Fire detection

Overview

CACCIALANZA & C.

Sistemi Antincendio e di Sicurezza

Original photographies: **Renzo Chiesa**
Detectors photographies: **Detectomat**
Thermal camera photographies: **Dias Infrared**
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COMPANY PROFILE

Caccialanza & C. has been a leading name in fire prevention and safety for over 65 years.

This unique experience combined with continuing R&D allows Caccialanza & C. to offer the most advanced solutions, materials and systems currently available for fire detection and extinguishing.
Caccialanza & C. wide range of equipment includes fixed and mobile extinguishing systems using foam, powder, water, CO2, halon and other agents in a choice of models to suit all civil and industrial requirements.
Caccialanza & C. also manufactures manually and remote controlled electric, hydraulic and pneumatic water and foam/water fire monitors in a wide range of models with flowrate of up to 30.000 lt/min. Poles up to a maximum height of 25m. are also available in several executions with or without fixed and rotating platforms.
The company production also covers fire detection equipment and systems with technical specifications designed to satisfy those businesses and industries who demand the best in reliability and safety.
Caccialanza & C. range also includes fire detection sensors of all types and a range of control panels which are quite unique for their modular design, versatility and interfaceability.
The FMZ-Detect system is the most advanced expression of multifunctional control technology and can satisfy virtually any conceivable need in terms of security, fire detection, access control, personnel movement control and alarm and evacuation procedures.

Caccialanza & C. latest technological development is represented by the Automatical Fire Extinguishing Systems for Tunnel Protection with Remote Controlled Monitors and by the Signalization and Visual Guide Interactive System for Evacuation Routes for both motorway and railway tunnels.
Nowadays Caccialanza & C. means expertise and reliability in the difficult area of development and production tailored systems developed specially to suit particular customer requirements.

Company site in Segrate

Products warehouse

THE FMZ-DETECT SYSTEM

FMZ-Detect control panels are based on the concepts of modularity and distributed processing.
They are capable of handling signals from all types of fire, alarm, and control field sensors, as well as supervising and controlling the status of field devices and logging local and remote signals.
FMZ-Detect control panels use a multi-level architecture in which each function board has its own dedicated processor. Function board processors dialogue with a master processor on the control panel's main processor board.
On higher levels, a number of sub-panels can be networked to a main control panel and even to a Host computer.
The hardware is completely modular.
Function boards are simply plugged in to the motherboard, so that the system can be expanded whenever required.
FMZ-Detect control systems are specifically designed to provide integrated security, covering all function of fire detection and automatic extinguishing, the control of intruder alarm systems and plant alarm systems. FMZ-Detect control panels use VDS standard current controlled lines to link up with field sensors and actuators dedicated to fire extinguishing and all other remote controlled functions.
The possibility of FMZ-Detect panels interconnection also allows a significant reduction of the need of distributing system cabling.
One simple connection (on serial bus or ethernet) is enough to exchange data and control all the lines.
Great care has been taken in designing the FMZ-Detect range of control panels to ensure the security of data and control signals and the immunity of the entire security system to external tampering. The success with which this objective has been achieved makes FMZ-Detect panels ideal for use even in the most arduous industrial environments.

SYSTEM ARCHITECTURE

The system architecture is usually based on a number of sub-panels used as concentrators and distributed inside the building. These sub-panels are all connected to and subordinate to the main control panel.
The control centres in which the main panels are installed are normally manned and are located at the strategic nerve centres of the building.
Sub-panels are connected to the main panel in the control centre by means of serial bus.
The network thus created may be cabled either in star configuration, with each sub-panel connected to the main panel by a separate cable, or in a loop configuration. Even mixed star-loop configurations are possible to make the most rational use of particular building layouts. Loop size is virtually limitless provided an adequate number of amplifiers is installed. Sub-panels handle the building security functions. Each sub-panel can therefore have its own analog and digital inputs and outputs, its own local display and control devices (operator interface) and its own synoptic function monitoring displays.
On top of these functions, the main panel in the control centre can also be connected to one or more host computers for display and management of alarm systems.
The host computers connected to the main control panel are kept permanently updated with all system status information, and can send the main panel all the commands needed to perform any permitted operation.
Host computers are usually equipped with colour graphic monitors capable of displaying maps of the building complex and showing the status of all controlled alarms and functions.

Host computers are equipped with backing store and can also be connected to printers to provide hard copy listings of events and operator actions. All panels are powered at 220 V 50 Hz. Power supply functions are performed by dedicated boards installed in the panels, which incorporate backup batteries to provide uninterrupted power in case of mains failure. All panels are powered at 220 V 50 Hz. Power supply functions are performed by dedicated boards installed in the panels, which incorporate backup batteries to provide uninterrupted power in case of mains failure.

