UniPOS
Part of Consilium Safety

Alaman

ADDRESSABLE MODULAR SYSTEM

MADE IN BULGARIA
صنع في بلغاريا

ABOUT US

Al Aman Fire Fighting Equipment Factory based in Dubai and serving the UAE and Middle East markets. The company commenced operations in 2007 and had become one of the leading fire fighting equipment manufacturer and supplier in the industry. Our mission is to provide our clients a range of world-class high-quality innovative products supported by knowledgeable staff. We take pride in our expertise, our customer centric services and our experience. Our diverse certified fire safety and firefighting products are recognized for their robustness, total reliability and comply to the highest standards in compliance with the Civil Defence authorities and inter- national regulatory bodies.

ADDRESSABLE-CONVENTIONAL MODULAR SYSTEM7000-1MC

The **Addressable-Conventional Modular System 7000-1MC** is designed as a professional solution with simple:

- Installation
- Flexible Set-up facility
- Approved to EN54 standards*
- 1 Loop addressable
- Up to 40 Zone Conventional Detection
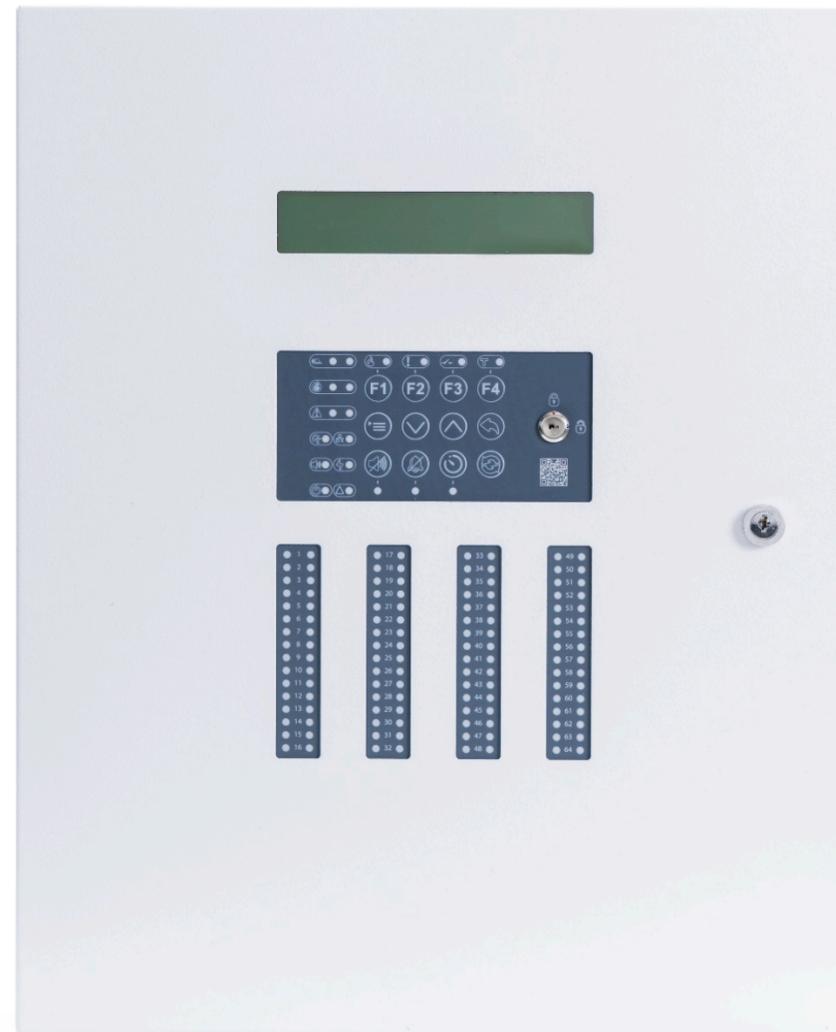
IN ONE SINGLE CABINET

5.8A PSU power block

Base module (BM) Loop module (LC)

Basic Input Output (BIO)

ADDRESSABLE MODULAR SYSTEM 7000M/7000M+

The **Addressable Modular System 7000M** is designed as a professional solution with simple:

- Installation
- Flexible Set-up facility
- Approved to EN54 standard*
- 2-10 Addressable Loops
- Multiple DIN Rail Module options
- Network capability to 16 panels

Dedal
Attestation & Certification

IMQ

UL

5.8A PSU power block

Base module (BM)

Loop module (LC)

Basic Input Output (BIO)

5.8A power block

Base module (BM)

Loop module (LC) – 2 loops

Basic Input Output (BIO)

Zonal indication 64 zones (7000M+)

Printer (optional)

SYSTEM PANEL COMPARISON

	7000M+	7000M	7000-1MC
Dimensions	W 390 x H 480 x D 175 (mm)	W 350 x H 350 x D 145 (mm)	W 350 x H 350 x D 145 (mm)
Weight (w/o batteries)	10 kg	7 kg	7 kg
Battery Capacity*	2 x 26 Ah	2 x 12 Ah	2 x 12 Ah
Included addressable loops / LC modules	2/1	2/1	1/1**
Included I/Os/ BIO modules	7 types /1	7 types /1	7 types /1
Expandable loop modules (LC) / loops	up to 5 LC modules /10 loops	up to 2 LC modules 2 /4 loops	no
Expandable I/O modules (BIO) / I/Os	up to 5 BIO modules / 35 SW configurable I/Os	up to 5 BIO modules / 35 SW configurable I/Os	up to 3 BIO modules/ 21 SW configurable I/Os
Number of addressable points per loop	210	210	150
Supports addressable conventional zones	yes	yes	yes
Supports conventional zone modules – DIN8CL	no	no	yes
Redundant CAN Network	up to 16 panels / 64 loops	up to 16 panels / 64 loops	no
Repeaters 7000M-R	up to 15	up to 15	up to 3
Modbus over TCP/IP	yes	yes	yes
User scripts	yes	yes	no

