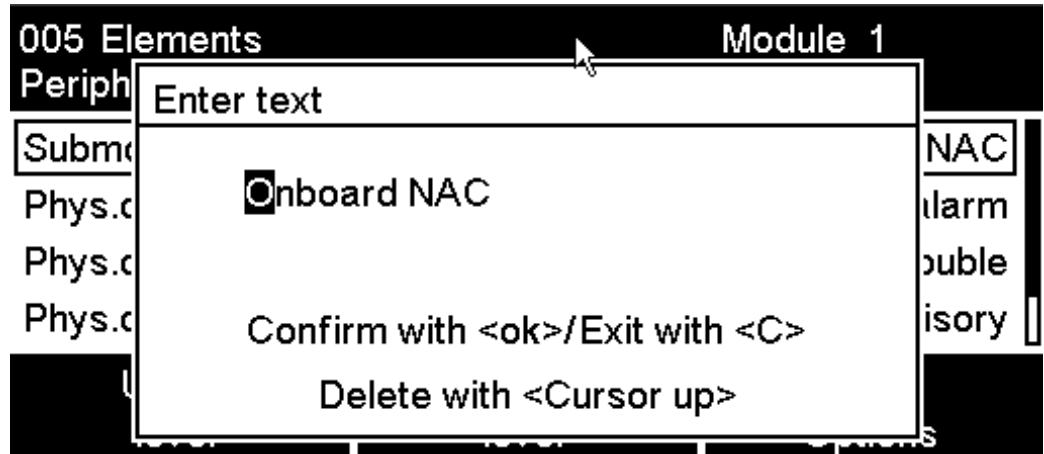
Example of the display with window and list

3.3.3 Display with window and input field

The display with window and input field has one or several input fields for entering e.g. the PIN, an address or customer text.

The figures below show the display with window and input field:

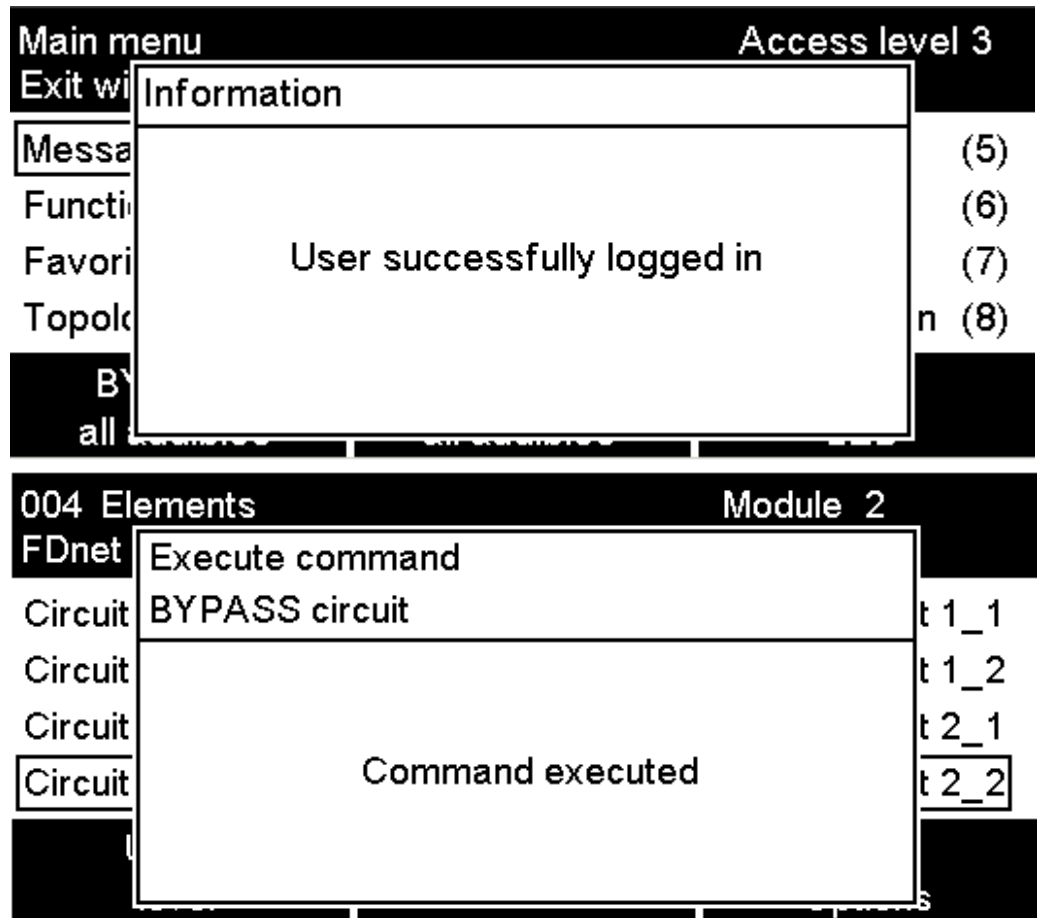




Examples of the display with window and input field

3.3.4 Display with window and command response

The display with window and command confirmation is opened after a command has been entered.



Examples of the display with window and command confirmation

3.3.5 Backlight

The display has a backlight.

The backlight is activated when one of the following conditions is met:

- At least one event has occurred that activates the event acoustics.
- A key is pressed.

A countdown (5 min.) for switching off the backlight is started simultaneously.

The backlight is deactivated when the following conditions are met:

- The countdown has elapsed.
- The event acoustics are bypassed.
- No unacknowledged event is pending.

As long as one of the requirements is not satisfied, the backlight remains switched on.

See also

- 📖 Adjusting the display brightness [→ 81]

3.4 LEDs

The LEDs on the Person Machine Interface signal 'Events' and conditions. In addition, the LEDs support the operator's orientation.

In general, the colors of the LEDs signal the following information:

Red	<ul style="list-style-type: none">● 'ALARM'● 'Gas ALARM'
Yellow	<ul style="list-style-type: none">● Status confirmation
Green	<ul style="list-style-type: none">● 'Power'

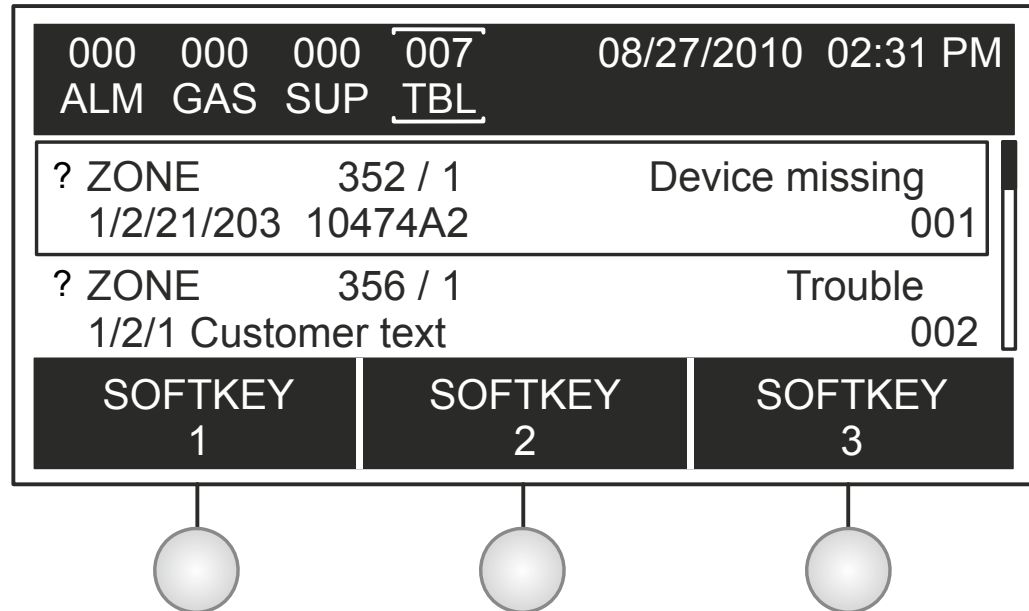
See also

- 📖 Person Machine Interface with releasing [→ 16]
- 📖 Person Machine Interface without releasing [→ 14]

3.5 Buttons on the PMI

3.5.1 Softkeys

The figure below shows the display with the softkeys.



Softkeys on the Person Machine Interface

- Button for softkey function

Softkeys are buttons which you can use to carry out functions that are displayed in the three fields of the softkey line on the display. These three black fields contain the names of the functions in white font.

The functions of the softkeys change dynamically depending on the situation and the contents of the display.

Always the most important functions are assigned to the softkeys 1 and 2.



When the user navigates through the topology, the softkey allocation does not change depending on the context; the assignment is fixed. If a softkey function cannot be executed at a point in the topology, the inscription in the field is hidden.

The table below lists an exemplary softkey assignment.

Softkey / Option	Function
'Show intervention text' ¹	Shows the intervention text of the selected event
'Jump back'	Displays the list the selected event has been taken from Back from the Intervention text or Details view
'Execute command'	Opens the 'Select command' window
'More options'	Opens the 'Select option' window
'Show details' ²	Shows details of the selected event or element
'Lower level'	Changes to the next lower hierarchy level
'Upper level'	Changes to the next higher hierarchy level
'Jump to begin' / 'Jump to end'	Within a list, jumps to the top or end of the list
'Show topology' ³	Jumps to the selected element in the topology
'Show active detectors'	Shows a list of all active detector, corresponding to an event list

¹ Softkey / option is only displayed when intervention text is available at this point

² Softkey / option only available in 'Access level 3'

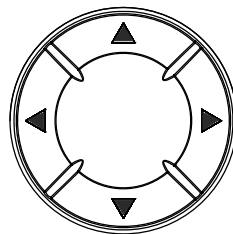
³ Softkey / option only available as of 'Access level 2.1'

See also

Normal view [→ 18]

3.5.2 Navigation buttons

The figure below shows the navigation buttons in the Person Machine Interface:

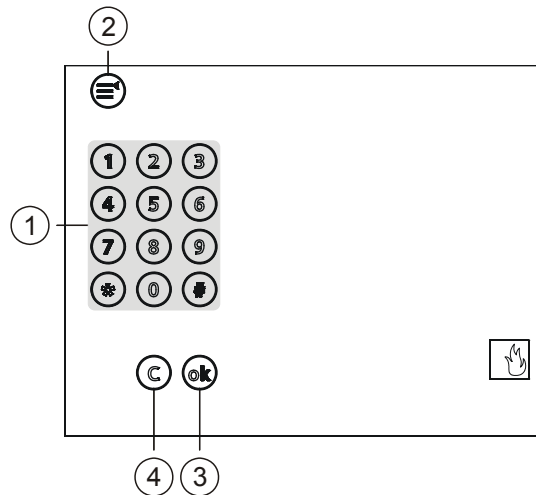


Navigation buttons

- The navigation buttons work in the same way as the arrow keys on a PC keyboard.
- With the <▲> and <▼> buttons, the next entry in a list can be highlighted.
- Changing to a higher or lower hierarchy level is possible with the <◀> and <▶> buttons.
- In a command list, the highlighted command may be executed with the <▶> button.
- When characters are entered, the character to the left of the cursor position is deleted by pressing the <▲> button.

3.5.3 Keypad

The following figure shows the keyboard and <MENU>, <ok> and <C> (Cancel) buttons:



1	Keypad	3	<ok>
2	<MENU>	4	<C> (Cancel button)

The key panel serves for numeric and alphanumeric entries.

Numeric entry

Numeric entry is applicable in the following cases:

- PIN entry (password)
- Shortcuts (Menus)
- Address entry (Element ID)
- Parameter entry

Alphanumeric entry

Alphanumeric entry is applicable in the following case:


- Entering customer texts

3.5.4 Menu button

 = <MENU> button

- The <MENU> button opens the main menu.
- The PIN entry dialog is displayed if there is no 'Access level' enabled.
- Opening the main menu is independent from the current display contents.

See also

 [Log in / Change access level \[→ 31\]](#)

3.5.5 Button 'ok'

 = Button <ok>

With <ok> a selected entry or menu item can be executed or opened, respectively.
 In windows with an entry field, the <ok> button moves the cursor to the next entry.

3.5.6 Button 'C'

 = Cancel button <C>

With <C> any operation sequence can be cancelled, and any open list or window can be closed.

3.6 Menu structure

MAIN MENU	Menu items / Functions	Selection / Dialog box	See page
'Message summary'	'Message summary'	Message category	- [→ 93]
'Functions'	'Enable / Bypass'	'Select element category'	- [→ 33]
	'Test'	'Select element category'	- [→ 58]
	'Activate / Deactivate'	'Select element category'	- [→ 61]
	'Information'	'Select element category'	- [→ 70]
	'Configuration'	'Select element category'	- [→ 71]
	'Maintenance'	'Select element category'	- [→ 124]
	'All functions'	'Select element category'	- [→ 45]
'Favorites' ¹	e.g. 'Function Enable/bypass'	'Select element category'	- [→ 29]
	e.g. 'All functions'	'Select element category'	- [→ 29]
'Topology'	'Detection tree'	'Area'	- [→ 53]
	'Hardware tree'	Panel / Module	- [→ 53]
	'Control tree'	'Alarming control group' / e.g. 'Evac ct' ¹ / e.g. 'ALARM' ¹ / e.g. 'Fire ct' ¹	- [→ 53]
'Element search'	'Start with category'	'Select element category' / enter address	- [→ 55]
	'Start with address'	Enter address	- [→ 55]
'Event memory'	'Select panel'	Events	- [→ 93]
'Login/logout'	Input dialog		- [→ 31]
'Settings/administration'	'Change PIN'	Input dialog	- [→ 79]
	'Create PIN'	Input dialog	- [→ 79]
	'Delete PIN'	Input dialog	- [→ 79]
	'LED test'	'LED test'	- [→ 60]
	'Set buzzer volume'	'Set buzzer volume'	- [→ 81]
	'Display settings'	'Change display brightness' 'Change display contrast'	- [→ 81]
	'System commands'	'Enter date / time'	- [→ 81]

¹ Can be configured

3.7 Cerberus-Remote

Cerberus-Remote is software for the PC which can be used to display the Person Machine Interface of a 'Panel' on the PC. For example it can be used to access the fire detection system for maintenance purposes.

Depending on the operating mode, Cerberus-Remote can either be used for display purposes or for display and operation purposes.

The link between Cerberus-Remote and a 'Panel' can be structured as follows:

- Local connection via any 'Panel' in the fire detection system
- Connection via the Global Access Point (GAP)

Cerberus-Remote is an integrated part of Cerberus-Engineering-Tool but may also be installed on a PC as a stand-alone application 'FX7220'.

You will need an installed license key (at least L1) and appropriate authorization from the 'Panel' in order to use Cerberus-Remote. The license key need only be installed in the 'Panel' whose Person Machine Interface is to be displayed in Cerberus-Remote.



The connection to a 'Panel' with a license key is also possible via a 'Panel' without a license key.



Cerberus-Remote has the same visibility as the connected 'Panel'. You can use Cerberus-Remote in a fire detection installation with networked 'Panels' to gain global visibility. Just one license key is needed for this per network if the license key is installed in a 'Panel' with global visibility.




The connection with a 'Panel' is shown by the Person Machine Interface (display, LEDs, keys) transmitted.

The 'Cerberus-Remote access' operation mode is indicated by a red frame around the Person Machine Interface.

An enable granted for Cerberus-Remote is retained when a 'Panel' restarted.

See also

 Cerberus-Remote – operation modes [→ 30]

4 Operation functions

The following chapters contain descriptions of important functions for directly operating the system.

You will find information on the system functions in the corresponding chapter.

See also

 System functions [→ 84]

4.1 Selection and opening / execution

After calling up the main menu and any other list, the first entry in the list is selected. The selection is indicated by a rectangular frame around the entry.

The opening of a list item or the execution of a list command is performed by moving the cursor to the selected entry and pressing <ok>.

Other methods to open or execute a highlighted list entry are given by pressing the following buttons:

- <▶>
- <Number> on the numerical block (given number in brackets – only in selection lists)

Changing the selection

The selection indicated is changed as follows:

Button	Consequence
<▼>	next entry
<▲>	previous entry
<Number> + <ok>	Goes to the entry with the number entered – not in selection lists
'MoreOptions' + 'Jump to begin' softkeys	Jump to the top of the list
'MoreOptions' + 'Jump to end' softkeys	Jump to the end of the list

4.2 Scrolling

You can use the navigation keys to scroll through a displayed list in the display.

You can scroll to the start/end of the lists (limited function) and back in the following lists:

- Option lists
- Command lists
- Element category lists

In all other lists, you can scroll beyond the end of the list to the start of the list and back.

4.3 Indication of the position and length of the list

There is a vertical bar along the side of the list when the list is longer than the display. The black part of the bar shows the position and size of the part of the list you can see in relation to the entire list. You can use the navigation keys to scroll through a displayed list in the display.

Examples for the representation in different lists:

000	000	000	004	005	04/13/2011	03:27 PM
ALM	GAS	SUP	TBL	INF		
PMI		1			Access level 3	IN
Person Machine Interface						001
Loop		1/2/11			Dev.config. runs	IN
Stub 1_1 (class B)						002
Execute Commands		Switch to Extended view		More Options		

Display with bar in normal view with list

0001 / 0359 Events				Panel	1
!08/27/11 10:13:04 AM			Bypassed		IN
Circuit 1/2/22			Class B circuit 2_2		
08/27/11 09:53:27 AM			Access level 3		IN
PMI		1	Person Machine Interface		
Select Event category		Select Date/time range		More Options	

Display with bar in normal view with long list

Functions		Access level 3	
Exit with	Select element category		
Enable	Zone	(1)	(5)
Test	Detector	(2)	(6)
Activate	RT control	(3)	(7)
Inform	NAC control	(4)	(8)
By	Fire control group	(5)	
all			

Display with bar in window with list

See also

📖 Scrolling [→ 27]

4.4 Shortcut

A shortcut serves for the direct execution of an entry in a selection list by pressing a numeric key.

In a command list, for example, you can execute a command directly by entering the corresponding number.

The numbers for the shortcut are shown in the list entry line, on the right and in brackets.

4.5 Favorites

You can use favorites to execute several operation sequences or one operating sequence in an operation sequence.

A maximum of eight favorites are configured and you can select them from the favorite list in the 'Favorites' main menu item.

4.6 Entry of numbers and letters

You can use the keyboard to enter numbers and letters in input dialogs.

Numeric entry

- The number of underscores corresponds to the number of possible positions for the entry.
- The overwrite mode is set by default; there is no insert mode.
- Horizontal navigation within the input field is possible with the <◀> and <▶> buttons.
- Use <▲> to delete the character to the left of the cursor position.
- Use <ok> to save the entered value and exit the input field.
 - When there are several input fields in the dialog window, the cursor jumps to the next field when you press <ok>.
 - If the cursor position is in the last or only input field, close the input dialog by pressing <ok>.
- Use <C> to cancel the input and close the dialog without saving.

Alphanumeric entry

- Alphanumeric entries are only possible in particular input fields, e.g. for customer text.
- Letters are entered in the same way as letters on telephones. You can select the corresponding letter by pressing a key several times.
- Switching between lower and upper case letters is possible with the key <*> and only applies for the next character.



In input fields with more than one line, you cannot change back to a line above the cursor position.

4.7 Cerberus-Remote – operation modes

Cerberus-Remote has the following operation modes:

- 'Limited access (view only)'
- 'Full access (view/operation)'

For both operation modes, SintesoView must be enabled on the 'Panel'. In addition, a license key (at least L1) must be installed.

'Limited access (view only)'

In this operation mode Cerberus-Remote indicates the same as the 'Panel' connected to it, but you cannot operate the linked 'Panel'.

Cerberus-Remote indicates the display with all indicated texts, all LEDs in their current state and all buttons.

'Full access (view/operation)'

In this operation mode the connected 'Panel' is visualized as in the 'Limited access (view only)' operation mode. Additionally, the 'Panel' can be operated with Cerberus-Remote, while normal operation on the 'Panel' is blocked, but can be reactivated.



As operation on a 'Panel' must have priority, this restriction (blocking) on the 'Panel' can be cancelled at any time.

Each time an attempt is made to operate on the 'Panel', a dialog is indicated with the option to abort the connection with Cerberus-Remote.



The LED test also tests the display. The LEDs are not however displayed in Cerberus-Remote.

See also

 [Enabling / disabling Cerberus-Remote \[→ 75\]](#)

5 Operation

This part of the document provides brief descriptions and detailed operation sequences for the important functions of the fire detection installation. In addition, you can find your preferred procedures in the representation of exemplary operation sequences.

5.1 Log in / Change access level

You can enable an 'Access level' by entering your PIN in the PIN entry dialog, or by pressing <ok>. Alternatively you can use the key switch (optional) to release an Access level.

If you press a key on the Person Machine Interface whose function requires a higher 'Access level', the PIN input dialog is displayed automatically.

Login/logout
Enter PIN: ****
Logout or guest-login: no PIN + <ok>
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

PIN entry dialog box

Enabling an 'Access level' without a PIN

1. Press <Menu> on the keypad.
 - ⇒ The PIN input dialog is indicated.
2. Do not enter a PIN and confirm with <ok>.
 - ⇒ The lowest 'Access level' is enabled.
 - ⇒ The main menu is open.