INNOVATIVE TECHNOLOGY

Caccialanza FMZ-Detect control panels are absolutely innovative in the technology they use.Hierarchical, multi-level microprocessor architecture and distributed processing are the most outstanding examples of leading edge technology. The application of these concepts means that each function board has its own dedicated processor which dialogues with the sub-panel's main processor. This in turn dialogues with the main processors of higher level control panels, and so on.
As operator interfaces, FMZ-Detect control boards can use alphanumeric displays and keyboards or function push-buttons and dedicated LEDs, or a mixture of both types of interface together.

APPLICATIONS

FMZ-Detect control systems can perform a virtually limitless range of applications in medium to large building complexes.
They can provide any function from simple personnel movement control, alarm and plant control and other security linked functions right down to total, integrated security.

RELIABILITY

All the boards designed for use in the FMZ-Detect series guarantee the highest levels of reliability possible from today's advanced technology. Only top quality electronic components from leading brand manufacturers are used and all boards are subjected to the rigorous and prolonged testing of all their functions by dedicated test equipment as part of Caccialanza strict quality control procedure. On top of this, all FMZ-Detect boards and sensors have integrated hardware and software self-test functions to diagnose and warn of even the smallest malfunction in real time.

FIRE CONTROL PANELS DETECT 3500 AND FIRE EXTINGUISHING COMMAND PANELS LKS 3500

Fire control panels detect 3500 are designed to cover a wide range of applications from the small one loop addressed analogic system up to complex networked systems. The powerful incorporated processor, support software based on Linux operating system and the configuration flexibility allow a high level of integration and functions customization.
Ease of applications/projects realization thanks to panels modularity and wide range of options.

FIRE CONTROL PANEL DC 3500

- Panel and systems components according to EN 54-2,4 and 13
- Redundant connection of the fire control system components to ensure the highest reliability
- Configuration and programming by means of DPT software or diagnosis I-Check for the best functionality of the system
- Intuitive clear representation of notifications for the utmost ease of use according to EN 54
- Expandable up to max. 15 loops; expansion is possible also in later phases (mixed installation of detectors, actuators and IOM modules)
- Possibility to address up to max. 1890 units
- Event log memory of up to 100.000 messages

TECHNICAL DATA

Supply voltage	90-265 V; 50-60 Hz
Power supply	24 V DC/166 W/3,5 A
Auxiliary supply	24 V DC/800 mA
Emergency supply	12 V / max 26 Ah
Interfaces	USB (for programming) Ethernet (system net)
Display	Touchscreen graphic color display 160 x 80 pixel, backlight
Detectors interface	max. 15 loops with 126 devices for loop 3000 series max. 3500 m per loop
Clean contact relays	1 alarm 1 fault 4 programmable
Monitored outputs	1 x 24 V/800 mA
Inputs	Programmable contacts
Ambient temperature	- 5°C a + 40°C
Humidity	5-95% (without condensation)
Colour	light grey (RAL 7035)
Protection class	IP 30 (other available executions: IP54)
Material	Sheet steel
Dimensions (H x W x D)	600 mm x 450 mm x 260 mm
Weight	15,0 kg without batteries
Standards	EN 54-2: 1997 A1:2006 EN 54-4: 1997 A2:2006
System approval	S 216001
CE-CPR number	0786-CPR-21428
VdS approval	G214222

Fire extinguishing command and control panels LKS 3500 are designed to be perfectly integrated in the fire detection panels and allow to handle up to 14 independent extinguishing zones.
Each zone is equipped with dedicated LED indication for the most relevant operative conditions.
The unit is provided with a powerful dedicated processor based on Linux operating system; the utmost programming flexibility allows to adapt without modifications each extinguishing module to the most different extinguishing means and methods (both saturation and aimed action).