*Batteries not included
**uses 7000-1MC module instead of LC

POWER SUPPLY UNIT

|	
Current Consumption @ 230VAC	0.8A
Current Consumption @ 120VAC	1.6A
Cable Connection	Min 1.5mm²
Mains Power Fuse	4A
User Output	2 x 700mA @ 24VDC (max)
Battery Capacity	2 x 12AH @12V
Imin/Imaxa /Imaxb	0,2/3,8/5,8A (incl. battery charging)
*Total current consumption (including loops and outputs) per panel shall not exceed the current stated at Imax b.	
heat sensor for protection of the batteries	
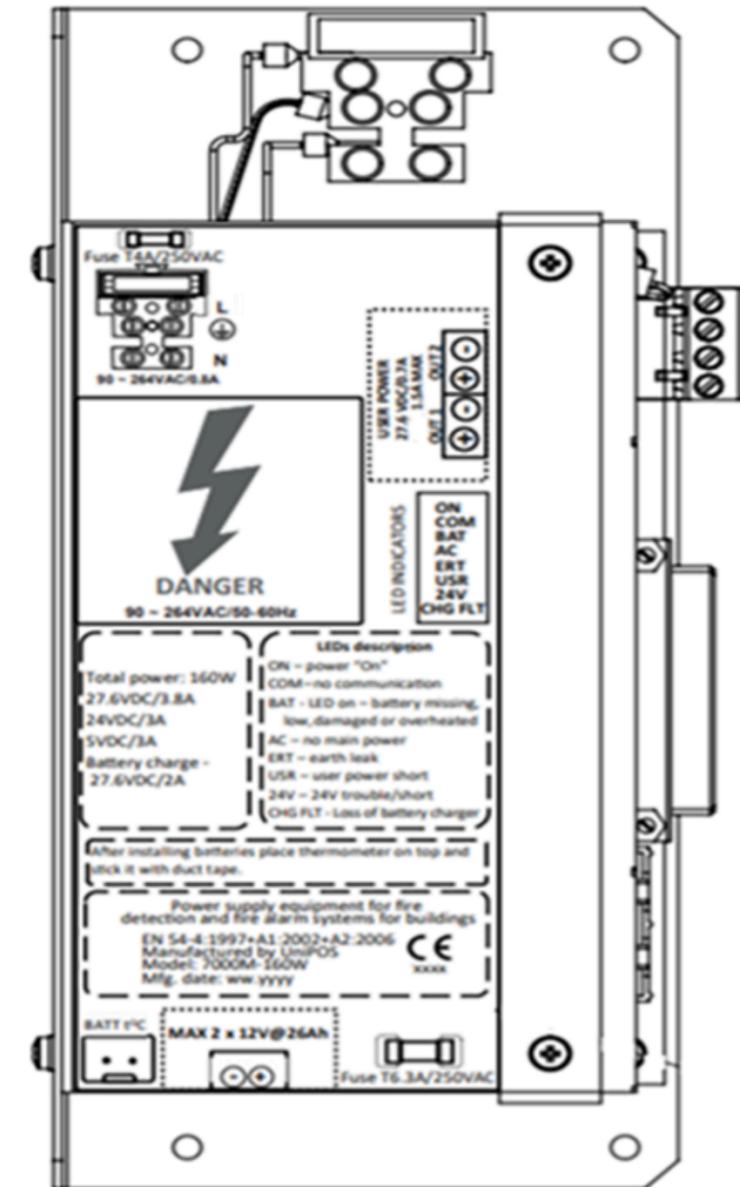
BASE MODULE WITH BUILT-IN LOOP MODULE 7000-1MC
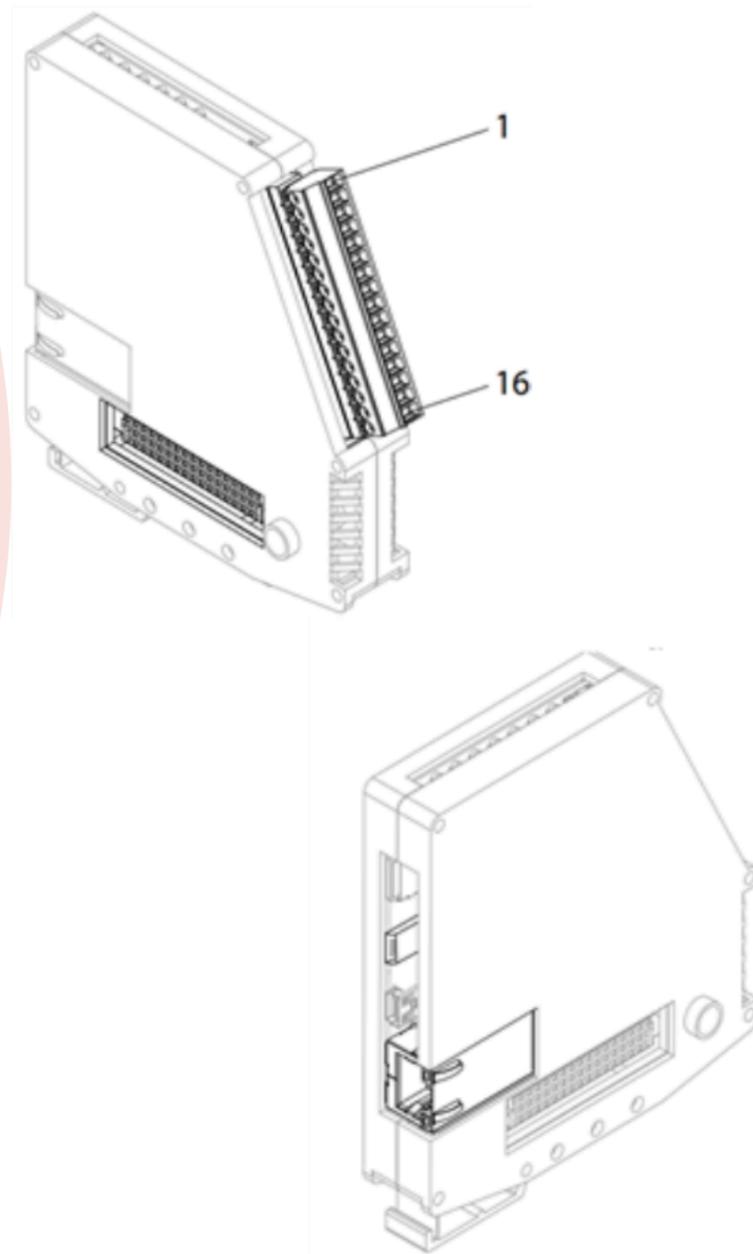
Base-Loop DIN module is mandatory for panel 7000-1MC.

- Module includes detachable and standard connector for interface connection
- RS485 for connection with Panel repeater
- USB host (mini USB) – Upload/Download panel configuration (and update panel firmware) (requires Access level 3)
- Connecting type: DIN rail
- Connecting line to loop: two-wire shielded
- Maximum resistance of a loop – 20Ω (- wire) (150 devices, 1 500 m distance) – 40Ω (+ wire)
- Maximum Loop Consumption –200mA/24VDC
- Power supply (ensured by PSU module) – (27,6 +1/-8)VDC
- Number modules per panel – 1pcs