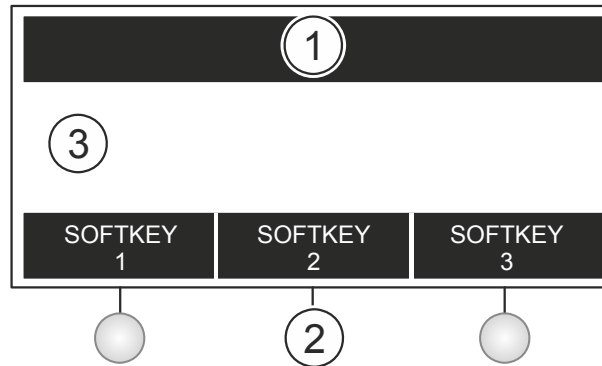
Enabling an 'Access level' with a PIN

1. Press <Menu> on the keypad or select the 'Login/logout' main menu item.
 - ⇒ The PIN input dialog is indicated.
2. Enter your PIN and confirm with <ok>.
 - ⇒ The corresponding 'Access level' is enabled.
 - ⇒ The main menu is open.



The present 'Access level' is indicated in the main menu in the header of the display.

5.2 ALARM Procedure



- 1 Top line on the display
- 2 <Softkey 2> 'Show intervention text' if displayed
- 3 Indication of the fire location on the display

Procedure in the event of alarm

Step	Action / Condition	Consequence / Status
1	Read top line on display	
	- 'Fire Department requested'	⇒ 'ALARM' is transmitted to the fire department
	- 'Call Fire Department !' when: Remote transmission switched off Remote transmission blocked or defective No remote transmission available	⇒ Fire department must be called by phone! ⇒ No automatic transmission to fire department
2	Press 'Show intervention text' <softkey 2> if displayed or press <Show intervention text> button Press <Jump back>	⇒ Intervention text is displayed
3	Read off fire location on display	⇒ Fire location is displayed


Indication on the display	Handling
Fire department has been called	Save people Guide the fire department to the fire location Fight the fire
'Call Fire Department !' No automatic transmission to the fire department	Call the fire department on the phone!

5.3 Bypass / enable

To avoid false alarms, you can bypass parts of a 'Site' in certain situations, e.g. for the purpose of maintenance work.

If part of the 'Site' is bypassed, the 'Partial System Disabled' LED lights up.

The situations in which part of a 'Site' should be bypassed, depends on the detectors used as well as on possible deceptive phenomena such as smoke, dust, heat or vapour.


	<p>⚠ WARNING</p>
	<p>System parts that have been bypassed make it impossible to acquire and process alarms or troubles!</p> <p>Fire may spread unhindered.</p> <ul style="list-style-type: none"> • Deploy staff to supervise the bypassed area. • You must enable bypassed parts of the 'Site' as soon as possible.



If a bypassed 'Zone' is the only 'Zone' in a 'Section', the 'Section' is also indicated as bypassed.

Examples of bypassing/enabling are provided in the following chapters.

5.3.1 Bypass / enable a detector zone

	<p>⚠ WARNING</p>
	<p>System parts that have been bypassed make it impossible to acquire and process alarms or troubles!</p> <p>Fire may spread unhindered.</p> <ul style="list-style-type: none"> • Deploy staff to supervise the bypassed area. • You must enable bypassed parts of the 'Site' as soon as possible.



If a bypassed 'Zone' is the only 'Zone' in a 'Section', the 'Section' is also indicated as bypassed.

In which situations a detector zone should be bypassed, depends on the detectors used as well as on possible deceptive phenomena such as smoke, dust, heat or vapour.



The fastest method for bypassing or enabling is to enter a known address in the 'Enter address' window.

In the configuration, a standard button can be given the function of directly opening the menu with the 'Enter address' input dialog to select a detector zone.

In the following exemplary operating sequence the process is shown without a known address.

Bypassing a detector zone

1. In the main menu, select the 'Functions' menu item.
 - ⇒ The 'Functions' window is open.
 2. Select the 'Enable / Bypass' menu item.
 - ⇒ A list of all element categories on which a command of the 'Enable / Bypass' command group can be executed is indicated.
 3. Select the 'Element category' 'Zone'.
 - ⇒ The 'Enter address' window is open.
 4. Press <ok> without entering an address.
 - ⇒ All 'Zones' are displayed
 5. Select a 'Zone' and press the <Execute Commands>.
 - ⇒ The 'Select command' window is open.
 6. Select the 'BYPASS' command and confirm with <ok>.
 - ⇒ The window with the command response confirms the selected command.
- ⇒ 'Zone' is bypassed.

Below is an example showing how to bypass detector zone as outline above:

Functions		Access level 2.1	
Exit with <C>			
Enable / Bypass	(1)	Configuration	(5)
Test	(2)	Maintenance	(6)
Activate / Deactivate	(3)	Reports	(7)
Information	(4)	All functions	(8)

Message summary	Event memory	LED test
-----------------	--------------	----------

- Select 'Enable / Bypass', continue with <ok>

Selecting element category	
Zone	(1)
Area	(2)
Section	(3)
Audible	(4)
Fire control group	(5)

- Select 'Zone', continue with <ok>

Enter address
Zone -----
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

- Continue with <ok> without entering an address

021 Zones		
Zone	10	Power supply room
Zone	11	EDP room, false floor
Zone	12	EDP room
Zone	13	Office 21
Execute Commands		Show Topology

- Select 'Zone', continue with <Execute Commands>

Select command	
BYPASS	(2)
BYPASS/timer	(4)

- Select 'BYPASS', continue with <ok>
- ⇒ Command response

Execute command BYPASS
Command executed

Enabling the detector zone

Proceed as with bypassing but select the 'ENABLE' command.

As an alternative, you can also select the corresponding 'Zone' via the 'Message summary' main menu item and the 'BYPASSED' message category and enable it with the 'Execute Commands'.

5.3.2 Bypass / enable a detector



⚠ WARNING

System parts that have been bypassed make it impossible to acquire and process alarms or troubles!

Fire may spread unhindered.

- Deploy staff to supervise the bypassed area.
- You must enable bypassed parts of the 'Site' as soon as possible.



If a bypassed 'Detector' is the only 'Detector' in a 'Zone', the 'Zone' is indicated as bypassed.

Bypassing Detector

1. In the main menu, select the 'Topology' menu item.
 - ⇒ The 'Topology' window is open.
2. Select 'Detection tree' and click <ok>.
 - ⇒ The elements of 'Detection tree' are displayed.
3. Select the element 'Area 1'.
 - ⇒ The elements of 'Area 1' are displayed.
4. Select 'Area 1' and press <Lower level>.
 - ⇒ All 'Sections' in 'Area 1' are displayed.
5. Select 'Section 1' and press <Lower level>.
 - ⇒ All 'Zones' in 'Section 1' are displayed.
6. Select 'Zone 1' and press <Lower level>.
 - ⇒ All detectors of 'Zone 1' are displayed.
7. Select 'Detect. 1' and press <More Options>.
 - ⇒ The 'Select option' window is open.
8. Select 'Execute commands'.
 - ⇒ The 'Select command' window is displayed.

9. Select 'BYPASS'.

- ⇒ The command is executed.
- ⇒ The window with the command response is open.

⇒ The detector is bypassed.

Below is an example showing how to bypass a detector as outlined above:

Topology		Access level 2.1
Exit with <C>		
Detection tree	(1)	
Hardware tree	(2)	
Control tree	(3)	
Message summary	Event memory	LED test

- Select 'Detection tree', continue with <ok>

001 Element		Detection tree
Area	1	Portaphone Ltd
	Lower level	Execute Commands

- Select 'Area 1', continue with <Lower level>

005	Elements	Area 1
	Portaphone Ltd	
Section	1	Ground floor
Section	2	1. floor
Section	3	1. floor / EDP room
Section	4	2. floor
	Upper level	Lower level
		Execute Commands

- Select 'Section 1', continue with <Lower level>

005	Elements		Section 1
	Ground floor		
Zone	1		Reception hall
Zone	2		Corridor
Zone	3		Warehouse
Zone	4		Reception hall
	Upper level	Lower level	Execute Commands

- Select 'Zone 1' element, continue with <Lower level>

002	Elements		Zone 1
	Reception hall		
Detect.	1		Main entrance
Detect.	2		Reception
	Upper level		More Options

- Select 'Detect. 2', continue with <More Options>

Selecting option	
Execute commands	(3)
Jump to link	(4)
Show details	(5)

- Select 'Execute commands' option, continue with <ok>

Select command	
BYPASS	(1)
Activate alarm indicator	(3)
Deactivate alarm indicator	(4)

- Select 'BYPASS' command

⇒ Command response

Execute command
BYPASS
Command executed

Enabling Detector

Proceed in the same way as when bypassing 'Detector', but select the 'ENABLE' command as shown below.

Select command
ENABLE (2)

- Select 'ENABLE' command



As an alternative, you can also select the corresponding detector or 'Zone' via the 'Message summary' main menu item and the 'BYPASSED' message category and enable it with the 'More Options', 'Execute commands' and 'ENABLE' softkey.

5.3.3 Temporary bypassing

	<p>WARNING</p>
	<p>System parts that have been bypassed make it impossible to acquire and process alarms or troubles!</p> <p>Fire may spread unhindered.</p> <ul style="list-style-type: none"> • Deploy staff to supervise the bypassed area. • You must enable bypassed parts of the 'Site' as soon as possible.



You can only carry out temporary bypassing at 'Area' or 'Section' level.

With the BYPASS/timer function, you can set a time limit. The bypassed part of the 'Site' is enabled automatically after the time period entered.

The figures below show an exemplary operation sequence to temporarily bypass 'Section':

Selecting element category	
Zone	(1)
Area	(2)
Section	(3)
Audible	(4)
Fire control group	(5)

- Select 'Section', continue with <ok>

Enter address
Section 1----- Confirm with <ok>/Exit with <C> Delete with <Cursor up>

- Enter address: e.g. 1, continue with <ok>

Select command	
ENABLE all zones	(2)
BYPASS/timer all zones	(3)
BYPASS MPS zones	(4)
ENABLE non-MPS zones	(5)
BYPASS non-MPS zones	(6)

- Select 'BYPASS/timer all zones' command continue with <ok>

Enter duration
05:00 (hh:mm) Confirm with <ok>/Exit with <C> Delete with <Cursor up>

- Enter duration: e.g. 5 hours

⇒ Command response

Execute command BYPASS/timer all zones
Command executed



The adjustable duration can be limited depending on the country and subsequently changed.
You can subsequently set the 'BYPASS/timer' setting to unrestricted and vice versa.

5.3.4 Bypass / enable the remote transmission Fire



⚠ WARNING

When the remote transmission Fire has been bypassed, the fire department cannot be called up in the event of fire!

Fire may spread unhindered.

- Deploy staff to supervise the 'Site'.
- You must re-enable the 'RT alarm' as soon as possible.



'The 'RT alarm' is normally enabled and may only be bypassed in particular cases, e.g. for a function check of controls.'

Bypassing the RT alarm

1. In the main menu, select the 'Functions' menu item.
2. Select 'Enable / Bypass'.
 - ⇒ The 'Select element category' window is displayed.
3. Select 'RT control'.
 - ⇒ The 'Enter address' window is displayed.
4. Do not enter e.g. an address and confirm with <ok>.
 - ⇒ The window with all the 'RT controls' is displayed.
5. Select 'RT control' and 'Execute command'
 - ⇒ The 'Select command' window is displayed.
6. Select 'BYPASS'
 - ⇒ The command response confirms that the command has been executed.
 - ⇒ The 'RT alarm' is bypassed.
 - ⇒ The 'Partial System Disabled' on the Person Machine Interface is steady on.

Example of bypassing RT alarm using the 'Functions' main menu item:

Functions		Access level 2.1	
Exit with <C>			
Enable / Bypass	(1)	Configuration	(5)
Test	(2)	Maintenance	(6)
Activate / Deactivate	(3)	Reports	(7)
Information	(4)	All functions	(8)

Message summary	Event memory	LED test
-----------------	--------------	----------

- Select 'Enable / Bypass', continue with <ok>

Select element category	
Area	(1)
Section	(2)
RT control	(3)
NAC control	(4)
Alarming control group	(5)

Select 'RT control', continue with <ok>

Enter address
RT -----
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

- Do not enter an address, continue with <ok>

004 RT controls		
RTalarm	1	Remote transmission channel ALARM
RTtrble	2	Remote transmission channel TROUBLE
RT sup.	3	Rem. transm. channel SUPERVISORY
RT prog	4	Rem. transm. channel Programmable

Execute Commands	Show Topology
------------------	---------------

- Select 'RTalarm', continue with <ok>

Select command	
BYPASS	(1)


- Select (1) BYPASS
- ⇒ Command response

Execute command BYPASS
Command executed

Enabling the RT alarm

- Proceed as with bypassing but select the 'ENABLE' command.

5.3.5 Bypass alarm activation

	<p>⚠ WARNING</p>
	<p>System parts that have been bypassed make it impossible to acquire and process alarms or troubles!</p> <p>Fire may spread unhindered.</p> <ul style="list-style-type: none"> • Deploy staff to supervise the bypassed area. • You must enable bypassed parts of the 'Site' as soon as possible.

You can bypass the fire detection installation alarm activation for specific elements with this function.

Troubles such as the removal of a detector are nevertheless evaluated and displayed.



You can only run the 'BYPASS alarm evaluation' command on the following elements:

- 'Section'
- 'Automatic alarm zone'
- 'Status zone'
- 'Trouble zone'
- 'Supervisory zone'

5.4 Logging out from an access level

1. In the main menu, select the 'Login/logout' menu item.
 - ⇒ The PIN input dialog is indicated.
2. Do not enter a PIN and confirm with <ok>.
 - ⇒ The 'Access level' is reset back to the lowest 'Access level'.

5.5 Changing visibility

See also

 [Visibility \[-> 90\]](#)

5.5.1 Deactivating standby



'PMI standby visibility' cannot be activated manually.

The 'Deactivate standby visibility' command is only available once the supervised 'Panel' or the management station is back in normal operation.

- ▷ The 'PMI standby visibility' is active.
 - ▷ The supervised 'Panel' or the management station is in normal operation.
1. In the 'Main menu', select the 'Message summary' menu item.
 - ⇒ The message categories containing messages are displayed.
 2. Select 'Information'.
 - ⇒ 'PMI standby visibility' is shown.
 3. Select this element.
 4. Press <Execute Commands>.
 5. Select 'Deactivate standby visibility'
 - ⇒ 'PMI standby visibility' is deactivated.

See also

 [Standby visibility \[-> 91\]](#)

5.6 Main menu / Open menu item

'Main menu'

1. Press the <Menu> button.
 - ⇒ The PIN input dialog is indicated.
2. Enter your PIN and confirm with <ok> or confirm with <ok> without entering the PIN.
 - ⇒ The 'Main menu' is indicated on the display.



Without PIN entry, the 'Main menu' only includes the menu items that are available without logging-in. To view an extended menu list in the 'Main menu' you need to log in at a corresponding access level.

Opening menu item

Every menu item has a number shown in brackets for the shortcut on the numerical block.

- Press on the digit in account on the numerical pad in order to open the menu item.
- Alternatively, you may navigate to the next menu item using the <▲> and <▼> navigation buttons.
- You may open the highlighted menu item with the <ok> button or with the <▶> navigation button.

5.7 Executing commands – Basics

There are different ways to enter commands. There are basically two ways of entering commands:

- Function-oriented command entry
 - Here, first select a command and then the target object on which the command is to be executed.
- Object-oriented command entry
 - Here, first select the target object and then the command on which the target object is to be executed.

In the fire detection system, these two methods of entering commands are combined in the interest of a better overview during the selection. It is thus possible to change between the two methods during the command entry sequence.

As only the possible command or element categories are indicated, each selection restricts the selection that follows.

The example in the following chapter makes this clear.



Depending on the 'Access level', the possible selection of commands via softkeys or the 'Main menu' is extended or restricted.

5.7.1 Executing commands – General

Example for the execution of commands

1. In the main menu, select the 'Functions' menu item.
2. Select a command category, e.g. 'Enable / Bypass'.
 - ⇒ A list of all element categories on which a command of the 'Enable / Bypass' command group can be executed is indicated.
3. Select an element category.
 - ⇒ The 'Enter address' window is open.
4. Enter an address or leave the entry field blank and confirm with <ok>.
 - ⇒ If no address is entered, all elements of the selected element category are indicated.
5. In this case, select an element and press <Execute Commands>.
 - ⇒ The 'Select command' window is open.
6. Select a command.
 - ⇒ The command is executed.

The tables below indicate the steps described above:

Main menu				Access level 2.1
Exit with <C>				
Message summary	(1)	Element search	(5)	
Functions	(2)	Event memory	(6)	
Favorites	(3)	Login/logout	(7)	
Topology	(4)	Settings/administration	(8)	
Message summary		Event memory		LED test

- Select the 'Functions' menu item.

Functions				Access level 2.1
Exit with <C>				
Enable / Bypass	(1)	Configuration	(5)	
Test	(2)	Maintenance	(6)	
Activate / Deactivate	(3)	Reports	(7)	
Information	(4)	All functions	(8)	
Message summary		Event memory		LED test

- Select 'Enable / Bypass'.

Selecting element category	
Area	(1)
Section	(2)
Zone	(3)
Audible	(4)
Fire control group	(5)

- Select for example 'Zone'.

Enter address
Zone -----
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

- Confirm with <ok> without entering an address.

021 Zones		
Zone	10	Power supply room
Zone	11	EDP room, false floor
Zone	12	EDP room
Zone	13	Office 21
Execute Commands		Show Topology

- Select a zone and press <Execute Commands>.

Select command	
BYPASS	(2)
BYPASS/timer	(4)

- 'Select a command, e.g. 'BYPASS'.

⇒ Window with command response

Execute command BYPASS
Command executed

5.7.2 Executing commands – object-oriented

You can apply object-oriented command entry to selected target objects. A selection can be made e.g. as follows:

- Navigation in the topology
- Element search

You can execute a command on the selection or the selected element from a list. To do this press the 'Execute Commands' softkey and then select a command.

Below is an example of an element from the Detection tree for command entry:

Main menu		Access level 2.1	
Exit with <C>			
Message summary	(1)	Element search	(5)
Functions	(2)	Event memory	(6)
Favorites	(3)	Login/logout	(7)
Topology	(4)	Settings/administration	(8)
Message summary		Event memory	LED test

- Select 'Topology' menu item in the main menu, continue with <ok>

Topology		Access level 2.1	
Exit with <C>			
Detection tree	(1)		
Hardware tree	(2)		
Control tree	(3)		
Message summary		Event memory	LED test

- Select 'Detection tree', continue with <ok>

001 Element		Detection tree	
Area	2	Portaphone AG	
		Lower level	Execute Commands

- Select 'Area 2', continue with <Lower level>

005	Elements	Area 2	
	Portaphone AG		
Section	1	Ground floor	
Section	2	1. floor	
Section	3	1. floor / EDP room	
Section	4	2. floor	
	Upper level	Lower level	Execute Commands

- Select 'Section 1', continue with <Lower level>

005	Elements	Section 1	
	Ground floor		
Zone	1	Reception hall	
Zone	2	Corridor	
Zone	3	Warehouse	
Zone	4	Reception hall	
	Upper level	Lower level	Execute Commands

- Select 'Zone 1', continue with <Lower level>

002	Elements	Zone 1	
	Reception hall		
Detect.	1	Main entrance	
Detect.	2	Reception	
	Upper level		Execute Commands

- Select 'Detect. 1', continue with <Execute Commands>

Select command	
BYPASS	(1)
Activate alarm indicator	(3)
Deactivate alarm indicator	(4)

- Select 'BYPASS' command continue with <ok>
- ⇒ Command response

Execute command BYPASS
Command executed

5.7.3 Executing commands – function-oriented

1. In the 'Main menu', select the 'Functions' menu item.

⇒ The 'Functions' menu is open.

2. Select a menu item in the menu list or press the softkey in account.

If a command e.g. 'LED test', cannot be executed directly, the 'Select element category' window is opened after the menu item or softkey is selected (see chapter 'Executing commands – General').

Functions	Access level 2.1		
Exit with <C>			
Enable / Bypass	(1)	Configuration	(5)
Test	(2)	Maintenance	(6)
Activate / Deactivate	(3)	Reports	(7)
Information	(4)	All functions	(8)
Message summary	Event memory	LED test	

'Functions' menu

5.7.4 Hide command confirmation message

After entering a command, two windows with command confirmation messages confirm the execution of the command as well as the successful execution.



When the execution duration of a command is very short, the command confirmation message is immediately shown, including a message about the successful command execution.

In general, the command confirmation messages disappear after a few seconds.

Regarding the following commands with longer execution durations, the window with the command confirmation messages does not disappear automatically:

- Auto-configuration functions
- 'Accept replaced devices'
- 'Read current topology'
- 'ENABLE circuit'
- 'Restart circuit'
- 'BYPASS circuit'

Hiding the indicated command confirmation message

- Press <Menu> or <C>.
- ⇒ The window disappears.

5.8 Selecting elements or events

The objective of selecting an element or event is e.g. the detailed and information indication, the configuration or command entry applied to the selection.

5.8.1 Select events

All events that have occurred in the fire detection installation are stored in the event memory . The event list is sorted chronologically and you may filter the events by category, date and time.



The preselection by category as well as the entry of a timespan makes it possible to indicate a part of all the events stored in 'Event memory'.