FIRE EXTINGUISHING COMMAND AND CONTROL PANELS LKS 3500

- Panel and systems components according to EN 54-2,4 and 13
- Possibility to create networks of up to 16 panels for the utmost solution flexibility
- Redundant connection of the fire extinguishing command and control components to ensure the highest reliability
- Configuration and programming by means of DPT software or diagnosis I-Check for the best functionality of the system
- Intuitive clear representation of notifications for the utmost ease of use, in compliance with detection modules (EN 54)
- Possibility of command and control of up to max. 14 zones
- Possibility to define extinguishing zones as multiple, connecting more extinguishing devices
- Extinguishing event log memory of up to 100.000 messages

DATI TECNICI

Supply voltage	90-265 V; 50-60 Hz
Power supply	24 V DC/166 W/3,5 A
Auxiliary supply	24 V DC/800 mA
Emergency supply	12 V / max 26 Ah
Interfaces	Ethernet (system net) Ethernet (programming) Ethernet (LAN)
Ethernet connections	ST optical fiber RJ45 copper
Display	touchscreen graphic color display 160 x 80 pixels, backlight
Modules interface	integrated in loop 3000
Clean contact relays	1 alarm 1 fault 3 programmable
Ambient temperature	- 5°C a + 40°C
Humidity	5-95% (without condensation)
Colour	light grey (RAL 7035)
Protection class	IP 30 (other available executions: IP54)
Material	Sheet steel
Dimensions (H x W x D)	600 mm x 450 mm x 260 mm
Weight	16,0 kg without batteries
Standards	EN 54-2: 1997 A1:2006 EN 54-4: 1997 A2:2006

STANDARD EXECUTIONS OF THE FIRE CONTROL PANEL WITH FIRE EXTINGUISHING COMMAND AND CONTROL UNIT

Standard execution IP30

The fire extinguishing command and control unit is usually supplied in its own independent cabinet, with the same constructive characteristics as the fire detection panel.
The cabinet can host up to max. 20 local modules for fire extinguishing units operation. Other modules can be connected on the loop in the required zones.

Expanded execution IP30

Should the local modules number be higher than the above indicated limit, additional cabinets, with same constructive characteristics and dimensions, are added.

Compact execution IP30

Alternatively the fire extinguishing command and control unit can be mounted inside a single cabinet along with the fire control panel. In this case the maximum number of modules for fire extinguishing units operation that can be mounted locally decreases to 5.

Compact execution IP54

All the units can be supplied also in execution with protection degree IP54 and transparent front door; all the other characteristics are the same as the standard execution IP30, except the overall weight (25 kg for module, batteries excluded).

LOOP MODULE

Microprocessor interface board for connection to the panel dc 3500 of a loop for sensors / actuators (for connection of max. 126 elements of the loop 3000 system).

- Possibility of ring or 2 independent rods connection
- Connection of the 2 rows line for a max. length of 3500 m
- Multiple system connector for direct plug in on the panel backplane module
- Multiple system socket for direct plug in of other boards in the panel
- Possibility of manual or automatic addressing

TECHICAL DATA

Supply voltage	20 to 32 V DC via dc 3500 panel
Emergency supply	via dc 3500 panel
Dimensions (H x W x D)	125 mm x 100 mm x 20 mm
Ambient temperature	- 5°C a + 40°C
Humidity	5-95% (without condensation)
Standard	EN 54-2, EN 54-17
VdS approval	associated to the panel

BASIC MODULE

Microprocessor base board for control of panel dc 3500 peripheral units.

- 6 interface relays with free contact
- 2 inputs with programmable free contact
- 1 controlled current output for acoustic alarm 24V/800ma
- optoisolated input (door control)
- Supervision of alarm and fault emergency circuits
- Multiple system connector for direct plug in on the panel backplane module
- Multiple system socket for direct plug in of other boards in the panel

TECHICAL DATA

Supply voltage	20 to 32 V DC via dc 3500 panel
Emergency supply	20 to 32 V DC via dc 3500 panel
Dimensions (H x W x D)	125 mm x 100 mm x 20 mm
Standard	EN 54-2, EN 54-17
VdS approval	associated to the panel

LIM MODULE

Microprocessor interface board for connection to the panel dc 3500 of the LED signals, of the acoustic alarm and of the main calculator.

- Buzzer mounted directly on the printed circuit
- LED connection on the front panel by means of flat flexible cable
- Multiple system connectors for connection to the main calculator and to the backplane

TECHICAL DATA

Supply voltage	20 to 32 V DC via dc 3500 panel
Emergency supply	20 to 32 V DC via dc 3500 panel
Dimensions (H x W x D)	125 mm x 100 mm x 20 mm
Standard	EN 54-2, EN 54-17
VdS approval	associated to the panel

BACKPLANE MODULE

Board for physical support and electric connection of the basic module and the loop modules. Two of these boards can be present in the panel.

- Multiple system connectors for modules connection direct or by means of multiple codified cables

TECHICAL DATA

Supply voltage	20 to 32 V DC via dc 3500 panel
Dimensions (H x W x D)	125 mm x 100 mm x 20 mm
Ambient temperature	- 5°C a + 40°C
Humidity	5-95% (without condensation)
Standard	EN 54-2, EN 54-17
VdS approval	associated to the panel

EVAC-BOX BASIC

Panel for remote operation of fire extinguishing / alarm / evacuation units.