CONVENTIONAL DIN MODULE DIN 8CL FOR 7000-1MC
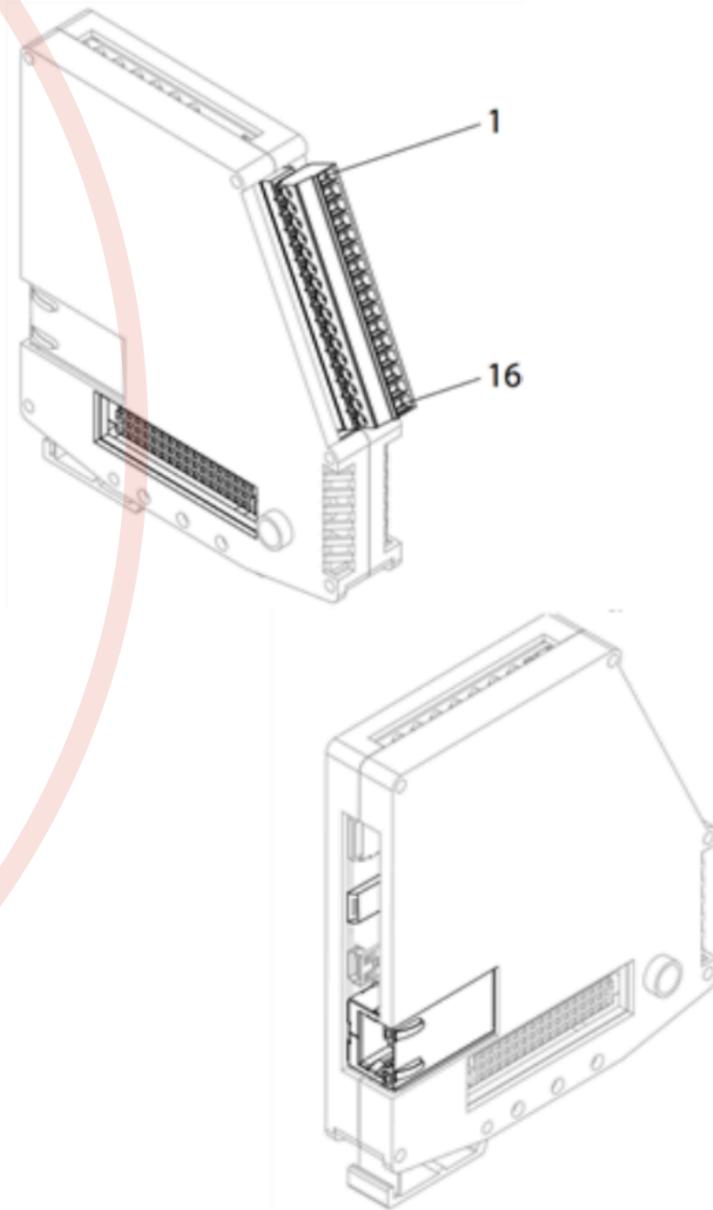
Each conventional DIN 8CL module incorporates eight conventional lines. Each conventional line can service up to 32 conventional devices.
7000-1MC system can support up to 5 pcs DIN 8CL modules up to 40 conventional lines, up to 1280 conventional detectors. At the end of conventional line has EOL element.

- Connecting type: – DIN rail
- Connecting line: two-wire shielded fire rated cab(recommended 0,75 – 1.5mm²)
- Lines per module – 8
- Modules per panel – 5
- Maximum Consumption from one line: 95mA/24VDC
- Power supply (ensured by PSU module): (27,6 +1/-8)VDC
- Number modules per panel – 1 to 5 pcs

BASE MODULE – 7000M/M+ PANEL

- Base DIN module is mandatory for 7000M panel.

- Each panel includes only one Base Module.

- Module is always installed on first position of DIN rail, next to the Power supply module.

7000M Panel Base Module provides detachable and standard connectors including:
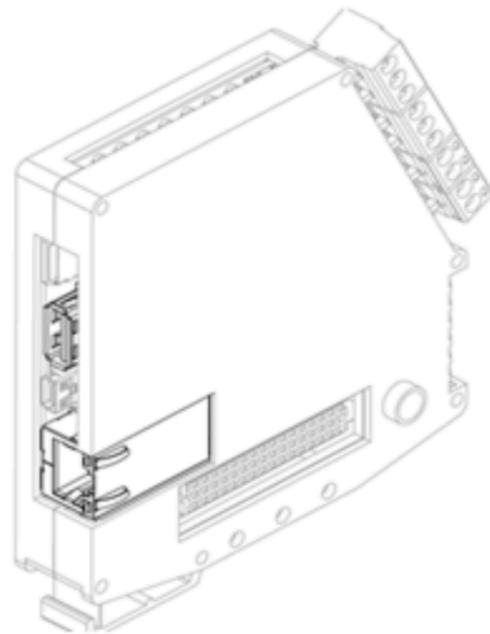
- Redundant CAN 2.0B network connection to up to 16 7000M/M+ panels.

- RS485 for connection with Panel repeaters or Zone indication led board extenders.

- USB host – Upload/Download panel configuration and update panel firmware (requires Access level 3).

- Connector – for connection with printer.

- Ethernet LAN port – for connection to Intellect BMS software connection or remote diagnostic access.

LOOP MODULE – 7000M/M+ PANEL
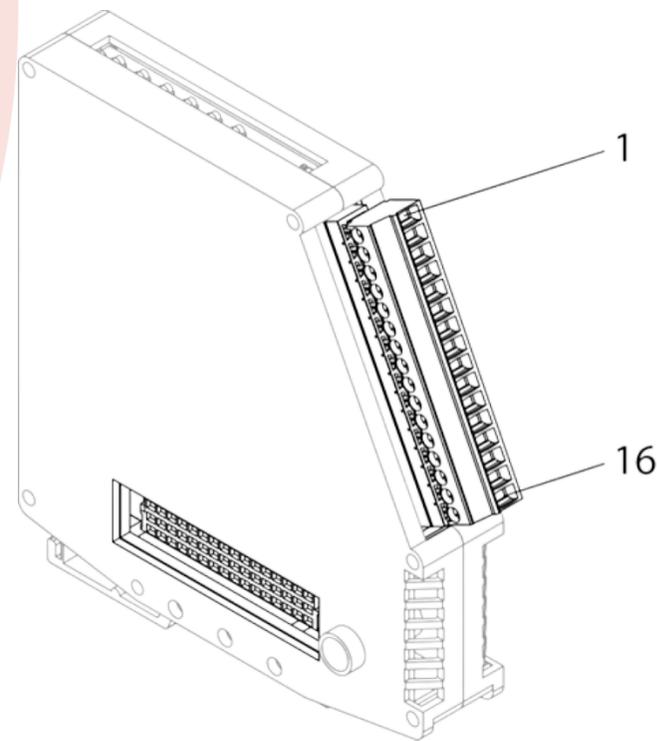
Connecting Type	DIN rail
Connecting Line to Loop	two-wire shielded
Loops per module	2 pcs
Modules per panel	Max – 5pcs Min – 1 pcs
Maximum resistance of a loop	210 devices and 2,100 m distance "-" wire) - 28Ω "+" wire) - 60Ω
Maximum Loop Consumption	300mA / 24 VDC
Power supply (provided by PSU module)	27.6 @ (+1 / - 8) VDC

BIO MODULE – 7000-1MC & 7000M /M+ PANEL
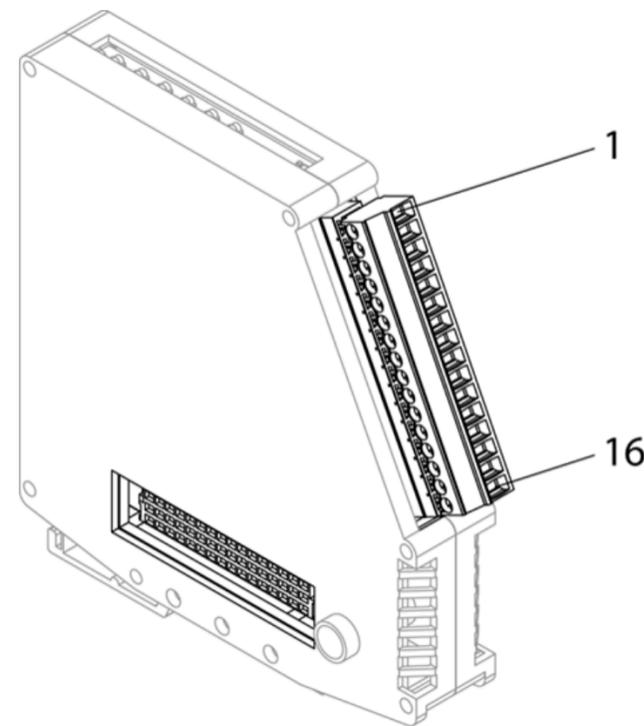
• RELAY OUTPUTS	-	2pcs
Type	-	potential free, trigger switch
Electrical characteristics	-	0,5A/125VAC; 1A/30VDC
• MONITORED OUTPUTS	-	2pcs
Type	-	potential
Electrical characteristics	-	(27,6 +1/-8)VDC/0,7A (MAX)
End Of Line Element (EOL)		1.5kΩ (included)
• MONITORED INPUTS	-	2pcs
End Of Line Element (EOL)		3.3kΩ (included)
• USER POWER SUPPLY OUTPUT	-	1pc – non-controllable
Type	-	potential
Electrical characteristics	-	(27,6 +1/-8)VDC/0,7A (MAX)
BIO modules per panel		min – 1 pcs max 5 pcs