Selecting events

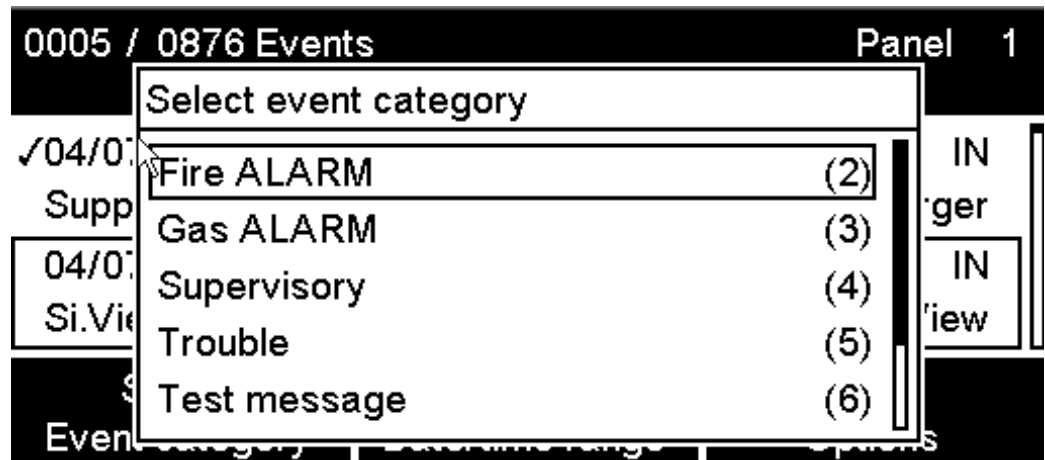
1. In the 'Main menu', select the 'Event memory' menu item.
 - ⇒ A list with 'Panels' is displayed. The 'Panel', where the selection is made is identified accordingly.
2. Select the 'Panel'.
 - ⇒ A list of all events is displayed.

0005 / 0876 Events		Panel 1
✓04/07/11 05:22:05 PM	Battery missing	IN
Supply 1	supervision & batt. charger	
04/07/11 05:19:25 PM	Operation mode connε	IN
Si.View 1	SintesoView	
Select Event category	Select Date/time range	More Options

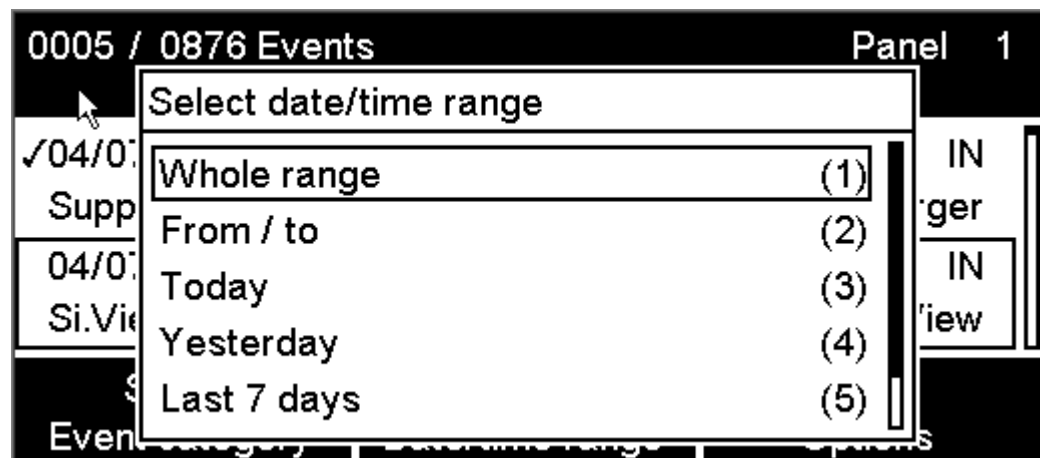
Example of an event list

Limiting the selection with the softkeys

You can use the 'Select Event category' softkey to select an event category and then enter the date or time range.



Event category selection window



Date/timespan selection window

Select event category	
Fire ALARM	(2)
Gas ALARM	(3)
All supervisories	(4)
Trouble	(5)
Test message	(6)

You can use the 'Select Date/time range' softkey to enter the timespan.

Select date/time range	
Whole range	
From / to	(1)
Today	(2)
Yesterday	(3)
Last 7 days	(4)

The 'More Options' softkey gives you the following options:

Selecting option	
Select panel	(3)
Execute commands	(4)
Jump to begin	(5)
Jump to end	(6)
Delete event memory	(8)

See also

- 📄 Events [→ 91]
- 📄 Event categories [→ 92]
- 📄 Status identification of event messages [→ 92]

5.8.2 Selection in the topology

It is possible to navigate through the topology tree structure via the 'Topology' menu item in the Main menu. Here you can select an element in order to view details or execute a function on a selected element.

In the topology, you pre-select elements by selecting the subtree in the topology.

There are three subtrees:

- 'Detection tree'
- 'Hardware tree'
- 'Control tree'

Selecting element in the topology

1. In the 'Main menu', select the 'Topology' menu item.
 - ⇒ The three subtrees of the topology are indicated.
2. Select a subtree.
3. In the structure, continue navigating to the detail with the 'Lower level' softkey or use the 'Execute Commands' softkey to execute a command.
 - ⇒ Details are shown or the window with a selection of commands is indicated.

Navigating in the Control tree

Topology		Access level 2.1
Exit with <C>		
Detection tree	(1)	
Hardware tree	(2)	
Control tree	(3)	

Message summary	Event memory	LED test
-----------------	--------------	----------

- 'Control tree' selection
 - ⇒ The 'Control tree' contains three elements.

003 Elements		Control tree
Fire control group	2	Fire protection doors
Alarming control group	2	Standard alarming control
Fire control group	3	Lift control

Lower level	Execute Commands
-------------	------------------

- Select 'Alarming control group 2', <Lower level>

006 Elements		Alarmg.
RTtrble	4	RT channel Trouble
RT sup.	7	RT channel 1
Alarm Verification Concepts	8	RT channel 2

Upper level	Execute Commands
-------------	------------------

- Select 'RTtrble', <Execute Commands>

Select command	
BYPASS	(1)
Deactivate	(2)
Poll RT counter	(3)

5.8.3 Searching for elements

An 'Element search' makes it possible to view the details of an element or to enter commands applicable to an element.

There are two ways of 'Element search':

- Search by category
- Search by 'Address'

Searching for an element

1. In the 'Main menu', select the 'Element search' menu item.
⇒ The window to select the search variant is open.
2. Select the search variant and proceed as follows:
 - 'Start with category'
First of all, select an element category.
In the 'Enter address' window you have the possibility to enter <ok> without entering an address. In that case, all elements of this element category are listed.
When you enter a valid address in the 'Enter address' field, only that element is listed.
 - 'Start with address'
Here you enter a valid address at the beginning. All elements with this address are listed.
The elements may belong to different element categories such as 'Area' 2, 'Section' 2, 'Zone' 2, 'Alarming control group' 2 or 'Fire control group' 2, after the entry of address 2.

Search by category

The tables below indicate steps of the 'Element search' with 'Start with category':

Main menu		Access level 2.1	
Exit with <C>			
Message summary	(1)	Element search	(5)
Functions	(2)	Event memory	(6)
Favorites	(3)	Login/logout	(7)
Topology	(4)	Settings/administration	(8)
Message summary	Event memory	LED	test

- Select 'Element search', continue with <ok>

Element search Access level 2.1
Exit with <C>

Start with category (1)

Start with address (2)

Message summary	Event memory	LED test
-----------------	--------------	----------

- Select 'Start with category', continue with <ok>

Selecting element category	
Area	(1)
Section	(2)
Zone	(3)
Audible	(4)
Fire control group	(5)

- Select e.g. 'Zone', continue with <ok>

Enter address
Zone 2-----
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

- Enter e.g. 2, continue with <ok>

001 Zone

Zone 2 Corridor

Execute Commands	Execute commands Topology
---------------------	------------------------------

Corresponding functions are possible with the softkeys.

Search by address

The tables below indicate steps of the 'Element search' with 'Start with address':

Element search	Access level 2.1
Exit with <C>	

- Start with category (1)
- Start with address (2)

Message summary	Event memory	LED test
-----------------	--------------	----------

- Select 'Start with address', continue with <ok>

Enter address
Address 2-----
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

- Enter e.g. 2, continue with <ok>

050 Elements		
Area	2	Portaphone AG
Section	2	1. floor
Zone	2	Corridor
RTalarm	2	RT channel Fire
Execute Commands	Topology	

Corresponding functions are possible with the softkeys.

5.9 Testing

The following chapters with operation sequences for testing include sample tests.

See also

 Test [→ 85]

5.9.1 Testing detectors

The following example shows the 'ALL zones detector test' test on the 'Area' level.

1. In the 'Main menu', select the 'Functions' menu item.
 - ⇒ The 'Functions' menu is open.
2. Select the 'Test' menu item.
 - ⇒ The 'Select element category' window is open.
3. Select 'Area'.
 - ⇒ The 'Enter address' window is open.
4. Press <ok> without entering an address.
 - ⇒ One or more 'Areas' are displayed.
5. Select an 'Area'
6. Press the 'Execute commands' softkey
 - ⇒ The 'Select command' window is displayed
7. Select 'ALL zones detector test'.
 - ⇒ The 'ALL zones detector test' test is performed.
 - ⇒ The 'Trouble' LED flashes and the 'Partial System Disabled' LED is steady on on the Person Machine Interface.
8. Test the 'Detectors' with the appropriate tools.

Exiting the 'ALL zones detector test' test

Proceed as described above and select the 'ALL zones detector test END' command.


See also

 Detector test [→ 85]

5.9.2 Performing the 'Walk test'

- Proceed as with 'Detector test' and select the 'Walk test' function.

See also

 'Walk test' [→ 86]

5.9.3 Performing the 'Installation test'

As in the 'Installation test' all functions of the complete fire detection system including the 'Fire control' and alarming are tested, you must take appropriate actions.

The 'Installation test' can be performed at 'Area' or 'Section' levels.



⚠ WARNING

During the 'Installation test', alarming and fire control are activated!

Personal injury resulting from releasing activation

The fire department is called up unnecessarily.

- Set the 'Fire controls' to 'Control test' in advance.
- Inform the fire department in advance.



Before the 'Installation test' you can set 'Fire controls' to 'Control test'.

'Performing the 'Installation test'

- Proceed as with 'Detector test' and select the 'Installation test' function.

See also

📖 'Installation test' [→ 87]

5.9.4 Control test

The 'Control test' checks the function of the configured 'Controls' as in normal operation, but the outputs are not activated.




All controls can be set to 'Control test'.

Testing a control

1. In the main menu, select the 'Functions' menu item.
 - ⇒ The 'Functions' window is open.
2. Select the 'Test' menu item.
 - ⇒ A list of all element categories on which a command of the 'Test' command group can be executed is indicated.
3. Select the 'Fire control group' element category.
 - ⇒ The 'Enter address' window is open.
4. Press <ok> without entering an address.
 - ⇒ A list of all 'Fire control groups' is displayed.

5. Select the desired 'Fire control group' and press <Execute Commands>
⇒ The 'Select command' window is open.
6. Select 'Control test'.
⇒ The 'Control test' is performed.

See also

 Control test [→ 87]

5.9.5 Testing indicators

The display test is a functional hardware check for the following indication elements:

- Display
- LEDs
- Buzzer

At the same time, optionally built-in indication and operation devices, e.g. the mimic display driver or fire department control panels are activated by commands if they offer the possibility of performing a display test.

The test takes 10 seconds and has two phases of 5 seconds each.



Depending on the configuration, the 'LED test' command is available as softkey in the main menu.

Testing the indicators and displays


1. In the main menu, select the 'Settings/administration' menu item.
2. Select the 'LED test' menu item.
 - ⇒ Phase 1 starts:
Display is totally white.
LEDs are in color mode 1.
 - ⇒ Phase 2 starts:
Display is totally black.
LEDs are in color mode 2.


5.10 Activation / Deactivation / Reset

You can activate and deactivate outputs, for example 'Audibles'.

Channel inputs, e.g. detectors, may be activated but not deactivated. These can be reset after activation.

The activation of 'Fire controls' actuates e.g. smoke dampers, elevators, system equipment and releasing equipment, including those with releasing gases. You must take appropriate measures to prevent any possible damage.

	<p>⚠ WARNING</p>
	<p>Deactivated controls hinder appropriate measures in case of fire! Personal injury and damage to property in the event of a fire.</p> <ul style="list-style-type: none"> • Deploy staff to supervise the deactivated area. • You must reactivate deactivated controls as soon as possible.

	<p>⚠ WARNING</p>
	<p>Activated parts of the system may actuate alarming and universal control devices! Personal injury resulting from releasing activation. The fire department is called up unnecessarily.</p> <ul style="list-style-type: none"> • Set the 'Fire controls' to 'Control test' in advance. • Inform the fire department in advance.

5.10.1 Activating an alarm indicator (AI)

You can activate an alarm indicator e.g. to check the geographic assignment of a detector. This function is useful for commissioning or maintenance.

'Activate alarm indicator'

1. In the main menu, select the 'Topology' menu item.
 - ⇒ The three subtrees of the topology tree are indicated.
2. Select 'Detection tree'.
3. Go on navigating through the tree structure to the next detector, using the 'Lower level' softkey.
4. Highlight a detector.
5. Press <More Options>.
 - ⇒ The 'Select option' window is open.

6. Select the 'Execute commands' option.
 - ⇒ The 'Select command' window is displayed.
7. Select the 'Activate alarm indicator' command.
 - ⇒ The alarm indicator is activated.

The example below shows navigation in 'Detection tree' for selecting a detector and activating the alarm indicator:

Topology		Access level 3
Exit with <C>		
Detection tree	(1)	
Hardware tree	(2)	
Control tree	(3)	
Message summary		LED test
Event memory		

- Select 'Detection tree', continue with <ok>

001 Element		Detection tree
Area	1	Portaphone AG
Lower level		More Options

- Select 'Area 1', continue with <Lower level>

005	Elements	Area 1
Portaphone AG		
Section	1	Ground floor
Section	2	1. floor
Section	3	1. floor / EDP room
Section	4	2. floor
Upper level		More Options
Lower level		

- Select 'Section 3' element, continue with <Lower level>

004	Elements	Section 3	
	1. floor / EDP room		
Zone	9	EDP room	
Zone	10	Power supply room	
Zone	11	EDP room, false floor	
Zone	12	EDP room	
	Upper level	Lower level	More Options

- Select 'Zone 11' element, continue with <Lower level>

001	Element	Zone 11	
	1. floor / EDP room		
Detect.	1	EDP room, false floor	
	Upper level	Lower level	More Options

- Select 'Detect. 1' element, continue with <More Options>

Selecting option	
Execute commands	(3)
Jump to link	(4)
Show details	(5)

- Select 'Execute commands' option, continue with <ok>

Select command	
BYPASS	(1)
Set customer text	(3)
Activate alarm indicator	(5)
Select Parameter set OCCUPIED	(6)
Select Parameter set UNOCCUPIED	(7)

- Select 'Activate alarm indicator' command continue with <ok>

⇒ Command response

Execute command
Activate alarm indicator
Command executed

5.10.2 Deactivating / Activating alarm devices

In case of alarm, the alarm devices are active and the corresponding LED on the PMI is on.

You can deactivate activated alarm devices on the PMI with <Audibles>.

Deactivating the alarm devices

- ▷ An alarm event has occurred.
- Press <Audibles>.
- ⇒ Alarm devices are deactivated.

Activating deactivated alarm devices

- Press <Audibles> again.
- ⇒ Alarm devices are activated.



When activated alarm devices have been deactivated after an alarm event, they are automatically re-activated when a new alarm event occurs.

5.10.3 Activating / resetting zone

An activated 'Zone' generates a 'ALARM' event.

Activating Zone

1. In the main menu, select the 'Functions' menu item.
 - ⇒ The 'Functions' menu is open.
2. Select the 'Activate / Deactivate' menu item.
 - ⇒ A list of all element categories on which a command of the 'Activate / Deactivate' command group can be executed is indicated.
3. Select the 'Zone' element category.
 - ⇒ The 'Enter address' window is open.
4. Press <ok> without entering an address.
 - ⇒ A list with all 'Zones' is open.
5. Select a 'Zone' and press the <Execute Commands>.
 - ⇒ The 'Select command' window is open.
6. Select 'Activate'.
 - ⇒ 'Zone' is activated.
 - ⇒ The window with the command response is open.

Example of activating a Zone

Functions		Access level 2.2	
Exit with <C>			
Enable / Bypass	(1)	Configuration	(5)
Test	(2)	Maintenance	(6)
Activate / Deactivate	(3)	All functions	(7)
Information	(4)		
Message summary		Event memory	LED test

- Select 'Activate / Deactivate' function in the main menu, continue with <ok>

Selecting element category	
Area	(1)
Zone	(2)
Audible	(3)
RT control	(4)
Alarming control group	(5)

- Select 'Zone' element category, continue with <ok>

Enter address
Zone -----
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

- Press <ok> without entering an address

004 Zones		
Zone	1	Automatic alarm zone
Zone	2	Manual alarm zone
Zone	3	
Zone	4	
Execute Commands		Execute commands Topology

- Select <Execute Commands>

Select command
Activate (1)

- Select 'Activate', continue with <ok>

⇒ Command response

Execute command Activate
Command executed

After a 'Zone' zone has been activated, the 'ALARM' event is indicated on the display:

Fire Department requested 001 ALARM			
001	Man. FIRE ALARM	Zone	1
	! Automatic alarm zone		

Execute Commands	Show Intervention text	More Options
---------------------	---------------------------	-----------------

'ALARM' event

Acknowledging ALARM

- Press <Acknowledge>.
- ⇒ The alarming equipment is bypassed.

Execute command Acknowledge
Command executed

Command response

Resetting Zone

1. Press <Reset>.
 - ⇒ The 'Login/logout' dialogue is open.
2. Enter an admissible PIN.
 - ⇒ 'Zone' is reset.

5.10.4 Activating / deactivating universal control

Activating a 'Fire control

1. In the main menu, select the 'Functions' menu item.
 - ⇒ The 'Functions' menu is open.
 2. Select the 'Activate / Deactivate' menu item.
 - ⇒ A list of all element categories on which a command of the 'Activate / Deactivate' command group can be executed is indicated.
 3. Select the 'Fire control group' element category.
 - ⇒ The 'Enter address' window is open.
 4. Press <ok> without entering an address.
 - ⇒ The 'Select command' window is open.
 5. Select 'Activate'.
 - ⇒ 'Fire control group' is activated.
- ⇒ The window with the command response is open.

Example of deactivating a Fire control:

Functions		Access level 2.1	
Exit with <C>			
Enable / Bypass	(1)	Configuration	(5)
Test	(2)	Maintenance	(6)
Activate / Deactivate	(3)	All functions	(7)
Information	(4)		
Message summary	Event memory	LED	test

- Select 'Activate / Deactivate', continue with <ok>

Selecting element category	
RT control	(1)
NAC control	(2)
Fire control group	(3)
Evac control group	(4)
RT channel	(5)

- Select 'Fire control group', continue with <ok>

Enter address
Fire gr ----- Confirm with <ok>/Exit with <C> Delete with <Cursor up>

- E.g. continue with <ok> without entering an address

Select command
Activate (1)
Deactivate (2)

- Select 'Activate' command, continue with <ok>
- ⇒ Command response

Execute command Activate
Command executed

Deactivating a Fire control

Proceed as with activating, but select the command 'Deactivate':

5.10.5 Activating evac controls

1. In the main menu, select the 'Functions' menu item.
 - ⇒ The 'Functions' window is open.
2. Select the 'Activate / Deactivate' menu item.
 - ⇒ A list of all element categories on which a command of the 'Activate / Deactivate' command group can be executed is indicated.
3. Select the 'Evac control group' element category.
 - ⇒ The 'Enter address' window is open.
4. Press <ok> without entering an address.
 - ⇒ A list with all 'Evac controls' is open if more than one Evac category has been configured.

5. Select a 'Evac control group' and press the <Execute Commands>.
 - ⇒ The 'Select command' window is open.
6. Select 'Activate/EVAC'.
 - ⇒ 'Evac control' is activated.
 - ⇒ The window with the command response is open.

Example of activating Evac control

Functions		Access level 3	
Exit with <C>			
Enable / Bypass	(1)	Configuration	(5)
Test	(2)	Maintenance	(6)
Activate / Deactivate	(3)	All functions	(7)
Information	(4)		
Message summary		Event memory	LED test

- Select 'Activate / Deactivate' menu item, continue with <ok>

Selecting element category	
RT control	(3)
NAC control	(4)
Fire control	(5)
Fire control group	(6)
Evac control group	(7)

- Select 'Evac control group' element category, continue with <ok>

Enter address
Evac gr -----
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

- Continue with <ok> without entering an address

Due to the fact that in this example only one 'Evac control' has been configured, there is no selection window to select 'Evac control' after confirmation with <ok> without address entry.

Select command	
Activate/ALERT+EVAC	(1)
Activate/EVAC	(2)
Activate/ALERT	(3)
Deactivate	(4)

- Select 'Activate/EVAC' command continue with <ok>
- ⇒ Command response

Execute command Activate/EVAC
Command executed

5.11 Show information

5.11.1 Polling alarm counters / remote transmissions

The fire control panel has a function which counts all alarm events. The number of all alarms can be called up using alarm counter.

Another function counts all remote transmissions and can be shown using the RT counter.

Polling the alarm counter

1. In the main menu, select the 'Functions' menu item.
⇒ The 'Functions' menu is open.
2. Select the 'All functions' menu item.
⇒ The 'Select element category' window is open.
3. Select the 'Area' element category.
⇒ The 'Enter address' window is open.
4. Press <ok> without entering an address.
⇒ A list with 'Areas' is opened.
5. Select a 'Area' and press the <Execute Commands>.
⇒ The 'Select command' window is open.
6. Select the 'Poll alarm counter' command.
⇒ The number of alarms that have been occurred is indicated.