- Compact module for supply and operation of the connected units
- Power supply from mains and by means of controlled buffer batteries
- It can be equipped for command and control of 1÷4 independent units
- For direct connection to a dc3500 panel loop

TECHICAL DATA

Supply voltage	230V / 50 Hz
Loop voltage	15 - 24 V DC
Emergency supply	24 V (2x12V - 7,2Ah or 12Ah)
Ambient temperature	- 5°C a + 40°C
Umidità	5-95% (without condensation)
Colour	light grey (RAL 7035)
Protection class	IP 30 (other available executions: IP54)
Material	Sheet steel
Dimensions (H x W x D)	404 mm x 404 mm x 110 mm
Weight	5,0 kg without batteries
Standard	Feeder: EN 54-4 Command module: EN 54-17, 18

10 DIAGNOSTIC AND PROGRAMMING TOOL EC3000

Programming tool for the easy manual addressing and programming of the loop3000 components.

- Battery powered Stand- Alone tool with up and download function for an easy manual addressing and programming of the loop3000 components
- Update option of the device software via integrated RS-232-interface
- Acoustic alert at low battery
- The programming of the automatic detectors can be done directly via the integrated detector base
- Four line LC Display with backlight and adjustable brightness for a clear display of all values and data
- Easy assignment of customer specific detector data via integrated copy and paste function

LOOP TESTER LT 3000 DIAGNOSTIC AND PROGRAMMING SOFTWARE

Programming tool for an easy automatic or manual (scanfunction) addressing and programming of the components of the loop3000 via a personal computer.

- Stand-Alone device with up- and download function for an easy automatic and manual (scanfunction) addressing and programming of the components of the loop3000 via a personal computer without the installation of a fire control panel
- 1 loop or 2 spurs suitable for connection for the complete test of the detectors/modules installation or for the test of subareas (e.g. difficult to access areas)
- Including 230 V-voltage supply for the diagnostic tool
- Including reset key for the reset of the loop tester to a defined basic status
- Easy programming and diagnostic and input of customer specific data via diganostic software I-Check 3000

FIRE CONTROL PANELS AND FIRE EXTINGUISHING COMMAND UNITS OPTICAL FIBER NETWORK

Fire control panels provided with fire extinguishing command unit UZ can be networked to a master unit / HZ that receives all the status and alarms from each unit and from which can be performed all the operations of each peripheral unit / UZ.

MASTER UNIT

Network connection is carried out by means of (redundant) ring connected multimode optical fiber with Ethernet interface and TCP/IP protocol.
On the master unit are installed two different touchscreen graphic colour displays, one usually for commands and visualization of status and alarms, while the other for graphic visualization on colour maps of system status and conditions. Graphic representation of visualized maps is on two levels: a general map of the whole system locating the zone (or the zones) involved in the alarm and a detailed map of the alarm zone. In case of more contemporary alarms the zones involved are shown one after the other.

ADDRESSABLE AUTOMATIC DETECTORS FOR LOOP3000 AND ACCESSORIES

To detect fires in the earliest stage was one of the main targets within the development of the detectors of the loop3000 system. The elements are based on the EN 54 standards and meet the demands and requirements of the international markets.
Extensive analysing methods and combinations of different sensor criteria and complex algorithms guarantee an easy operation and comprehensive maintenance and diagnostic features. The detectomat-protocol allows a detailed analysis and an adoption to the ambient conditions of the according application.
The system parameters allow an easy operation and maintenance. Special integrated software features can control all measurements and analyse accordingly to adjust the system performance to the application.

FEATURES AT A GLANCE:

- The addressable detectors are manufactured according to EN 54-5, -7, -17* and -29
- High variety in design
- Patented measurement methods
- Verification and elimination of disturbance values
- Controlled quality and retraceability
- Fast and reliable fire detection
- High operation reliability – low operation costs
- Automatic and manual addressable options

- Exact pollution recognition by an additional independent measuring chamber
- All detectors with thermal function: Integrated temperature measurement as rate of rise procedure and maximum value in accordance to EN 54-5 A1 and A2
- Detector sensitivities automatically calibrated and freely programmable
- Fault monitoring of the measurement chamber signal and loop3000-electronics
- Automatic and manual addressing on the loop3000
- Integrated Isolator and T-branch option of types PL 3300
- Alarm output for the triggering of LED indicators
- Functions completely integrated via loop3000-protocol
- Periodic sensor test
- Storage of last maintenance date
- Self learning modes for the ambient conditions
- Display of the temperature environments of the fire detection system by a second temperature measurement
- Multicolour LED for alarm (red) and fault (yellow)
- Delivery including protective cover for installation phase