7000M REPEATER & 7000ML LED INDICATION UNITS

Modular system – consisting of:

- Display only with controls
- Display with controls + LED Indication Unit

Connecting Type	2 Core shielded twisted pair type cable
Connecting Line to Loop	RS485
Loops per module	15pcs
Modules per panel	50mA / 27.5VDC
Maximum resistance of a loop	max 800m between first & last panel
Maximum Loop Consumption	21.5VDC – 28 VDC

7000M PANEL PRINTER (OPTION FOR 7000M/M+)

Printable data from panel:

- Faults events
- Alarm Events
- Event log data

INTELLECT MONITORING SOFTWARE

The UniPOS-Intellect software solution is used for applications where graphical information of the fire and fault events are required.

This software environment enables the user to monitor easily the fire alarm system by means of an interactive map of the site and to maintain an event log of the registered events and the actions of the operator.
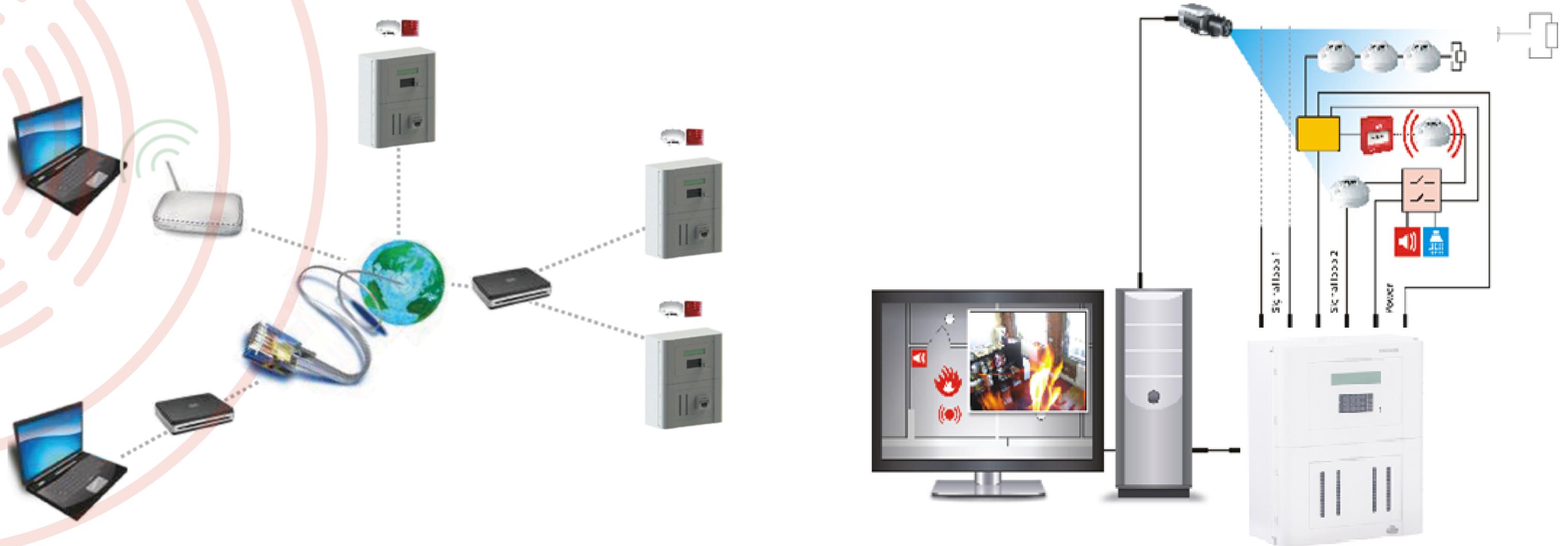
7000M BUILT-IN ISOLATOR FUNCTION

Build-in isolator   Build-in isolator   Build-in isolator   Build-in isolator
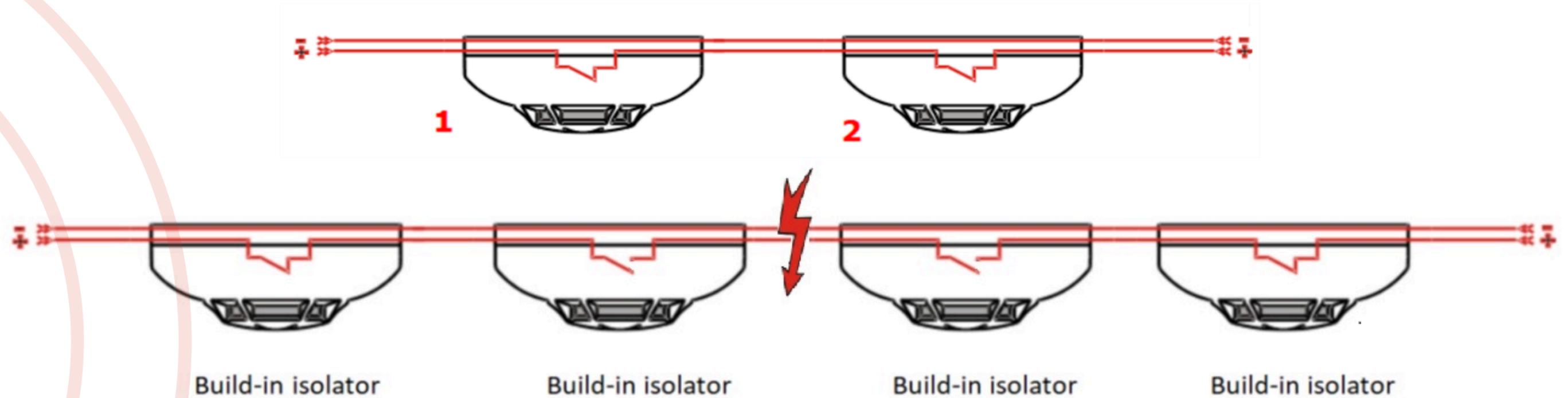
- This feature offers high reliability.
- All devices are operational in short circuit conditions on the system
- Built-in isolator in each device on 7000M Series

7000M SERIES ADDRESSING SEQUENCING

Addressing is provided on the 7000M system in this way:

- New addresses to devices are configured 'in series'