Execute command Poll alarm counter
Alarm counter value is: 3

Example with alarm counter value

Polling the RT counter

1. In the main menu, select the 'Functions' menu item.
⇒ The 'Functions' menu is open.
2. Select the 'All functions' menu item.
⇒ The 'Select element category' window is open.
3. Select the 'RT control' element category.
⇒ The 'Enter address' window is open.
4. Press <ok> without entering an address.
⇒ A list with all elements of the 'RT' type is open.
5. Select an element and press the <Execute Commands>.
⇒ The 'Select command' window is open.
6. Select the 'Poll RT counter' command.
⇒ The number of remote transmissions is shown.

5.12 Entering the configuration

For example you can undertake the following settings in the 'Configuration' menu:


- 'Switch Occupied operation' / 'Unoccupied operation'
- Set times for 'Unoccupied operation'
- Set parameter sets for 'Occupied operation' and 'Unoccupied operation'
- Set customer text

Configuring the installation

1. In the main menu, select the 'Functions' menu item.
⇒ The 'Functions' menu is open.
2. Select the 'Configuration' menu item.
⇒ A list of all element categories on which a command of the 'Configuration' command group can be executed is indicated.
3. Select the element category you want to configure.
⇒ The 'Enter address' window is open.
4. Press <ok> without entering an address.
⇒ A list with all elements is open.
5. Select an element and press the <Execute Commands>.
⇒ The 'Select command' window is open.
6. Select a command.
⇒ The command is executed.

5.13 Auto-configuring the panel

With the 'Auto-configure panel' function you can commission a newly installed 'Panel' immediately and without any additional settings.

	NOTICE
	<p>Overwriting an existing configuration</p> <p>An existing customer-specific configuration is lost.</p> <ul style="list-style-type: none"> • First save an existing customer-specific configuration.




The 'Auto-configure panel' process takes a few minutes, depending on the installation size.

1. In the main menu, select the 'Topology' menu item.
 - ⇒ The 'Topology' menu is open.
2. Select 'Hardware tree'.
 - ⇒ A list with all 'Panels' is displayed.
3. Select a 'Panel'.
4. Press 'More options'.
 - ⇒ The 'Select option' window is open.
5. Select 'Auto-configure panel'.
 - ⇒ 'The 'Panel' is auto-configured.

5.14 Auto-configuring the circuit

The 'Circuit' element category in the 'Maintenance' menu facilitates the reading-in of the current topology, for example. This creates part of the elements in the 'Detection tree'.

	NOTICE
	<p>Overwriting an existing configuration</p> <p>Parts of an existing customer-specific configuration are lost.</p> <ul style="list-style-type: none"> • First save an existing customer-specific configuration.

Auto-configuring a circuit:

1. In the main menu, select the 'Topology' menu item.
 - ⇒ The 'Topology' window is open.
2. Select 'Hardware tree'.
 - ⇒ The 'Hardware tree' window is open.

3. Select a 'Panel' and press the <Lower level>.
 - ⇒ The elements of 'Panel' are displayed.
4. Select the corresponding 'C-NET card' module and press the <Lower level>.
 - ⇒ All circuits of 'C-NET card' are indicated.
5. Select a circuit and press the <More Options>.
 - ⇒ The 'Select option' window is open.
6. Select 'Execute commands' and confirm with <ok>.
 - ⇒ The window including the possible commands is displayed.
7. Select the 'Auto-configure circuit' command and confirm with <ok>.
 - ⇒ The circuit is auto-configured.

Example of how to auto-configure a circuit

Main menu		Access level 3
Exit with <C>		
Message summary	(1)	Element search (5)
Functions	(2)	Event memory (6)
Favorites	(3)	Login/logout (7)
Topology	(4)	Settings/administration (8)
Message summary	Event memory	LED test

- Select 'Topology', continue with <ok>

Topology		Access level 3
Exit with <C>		
Detection tree	(1)	
Hardware tree	(2)	
Control tree	(3)	
Message summary	Event memory	LED test

- Select 'Hardware tree', continue with <ok>

001 Element		Hardware tree
Panel	1	Main building
	Lower level	More Options

- Select 'Panel 1', continue with <Lower level>

008 Elements			Panel 1
Alarming pre-configured			
Module	1	Periphery board (FCI2017)	
Module	2	C-NET card	
Module	3	C-NET card	
Module	4	Communication interfaces	
	Upper level	Lower level	More Options

- Select 'Module 2', continue with <Lower level>

007 Elements			Module 2
C-NET card			
Circuit	1	Circuit	
Circuit	21	Circuit	
Circuit	22	Circuit	
Circuit	31	Circuit	
	Upper level	Lower level	More Options

- Select 'Circuit 1', continue with <More Options>

Selecting option	
Execute commands	(3)
Show details	(5)

- Select 'Execute commands', continue with <ok>

Select command	
BYPASS circuit	(1)
Auto-configure circuit	(2)
Restart circuit	(3)
Set customer text	(4)

- Select 'Auto-configure circuit', continue with <ok>

⇒ The circuit is auto-configured.

5.15 Enabling / disabling Cerberus-Remote

Using Cerberus-Remote, you can represent the Person Machine Interface of a 'Panel' on the PC. Depending on the mode, you can display the Person Machine Interface or display and operate. The 'Panel' that is to be represented with Cerberus-Remote must be enabled.

You can grant the enable from all 'Panels' that have the 'Panel' for which enabling is required in their visibility.

You can also enable Cerberus-Remote permanently in the configuration with Cerberus-Engineering-Tool.



To enable Cerberus-Remote on a 'Panel', a license key (at least L1 or L2) must be installed in the 'Panel'.

Without a license key, no commands are available on the Cerberus-Remote element.

Enabling Cerberus-Remote

▷ License key is installed.

1. In the 'Main menu', select the 'Functions' menu item.

⇒ The 'Functions' window is open.

2. Select 'Maintenance' and confirm with <ok>.

⇒ A list of all element categories on which a command of the 'Maintenance' command group can be executed is indicated.

3. Select 'Cerberus-Remote'.

⇒ The 'Enter address' window is open.

4. Enter the number of the 'Panel on which Cerberus-Remote is to be enabled and confirm with <ok>.

⇒ The 'Select command' window is open.

5. Select the 'Enable Cerberus-Remote operation' command and confirm with <ok>.

⇒ Enabling for viewing and operating the 'Panel' with Cerberus-Remote is granted.

or

● Select the 'Enable Cerberus-Remote viewer' command and confirm with <ok>.

⇒ Enabling for viewing the 'Panel' with Cerberus-Remote is granted.



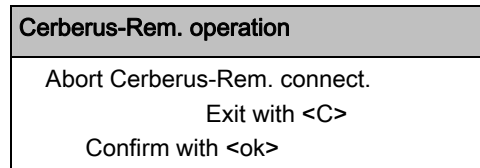
The 'Enable Cerberus-Remote operation' and 'Enable Cerberus-Remote viewer' commands cannot be selected when enabling has already been granted. When disabling Cerberus-Remote, the 'Disable Cerberus-Remote access' command is available instead in the command section.

Canceling enabling for Cerberus-Remote

If Cerberus-Remote is enabled but there is no link to Cerberus-Remote, you can disable the enable with the 'Disable Cerberus-Remote access' command. Proceed as described above and select the corresponding command.

When Cerberus-Remote is enabled for operation and the connection with the Cerberus-Remote has been established, each operating attempt on the 'Panel' opens the following window:

Window to abort the connection with Cerberus-Remote



- Press <ok>
- ⇒ Connection with Cerberus-Remote is broken.
- ⇒ Enabling for Cerberus-Remote is canceled.

See also

- 📖 [Connecting Cerberus-Remote \[→ 76\]](#)
- 📖 [Cerberus-Remote – setting up link with integrated IP \[→ 77\]](#)

5.16 Connecting Cerberus-Remote

Cerberus-Remote can only ever be connected with one 'Panel' at a time. The connection can be established locally or via the 'Global Access Point' (GAP). For this purpose, there must be a license key (at least L1 or L2) installed in the 'Panel' that is to be displayed with Cerberus-Remote.



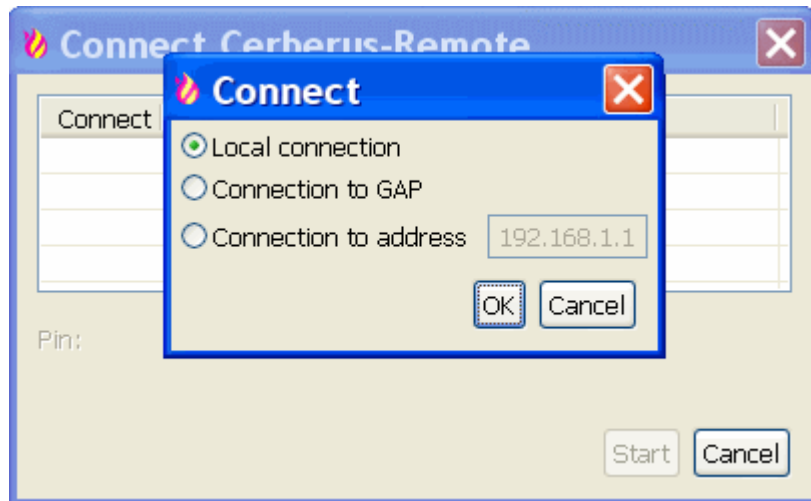
Cerberus-Remote has the same visibility as the connected 'Panel'. You can use Cerberus-Remote in a fire detection installation with networked 'Panels' to gain global visibility. Just one license key is needed for this per network if the license key is installed in a 'Panel' with global visibility.

The possible 'Enable Cerberus-Remote viewer' or 'Enable Cerberus-Remote operation' operation modes must be enabled before connecting to the 'Panel'. The possible operation modes can also be permanently enabled in the configuration with Cerberus-Engineering-Tool.

Establishing connection

1. In Cerberus-Engineering-Tool, select the 'Cerberus-Remote' task card.
2. Select 'Cerberus-Remote' > 'Connect' from the menu bar.

⇒ A window showing the selection of connection type is indicated.



3. Select the required type of connection and confirm with 'OK'.

⇒ A window with the list of all 'Panels' of the 'Site' is indicated.

4. Highlight the corresponding 'Panel'.

5. Enter your PIN.

6. Click on 'OK'.

⇒ The connection is established.



The connection with a 'Panel' is shown by the Person Machine Interface (display, LEDs, keys) transmitted.

The 'Cerberus-Remote access' operation mode is indicated by a red frame around the Person Machine Interface.

An enable granted for Cerberus-Remote is retained when a 'Panel' restarted.

See also

📖 Operating Cerberus-Remote [→ 78]

5.17 Cerberus-Remote – setting up link with integrated IP

Situation and motivation

- In addition to local connection, Cerberus-Remote can be used to establish a connection to a 'Panel' using a network and IP address.
- You might want to view various 'Panels' with Cerberus-Remote.
- We would recommend avoiding the repeated entering of IP addresses when repeatedly establishing connections to 'Panels'.

Option

- Execution of Cerberus-Remote with additional parameters (IP address and pin).
- Save modified program execution as link.

Procedure

▷ Start Cerberus-Remote as own application (FX2020) and not from corresponding register in Cerberus-Engineering-Tool (FX2030).

1. Right-click on link in 'Start' > 'Siemens' > 'FX2020' > ... to go to executable Cerberus-Remote file and copy link to clipboard or an editor.
2. Add following parameters to program execution:
 - IP address for GAP.
 - Host ID for C-WEB-'Panel' to be viewed with Cerberus-Remote.
 - PIN for 'Access level' 3.

⇒ Modified program execution with integrated IP is created.

Example:

```
C:\Program Files\Siemens\F-FX2020\XL_en_1-V2.1>F-FXS2009.exe" -  
visualizer ip=192.168.200.1 host=1 pin=0000
```

- Test program execution command using 'Start' > 'Execute'

Creating link on desktop

1. Right-click on desktop and select 'New' > 'Link'.
 2. Copy tested, modified program execution command to input field.
 3. Confirm with 'Continue' and give link a name.
 4. Click on 'Finish'
- ⇒ Link with modified program execution and integrated IP is set up.

5.18 Operating Cerberus-Remote

Cerberus-Remote can only be operated with the mouse.

The operating functions of the keys shown are identical with those on the 'Panel'.

5.19 Polling / Deleting the event memory



As an alternative to the indication of the event memory on the 'Panel', the data of the event memory may also be transmitted to a PC in a standard format. To do so, a PC with Cerberus-Engineering-Tool must be connected to the 'Panel'.

You will find further information in document A6V10333423.

Polling the event memory

1. In the main menu, select the 'Functions' menu item.
⇒ The 'Functions' menu is open.
2. Select the 'Event memory' menu item.
⇒ The 'Select panel' window is open.
3. Select the 'Panel' you want.
⇒ The list of all events for 'Panel' is displayed.
⇒ Using the softkeys 1 - 2 you can now filter by category, or date/time.

Navigating in the event memory

Entering a 3-digit number (e.g.: 1, 132, 500) and confirming by pressing <ok> in the event memory takes you straight to the corresponding entry.

Deleting the event memory

1. In the main menu, select the 'Functions' menu item.
⇒ The 'Functions' window is open.
2. Select 'Maintenance' and confirm with <ok>.
⇒ A list of all element categories on which a command of the 'Maintenance' command group can be executed is indicated.
3. Select 'Panel'.
⇒ The 'Enter address' window is open.
4. Enter the number of the 'Panel' on which you want to delete the event memory and confirm with <ok>.
⇒ The 'Select command' window is open.
5. Select the 'Delete event memory' command and confirm with <ok>.
⇒ The event memory of the selected 'Panel' is deleted.

5.20 Settings / Administration

5.20.1 PIN administration

You can change an existing PIN and create a new PIN or delete a PIN with the corresponding authorization.

'Change PIN'

1. In the 'Main menu', select the 'Settings/administration' menu item.
2. Select the 'Change PIN' menu item.
3. Enter the PINs in accordance with the input fields and confirm with <ok>.
⇒ The PIN has been changed.

Change PIN	
Old PIN:	****
New PIN:	****
Verify new PIN:	****
Confirm with <ok>/Exit with <C> Delete with <Cursor up>	

'Create PIN'

- ▷ You have the required authorization level.
 - 1. In the 'Main menu', select the 'Settings/administration' menu item.
 - 2. Select the 'Create PIN' menu item.
 - 3. Enter an admissible access level.
 - 4. Enter the PIN in accordance with the input fields and confirm with <ok>.
- ⇒ A new PIN has been created.

Create PIN	
Access level:	__
Enter PIN:	****
Verify PIN:	****
Confirm with <ok>/Exit with <C> Delete with <Cursor up>	

'Delete PIN'

- ▷ PIN is present.
 - ▷ You have the required authorization level.
 - 1. In the 'Main menu', select the 'Settings/administration' menu item.
 - 2. Select the 'Delete PIN' menu item.
 - 3. Enter the PIN in accordance with the input fields and confirm with <ok>.
- ⇒ PIN has been deleted.

Delete PIN	
Enter PIN:	****
Verify PIN:	****
Confirm with <ok>/Exit with <C> Delete with <Cursor up>	

5.20.2 Setting the buzzer volume

You can set the sound level of the 'Panel' buzzer on four levels.

'Set buzzer volume'

1. In the main menu, select the 'Settings/administration' menu item.
2. Select the 'Set buzzer volume' menu item.
 - ⇒ The 'Set buzzer volume' window is open.
3. Select the desired settings in the list.
 - ⇒ The buzzer sound level is set.

5.20.3 Adjusting the display brightness

You can set the display brightness on five levels between 'Off', 25% and 100%.

'Change display brightness'

1. In the main menu, select the 'Settings/administration' menu item.
2. Select the 'Display settings' menu item.
 - ⇒ The 'Display settings' window is open.
3. Select 'Change display brightness'.
 - ⇒ The window for the adjustment is open.
4. Select the desired settings in the list.
 - ⇒ The display brightness has been adjusted.

5.20.4 Setting time and date

You have to reset the clock if the fire control panel has been de-energized.

In countries with daylight saving, the system clock automatically switches between summer and winter time.

'Enter date / time'

1. In the 'Main menu', select the 'Settings/administration' menu item.
2. Select the 'System commands' menu item.
 - ⇒ The 'System commands' window is open.
3. Select the 'Set system time' menu item.
 - ⇒ The 'Enter date / time' window is open.
4. Enter the date and time and/or confirm with <ok>.
 - ⇒ The cursor jumps to the next field and terminates the input after the last field.
 - ⇒ Adjusted or confirmed date and time are set.

Enter date / time
11-05-19 12:42:58
(yy-mm-dd) (hh:mm:ss AM/PM)
Confirm with <ok>/Exit with <C>
Delete with <Cursor up>

Input window for time and date

5.21 Entering/Changing customer text

You can enter customer text for any element on the control panel, independently of Cerberus-Engineering-Tool.



Once a customer text has been entered or changed, the updated display is only shown the next time the element is accessed.

Entering or changing customer text takes effect without rebooting.

'Set customer text'

1. Select an element.
 2. Press the 'Execute Commands' softkey.
 3. Select the 'Set customer text' command.
 4. Enter the desired customer text and confirm the entry with <ok>.
- ⇒ The customer text has been entered.

Changing customer text

Proceed in the same way as when entering customer text but change the existing customer text.

5.22 Show version

The version of 'Panel' and the configuration data can be found in 'Hardware tree'.

1. In the main menu, select the 'Topology' menu item.
 - ⇒ The three subtrees of the topology tree are indicated.
 2. Select 'Hardware tree'.
 3. Select the 'Panel'.
 4. Press the 'More Options' softkey.
 - ⇒ The 'Select option' window is open.
 5. Select 'Show details'.
- ⇒ The 'Panel' version and configuration data are displayed.

5.23 Procedure in case of trouble

Step	Action
1	< Acknowledge Press > on the Person Machine Interface
2	Read message/trouble location on the display
3	Go to the trouble location
4	Eliminate the cause of the trouble



A list of possible 'Troubles' and how they are eliminated can be found in the chapter 'Troubles / Troubleshooting'. If you cannot eliminate 'Trouble', please contact your service provider.

Trouble and Intervention Concept (IC)

On consideration of 'Intervention Concept', events of the 'Trouble' category can be assigned their own sequence. This sequence may be configured differently and depends on the 'Occupied operation' / 'Unoccupied operation' operation mode.

An exemplary process following 'Trouble', taking in account 'Intervention Concept', is graphically shown in the 'Intervention concept (IC)' chapter and is outlined below:

Trouble has occurred.

- The remote transmission for 'Troubles' is activated in 'Unoccupied operation' operation mode.
- The remote transmission for 'Troubles' is activated in 'Occupied operation' operation mode unless 'Trouble' is acknowledged within the delay t1.

Acknowledging Trouble

1. Press <Acknowledge> before the expiry of t1.
2. Read the location of the cause of the displayed 'Trouble' from the display.
3. Go to the location of the cause.
4. Rectify the cause of the 'Trouble'.
 - or
5. Inform the service provider if you cannot rectify the cause of the 'Trouble' yourself.

6 System functions

6.1 Operating condition

A fire detection installation is in the 'System normal' condition when the fire control panel is powered up and no other operation condition is indicated.

As soon as an event occurs in the 'Panel' which deviates from the System normal' condition, this event is indicated and the 'Panel' changes to the condition corresponding to the type of event.

A 'Panel' may be in several conditions simultaneously:

- 'ALARM' (fire detection condition)
- 'Trouble' (trouble message condition)
- 'BYPASSED' (isolation condition)
- 'Test' (test status)

Indication of the operating condition

The operating condition is indicated optically on the Person Machine Interface and acoustically by LEDs and buzzers and on the display.

6.2 Operation modes

The fire detection installation has the following operation modes:

- 'System normal'
- 'Test'
- 'BYPASSED'

See also

- 📄 Normal operation [→ 84]
- 📄 Test [→ 85]
- 📄 Bypass [→ 88]

6.3 Normal operation

In normal operation ('System normal'), 'ALARMS' are evaluated and processed in accordance with the configuration.

Normal operation is described in the following:

- The fire control panel is supplied with energy and no event is present or no other operating status is displayed.
- The detectors are set to normal sensitivity level, in accordance with the parameter in account.
- The fire detection installation is ready to receive danger messages ('ALARMS') and trouble messages.
- The 'Power' LED is steady on.

6.4 Test

FS920 offers various test functions for efficient testing of devices and logical functions. Some test modes can be combined, and others are performed exclusively.

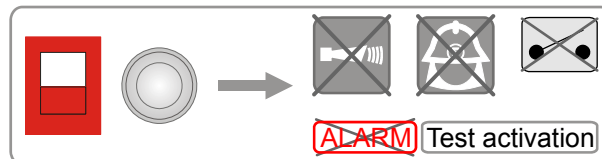
The fire detection installation is in 'Test' operating mode if one of the following test modes is activated:

- 'Detector test'
- 'Walk test'
- 'Control test'
- 'Installation test'
- Test variants

See also

 Testing [→ 58]

6.4.1 Detector test



The 'Detector test' is a hardware function test for devices and their assignment to the 'Detection tree'.

In 'Detector test' the fire detection installation has the following properties:

- The automatic detectors are set to high sensitivity.
- No alarm is triggered, but a test activation is indicated as a message, logged in the event memory and printed out if need be.
- No alarm devices or controls are activated, apart from the following:
 - With the 'Output activation in detector/walk test' setting, you can define whether the detector output is activated in the 'Zone' in the 'Detector test' or 'Walk test' modes.
- No danger messages or trouble messages are generated.
- With a superordinate function, all 'Zones' in the 'Section' or 'Area' can be selected for the 'Detector test'.

An activated detector from a detector zone in 'Detector test' generates a test activation message instead of a danger level. No alarm devices or controls are activated.