TECHNICAL DATA

Input voltage	15 to 30 V DC loop powered
OC outputs	Max. 10 mA for LED-indicator or piezo buzzer
Sensitivity	5 levels adjustable
Ambient temperature	-10°C to +60°C
Humidity	max. 95%
Air speed	← 20 m/s
Protection class	IP 40
Colour housing*	White (similar to RAL 9003)
Material*	ABS
Dimension (H x Ø)	ca 52 mm x 100 mm

*design detectors different

MULTISENSOR OPTICAL-HEAT-INTELLIGENT, FUSION TECHNOLOGY

VDS APPROVAL G 208095

Intelligent optical and thermal multi sensor detector for loop3000 with 2 optical and 2 thermal sensors and a bidirectional isolator for earliest fire detection and indication in all environments with difficult ambient conditions, according to EN 54-5, EN 54-7, EN 54-17 and EN 54-29.

- Fusion® - Technology for the detection of the smallest smoke particles and fires in the early stage by using the wavelengths of the wide-band white light spectrum
- Integrated measurement-system and algorithm for condensation recognition (Humitec®)
- Intelligent analysis and disruption mode for the elimination of false alarms (e.g. cigarette smoke)

TECHNICAL DATA

Standards	EN 54-5, EN 54-7, EN 54-17, EN 54-29
System approval	S 295054, S 208123 and S 210001
CE-CPD-number	CE-CPD 0786-CPD-20580

MULTISENSOR DETECTOR OPTICAL-HEAT - INTELLIGENT

VDS APPROVAL G 208096

Intelligent optical and thermal multi sensor detector for loop3000 with 2 optical and 2 thermal sensors and a bidirectional Isolator for earliest fire detection and indication in all environments with difficult ambient conditions, according to EN 54-5, EN 54-7, EN 54-17 and EN 54-29.

- Integrated measurement-system and algorithm for condensation recognition (Humitec®)
- Intelligent analysis and disruption mode for the elimination of false alarms (e.g. cigarette smoke)

TECHNICAL DATA

Standards	EN 54-5, EN 54-7, EN 54-17, EN 54-29
System approval	S 295054, S 208123 and S 210001
CE-CPD-number	CE-CPD 0786-CPD-20580

MULTISENSOR CARBON MONOXIDE GAS & HEAT

VDS APPROVAL G 207005

Intelligent multi sensor detector for the loop3000 series featuring sensor technology for carbon monoxide detection in combination with two thermal detectors and an integrated isolator for earliest detection and indication for all environments with difficult ambient conditions, in accordance to EN 54-5 and EN 54-17.
For the earliest detection of smouldering fires of all kinds including electrical, the PL 3300 COBT continuously monitors the temperature and the CO-concentration.

- Misurazione automatica del monossido di carbonio con 2 soglie di allarme: preallarme: 15 ppm in 15 min, Allarme: 30 ppm in 60 min
- Segnale acustico integrato per il preallarme e l'allarme CO
- Massima affidabilità di funzionamento grazie alla interconnessione intelligente con apposito algoritmo, dei segnali dei sensori ottici e termici.

TECHNICAL DATA

Standards	EN 54-5, EN 54-7, EN 54-17, EN 54-29
System approval	S 295054, S 208123 and S 210001
CE-CPD-number	CE-CPD 0786-CPD-20580

OPTICAL SMOKE DETECTOR, WITH ISOLATOR

VDS APPROVAL G 202002

Optical smoke detector for loop3000 with 2 optical and 1 thermal sensor for earliest fire detection and indication and with bidirectional isolator according to EN 54-7 and EN 54-17.

TECHNICAL DATA

Dimension (H x Ø)	(H x Ø) 44 mm x 100 mm
Standards	EN 54-7, EN 54-17
System approval	a S 295054, S 208123 and S 210001
CE-CPD-number	0786-CPD-20035

OPTICAL SMOKE DETECTOR, WITHOUT ISOLATOR

VDS APPROVALG 203037

Optical smoke detector for loop3000 with 2 optical and 1 thermal sensor for earliest fire detection and indication and with bidirectional isolator according to EN 54-7 and EN 54-17.

TECHNICAL DATA

Standards	EN 54-7, EN 54-17
System approval	a S 295054, S 208123 and S 210001
CE-CPD-number	0786-CPD-20044

DETECTOR STANDARD BASE WITH BRIDGE, WHITE

Detector Base with integrated bridge suitable for all detectors of loop3000, white.