- As the devices are added new on loop

- And added as new on any branches
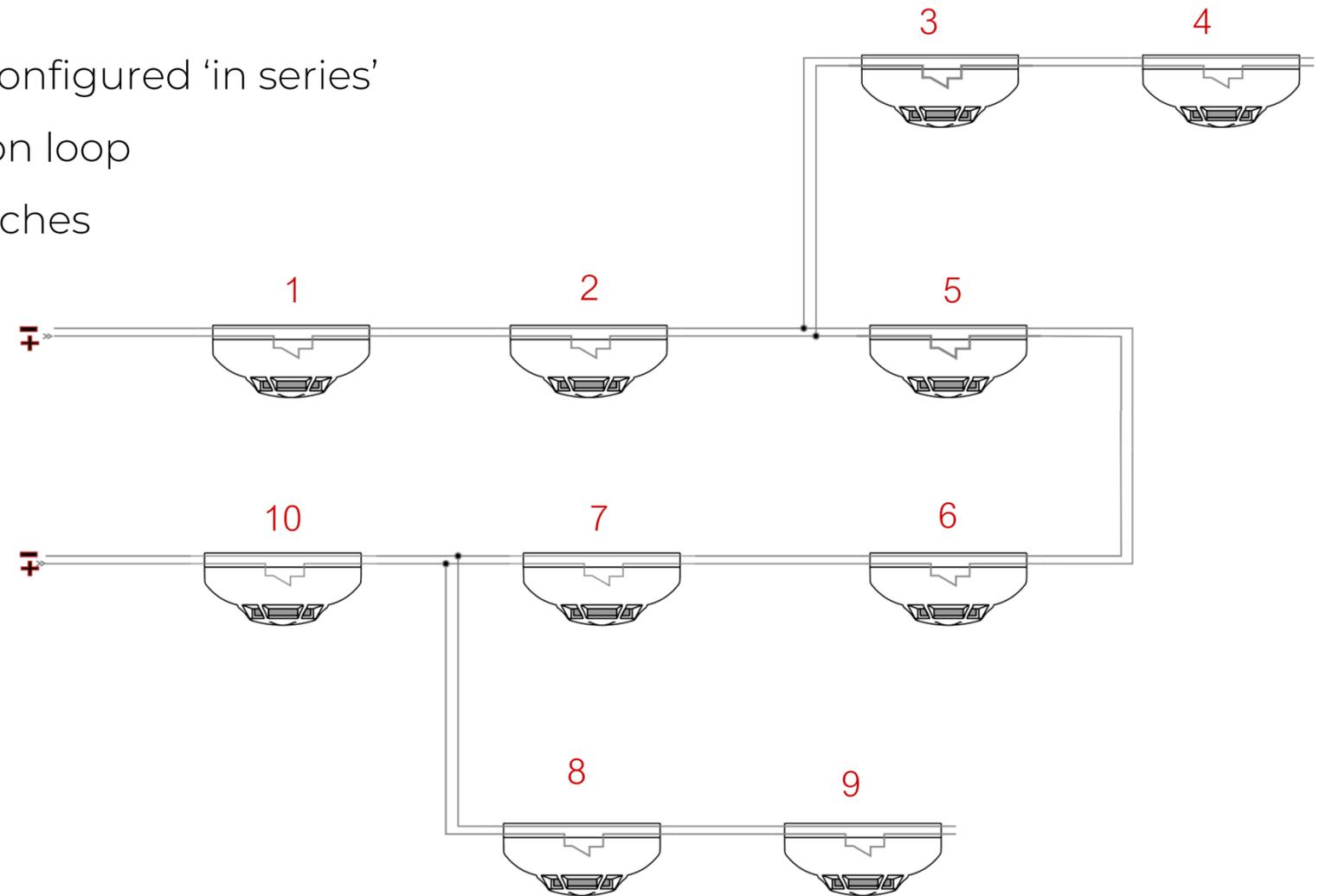
7000M PANEL NETWORK

Panel Network Connection

- Provides a redundant CAN network

- Supporting up to 16 Panels

- Which is over 13,000 addressable detectors across a fully loaded 7000M system
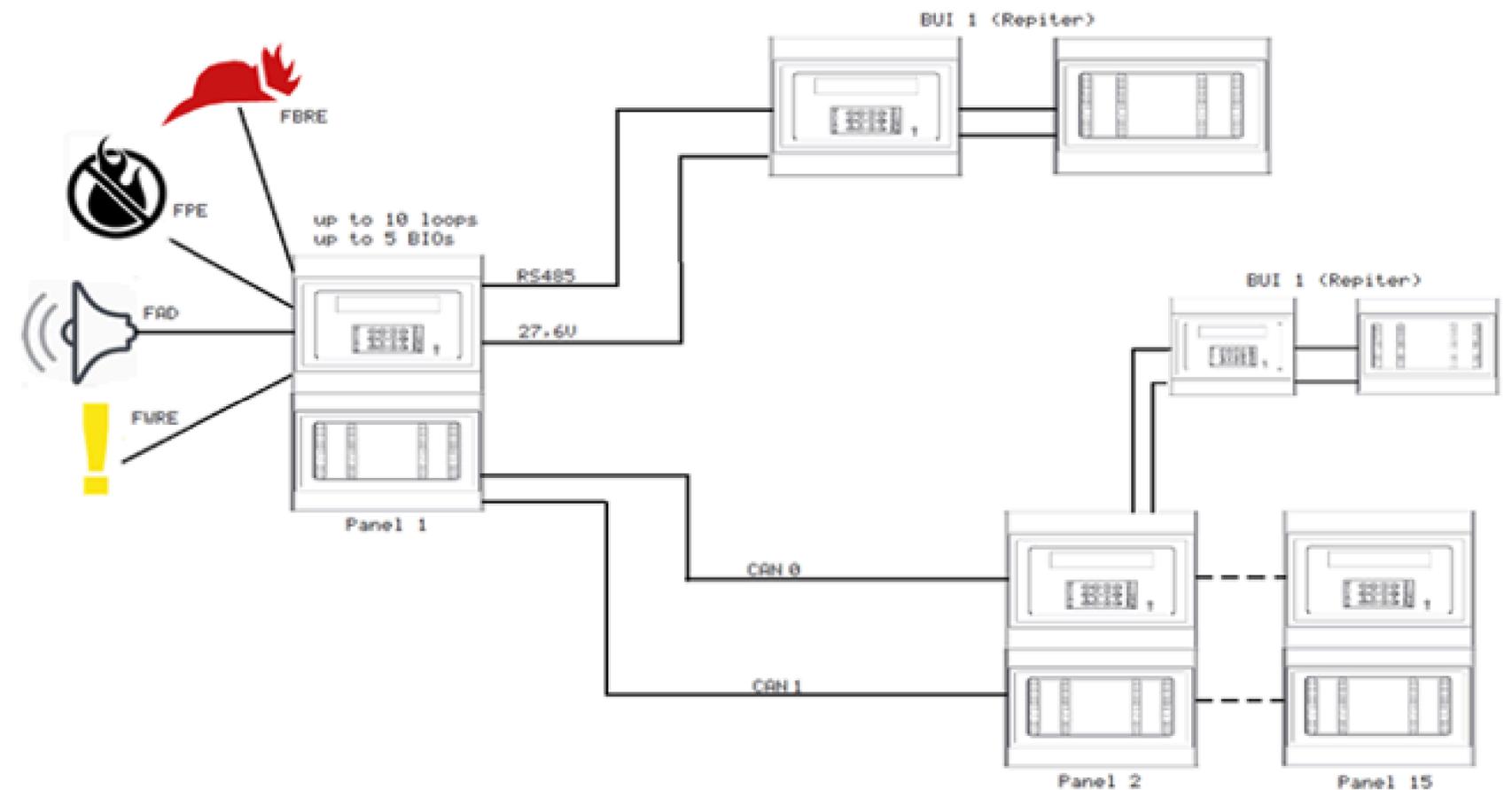
7000M TECHNICAL DATA SUMMARY