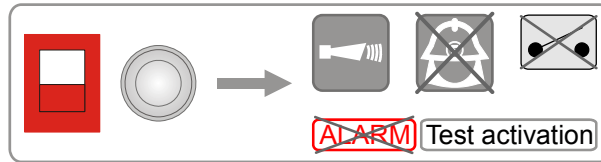
After the 'Detector test' is exited, normal detector sensitivity is set again, as it was before the 'Detector test' was started.

The 'Detector test' can be configured with a time-out to exit the test mode.

See also

 Testing detectors [→ 58]

6.4.2 'Walk test'



The 'Walk test' is a hardware function test for devices and their assignment to the 'Detection tree'. Activation of the 'NACs'/'Audibles' is also tested.

In 'Walk test' test mode the fire detection installation has the following properties:

- The automatic detectors are set to high sensitivity.
- No alarm is triggered, but a test activation is indicated as a message, logged in the event memory and printed out if need be.
- No alarm devices or controls are activated, apart from the following:
 - With the 'Output activation in detector/walk test' setting, you can define whether the detector output is activated in the 'Zone' in the 'Detector test' or 'Walk test' modes.
- No danger messages or trouble messages are generated.
- With a superordinate function, all 'Zones' in the 'Section' or 'Area' can be selected for the 'Walk test'.
- All of the 'NACs'/'Audibles' in a control panel are activated.
- The 'Partial System Disabled' LED on the Person Machine Interface flashes.

An activated detector from a detector zone in 'Walk test' test mode generates a test activation message instead of a danger level. No alarm devices or controls are activated.

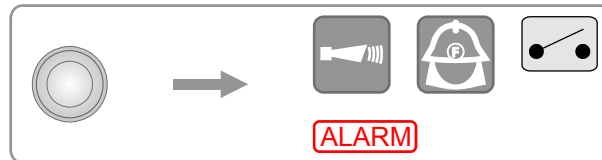
After the 'Walk test' is exited, normal detector sensitivity is set again, as it was before the 'Walk test' was started, and the 'Partial System Disabled' LED is off.

The 'Walk test' test mode can be configured with a time-out to exit the test mode.

See also

📄 Performing the 'Walk test' [→ 58]

6.4.3 'Installation test'




The 'Installation test' is a test for the entire fire detection installation including the 'Fire control' and alarming in normal operation ('System normal').

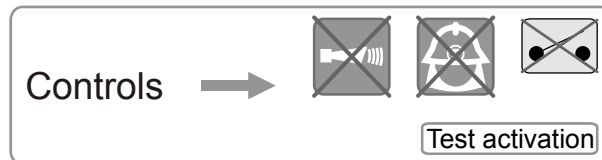
In 'Installation test' test mode the fire detection installation has the following properties:

- The automatic detectors are set to high sensitivity to avoid long waiting times when the detectors are activated.
- Alarm is triggered.
- Alarm devices and controls are activated.
- With a superordinate function, all 'Automatic alarm zones' in the 'Section' or 'Area' can be selected for the 'Installation test'.

See also

 Performing the 'Installation test' [→ 59]

6.4.4 Control test




The 'Control test' checks the function of the configured 'Controls' as in normal operation, but the outputs are not activated.

In 'Control test' test mode the fire detection installation has the following properties:

- The 'Controls' are in normal operation and generate a corresponding message when activated:
 - Activation by a cause
 - Activation by a command
- With a superordinate function, the 'Controls' can be executed at the appropriate 'Control' zone level.

This test mode can be e.g. combined with the 'Installation test'.

See also

 Control test [→ 59]

6.4.5 Test variants

As test variants, e.g. the controls in 'Control test' can be switched and then the 'Installation test' performed.

Other test variants include:

Testing the alarming equipment

- 'NAC control'
 - Activation function for each of the three priorities ('Causes priority 1 (high)', 'Causes priority 2 (medium)', 'Causes priority 3 (low)') and deactivation with the 'Deactivate' command
 - 'Activate/PRIO 3->2->1->quiet' activation function activates the 'NAC control' with priority 3 for 5 s, priority 2 for 5 s, priority 1 for 5 s and then the 'Control' is deactivated
- 'RT control'
 - The 'Test activation' function activates the effects for 30 s and is then automatically deactivated

Alarm simulation

An alarm can be simulated by activating a detector zone with a command. The 'Pre-ALARM' and alarm can be activated.

6.5 Bypass

You can bypass 'Zones' with automatic or non-automatic detectors in special situations, e.g. during construction work.

When parts of the fire detection installation are bypassed, the fire detection installation is in 'BYPASSED' condition and operating mode.


The corresponding LED on the Person Machine Interface is on.

In 'BYPASSED' operating mode neither 'ALARMS' nor 'Troubles' from the parts that have been bypassed can be evaluated.



You can set bypasses with or without a time limit.

See also

 Bypass / enable [→ 33]

6.6 Access level and access rights

'Panel' is protected against unauthorized operation by the following access levels:

Access level	Access rights	Functions and access rights
1	Everybody	'Acknowledge' and scrolling
2.1	Operator 1	Limited access rights (e.g. janitor)
2.2	Operator 2	Extended access rights (e.g. safety and security manager)
3	Service technician	All access rights (for service technicians)

- On access level 1 the most important commands can be entered in case of alarm.
- Other commands or the configuration of the 'Panel' are possible from access level 2.1. onwards.
- Access levels are enabled by the PIN input dialog.
- Each PIN is assigned to an access level.
- Menu entries, functions and favorites that are not accessible on an access level are hidden.



You will find a list of all commands and the required access levels in the corresponding chapter.

The following table shows examples of main menu items and the access levels needed for execution

Main menu item	Required access level
'Message summary'	1
'Functions'	1, 2.1, 2.2, 3, depending on the function
'Favorites'	1, 2.1, 2.2, 3, depending on the favorite
'Topology'	1
'Element search'	1
'Event memory'	2.1
'Login/logout'	1
'Settings/administration'	3

6.6.1 PIN input dialog

The 'Login/logout' main menu item opens the PIN input dialog. The corresponding access level is released by entering a valid PIN.



The PIN input dialog is indicated automatically if the activation of a button on the PMI requires a higher access level.

6.6.2 Logout timeout

The 'Panel' is provided with a time control function for the operation.

The operation enable for an 'Access level' expires after a configurable period of time has passed since the last entry.

6.6.3 Cerberus-Remote – enable

The corresponding chapter describes how to enable Cerberus-Remote.

See also

- 📖 [Enabling / disabling Cerberus-Remote \[→ 75\]](#)
- 📖 [Cerberus-Remote – operation modes \[→ 30\]](#)
- 📖 [Operating Cerberus-Remote \[→ 78\]](#)
- 📖 [Cerberus-Remote \[→ 26\]](#)

6.7 Visibility

Several fire control panels and network terminals ('Panels') can be integrated into a fire detection installation. The visibility defines which part of a fire detection installation is visible and can be operated on 'Panel'.



The visibility is configured in Cerberus-Engineering-Tool.

The visibility for a fire control panel can be configured in the following topology levels of a fire detection installation:

- 'Site'
- 'Panel'
- 'Area'

The visibility for this 'Panel' is configured by selecting and assigning event categories from the topology to the visibility for this 'Panel'.

For example, all the 'ALARMS' for the 'Site' or just the 'Troubles' for the 'Area' of a 'Panel' are indicated.

Two other modes are available for configuring the visibility:

- 'PMI standby visibility'
- 'PMI expanded visibility'

See also

- 📖 [Changing visibility \[→ 44\]](#)
- 📖 [Event categories \[→ 92\]](#)

6.7.1 Standby visibility

The 'Panel' with the 'PMI standby visibility' configuration supervises one or several other 'Panels' or a management station in the configured visibility.

- When the fire detection installation is in normal operating condition, 'PMI standby visibility' is deactivated. The 'Panel' configured in this way and the display are then in quiescent condition.
- If a supervised 'Panel' fails or if the connection to a supervised 'Panel' is interrupted, the configured 'PMI standby visibility' becomes active and the fire detection installation can be operated in the configured visibility via this 'Panel' exactly as was previously the case with the failed 'Panel'.



In addition to 'PMI standby visibility', 'PMI expanded visibility' can also be configured for a 'Panel'.

See also

- Deactivating standby [[→ 44](#)]
- Expanded visibility [[→ 91](#)]

6.7.2 Expanded visibility

If configured, you can use a command to activate 'PMI expanded visibility' for a 'Panel' and this gives you the configured visibility.

For a 'Panel' with 'PMI standby visibility', 'PMI expanded visibility' can be configured too.

The 'PMI expanded visibility' configuration is however also available regardless of 'PMI standby visibility'.



The 'PMI expanded visibility' function can be configured with dependencies.

You will find detailed configuration information in document A6V10333423. See chapter 'Applicable documents [[→ 8](#)]'.

Possible dependencies

'PMI expanded visibility' can only be activated if a supervised 'Panel' fails.

6.8 Events

See also

- Select events [[→ 51](#)]

6.8.1 Event categories

The fire detection installation evaluates the signals it receives from events and displays them as messages on the display. Events are saved and can be viewed using the 'Event memory' menu item.

Examples of event categories:

- 'Fire ALARM'
- 'Gas ALARM'
- 'Supervisory'
- 'Trouble'
- 'Test message'
- 'Activation'
- 'Information'

6.8.2 Status identification of event messages

Event messages indicated on the display are provided with an identification.

0001 / 0359 Events		Panel 1	
!08/27/11 10:13:04 AM		Bypassed	IN
Circuit 1/2/22		Class B circuit 2_2	
08/27/11 09:53:27 AM		Access level 3	IN
PMI 1		Person Machine Interface	
Select	Select	More	
Event category	Date/time range	Options	

The identification provides information on the status of the message.

The following identifications are used:

Labeling	Meaning
!	Message not acknowledged
-	Cause of message no longer available
✓	Message acknowledged
+	More than one detector is active

Status identification of event messages

6.8.3 Event memory

All events that have occurred in the fire detection installation are stored in the event memory . You can view a list of all events using the 'Event memory' menu item. The list is sorted chronologically and can be filtered by category, date and time. The figure below shows an example of a 'Event memory' list:

0008 / 0069 Events		Panel 01
from 06-03-06 09-34-50 to	06-03-06 09-34-50	
06-03-06 10-34-50		Bypassed
Zone 13	Office 21	
06-03-06 10-34-50		Bypassed
Autom. 13	A02 Window side	
Select Event category	Select Date/time range	More Options

6.8.4 Message overview

The 'Message summary' main menu item includes messages in connection with events. The messages are combined in message categories and may be opened as message lists.



In the 'Message summary' main menu item only those message categories in which messages (events) have actually occurred are indicated.

The figure below shows an example of a message overview with 1 'Gas ALARM', 8 'Troubles' and 10 'BYPASSED':

Message summary list

Message summary			
Exit with <C>			
001	Gas ALARM	(001 unackn.)	(2)
008	Troubles		(3)
010	BYPASSED		(4)
003	Activations		(7)
Message summary	Event memory	LED test	

After pressing the short-cut button (2) the detailed view of the 'Gas ALARM' message category is indicated:

Gas ALARM detailed view

Remote transmission activated			
001 Gas ALARM			
001	Gas ALARM	Zone	14
!	Office 22		
Execute Commands		Show Intervention text	More Options

6.9 List representation and list types

By the list representation and the possibility to search in lists, a large number of list entries and list positions can be indicated on the display.

There are the following types of lists:

- Event lists
- Element lists
- Selection lists

6.9.1 Event lists

Event lists include events that have occurred in the fire detection installations and belong to different categories.

In the 'Message summary' main menu item messages are combined in event categories. These event categories may be opened as an event list.



In the 'Message summary' main menu item only those event categories are indicated in which events have actually occurred.

In accordance with the event categories, there are the following event lists:

- 'Fire ALARM'
- 'Gas ALARM'
- 'Supervisory'
- 'Trouble'
- 'Test message'
- 'Activation'
- 'Information'



All events are also included in the event list in the 'Event memory'. This 'Event memory' list has a different layout as well as additional functions. For this reason, a separate chapter 'Event memory' is included.

The figure below shows an example of an 'Activation' event list:

Waiting for confirmation RT			
002 Activation			
Autom.	Zone	Bypassed	001
Sounder 2		Bypassed	002
Execute Commands	Show Intervention text	More Options	

See also

 [Event memory \[→ 93\]](#)

6.9.2 Element lists

Element lists contain elements of the installation, as well as element data, e.g. configuration data.

An element list is indicated as e.g. the result of an element search.

The figure below shows a sample 'Element search':

025 Elements	
Panel	1
Area	1
PMI	1
Network	1
Execute Commands	Execute commands Topology

Example of an element list

Details of		Panel 1
=====	Element Properties	=====
ElementId:	1/1	
Discipline:	FIRE	
ElementType	PanelFc2050Elem	
Jump		
Back		

Example data of an element

6.9.3 Selection lists

Selection lists are used to select actions or categories.

There are selection lists for the following actions or categories:

- Commands
- Options
- Elements
- Events (to filter the event memory)

The table below shows an example of a 'Select command' selection list:

Select command	
Set customer text	(1)
ENABLE	(2)
BYPASS	(3)
BYPASS/timer	(4)
Activate	(5)

6.10 Version display for panel / configuration data

You can the version of 'Panel' and the configuration data in the topology tree.

You will find a description of how to call-up the indication in the chapter 'Show version'.

See also

 [Show version \[→ 82\]](#)

7 Commands and required access levels

7.1 'Enable/Bypass' command group

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'BYPASS'	'Zone' 'Detect.' 'RTalarm' 'Alarmg.' 'Evac gr' 'UniEvac 'Ph.Evac 'Alert' 'Fire ct' 'OUTFire' 'NAC' 'Printer'	'Zone' 'Detector' 'RT alarm control' 'Alarming control group' 'Evac control group' 'Universal evac control' 'Phased evac control' 'Alert horn' 'Fire control' 'Output Fire control' 'NAC control' 'Printer'	2.1
'BYPASS/timer'	'Zone'	'Zone'	2.1
'Renovation mode'	'Zone'	'Zone'	2.2
'ENABLE'	'Zone' 'Detect.' 'RTalarm' 'Alarmg.' 'Evac gr' 'UniEvac 'Ph.Evac 'Alert 'Fire ct' 'OUTFire' 'NAC' 'Printer'	'Zone' 'Detector' 'RT alarm control' 'Alarming control group' 'Evac control group' 'Universal evac control' 'Phased evac control' 'Alert horn' 'Fire control' 'Output Fire control' 'NAC control' 'Printer'	2.1
'BYPASS non-MPS zones'	'Area', 'Section'	'Area', 'Section'	2.1
'BYPASS/timer non-MPS zones'	'Area', 'Section'	'Area', 'Section'	2.1
'ENABLE non-MPS zones'	'Area', 'Section'	'Area', 'Section'	2.1
'BYPASS MPS zones'	'Area', 'Section'	'Area', 'Section'	2.1
'BYPASS/timer MPS zones'	'Area', 'Section'	'Area', 'Section'	2.1
'ENABLE MPS zones'	'Area', 'Section'	'Area', 'Section'	2.1
'BYPASS all zones'	'Area', 'Section'	'Area', 'Section'	2.1
'BYPASS/timer all zones'	'Area', 'Section'	'Area', 'Section'	2.1
'ENABLE all zones'	'Area', 'Section'	'Area', 'Section'	2.1
'BYPASS alarm evaluation'	'Area', 'Section', 'Zone'	'Area', 'Section', 'Zone'	2.1
'BYPASS Fire related controls'	'Area'	'Area'	2.1

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'ENABLE Fire related controls'	'Area'	'Area'	2.1
'BYPASS NAC audibles'	'Area'	'Area'	2.1
'ENABLE NAC audibles'	'Area'	'Area'	2.1
'ENABLE circuit'	'Circuit'	'Circuit'	3
'BYPASS circuit'	'Circuit'	'Circuit'	3
'BYPASS RT ALARM channels'	'Area'	'Area'	2.1
'ENABLE RT ALARM channels'	'Area'	'Area'	2.1
'BYPASS alarm evaluation'	'Zone'	'Zone'	2.1

7.2 Command zone 'Test'

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'Detector test'	'Zone'	'Zone'	2.2
'Detector test END'	'Zone'	'Zone'	2.2
'Non-MPS zones det.test'	'Area' 'Section'	'Area' 'Section'	2.2
'Non-MPS zones det.test END'	'Area' 'Section'	'Area' 'Section'	2.2
'MPS zones det.test'	'Area' 'Section'	'Area' 'Section'	2.2
'MPS zones det.test END'	'Area' 'Section'	'Area' 'Section'	2.2
'Installation test'	'Area' 'Section' 'Zone'	'Area' 'Section' 'Zone'	2.2
'Installation test END'	'Area' 'Section' 'Zone'	'Area' 'Section' 'Zone'	2.2
'Control test'	'RTalarm' 'RTtrble' 'RT sup.' 'Evac gr' 'UniEvac 'Ph.Evac 'Fire gr' 'Fire ct' 'NAC'	'RT alarm control' 'RT trouble control' 'RT supervisory control' 'Evac control group' 'Universal evac control' 'Phased evac control' 'Fire control group' 'Fire control' 'NAC control'	2.2

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'Control test END'	'RTalarm' 'RTtrble' 'RT sup.' 'Evac gr' 'UniEvac 'Ph.Evac 'Fire gr' 'Fire ct' 'NAC'	'RT alarm control' 'RT trouble control' 'RT supervisory control' 'Evac control group' 'Universal evac control' 'Phased evac control' 'Fire control group' 'Fire control' 'NAC control'	2.2

7.3 'Activating/deactivating' command group

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'Activate'	'Zone' 'RTalarm' 'RTtrble' 'RT sup.' 'UniEvac 'Fire gr' 'OUTFire' 'NAC'	'Zone' 'RT alarm control' 'RT trouble control' 'RT supervisory control' 'Universal evac control' 'Fire control group' 'Output Fire control' 'NAC control'	2.1
'Activate/ALERT'	'Evac gr' 'Ph.Evac 'Alert'	'Evac control group' 'Phased evac control' 'Alert horn'	2.1
'Activate/EVAC'	'Evac gr' 'Ph.Evac Evac	'Evac control group' 'Phased evac control' Evac	2.1
'Activate/ALERT+EVAC'	'Evac gr' 'Ph.Evac 'Phased'	'Evac control group' 'Phased evac control' 'Phased horn'	2.1
'Deactivate'	'RTalarm' 'RTtrble' 'RT sup.' 'UniEvac 'Ph.Evac 'Alert Evac 'Phased' 'Fire gr' 'OUTFire' 'NAC'	'RT alarm control' 'RT trouble control' 'RT supervisory control' 'Universal evac control' 'Phased evac control' 'Alert horn' Evac 'Phased horn' 'Fire control group' 'Output Fire control' 'NAC control'	2.1
Activate sprinkler 1	Exting	Exting. control group	2.1
Activate sprinkler 2	Exting	Exting. control group	2.1
'Activate alarm indicator'	'Detect.'	'Detector'	2.1

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'Deactivate alarm indicator'	'Detect.'	'Detector'	2.1
'Time limited activation'	'RTalarm' 'RTtrble' 'RT sup.' 'NAC'	'RT alarm control' 'RT trouble control' 'RT supervisory control' 'NAC control'	2.1

7.4 Command group 'Information'

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'Poll alarm counter'	'Area'	'Area'	1
'Show active detectors'	'Area'	'Area'	2.1
'Poll RT counter'	'RTalarm' 'RTtrble' 'RT sup.'	'RT alarm control' 'RT trouble control' 'RT supervisory control'	2.1
'Print event memory'	'Printer'	'Printer'	2.1

7.5 'Configuration' command group

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'Switch to OCCUPIED'	'Area'	'Area'	2.1
'Switch to UNOCCUPIED'	'Area'	'Area'	2.1
'Activate expanded visibility'	'Visib.'	'PMI visibility'	2.2
'Deactivate expanded visibility'	'Visib.'	'PMI visibility'	2.2
'Deactivate standby visibility'	'Visib.'	'PMI visibility'	2.1
'Select Parameter set OCCUPIED'	'Detect.'	'Detector'	3
'Select Parameter set UNOCCUPIED'	'Detect.'	'Detector'	3
'Select ASD / Sensitivity level'	'Detect.'	'Detector'	3
'Set customer text'	'All'		3

7.6 'Maintenance' command group

'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'Reset module'	'Module'	'Module'	3
'Accept replaced devices'	'Circuit'	'Circuit'	3
'Device replace mode ON'	'Detect.'	'Detector'	3
'Device replace mode OFF'	'Detect.'	'Detector'	3
'Remove/delete device'	'Detect.'	'Detector'	3
'Restart circuit'	'Circuit'	'Circuit'	2.2
'Auto-configure circuit'	'Circuit'	'Circuit'	3
'Enable sys.analyzer access'	'Panel'	'Panel'	3
'Disable sys.analyz. access'	'Panel'	'Panel'	3
'Enable MC link'	'Panel'	'Panel'	2.2
'Disable MC link'	'Panel'	'Panel'	2.2
'Reset maintenance reminder'	'Panel'	'Panel'	3
'Remove circuit extension'	'Module'	'Module'	3
'Enable Cerberus-Remote operation'	'C-Rem.'	'Cerberus-Remote'	2.2
'Disable Cerberus-Remote access'	'C-Rem.'	'Cerberus-Remote'	2.2
'Enable Cerberus-Remote viewer'	'C-Rem.'	'Cerberus-Remote'	2.2
'Delete event memory'	'Panel'	'Panel'	3
'Factory reset'	'Panel'	'Panel'	3
'Poll diagnostic data'	'Circuit'	'Circuit'	2.2
'Reset maintenance reminder'	'Panel'	'Panel'	3
'Scan for new modules'	'Panel'	'Panel'	2.2