- Integrated wire link between minus contacts for ensurance of a closed loop at removal of detector
- Bridge opens automatically at installation of the detector in the base
- Space for additional connectors Type WAGO 243
- Integrated connectors for the connection of one branch for the loop extension (T-branch)
- Mounting space for the piezo buzzer (Art.-No. 32091) and the detector labelling clip Art.-No. 30479
- Including transparent seal cover to protect the base against contaminents

TECHNICAL DATA

Colour housing	White (similar to RAL 9003)
Material	ABS
Dimension (H x Ø)	(H x Ø) 21 mm x 95 mm

IN-/OUTPUT MODULE, WITH ISOLATOR IOM 3311

Intelligent Input/Output module for the loop3000 with bidirectional isolator according to EN 54-18.

- Connecting module with one freely programmable input and one freely programmable output
- Programming of different switching variants of input and output also with time control
- Integrated isolator and T-branch option

TECHNICAL DATA

Outputs	Low active monitored
Inputs	Low active monitored
Colour housing	Grey (similar to RAL 7035) IP 54
Dimensions (H x W x D)	93 mm x 93 mm x 55 mm
Standards	EN 54-18, EN 54-17
System approval	S 295054, S 208123 and S 210001
CE-CPD number	0786-CPD-20459

ADDRESSABLE MANUAL CALL POINTS FOR LOOP3000 AND ACCESSORIES

FEATURES AT A GLANCE:

- The addressable manual call points correspond to EN 54-11 and 17
- Integrated Isolator according to EN 54-17
- Automatic and manual addressing mode

TECHNICAL DATA

Operation voltage	15 to 30 V DC loop powered
OC outputs	Max. 10 mA for LED-indicator or piezo buzzer
Ambient temperature	-10°C to + 60°C
Humidity	max. 95%
Protection class	IP 42

MANUAL CALL POINT, WITH ISOLATOR, WITH LED, ABS, RED

VDS APPROVAL G 203021

Manual Call Point for loop3000 for the manual activation of an alarm with bidirectional Isolator and status display via LED according to EN 54-11 and EN 54-17.
Red plastic housing with imprint „burning house“

- Push Button mechanics for the activation of a manual alarm
- Activation after smash of the front glass
- Integrated reset mechanics
- Integrated red alarm-LED

TECHNICAL DATA

Weight	270 g. ca
Colour housing	Red (RAL 3000)
Material	ABS
Dimensions (H x W x D)	135 mm x 135 mm x 33mm
Standards	EN 54-11, EN 54-17
System approval	S 295054, S 208123 and S 210001
CE-CPD-number	0786-CPD-20382

MANUAL CALL POINT, WITH ISOLATOR, WITH LED, ABS, YELLOW

VDS APPROVAL G 203021

MANUAL CALL POINT, WITH ISOLATOR, WITH LED, ABS, BLUE

VDS APPROVAL G 203021

MANUAL CALL POINT, WITH ISOLATOR, LED, IP66, RED

VDS APPROVAL G 203021

Manual Call Point for loop3000 for the manual activation of an alarm with bidirectional Isolator and status display via LED according to EN 54-11 and EN 54-17.
Red plastic housing with imprint „burning house“

- Push Button mechanics for the activation of a manual alarm
- Activation after smash of the front glass
- Integrated reset mechanics
- Integrated red alarm-LED

TECHNICAL DATA

Weight	495g. ca
Colour housing	Red (RAL 3000)
Material	ABS
Dimensions (H x W x D)	(H x W x D) 5 125 mm x 125 mm x 34 mm
Standards	EN 54-11, EN 54-17
System approval	S 295054, S 208123 and S 210001
CE-CPD-number	0786-CPD-20382

ADDRESSABLE OPTICAL/ACOUSTIC SIGNALLING FOR LOOP3000 AND ACCESSORIES

FEATURES AT A GLANCE:

- The addressable input / output elements correspond to EN 54-3, 17, 18 and 23
- Different housings and signalling options
- Integrated Isolator according to EN 54-17
- Automatic and manual addressing mode
- Flexibility with programming and connection variances in the system 3000

TECHNICAL DATA

Operation voltage	15 a 30 V DC loop powered
Ambient temperature	-10°C to + 60°C
Humidity	max. 95%

LOOP3000 - LOOPSOUNDER RED, WITH ISOLATOR

VDS APPROVAL G 208103

Intelligent acoustic signalling device for the loop3000 for the external acoustic alarm with bidirectional isolator according to EN 54-3.