- Number of Loop Addressable Devices per loop – up to 210
- Number of Loop Modules per Panel – up to 5 (total 10 loops)
- Number of Loop Modules per System – up to 64
- Number of BIO modules – up to 5 per panel
- Number of Addressable devices per System – over 13000
- Cross-zone alarming capability
- Configurable Week schedule (Day/Night mode) – sensitivity and logic change to detectors, delays change in Alarm zones
- Configurable sounder melodies in alarm and pre-alarm state (Warning-state) for every Alarm zone
- Panel redundant CAN network support up to 16 Panels.
- Configurable Monitored Output to fire alarm routing equipment
- Alarm confirmation input from fire alarm routing equipment
- Configurable output to fire protection equipment (addressable output device),
  - with LED indication for activation
  - with Input for receiving confirmation signal with dedicated indication
- Fault monitoring fire protection equipment (in/out)

FUNCTIONAL STRUCTURE

- Detection zone (DZ) – contain up to 32 loop detectors, fire inputs or/and manual call points

- Detection zones (DZ) per Panel / System – up to 1023

- Alarm zones (AZ) per Panel/ System – up to 1023

- Protection zones (PZ) per Panel / System – up to 1023

- Alarm zones and Protection zones can be activated from any Detection zones (DZ)

- *Limitation: One Detection zone (DZ) can activate only per one AZ / PZ)
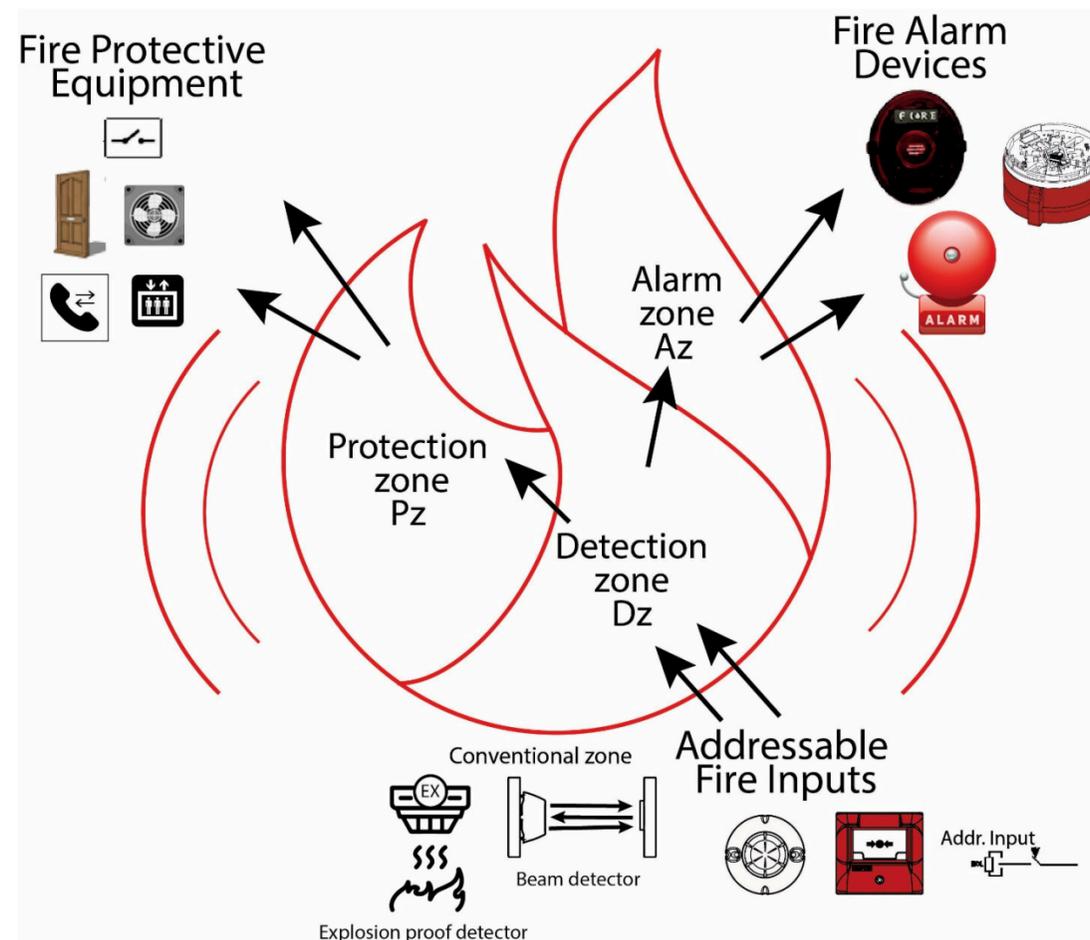
TECHNICAL DATA
SUPPORTED OPTIONS WITH REQUIREMENTS EN54-2

- Delay to outputs, Day/Night mode

- Dependencies on more than one alarm signal – Coincidence mode
  - CI Mode A (Detecting fire by double knock zone activation)
  - CI Mode B (Detecting fire by two zones activation) with Pre-alarm state
  - CI Mode C (Detecting fire and activations of any zone inspection time to 10 min.)
- Alarm counter – up to 9999 (can be delete by script at level access 4)
- System Event log (archive) – 10 000 events

- Fault signals from points

- Total loss of power supply

- Output to fault warning routing equipment

- Disablement of addressable points

COINCIDENCE MODE (CI) A

DETECTABLE FIRE BY DOUBLE ZONE ACTIVATION

Scenario 1:

panel displays

```
Normal
Operation
```

FIRE DETECTOR

FIRE DETECTOR IS ACTIVATE

(60 sec active, then automatically reset by fire panel)

0 - up to 1740 sec

Programmable **verification** countdown starts

Fire Reason clears *within verification time ...*

```
Normal
Operation
```

system returns to **normal state**

Scenario 2:

Fire Reason remains *beyond verification time ...*

Alarm zone immediately goes into **fire mode zone sounders activate**

COINCIDENCE MODE (CI) B

DETECTING FIRE BY TWO ZONES ACTIVATION

1. Verification Delay (Type B - displayed)

panel displays

Fire warning

FIRE DETECTOR

FIRE DETECTOR IS ACTIVATE

(240 sec active, then automatically reset by fire panel)

Zone sounders Activated in warring state
(if programmble)

0-1560 sec

Programmable **verification** countdown starts

Scenario 1:

Fire Reason clears within verification time ...

Normal Operation system returns to **normal state**

Scenario 2:

Fire Reason remains beyond verification time ...