7.7 Other commands

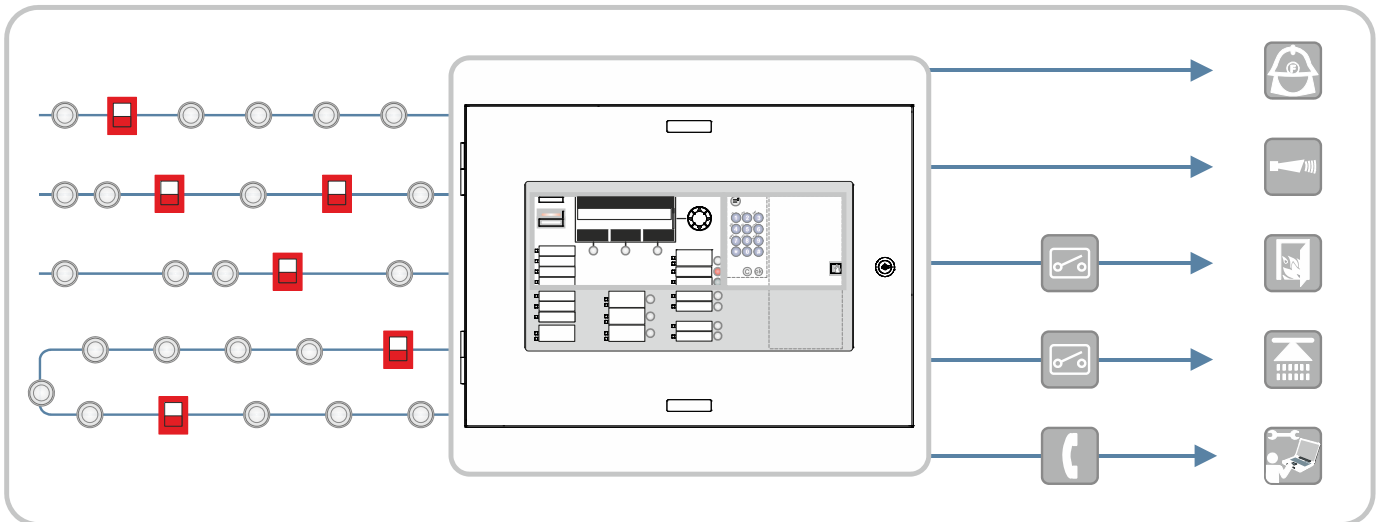
'Command'	'Element category' (short)	'Element category' (long)	'Access level'
'START LED test'	'Module'	'Module'	2.2
'END LED test'	'Module'	'Module'	2.2
'Set system time'	'Panel'	'Panel'	2.1
'Auto-configure panel'	'Panel'	'Panel'	3
'Bypass alarm delay'	'Zone'	'Zone'	1

8 List of elements



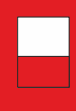






Element – short text / long text	Definition
'Area' / 'Area'	Highest level in the 'Detection tree', alarm organization level
'Section' / 'Section'	2. level in the 'Detection tree', building section (e.g. room, staircase, floor) serving for the unambiguous identification and location of a fire alarm
'Zone' / 'Zone'	3. level of the 'Detection tree'; decision on alarm is taken on this level
'Detect.' / 'Detector'	Lowest level in 'Detection tree'
'Control' / 'Control'	General control
'Evac ct' / 'Evac control'	3. level in 'Control tree'
'Evac gr' / 'Evac control group'	2. level in 'Control tree'
'Fire ct' / 'Fire control'	3. level in 'Control tree'
'Fire gr' / 'Fire control group'	2. level in 'Control tree'
'RTalarm' / 'RT alarm control'	3. level in 'Control tree'
'RTtrble' / 'RT trouble control'	3. level in 'Control tree'
'RT sup.' / 'RT supervisory control'	3. level in 'Control tree'
'Alarmg.' / 'Alarming control group'	2. level in 'Control tree'
'NAC' / 'NAC control'	3. level in 'Control tree'
'Audible' / 'Audible'	2. level in 'Control tree'
'Phased' / 'Phased horn '	Lowest level in 'Control tree'
'Evac' / 'Evac horn'	Lowest level in 'Control tree'
'Audible' / 'Audibles' alarming control	Lowest level in 'Control tree'
'Audibles' fire control	Lowest level in 'Control tree'
'Panel' / 'Panel'	Highest level in 'Hardware tree'
'Panel' / 'Panel'	'Panel' network
'Printer' / 'Printer'	'Panel' printer
'Panel' / 'Panel'	Highest level in 'Hardware tree', control panel
'Module' / 'Module'	2. level in 'Hardware tree'
'Circuit' / 'Circuit'	3. level in 'Hardware tree', primary detection circuit
'Device' / 'Device'	Lowest level in 'Hardware tree', functions of the physical device
'Supply' / 'Power supply'	Mains / Battery
FSD2015 system display (control)	Object display with operation function
FSD2014 system display (view)	Object display without operation function
'Phys.ch' / 'Physical channel'	Lowest level in 'Hardware tree'
'PMI' / 'PMI'	'Panel' operating unit
'LED mod' / 'LED module'	LED indication unit on the P2 periphery bus
'BN dev.' / 'BACnet device object'	'BN dev.' device connection

9 System overview

Detection ▶▶ Evaluation ▶▶ Alarming and control



Graphic representation of a fire detection system

- | | | | |
|---|---|---|---------------------------|
|  | Automatic fire detector |  | Fire control (e.g. doors) |
|  | Manual pull station |  | Releasing control |
|  | Switching |  | Remote transmission |
|  | Global alarmierung (e.g. fire department) |  | Service intervention |
|  | Local alarming (e.g. horns) | | |

Detection

Fire detectors detect fire phenomena, e.g. smoke, heat or carbon monoxide, and transmit signals to the control panel in the form of different danger levels.

Evaluation of the danger levels

The control panel evaluates the danger levels and decides whether to trigger alarms or not. In doing so, the control panel distinguishes between automatic and manual fire alarms and 'Degraded FIRE ALARM'.

Alarm events are allocated to the following event category:

Event category for alarm events	Typical example	Activation/cause
'ALARM'	Detector detects a fire phenomenon	Detector sensor

Event categories for alarm events

Evaluation of the system events

The fire control panel has comprehensive supervisory and self-supervising functions. Deviations from the normal operation mode are recognized as a system event.

System events are allocated to the following event categories:

Event category / system events	Typical example	Activation/cause
'Trouble'	Faulty detector circuit Trouble or danger from extraneous equipment	Short-circuit, open circuit or malfunction Sensor or contact
'Bypassed'	A detector zone has been bypassed	Operation or control
'Test'	A detector zone is switched to Test	Operation
'Activation'	A control is activated	Operation or control
'Information'	Access level	Condition
'Partial System Disabled'	A detector zone has been bypassed	Operation or control

Event categories for system events

Alarming

The different fire alarms and system events are verified independently from one another. Depending on the configuration, local alarming or direct or delayed global alarming is actuated.

- Local alarming
Local alarming equipment (e.g. acoustic or optical) is actuated in order to call up immediately available intervention personnel (e.g. in-house staff) and to warn people of a possible fire hazard.
- Global alarming
Global alarming equipment (e.g. remote transmission) is actuated and external intervention forces (e.g. the fire department) are alerted.

The following points influence the type of alarming:

- Configuration of alarming process
- Type of alarm activation (automatic or manual)

Control

In the event of fire it makes sense for initial actions to be initiated automatically. Automatic measures are carried out by controls, e.g. by building services control, evacuation control or releasing control.

9.1 Topology of the fire detection system

The topology is used to model and illustrate the structure and functionality of an FS920 fire detection system.

This topology has various sub-structures – which are illustrated as subtrees below – that are assigned to one another. It is essential to know about the subtrees and elements of an FS920 fire detection system for planning, configuration and operation purposes.

Physical structure

The physical structure of the fire detection installation is created by installation in the building. This physical structure corresponds to the 'Hardware tree'.

Logical structure

The logical structure is depicted and configured in the following functional subtrees:

- 'Detection tree'
- 'Control tree'
- 'Operation tree'
- 'Network tree'

Thanks to a hierarchical topology and arrangement into zones, events can be assigned geographically and shown accordingly. This enables commands to be given to consolidated parts of the fire detection installation, for example.

Functionality

The functionality of the FS920 fire detection system is pre-configured in application-specific elements. These elements are arranged in a tree structure with functional subtrees.

The subtrees represent the various aspects of the system. Elements from different subtrees which are dependent on one another are assigned or are assigned during configuration.



The following chapters describe the subtrees in detail. They outline the various aspects of the system and appropriate assignment to one of the subtrees.

The figures and descriptions below provide a simplified and incomplete depiction of the topology. Not all possible variants and elements are shown to enable better understanding of an FS920 fire detection system.




You will find information about planning an FS920 fire detection system and the system limits in the Planning document A6V10333396.

You will find detailed descriptions about the configuration of the structures shown in the following chapters in the Configuration document A6V10333423.

See chapter 'Applicable documents'.

See also

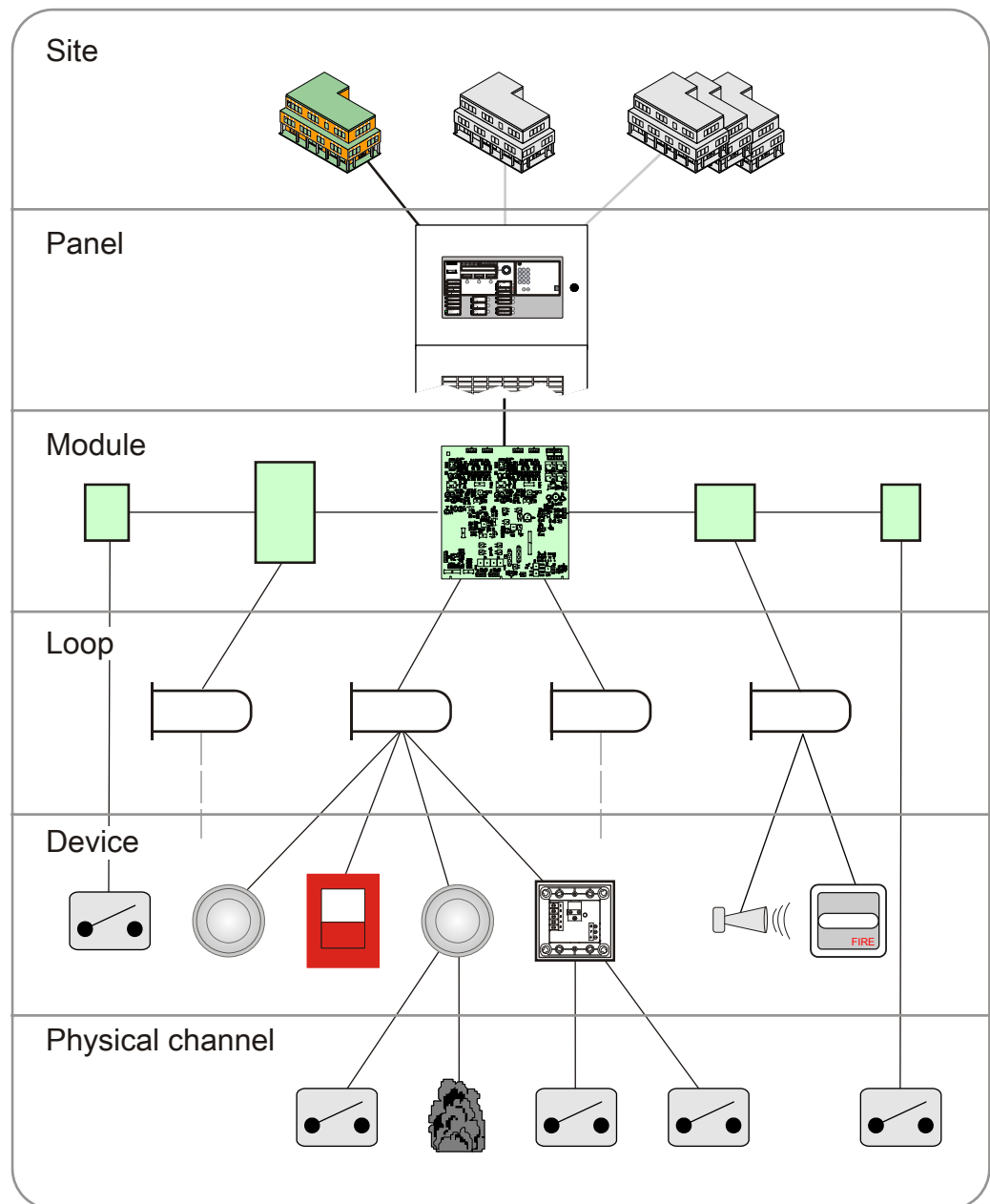
 [Applicable documents \[→ 8\]](#)

9.2 Hardware tree

The 'Hardware tree' represents the installed hardware. The individual elements of the 'Hardware tree' are hierarchically structured as follows:

- 'Site'
- 'Panel'
- 'Module'
- 'Circuit'
- 'Device'
- 'Physical channel'

The figure below shows an abstract hardware tree:



'Site'

The 'Site' represents an individual fire detection installation and is the figure of the topmost level in the hierarchy of all the system trees. One 'Site' can geographically include several buildings too.

'Panel'

'Panel' represents a fire control panel or a network terminal. In the 'Panel' element of the 'Hardware tree', the 'Alarm Verification Concept' and 'Intervention Concept' or 'AVC/IC: Global alarming' and 'AVC/IC: Local alarming' are defined. For instance, the behavior of local alarming such as NAC/horns or 'Remote transmission' following 'Acknowledge' in the case of an 'IC Activation'.

'Module'

'Module' represents the internal hardware components of a 'Panel' such as:

- 'C-NET card'
- Power supply supervision
- I/Os on the PMI & mainboard
- Address of the system bus
- Customer text

'Circuit'

'Circuit' represents the sub-structure of the circuit cards with circuit numbers and customer text.

'Device'

'Device' represents a physical device on the 'C-NET' with the address of the device configured like the DPU, such as:

- Automatic detectors
- Manual pull station
- I/O modules
- NACs

'Physical channel'

The 'Physical channel' represents the physical channel of a device or module, such as:

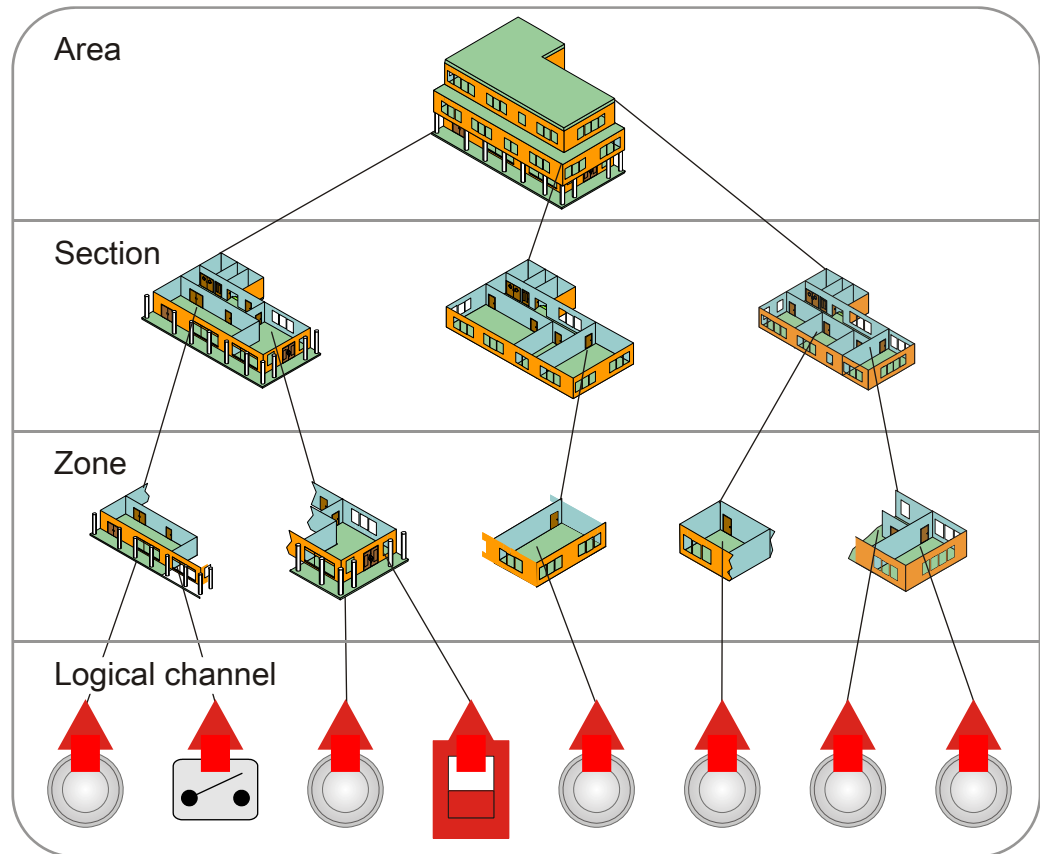
- Sensor, e.g. ASD/sensitivity
- Input/output
- Audible base

9.3 Detection tree

The 'Detection tree' has the following properties:

- Is a figure of the geographical and functional circumstances of a 'Site' and is adapted to the building structure and room use.
- Is independent of the circuit arrangement of the detector network and contains the logical detection functions.
- A customer text is required for each element.

The figure below shows an abstract 'Detection tree':



Elements of the 'Detection tree':

'Area'

A 'Area' represents a building or part of a building and is the figure of the topmost level in the hierarchy of the 'Detection tree'.

A maximum of four 'Areas' can be created per 'Panel'.

'Section'

A 'Section' represents a floor, part of a floor or vertical parts of the building, such as a staircase.

'Zone'

A 'Zone' represents a room, a false ceiling/floor or similar units.

The alarming level is decisive in the 'Zone'.

'Logical channel'

The 'Logical channel' represents a data point in a room, such as a sensor or an input, and is the **logical function** of the detection.

9.3.1 Elements of the detection tree

'Area'

- A 'Area' typically corresponds to a building.
- The 'Area' combines 'Sections' of the same operation mode.
- The 'Area' controls the alarming equipment: Acoustic and optical alarm devices and remote transmission.
- The 'Area' is assigned the following function:
 - Enabling/bypassing assigned 'Sections'
- Up to four 'Areas' are possible per control panel.
 - There is different alarming equipment for different alarms and sensor types with an individual definition of the 'AVC' and independent alarm organization, such as response and investigation times.
- There is one 'Area' per control panel, which groups together the functionality of the AVC that do not come from the 'Detection tree', such as 'Collective FIRE ALARM (circuit alarm)'.

'Section'

A 'Section' is optional and does not exist in some countries.

- With a 'Section', 'Zones' can be grouped with any logical units. Such a unit can be e.g. a floor or staircase. Grouping makes operation easier. Commands such as 'BYPASS MPS zones' can therefore be applied to an entire 'Section'.
- A 'Section' is also used as a 'Cause' for 'Controls'.
- The 'Section' is assigned the following function:
 - Enabling/bypassing assigned 'Zones'

'Zone'

- 'Zone' represents a room, part of a room or several rooms, regardless of the application, and evaluates danger levels signaled by the detector. The configured combination of different danger levels defines the conditions upon which an 'ALARM' is triggered.
- It is possible to merge detectors in 'Zones', e.g. all 'Automatic detectors', 'Manual pull stations', 'Conventional circuit' or 'Inputs', regardless of 'Zone' type
- The following 'Zone' types exist:
 - 'Automatic alarm zone'
 - 'Manual alarm zone'
 - 'Waterflow zones'
 - 'Sub-system zone'
 - 'Supervisory zone'
 - 'Trouble zone'
 - 'Status zone'
 - 'Gas zone'

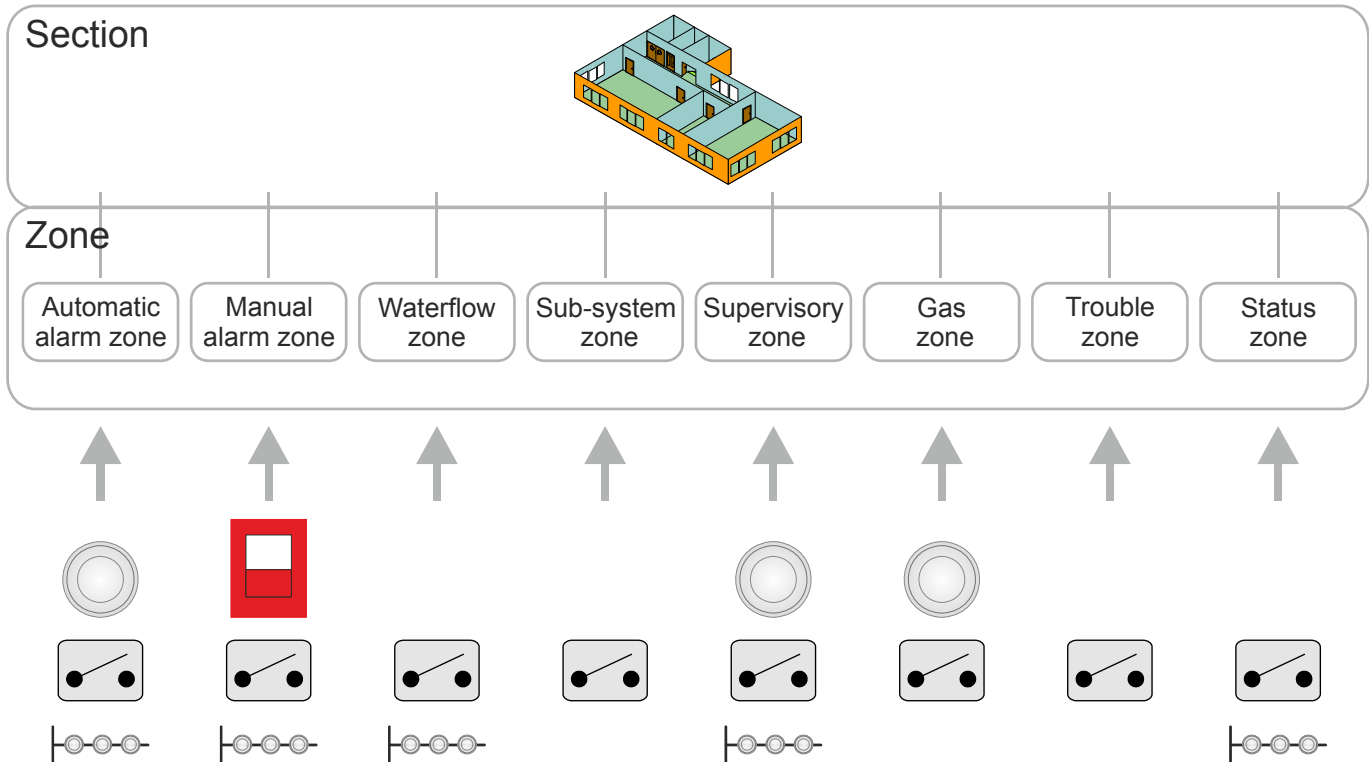
'Logical channel'

The 'Logical channel' in 'Detection tree' represents the functionality of the inputs and outputs of an C-NET device.