- Activation, monitoring and supply via loop3000-protocol
- 4 different tones adjustable via DIP-switch (including DIN tone)
- Integrated dual tone alarm function via seperate activation possible
- Aestethical robust wall mounted housing according with IP 54

TECHNICAL DATA

Operation voltage	15 to 30 V DC loop powered
Quiescent current	280 µA
Alarm current	5 mA
Sound level	max 97 dB
Ambient temperature	-10 °C to + 60 °C
Protection class	IP 54
Colour housing	Red
Material	ABS
Dimensions (H x W x D)	(H x W x D) 100 mm x 101 mm
Weight	340 g
Standards	EN 54-3, EN 54-17

LOOP3000 - SOUNDER, WITH ISOLATOR, WHITE

VDS APPROVAL G 20810 3

LOOP3000 - LOOPSOUNDER BASE, WITH ISOLATOR

VDS APPROVAL G 208144

Intelligent acoustic signalling device for the loop3000 with bidirectional isolator according to EN 54-3. Suitable as wall mounted sounder version or as sounder base for the detector fixed to the ceiling.

- Activation, monitoring and supply via loop3000-protocol
- Integrated automatic reset function at signal „external signal line on/off" by the fire control panel
- 32 different tones adjustable via DIP-switch (including DIN tone)

TECHNICAL DATA

Operation voltage	15 to 30 V DC su bus a 2 conduttori
Quiescent current	400 µA
Alarm current	6 mA
Sound level	max. 85 dB
Ambient temperature	-10 °C to + 60 °C
Protection class	IP 54
Colour housing	Base sounder in white, covers in red or white
Material	ABS
Dimensions (H x W x D)	(H x W x D) 27 mm x 117 mm
Standards	EN 54-3, EN 54-17
System approval	S 295954, S 208123 and S 210001
CE-CPD number	0786-CPD-20525

COVER RING BASE SOUNDER, WHITE

COVER FOR SOUNDER FLAT RED

COVER FOR SOUNDER FLAT WHITE

LOOP BEACON, ORANGE, WITH ISOLATOR

LED INDICATOR, WITH ISOLATOR

VDS APPROVAL G 208141

Intelligent detector parallel indicator for the loop3000 for the external optical indication of the installation place of one or more detectors with bidirectional isolator.
White wall mounting housing, red colour.

- Activation, monitoring and supply via loop3000-protocol
- Functions completely integrated via loop3000-protocol
- Aestethical robust wall mounted housing according with IP 30

TECHNICAL DATA

Operation voltage	15 to 30 V DC loop powered
Quiescent current	400 µA
Alarm current	6 mA
Ambient temperature	-10 °C to + 50 °C
Protection class	IP 30
Colour housing	White housing, red calotte
Material	ABS
Dimensions (H x W x D)	84 mm x 84 mm x 35 mm
Weight	65 g. ca
Standards	EN 54-17
System approval	S 295954 and S 208123
CE-CPD number	0786-CPD-20535

SOUND UNIT RED, WITH ISOLATOR

VDS APPROVAL G 208141

Intelligent acoustic signalling device for the loop3000 for the external acoustic alarm with bidirectional isolator according to EN 54-3.
Wall mounted housing, colour red.

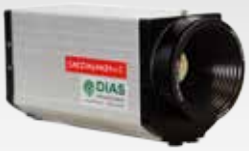
- Activation, monitoring and supply via loop3000-protocol
- Integrated Isolator and T-branch option
- 32 different tones via DIP-switch, including DIN-Tone
- Integrated dual tone alarm function via seperate activation possible
- Aestethical robust wall mounted housing according with IP 54

TECHNICAL DATA

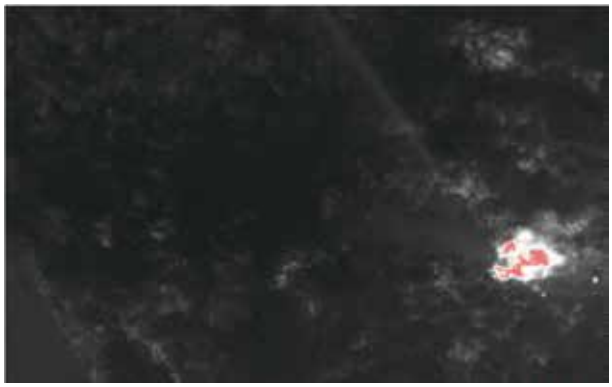
Operation voltage	15 to 30 V DC loop powered
Quiescent current	280 µA
Alarm current	128 mA; via extern supply: 9 a 29 mA
Sound level	max. 112 dB
Ambient temperature	-10 °C to +60 °C
Protection class	IP 54
Colour housing	Red
Material	ABS
Dimensions (H x W x D)	93 mm x 93 mm
Weight	340 g
Standards	EN 54-3, EN 54-17