Alarm zone immediately goes into **fire mode zone sounders activate**

Scenario 3: **Second detector in same building area activates during** investigation delay **sounders activate** system goes into **fire mode**

Alarm zone immediately goes into **fire mode zone sounders activate**

COINCIDENCE MODE (CI) C

DETECTING FIRE WITH INSPECTION TIME

Alarm verification methods
1. Verification Delay
These delay the operation of certain outputs ofter
the fire condition displays on yhe panel

panel displays
Fire Mode

FIRE
DETECTOR

FIRE DETECTOR IS ACTIVATE

60-600 sec
Programmable
verification
countdown starts
(60 - 600 sec)

Responsible person
Exceeds investigation
delay time

60 sec
(extended)
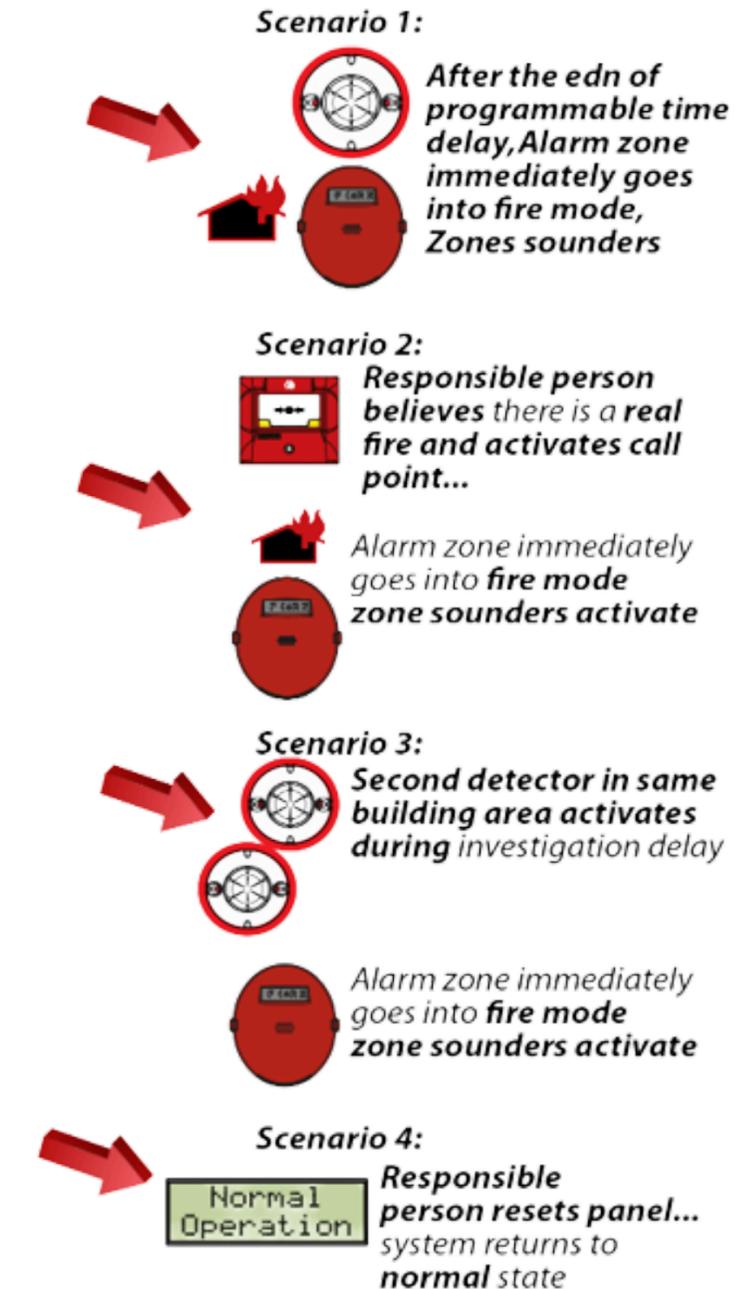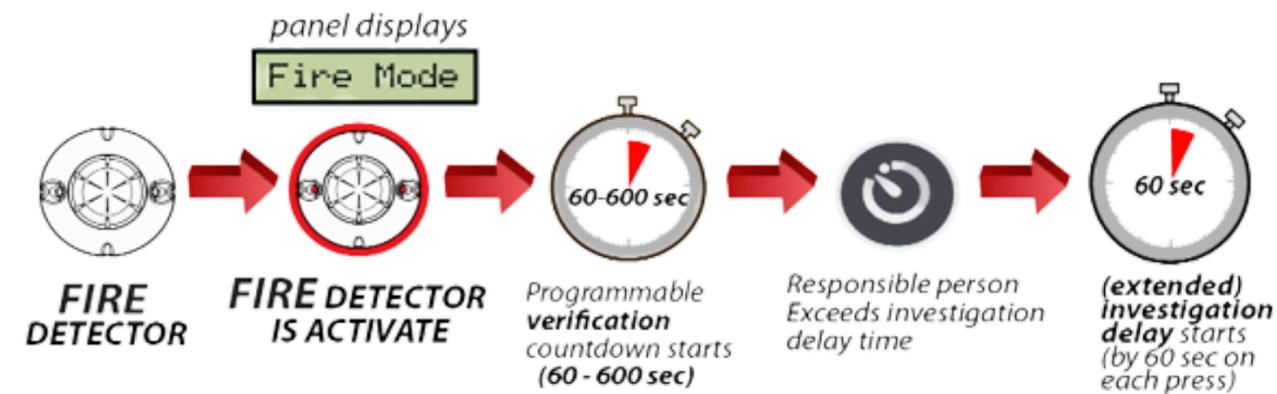**investigation**
delay starts
(by 60 sec on
each press)

Scenario 1:
After the edn of
programmable time
delay, Alarm zone
immediately goes
into fire mode,
Zones sounders

Scenario 2:
Responsible person
believes there is a real
fire and activates call
point...

Alarm zone immediately
goes into fire mode
zone sounders activate

Scenario 3:
Second detector in same
building area activates
during investigation delay

Alarm zone immediately
goes into fire mode
zone sounders activate

Scenario 4:
Normal
Operation

Responsible
person resets panel...
system returns to
normal state

7000M UNICONFIG SOFTWARE PROGRAMMING TOOL

With UniConfig software tool you can fully program and build system architecture for the 7000M system including:

- Modules

- Devices

- Fire activation, day/night, time schedule

- Cause & Effect programming

- Individual fire script algorithms

7000M ADDRESSABLE DEVICES

7120M ADDRESSABLE HEAT DETECTOR

Fire condition on a rate of rise of the temperature or reaching a fixed temperature threshold

Suitable for premises with normal and high ambient temperature, without possible sudden changes

Programmable temperature class in compliance with EN54/5 A2R, A2S

7130M ADDRESSABLE SMOKE DETECTOR

Fire condition on reaching a fixed threshold smoke concentration

Programmable smoke sensitivity in compliance with EN54/7. Low, medium & high settings

7160M ADDRESSABLE COMBINED SMOKE/HEAT DETECTOR

Fire condition on fixed threshold smoke concentration, or rate of rise of the temperature, or fixed temperature threshold. It can combine smoke and rate of rise temperature in "and/or" use

Satisfies the requirements of EN54/5 and EN54/7

Combines the advantages of a 7120M Heat and 7130M Smoke Detectors

Dedal Attestation & Certification   IMQ   UL

Dedal Attestation & Certification   IMQ   UL

Dedal Attestation & Certification   IMQ   UL

7000M FIRE DETECTION & ALARM DEVICES

SYSTEM FEATURES

- The fire detectors are addressable and interactive, ensuring the exact point of fire event is located
- Two diametrically situated LEDs providing 360° angle visibility and three state indication modes depending on the fire detector status – duty mode, fire mode & fault mode
- The base allows easy installation and provides interchangeability of the fire detectors.
- A modern low-profile design, that makes them suitable for the most demanding and prestigious interior.
- Unique UniTALK protocol for communication between the panel and the devices on the loop.
- Built-in short-circuit isolator in each detector.
- Built-in algorithm for self-compensation of the contamination
- Self-test mode for detecting a contamination of the optical chamber, sending a signal when maintenance is needed
- The construction of the fire detector allows quick cleaning of the optical chamber
- Provides easy de-installation and installation of the detector head
- Cutting down the time necessary for service and maintenance