The logical device functions are assigned to the physical device.

9.3.2 Zone types – overview

There are pre-configured templates for every 'Zone' type, regardless of the corresponding application.



'Zone' type	Possible elements
'Automatic alarm zone'	Automatic detectors, inputs, conventional detector circuits
'Manual alarm zone'	Manual pull stations, inputs, conventional detector circuits
'Waterflow zones'	Inputs, conventional detector circuits
'Sub-system zone'	Inputs
'Supervisory zone'	Automatic detectors (optical only, no thermal), inputs, conventional detector circuits
'Trouble zone'	Inputs
'Status zone'	Inputs, conventional detector circuits
'Gas zone'	Gas detector, inputs



You will find detailed information about the pre-configured templates and the applications of the corresponding 'Zone' types in document A6V10333423. See chapter 'Applicable documents'.

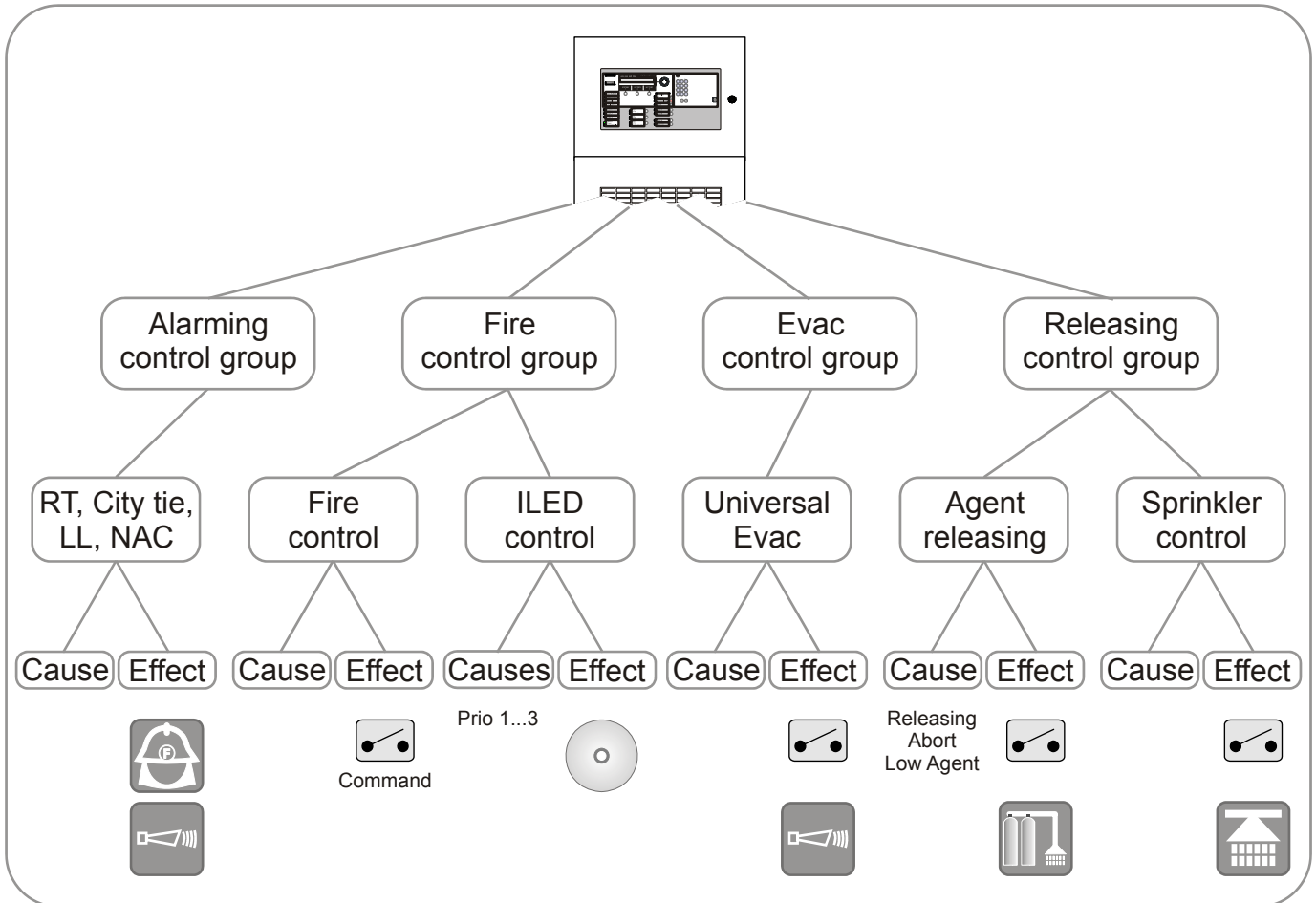
9.4 Control tree

The 'Control tree' represents the controls in the fire detection system.

The different control applications are grouped together in the control groups to make a distinction between the control group types and to make application easier. Control groups are grouping units for configuration and operation.

Each control group has one or more control elements, which each have one or more inputs (causes) and one or more outputs (effects).

The figure below shows an abstract 'Control tree':



The 'Control tree' has the following control groups:

'Alarming control group'

There is one 'Alarming control group' per control panel. It has the following elements:

- 'AVC/IC'
- 'Remote transmission', relay
 - 'ALARM'
 - 'Trouble'
 - 'Supervisory'
 - 'RT programmable control'

- 'City tie/Leased line'
 - 'ALARM'
 - 'Trouble'
 - 'Supervisory'
- 'NAC controls'

'Fire control group'

The 'Fire control group' contains elements for configuring controls for building equipment.

- 'Fire control' e.g. for door controls, ventilation controls or elevator controls.
- 'ILED control' contains specific functions for controlling ILEDs ('Intelligent remote indicator').

'Evac control group'

The 'Evac control group' contains elements for configuring controls for evacuation.

- 'Universal evac control' is similar to 'Fire control', but it has to be used for the controls of e.g. the following alarm devices:
 - 'Audible base'
 - 'HCP'
 - 'Horn/strobe'

'Releasing control group'

The 'Releasing control group' contains elements for configuring controls for releasing applications.

- 'Agent releasing control'
- 'Sprinkler releasing control'

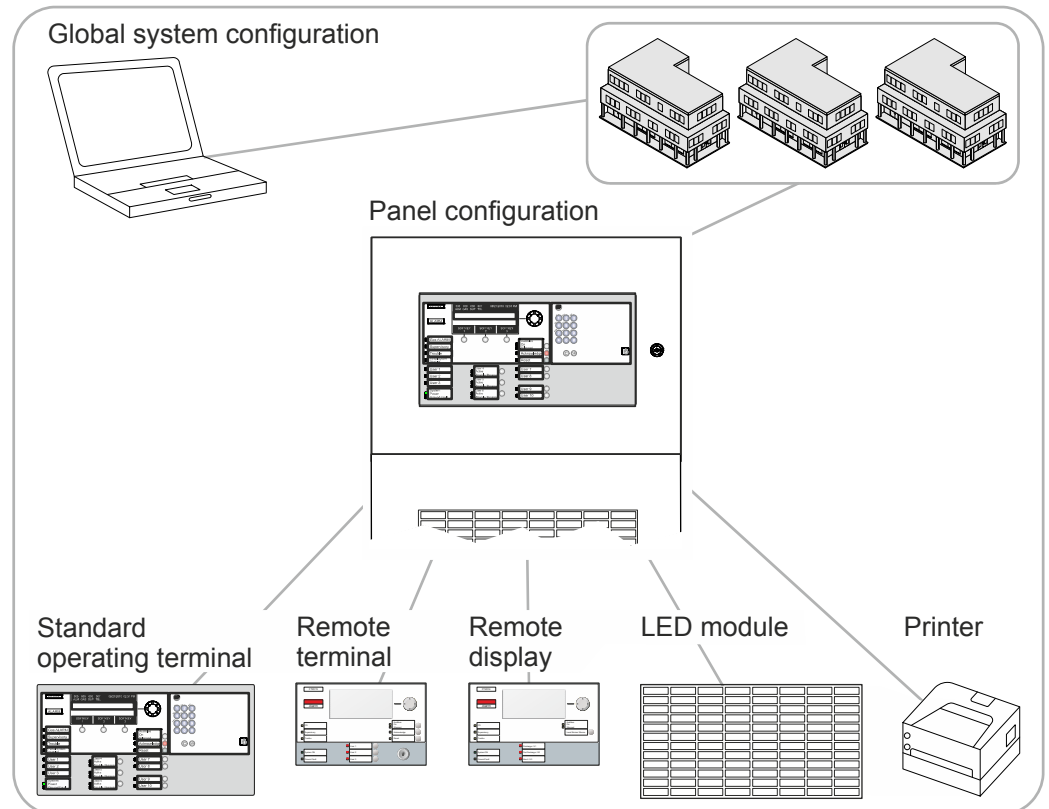
General functions

- Causes and effects that are assigned to events can be configured across control panels.
- Hardware inputs as a cause and hardware outputs as an effect must be within the same control panel, as should the control configured with them.

9.5 Operating tree

Visibility of the various aspects of the fire detection system and global settings are configured in the 'Operation tree'.

The figure below shows an abstract 'Operation tree':



The following elements and settings are represented:

Global system configuration

- 'Global system time configuration', country-specific settings
- 'Global behavior'
- 'Configuration of the event memory'
- 'Daylight-saving time configuration'
- Different settings, such as 'Self-restoring troubles' or 'Single event acknowledge required'

Indicators

- 'Configuration of the PMI functions (Person Machine Interface)'
 - 'PMI visibilities': 'Standard visibility', 'Standby visibility for Operating terminal', 'Expanded visibility'
 - User-defined button assignment: 'Favorite keys', 'Standard keys'
 - User-defined LED assignment
 - Other settings, such as time-outs

- Remote displays/remote terminals
 - 'Visibility'
 - User-defined button assignment: 'Favorite keys', 'Standard keys'
 - User-defined LED assignment
- LED modules
 - Assignment of specific element/event categories, e.g. as 'Zone' indicator
 - Setting of the 'LED mode' during activation, such as red, yellow, green, flashing or steady on
- 'Printer'
 - 'Visibility'

9.6 Network tree

!	<i>NOTICE</i>
	<p>Fire detection system with Ethernet 'Panels' that does not comply with UL-864 No approval or system acceptance</p> <p>For non-UL compliant features and settings refer to the table in document A6V10356958, 'FC922/FC924/FT924 Fire Alarm Control Panel, Installation Instructions'.</p> <p>Ethernet 'Panels' are not permitted for the market package MP-UL 1.0. There are however references to Ethernet 'Panels' in Cerberus-Engineering-Tool FXS7212 and the set of help documents FXS7216.</p> <ul style="list-style-type: none"> ● Do not plan or configure any Ethernet 'Panels'.

The network tree represents the networking of an FS920 system.

Networking types

The panels in the fire detection system can be networked in the following ways:

- SAFEDLINK: System bus
- SAFEDLINK, extended: Coupling of several SAFEDLINK sub-nets via C-WEB/LAN with optical Ethernet (not UL-compliant)
- Electric Ethernet (not UL-compliant)
- SAFEDLINK and Ethernet mixed (not UL-compliant)

Connection types/functions

The panels in the network can have the following connection types/functions:

- Stand-alone panel: stand-alone panel
- SAFEDLINK panel: panel in the SAFEDLINK network
- Router panel: Panel in the SAFEDLINK sub-net connected to the C-WEB/LAN
- Ethernet panel: Panel in the Ethernet sub-net to which no more panels are connected via SAFEDLINK (not UL-compliant)

- GAP panel: panel in the network for connecting to a management station
 - The GAP panel has the function of a DHCP server
 - The DHCP server automatically issues IP addresses to the clients from a defined IP address space. This enables a PC to receive local access, for example
- A route to an external IP router can be defined for the GAP panel

Extended networking

Extended networking is the merging of several SAFEDLINK sub-nets via C-WEB/LAN, which is managed as optical Ethernet in circuit topology.

The sub-nets communicate via the router panels.

Private/external network

- Private network: FS920 fire detection installations have their own cabling. The IP addresses come from a reserved range for private networks
- External network: Fire detection installations can be incorporated in an existing IT infrastructure as sub-nets
- Integration in an external network is not UL-compliant

Connection of management stations

Management stations or other sub-systems are connected to the FS920 sub-system using BACnet/Ethernet.

A management station is connected to the FS920 sub-system via the GAP's Ethernet interface. Every single panel that is to use the BACnet protocol must be enabled with a license key (L2).

9.7 Alarm verification concept (AVC)



The alarm verification concept corresponds to the 'Positive alarm sequence' according to UL 864.

The 'Alarm Verification Concept' ('AVC') is used to define when which alarming equipment is activated by which alarm category. In order to perform suitable measures, different settings are possible between immediate global alarming and delayed alarming – with the possibility of verifying the cause for the alarm.

You can configure the required processes differently for various alarm categories and specifically for certain group types.

The following 'AVC' statuses exist:

- Quiet: No alarming equipment is activated
- Local alarming: Activation of local alarming equipment
- Global alarming: Activation of global alarming equipment

You can use the 'AVC' to configure the following:

- Alarming equipment activated in the event of an alarm. The alarming equipment can be defined for different kinds of alarms, e.g. for automatic or manual fire alarms.
- Different types of alarming depending on a detector's activated sensor type.

- Delayed alarm transmission with operating staff interacting in the alarming process.

The 'AVC' verifies the following event categories:

- 'All Fire ALARMS':
 - '--All automatic Fire ALARMS'
 - '--Manual Fire ALARM'
 - '--Waterflow ALARM'
- 'All Gas ALARMS':
 - '--CO gas ALARM'

You can configure the 'AVC' settings for each event category.

'Alarming type'

The following alarming types exist:

- 'Global alarming only'
 - The 'AVC' immediately switches to the global alarming status and activates the defined global alarming equipment.
- 'Local alarming only'
 - The 'AVC' immediately switches to the local alarming status and activates the defined local alarming equipment.
 - No delay time is started.
- 'Delayed alarming'
 - The 'AVC' immediately switches to the local alarming status and activates the defined local alarming equipment.
 - The response time t1 also starts, as does investigation time t2 following confirmation.
 - If t1 or t2 elapse without confirmation, the 'AVC' immediately switches to the global alarming status and activates the defined global alarming equipment.

Delay times t1 and t2

The times t1 and t2 are set for 'Delayed alarming':

- Response time t1: The event must be acknowledged within this period, otherwise the 'AVC' switches to global alarming.
 - If the event is acknowledged within t1, t2 starts.
- Investigation time t2: The cause of an event must be investigated within this period and the system reset, otherwise the 'AVC' switches to global alarming.
 - During the investigation time, the operator can go to the displayed alarm cause location and investigate the cause.
 - In the event of an alarm – where there is a real fire – the nearest manual pull station must be activated immediately and the 'AVC' switches to global alarming.
 - The alarm that the operator can handle himself and therefore no → global alarming is triggered.

Event category ' --All automatic Fire ALARMS'

For the event category ' --All automatic Fire ALARMS', you can set the 'Alarming type' for different sensor types:

- 'Alarming type 'thermal''
- 'Alarming type 'chamber''
- 'Alarming type 'neural''

If no specific sensor type is activated then the general setting 'Alarming type' is used. If several sensor types are active at the same time then the 'Alarming type' with the highest priority is always used. The priorities are as follows:

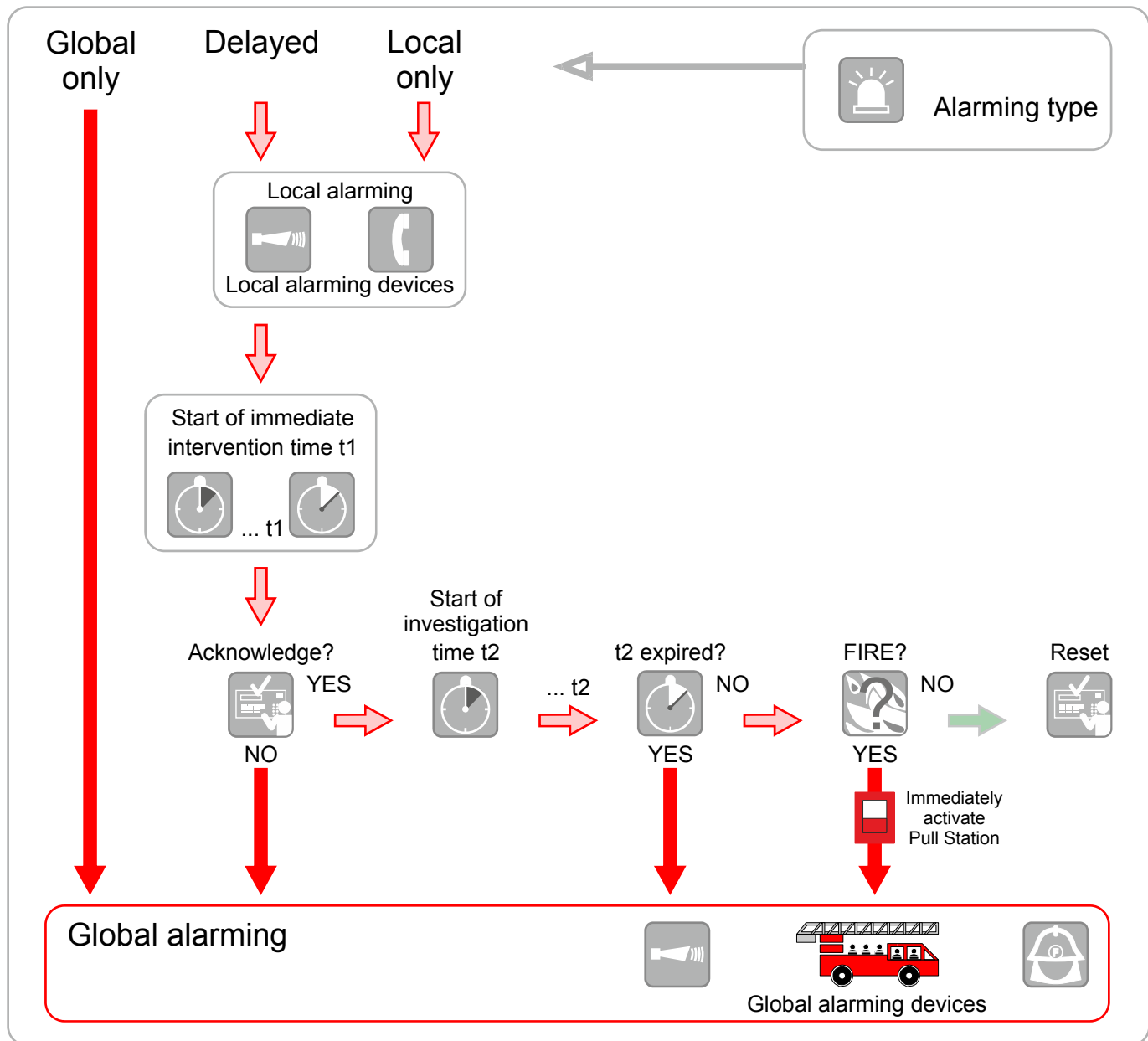
- First priority: 'Global alarming only'
- Second priority: 'Delayed alarming'
- Third priority: 'Local alarming only'

The general setting 'Alarming type' is not evaluated as soon as a specific sensor type is active.

'Local alarming devices' are alarming equipment that is activated in the event of a local alarm.

'Global alarming devices' are alarming equipment that is activated in the event of a global alarm.

9.7.1 Example of a verification process



- An alarm event activates local alarming and starts the time t1 for attendance supervision.
- Operating personnel acknowledge the 'ALARM' on the operating terminal prior to the expiry of t1.
- If there is no acknowledgement, global alarming is activated after the expiry of t1.