PYROVIEW INFRARED DIRECT DETECTION SYSTEM

The use of high resolution infrared cameras enable to detect fire as soon as it starts and to monitor its time development very precisely.
The IR cameras arew available with different resolutions and lenses with various focal lenghts.
This system is usually used in waste depots for incineration plants and in solid fuel (wood or coal) depots for heating plants, both outdoor (with or without covering) and in indoor bunkers.
High resolution infrared cameras are mounted in protective case, if required even in Ex-proof execution, equipped with a special compressed air device that keeps the protective glass and lens of the system perfectly clean.
In most cases cameras and their cases are equipped with an automatic remote controlled special support with horizontal and vertical movement in order to monitor large areas by means of a very limited number of cameras.



The control panel is equipped with a dedicated software for automatic fire detection (right from its beginning) and localization (space coordinates of the fire are automatically determined).
The control panel can also drive (automatically or after operator's authorization) an automatic fire extinguishing system, for the above applications usually consisting of remote controlled water/foam monitors.
Besides the automatic operation, cameras can be manually driven by an operator that has one or more high resolution colour LCD screens displaying automatic and manual procedures.
It is thus possible to monitor fire development, despite thick smoke usually caused by the above mentioned materials, and optimize rescue and extinguishing procedures.



SYSTEM COMPONENTS

All types of fire detection and anti-intruder sensors can be connected to the FMZ-Detect control panel. Likewise the FMZ-Detect control panel can drive any type of actuator for automatic extinguishing and auxiliary control, as well as the various types of local or central warning panels.
The FMZ-Detect control panel can also support (directly or by means of dedicated subpanels) systems like closed circuit television, badge reader networks with or without personnel timekeeping functions and remote, microprocessor controlled fire monitor systems. As already stated, FMZ-Detect control panels can be connected to one or more host computers to provide a graphic user interface for alarm management, log generation and operations control from a central control room.
For fire detection purposes FMZ-Detect control panels can be connected to the following types of sensor:

- optical smoke detectors;
- multisensor carbon monoxide and temperature detectors;
- differential temperature and/or temperature threshold detectors;
- modulated infrared flame detectors;
- ultraviolet flame detectors;
- combined ultraviolet-modulated infrared flame detectors;
- standard, wall mounted or recessed manual fire alarm push-buttons;
- sealed manual fire alarm push-buttons;
- linear smoke detectors (consisting of transmitter and receiver).

All the above types of sensor can be supplied in special versions for use in areas where there is risk of explosion.

In particular, many sensors without a separate power supply can (and should) be protected with Zener safety barriers. These protection systems can be installed in a section of the control panel or in special cabinets located near the danger areas.
In spite of the fact that the system is intended for utilization of addressable detectors and actuators, by means of a specific interface card it is possible to connect also one or more conventional detectors with predefined alarm threshold (in this case a unique alarm for all the units in the same chain is recognized).

FMZ-Detect control panels can drive all sorts of automatic extinguishing devices and systems, including environment saturation systems and specific object protection systems and can control extinguishing devices either independently or in strategic groups. Larger extinguishing systems can be built up using multiple cylinder batteries, in which extinguishing zones can be selected and operated autonomously by means of flow control valves. Extinguishing systems must operate a prealarm function which can be provided by a dedicated board.
A range of foam extinguishing techniques can also be applied. High expansion foam can be used for environment saturation systems and medium expansion foam can be applied through local object protection nozzles.
FMZ-Detect control panels can control both the foam generators and foam distribution and delivery devices.
FMZ-Detect control panels can also handle open sprinkler water extinguishing systems and indoor and outdoor object protection powder extinguishing systems.

A WORLD REFERENCE FOR FIRE FIGHTING AND SAFETY IN INDUSTRIAL HIGH RISK ENVIRONMENTS

PRODUCTS 2018

- Fire Fighting Monitors;
- Foam Systems;
- Mobile Foam Component;
- Mobile Foam Units;
- Fire Hydrants;
- Water Spray Nozzles;
- Dry powder unit;
- Powder and Twin Agent Monitors;
- Extinguishing Systems for Mobile Units and Vehicles.
- Water Wall System for mitigation and dispersion of HF and toxic gas;
- Systems for Tunnel Protection;
- Protection Systems for Large Sites;
- Electronic Fire Detection and Security Systems;
- Access Control Systems;
- Multifunctional Foam Control System.

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