BUILT-IN FUNCTIONS

The construction of the optical chamber and the new technology applied in manufacturing offers a safety net guaranteeing:

- A high level of protection against contamination with particles and insects
- Normal operation under strong airflow conditions
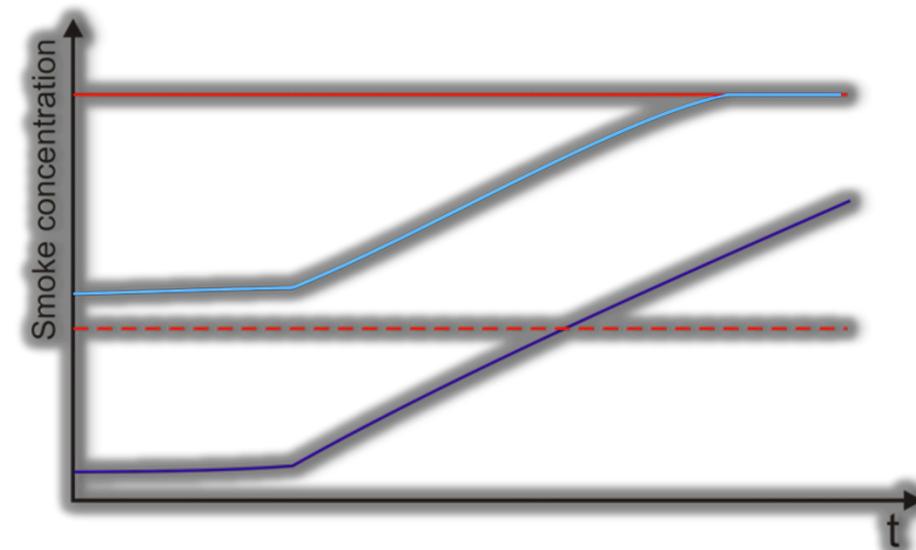
7150M ADDRESSABLE MANUAL CALL POINT

- Intelligent robust design
- Manual activation by pressing the glass on the place, signed with arrows
- Certified with the European Standard EN 54-11 for a type A manual call point and EN 54-17

ADDITIONAL OPTIONS:

- Extended back box for surface mounting
- Protective cover

# 7203M ADDRESSABLE INPUT/OUTPUT LOOP MODULE

PROGRAMMABLE INPUT:

- activated on change in the line resistance (monitored for short-circuit and open circuit in the connection line)

PROGRAMMABLE OUTPUT:

- potential (additional power supply is required), monitored output

  -peak activation current with internal power supply - 80mA
  -peak activation current with external power supply - 1A

- non-potential, dry contact 0,5A/125VAC; 1A/30VDC
- The functional characteristics of each input or output are individually programmable

ONE ZONE CONVENTIONAL INTERFACE MODULE 7201M

- Designed to connect **CONVENTIONAL FIRE ALARM LINE** (with up to 32 fire detectors) as a part of the addressable fire alarm system 7000M

- The module is power supplied by the signal loop, and up to 30 modules can be connected in EACH of the loops.

- The module supervises the current of the line and responds to the fire control panel with a corresponding condition: **NORMAL**, **FIRE** condition, **FAULT** condition in the CONVENTIONAL line
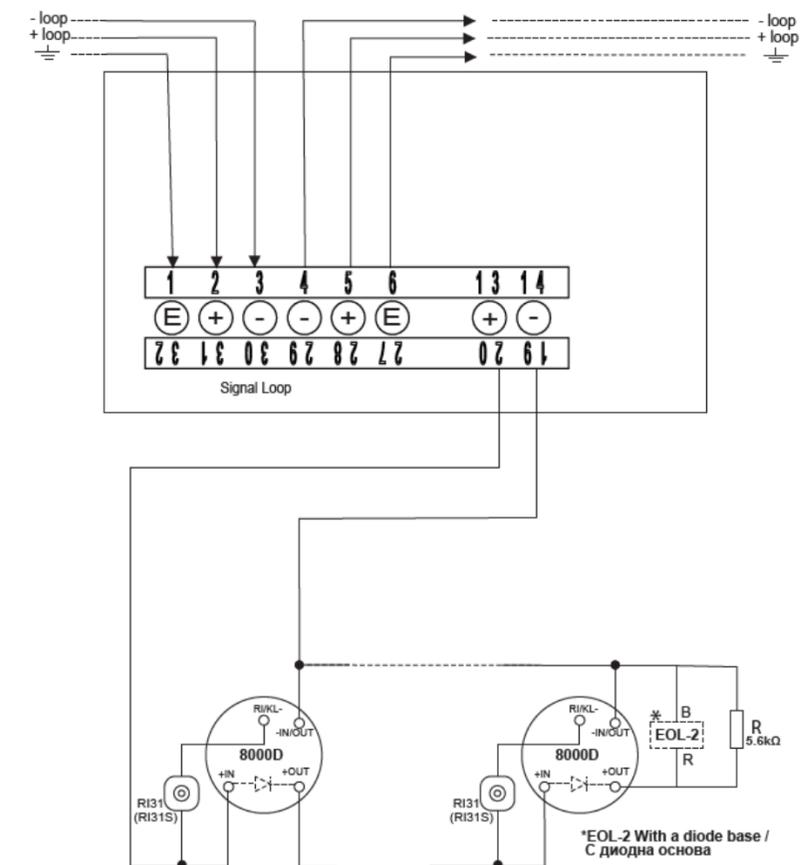
7206M ADDRESSABLE LOOP SOUNDER

Operating Voltage	15 – 30 VDC
Current	8mA / 24VDC
Melody Type & Frequency	Whoop signal 0.5 – 1.2 kHz Evacuate signal 970 Hz
Sound level at 1m	90dB (A)
Frequency	2.8 ±0.5 Hz
Temperature	-10°C to 50°C
Dimensions	134 x 36 x 112 mm
Weight	0.115kg
Protection	IPX2D (INDOOR USE)
Construction	ABS

7205M ADDRESSABLE BASE SOUNDER

Note: this device is conventional type device managed by RI output of the addressable automatic fire detector and directly supplied by the loop

Operational mode	Sounder for local detector General/global sounder for the system
Operating Voltage	18 – 30 VDC
Melody Type & Frequency	Whoop signal 0.5 – 1.2 kHz Evacuate signal 970 Hz
Alarm Current	High volume 8mA/24VDC Low volume 6mA/24VDC
Sound level at 1m	84dB/24VDC (high) 78dB/24VDC (low)
Temperature	-10°C to 50°C
Dimensions	Ø100 mm
Weight	0.165kg without detector
Protection	IP21C
Construction	ABS

71CNG ADDRESSABLE GAS DETECTOR

- For detection of compressed natural gas (methane) in the protected area.
- The status is indicated with LEDs and built-in sounder.
- EN50194-1 compatible on trigger level 5100 ppm CNG (methane) in air
- Saturation 10% LEL (Low Explosion Level) of the protected area.
- The signal loop interface line is compatible with the 7000M fire control panel

Alaman

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