- After acknowledgement, the investigation time t_2 starts. During t_2 , operating personnel investigate the fire location.
 - In the case of a minor incident the operator resets the 'ALARM' at the nearest operating terminal. The alarming process stops, and no global alarming is activated.
 - In the event of a fire, the nearest 'Manual pull station' or '<BYPASS alarm delay>' must be pressed. 'Immediate global alarming' is triggered.
- If there is no reset, 'Immediate global alarming' is also activated after the expiry of t_2 .

9.8 Intervention concept (IC)

The system function 'Intervention Concept' ('IC') is a piece of control equipment to ensure intervention for all of the following non-alarm events:

- 'Trouble'
- 'Supervisory'
- 'Test message'
- 'Activation'
- 'Information'

For each event category, the behavior can be defined separately:

- The criteria for activating elements of the 'Alarming control group' are defined in 'IC'.
- The 'IC' has two independent, parallel intervention processes:
 - 'Immediate intervention type' for short-term intervention with testing for presence (t_1)
 - 'Service intervention type' for supervising intervention (t_s)
- The settings for the 'IC' can be found in the 'Panel' element

Compared with the 'AVC', the 'IC' must not be used to ensure intervention when immediate measures are needed for dangerous events, such as a fire.

The 'IC' is used to ensure that the operator of the site responds to an event by 'Immediate intervention type' and/or by rectifying the cause for the event with 'Service intervention type' within an appropriate time.

The following settings are defined for both situations:

- Intervention type
- Alarming equipment
- Delay times

The different events in the system are recorded, assigned to event categories and evaluated by the 'IC'. The corresponding alarming equipment is activated following evaluation.

The 'IC' can be used to define an intervention process which is initiated should an event occur or once a particular delay time has lapsed.



A triggered intervention process (t_1 and/or t_s is active) is not restarted when a 'Trouble' of the same category occurs for a second time.

9.8.1 Attendance supervision

Attendance supervision with the 'IC' serves for immediate intervention. Events such as technical deficiencies, 'Troubles' and malfunctions can be investigated and possibly remedied directly by the operating personnel.

If an event is not acknowledged within the configured timespan (e.g. up to one hour), an external intervention station is informed (global alarming).



The remote transmission for 'Troubles' is not interrupted by the acknowledgement.

The external intervention centre is also informed when the 'Trouble' is acknowledged but the cause of the 'Trouble' is not rectified after a specified time.

This is ensured by parallel supervision of the intervention.

9.8.2 Intervention supervision

Intervention supervision is used to safeguard a service intervention. Events such as a 'Trouble' caused by a soiled detector are supervised during a preconfigured period of time (up to one week).

If the normal operation conditions are not re-established within this period of time, service intervention is started and/or the maintenance personnel are informed.

9.8.3 Intervention alarming

Alarming equipment, such as alarm devices and remote transmission devices, can be selected separately for local and global alarming and for remote transmission.

Alarm devices

Alarm devices, strobes, digital outputs, etc. can be used for local and global alarming. The tone of the alarm devices can be configured differently for local and global alarming.

Remote transmission

For service intervention the event message is transmitted to intervention forces, in general the maintenance personnel. A remote transmission device must be to transmit event messages via the public telephone network.

- Immediate intervention
 - 'Local intervention only'
 - 'Delayed intervention'
 - 'Global intervention only'
- Service intervention
 - 'Delayed intervention'
 - 'Direct intervention'

9.8.4 Example of an intervention process

- A 'Trouble' activates local alarming and starts the time t_1 for attendance supervision.
- Operating personnel acknowledge presence on the operating terminal prior to the expiry of t_1 . Acknowledging silences the local alarming equipment. If there is no acknowledgement, global alarming is activated after the expiry of t_1 .
- The time t_s for service intervention supervision starts in parallel to the time t_1 . If the 'Trouble' is not eliminated prior to the expiry of t_s , maintenance personnel are called up.

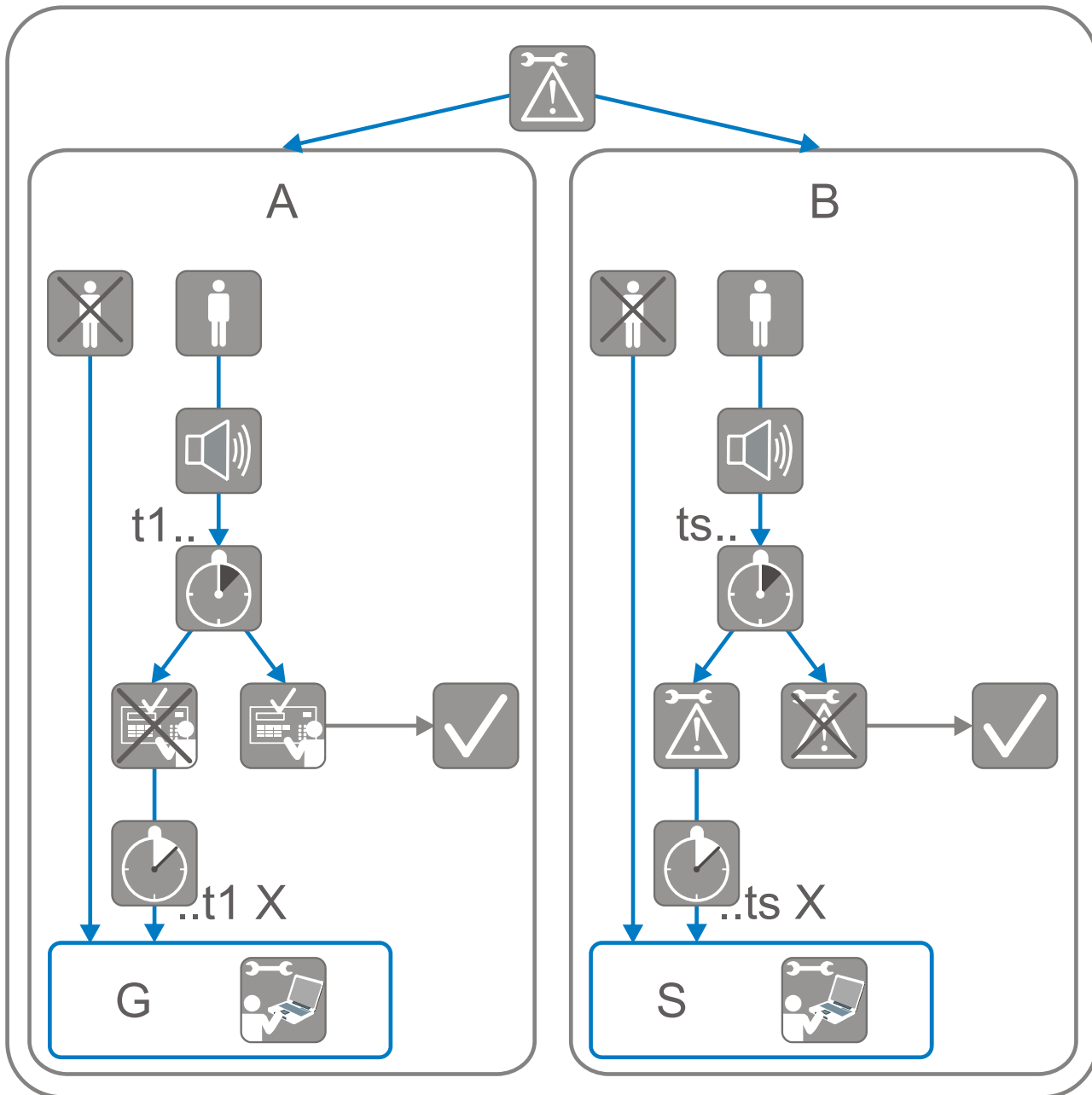


A triggered intervention process (t_1 and/or t_s running) is not restarted when a 'Trouble' of the same category occurs for a second time.

The figure below shows an exemplary intervention process for the 'Trouble' event category.

'Immediate intervention type'

'Service intervention type'



Intervention in case of trouble

A 'Immediate intervention type'

B 'Service intervention type'

t1.. Time t1, 'Immediate intervention type' supervision

ts.. Time ts, 'Service intervention type' supervision

..t1 X Time t1 has expired

..ts X Time ts has expired

G Global alarming

S 'Service intervention type'

10 Troubles / Troubleshooting

If the site displays 'Trouble', the table below provides a list of possible 'Troubles' and information on possible causes.

If a 'Trouble' cannot be eliminated with the help of these operation instructions, please contact the service engineer.

'Trouble'	Cause	Remedy
Automatic detector	Detector is missing	Re-insert detector
	Detector is out of order	Replace the detector. NOTICE! Any defective detector must always be replaced by another detector of the same type.
Manual pull station	Glass pane broken	Replace glass pane
	Other damages	Contact service provider
Mains failure	Mains failure in the public network	No action required. Emergency power supply is ensured by batteries during at minimum 12 hours; depending on the customer specification up to 72 hours.
	Fuse damaged	Check fuses (current distributor of the building) and replace them if necessary.
Paper out	Paper roll in the printer has been used up	Insert printing paper



With all other 'Troubles', the service provider in account must be contacted.

11 System maintenance

Regular maintenance of the 'Site' is necessary in order to ensure the system will function reliably.

The fire detection installation has a reminder function that informs you of imminent maintenance. If the service reminder is displayed, regular maintenance by the service technician is required.



Depending on national regulations, the maintenance intervals can be set differently from the following maintenance recommendation.

11.1 Maintenance recommendation

You will find detailed instructions for maintaining the site can be found in document A6V10333434. See chapter 'Applicable documents'.

Please adhere to the local provisions.

Carry out the recommended maintenance work at regular intervals or have it carried out by a service engineer.

Maintenance work	Interval
Testing detectors	annually
Testing the control panel	annually
Simulating alarm	annually
Simulating trouble	annually

12 Glossary

Term	Definition
A	
Addressed detector circuit	Detector circuit technique which gives each device its unique address.
AI	Abbreviation for 'Alarm Indicator'.
Alarm device	Element in the fire detection system for acoustic and/or visual alarming, e.g. horn, strobe.
Alarm indicator	Visual display to signal an alarm or pre-alarm.
Alarm organization	Comprises all measures which in the event of a fire are used for alerting, evacuation, rescue, prevention of fire spread, fire fighting and orientation.
Alarm verification concept	Control concept for the standard alarming controls of a site. Provides the activation criteria for elements in the alarming control group (RT, City tie, Leased line, NAC). Supports different types which can be configured location-dependent or situation-dependent (global only, delayed, local only). The alarm verification concept corresponds to the 'Positive alarm sequence' according to UL 864.
Alarming control	Supervision of the alarming equipment.
Alarming equipment	Alarm devices and transmission equipment.
Area	The top level in the detection tree. Assigned to the area are sections and zones.
ASD	Abbreviation for 'Application Specific Detection'. Defined detector behavior, e.g. in terms of sensitivity, resistance to deceptive phenomena, response time. Named e.g. 'Office' or 'Lobby'.
Audible	Audible and/or visual notification appliance, e.g. horn, strobe.
Auto-configuration	Auto-configuration automatically creates the following: <ul style="list-style-type: none"> ● Hardware tree including all devices on the detector circuits ● Default detection tree with automatic alarm zones, manual alarm zones and supervisory zones ● Default control tree with fire controls
Automatic fire detector	A device measuring a physical phenomenon (e.g. heat) to recognize a fire in the area to be monitored.
B	
Based C-NET device	Device mounted with a base.
BDV	Abbreviation for 'Base Data Variant'. A set of files configuring the embedded software. A BDV includes country-specific templates, all texts, definitions for the message layout, definitions for menus, definitions for the actuation of LEDs on the PMI, detector parameter sets, definitions for the system-specific parts of the tool interface etc.
Blocking of the bypass	A setting blocking the bypass of a zone.
Bypass	Status of one part of the fire detection installation, which suppresses the evaluation of all signals.
C	
Circuit card	Umbrella term for module bus cards for connecting detectors.
Circuit driver	Hardware driver (repeater) for the detector circuits.
Class A circuit	Detector circuit that includes a redundant path and transmits an alarm or supervisory signal during a single open or a nonsimultaneous single ground fault on any circuit conductor.

Term	Definition
Class A, style 6 circuit	Circuit designation according to NFPA 72 (2007) and UL 864 (2007). Circuit features: <ul style="list-style-type: none"> ● Includes a redundant path. ● Transmits an alarm or supervisory signal during a single open, single ground and simultaneous open and ground fault on any circuit conductor. ● Announces conditions that affect the intended operation. Class A, style 6 corresponds to Class A in NFPA 72 (2010).
Class A, style 7 circuit	Circuit designation according to NFPA 72 (2007) and UL 864 (2007). Circuit features: <ul style="list-style-type: none"> ● Includes a redundant path. ● Transmits an alarm or supervisory signal during a single open, single ground, wire-to-wire short and simultaneous open and ground fault on any circuit conductor. ● Announces conditions that affect the intended operation. Class A, style 7 corresponds to Class X in NFPA 72 (2010).
Class B, style 4 circuit	Circuit designation according to NFPA 72 (2007) and UL 864 (2007). Circuit features: <ul style="list-style-type: none"> ● Does not include a redundant path. ● Transmits an alarm or supervisory signal during a single ground fault on any circuit conductor. ● Announces conditions that affect the intended operation. Class B, style 4 corresponds to Class B in NFPA 72 (2010).
Control group	Combination of several similar controls.
Control tree	Structure tree with control group and control.
Conventional detector circuit	Detector circuit technology in which all detectors connected to the same detector circuit have one collective address. This makes it impossible to identify individual detectors.
CPU	Abbreviation for 'Central Processing Unit'. The computing unit of the fire control panel.
D	
Danger level	A fire detector signal which expresses the probability of a fire. Automatic fire detectors have e.g. danger levels 0 to 3. Manual pull stations only have danger levels 0 and 3. 0 = no danger, 1 = possible danger, 2 = probable danger, 3 = highly probable danger.
Degraded mode	Defined reduced mode of operation which occurs when part of the fire detection installation (e.g. main CPU) fails.
Detection tree	Diagram of the geographical and organizational arrangements for sensors in a building. This is a hierarchical structure comprising area, section, zone.
Detector	Device suitable for connection to a circuit that has a sensor that responds to a physical stimulus such as heat or smoke. (NFPA 72)
Detector circuit	Electrical connection between the detectors and the fire control panel. Can have a class B or class A circuit topology. There are conventional and addressed detector circuits.
Detector circuit topology	The arrangement of the devices on the detector circuit.
DPU / 8720	Abbreviation for 'Device Programming Unit'. Device used to program C-NET devices and to test C-NET circuits.
E	
Effect	An impact caused by a control, e.g. activation of a hardware output or a command.
Emergency power operation	Fire detection installation is supplied by the second source of power, e.g. batteries.
Extended networking	Connection of several SAFEDLINK networks.

Term	Definition
F	
False alarm	An alarm not triggered by a danger.
C-WEB	Protocol used in the SAFEDLINK.
C-WEB/Ethernet	FS920-specific term for networking with electric Ethernet.
C-WEB/LAN	FS920-specific term for loop-shaped networking with optical Ethernet.
C-WEB/SAFEDLINK	FS920 system bus.
C-NET	Addressed detector circuit for C-NET devices.
C-NET device	Device connected to the C-NET detector circuit.
Fire control	Control which is activated in the event of a fire alarm.
Fire control group	Level in the control tree of the fire detection system. The fire control group contains the fire controls.
G	
GAP	Abbreviation for 'Global Access Point'. Participant in the Ethernet sub-net for the connection between the Ethernet sub-net and a management station (BACnet client) and/or for remote access with Cerberus-Engineering-Tool or Cerberus-Remote. If there is a secondary GAP, the GAP becomes the main GAP. Can be operated as a DHCP server in the Ethernet sub-net.
Gateway	Network bridges which link two different systems/networks with one another and transfer the different communication and transmission standards/protocols.
Global alarming	Global alarming equipment (e.g. remote transmission) is actuated and external intervention forces (e.g. the fire department) are alerted.
H	
Hardware tree	Depiction of the hardware of a fire detection installation.
Hard-wired C-NET device	Device mounted directly, without a base, e.g. manual pull station, input/output module
I	
IEC	Abbreviation for 'Intelligent Environmental Compensation'. Compensation of dust build-up on a detector's photo sensor.
Intervention concept	Concept with two independent verifications: Presence check for rapid local intervention and intervention check for service intervention.
L	
License key	Hardware module for activating functions.
Link	Reference between two elements. (e.g. logical channel and physical channel).
Local alarming	Local alarming equipment (e.g. acoustic or optical) is actuated in order to call up intervention personnel and to alert people of a possible fire hazard.
Logical channel	Depiction of a device's logical function in the detection tree or control tree. The logical channel is always the bottom level in the structure tree.
Loop separator	Electronic switch which automatically disconnects the defective part of the circuit in the event of a short-circuit.

Term	Definition
LRC	Abbreviation for 'Lifecycle Responsibility Concept'. Software Licence Server for the engineering tool.
M	
Main GAP	GAP = Global Access Point. Participant in the Ethernet sub-net for the connection between the Ethernet sub-net and a management station (BACnet client) and/or for remote access with Cerberus-Engineering-Tool or Cerberus-Remote. If there is a secondary GAP, the GAP becomes the main GAP.
Management station	A management station is a superordinate system for monitoring and operating safety-related sites and buildings, e.g. fire, intrusion, access, heating, ventilation.
Maximum current connection factor	Calculation unit for planning the detector circuit outline quantities. Maximum current value that a device obtains from the detector circuit.
Minor incident	Alarm situation which the operating personnel can handle themselves and does not therefore trigger global alarming.
Multi-detector dependency	When using multi-detector dependency, the danger levels of several detectors are included in the alarm decision. Measures such as alarming or closing the fire doors are only initiated when the defined dependencies occur (e.g. two detectors detect danger level 3).
N	
NAC	Abbreviation for 'Notification appliance circuit'. Is directly connected to audible and visual notification appliances such as horns and strobes.
Network module (SAFEDLINK)	FS920 network card.
Network tree	Figure of the network in a fire detection installation.
Networked fire detection system	Site with more than one fire control panel and at least two sub-nets.
NFPA	Abbreviation for 'National Fire Protection Association'.
Normal operation	The fire detection installation is supplied with mains voltage.
Normally closed contact	Opens a power circuit when activated.
Normally open contact	Closes a power circuit when activated.
O	
Outline quantities	Defines the number of permissible elements of one sort in a system. For example, maximum number of C-NET devices on a detector circuit.
P	
Panel	Fire control panel or fire terminal.
Physical channel	Depiction of a device's physical function in the hardware tree. The physical channel is the bottom level in the hardware tree.
PMI	Abbreviation for 'Person Machine Interface'.
Pre-alarm	Stage before an alarm for information early on should an event occur.
Pre-configuration	A sub-configuration of the hardware tree, detection tree and control tree produced before commissioning the fire detection installation.

Term	Definition
Q	
Quiescent current connection factor	Factor for the current that a device obtains from the detector circuit when in quiescent condition.
R	
Releasing control	Controls a connected releasing system and evaluates and displays its states.
Remote alarm indicator	Optical element for indicating the site of the fire which is positioned at some distance from the detector. Is usually fitted at point at which the room where the corresponding detector is accessed.
Router panel	Participant in the SAFEDLINK sub-net for the connection between the SAFEDLINK sub-net and the Ethernet sub-net (C-WEB/LAN) via the Ethernet switch (MM) FN2008-A1.
RT	Abbreviation for 'Remote Transmission'.
S	
SAFEDLINK	SAFEDLINK is the physical network of an FS920 fire detection system with the network module (SAFEDLINK) and the network cable.
SAFEDLINK panel	Participant in the SAFEDLINK sub-net with local connection for the PC.
Secondary GAP	GAP = Global Access Point. Participant in the Ethernet sub-net, in redundancy to the main GAP, for the connection between the Ethernet sub-net and a standby management station (BACnet client) and/or for remote access with Cerberus-Engineering-Tool or Cerberus-Remote. Cannot be operated as a DHCP server in the Ethernet sub-net.
Section	Level in detection tree of fire detection system. The section is assigned to the area. It is used to combine zones.
Separator connection factor	Specifies whether a device on the detector circuit features a loop separator.
Single-detector dependency	With single-detector dependency, the alarm decision depends on the danger level of one detector. The first detector in the zone which detects the corresponding danger level, triggers a fire alarm.
Site	Representation of the fire detection installation: The top level in the figure showing the installed system. Includes hardware tree, detection tree and the control tree.
Stand-alone panel	Stand-alone panel with local connection for the PC.
Standby router panel	Participant in the SAFEDLINK sub-net, in redundancy to the router panel, for the connection between the SAFEDLINK sub-net and the Ethernet sub-net (C-WEB/LAN) via the Ethernet switch (MM) FN2008-A1.
Style 4	See 'Class B, style 4 circuit'.
Style 6	See 'Class A, style 6 circuit'.
Style 7	See 'Class A, style 7 circuit'.
Supervisory	Signal indicating the need for action in connection with the supervision of guard tours, the fire suppression systems or equipment, or the maintenance features of related systems. (NFPA 72)
System bus	Loop-shaped, redundant networking by means of C-WEB/SAFEDLINK.
T	
Test activation	Activation of fire detectors in the detector test or effects in the control test.

Term	Definition
U	
UFP	Abbreviation for 'Universal Fire Protocol'. This protocol is used in the serial communication between an FS920 panel and country-specific devices.
V	
Visibility	Defines which part of a site can be seen and operated on a panel.
W	
Walk test	Detector test which temporarily activates the same notification appliances as in normal mode. This allows for the system to be tested by one person.
Z	
Zone	Level in the detection tree. The zone has at least one fire detector. The alarm decision is made on the zone. The zone is assigned to a section or area.

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